

Annual Report 2023



Ngala kwop biddi.
Building a brighter
future, together.



In recognition of Murdoch University's commitment to responsible consumption and production, as set out in the United Nations Sustainable Development Goals and our own policies on environmental sustainability, we have chosen to limit production of hard copies of our 2023 Annual Report. PDF versions are available for download on the Murdoch University website – www.murdoch.edu.au/explore/leadership-governance/annual-reports

Murdoch University
90 South Street Murdoch
Western Australia 6150
Telephone: 08 9360 6000

Disclaimer.
The information contained in this publication was correct as at March 2024

© 2024 Murdoch University

This publication is copyright. Except as permitted by the Copyright Act, no part of it may in any form or by any electronic, mechanical, photocopying, recording or any other means be reproduced, stored in a retrieval system or be broadcast or transmitted without the permission of the publisher.

CRICOS Provider Code: 00125J
TEQSA Number: PRV12163

Acknowledgment of Country

Murdoch University acknowledges the Whadjuk and Binjareb people of the Noongar nation as the traditional custodians of this country and its waters and that Murdoch University stands on Noongar Country.

Murdoch University pays its respects to Noongar Elders past and present and acknowledges their wisdom and advice in teaching and cultural knowledge activities.



Contents

Overview

Statement of Compliance	5
Chancellor's Foreword	6
Vice Chancellor's Report	8
Key Statistics 2023	10
Purpose and Priorities	11

4



Strategic Themes

Strategic themes	15
Sustainability	16
Equity, Diversity and Inclusion	18
First Nations	20

12



Core Activities

Education	24
Colleges	31
Research	42
Engagement	62

22



Enablers

Empower and Develop Our People	72
Develop and Enhance Our Facilities	74
Improve Our Systems and Processes	79

70



Donors and Partners

80



Our Structure

84



Disclosure and Legal Compliance

Certification of Financial Statements and Key Performance Indicators	96
Report on the audit of the Financial Statements and Key Performance Indicators	98
Financial Statements	103
Key Performance Indicators	154
Other Disclosures	158
Governance Disclosures	161

94



Overview

- 5 Statement of Compliance
- 6 Chancellor's Foreword
- 8 Vice Chancellor's Report
- 10 Key Statistics 2023
- 11 Purpose and Priorities

We will be a leading university in education, teaching and research in sustainability; a thriving, welcoming, diverse and inclusive community.

Ngala Kwop Biddi



Statement of Compliance

Minister Tony Buti
Minister for Education and Training
WA Government
Level 12, Dumas House, 2 Havelock Street
WEST PERTH WA 6005

12 March 2024

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 2023.

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.

Sincerely



Ms Gail McGowan PSM
Chancellor



Professor Andrew J Deeks
Vice Chancellor and President

Chancellor's Foreword



“Our shared purpose at Murdoch is to change lives and society for the better through accessible education and research, contributing to the solution of societal and environmental challenges and to provide an inclusive, caring community in which everyone can realise their potential.”

Ms Gail McGowan PSM
Chancellor

Murdoch University is preparing to celebrate 50 years delivering world-class teaching, learning and research for the good of our society. I am honoured to be Chancellor at such a special and exciting time in this esteemed institution's history.

At my Investiture speech in July, I spoke of Murdoch's foundational commitment to diversity, choice and difference and I shared my personal story of entering Murdoch University as a young mother, using the enabling programs on offer and becoming a first in family university graduate. Following a successful career in public service, I returned to Murdoch to become its eighth Chancellor – the first woman to assume the role.

I have been overwhelmed by those I have met who have connected with my story. It has reminded me we must not underestimate the significance of a milestone like a graduation or being a first in family university student. Murdoch grew from a beginning of diversity and acceptance. A quality education can change a life and this year I have seen this in action and heard many real stories of success. It has been a special privilege to see the joy on the faces of our new graduates as they make their way across the stage to receive their degree, whether they be in Perth, Singapore or Dubai.

2023 has also seen the University reconnect powerfully with its roots and core purpose, through a new Strategy – *Ngala Kwop Biddi, Building a Brighter Future, Together* – and through the guidance of Vice Chancellor Professor Andrew Deeks and a revitalised and expanded leadership team.

Connecting strongly with government, industry and other higher educational institutions, to ensure we are relevant and useful in the work we do, and that our graduates are job ready, has been a focus this year. Our work is never done in isolation, and collaboration and partnerships help us contribute to the betterment of our State and society more generally.

Our core activities of education, research and engagement are as important as each other in this regard. While we must continue to speak with industry bodies and major stakeholders to ensure we have well educated people ready for industry needs, it is equally important to remain aware of how we can link our research to real world projects and problems, especially those connected to our Strategy. The work of our academics and Institutes ensures we are a university that continues to make a real difference.

There is always change and we have been dealing with the rise of artificial intelligence, teaching in a post-Covid world and our rapidly increasing international student numbers – and the related issues including housing, risks and wellbeing on campus. Both the WA University Sector Review and the Australian Universities Accord have also been underway. Each of these challenges has encouraged us to think about our position and the purpose of universities on the grander scale.

Our shared purpose at Murdoch is to change lives and society for the better through accessible education and research, contributing to the solution of societal and environmental challenges and to provide an inclusive, caring community in which everyone can realise their potential.

My driving passion is for education to be an enabler for all. To do this we must have a range of pathways to support a broadening of learning and truly offer opportunity for all those who aspire to learn. As 2023 comes to an end, we find ourselves in a strong position, in the flexible, changing landscape in which we live, to use the knowledge and experience we have, to lead the way. We can offer a connection to the real world, a place that fits in with our students' lives and one where we can help them to be relevant and ready for the

world around them. Studying at Murdoch can, and does change lives.

On a more personal note, I have enjoyed attending many events during 2023, including the Staff Awards Ceremony, the Banksia Association and graduation ceremonies in Perth, Singapore and Dubai. In travelling to our international campuses, I was reminded that while we recognise the differences of culture and offerings, we need to remember we are all part of one whole.

Important milestones achieved this year have included the opening of our award-winning Boola Katitjin, which brings state-of-the-art teaching facilities and space for gatherings to celebrate; and the implementation of the final recommendations of our recent Senate governance reviews.

Of course, none of this can be achieved without the collective efforts of our entire University community, and of those who came before us.

I particularly want to thank my predecessor Gary Smith for his stewardship of Senate and the University over the previous four years. Gary's focus on good governance helped steer the institution through a particularly difficult period, which included the disruption of the pandemic. Gary helped lay the foundation for an exciting future for Murdoch.

I also want to acknowledge my fellow Senate members and members of Senate Committees, and thank Emeritus Professor Robyn Owens AM, who was elected by Senate in mid 2023 to the Deputy Chancellor's role alongside me and has provided wonderful support.

Finally, it has been a pleasure to connect with many Murdoch academic and professional staff and share in a growing sense of optimism and renewed purpose as the institution looks over the horizon to the next 50 years.

Ms Gail McGowan PSM
Chancellor

Vice Chancellor's Report



“We experienced immense success with the opening of our new academic building Boola Katitjin, which in its first year has not only provided our students with a place to call their own on campus, but has provided exceptional teaching capabilities and been recognised on the international stage...”

Professor Andrew J Deeks
Vice Chancellor and President

2023 saw the first year of our new Strategy in action. Ngala Kwop Biddi: Building a Brighter Future, Together strongly restates Murdoch's unique identity, distinctiveness, purpose and values while also charting the course for the University we want to be in 2030 and beyond.

Our year's activities have aligned with Murdoch's key priority areas of Sustainability; Equity, Diversity and Inclusion; and First Nations, as well as focusing on achieving the best possible outcomes across education, research and engagement. Strong progress has already been made and you will see much of what we have achieved in this report. Whilst moving forward with a firm sense of our direction and who we are, we always undertake a mindset of flexibility and adaptation to current times, which has been useful once again this year.

We were privileged to welcome our new Chancellor Gail McGowan mid-year and our new Deputy Chancellor Emeritus Professor Robyn Owens. I take this opportunity to thank outgoing Chancellor Gary Smith, who provided great support to me – especially in the earlier period of my appointment at Murdoch. Gary was a passionate champion for reconciliation and encouraged consideration of First Nations perspectives to the forefront of our thinking as a University.

To deliver on our Strategy, we also broadened and strengthened our senior leadership team in 2023. We were joined by our new Deputy Vice Chancellor Education, Professor Don A. Klinger and Deputy Vice Chancellor Research and Innovation, Professor Peter Eastwood. Our new Chief Experience Officer Alex Iles was appointed and will commence in early 2024 with a focus on systems and process improvements. I take this opportunity to thank

Professor Helen Wildy for holding the position of Interim Deputy Vice Chancellor, Education for the first half of the year and then, Interim Deputy Vice Chancellor Student Services.

Additionally, we officially welcomed Associate Professor Martin Brueckner as Pro Vice Chancellor Sustainability; Chanelle van den Berg as Pro Vice Chancellor First Nations; and Dr Rebecca Bennett as Pro Vice Chancellor Equity, Diversity, and Inclusion. Each are committed leaders who bring diverse perspectives and expertise to their respective roles.

Following extensive consultation, we also implemented a new College and School structure that is effective, efficient and re-empowers academic leadership and management. Under the new structure, Colleges bring together Schools that are aligned from a discipline perspective or have a similar range of operational requirements. The five Colleges and their highlights for 2023 are, for the first time, featured in this report.

The post-pandemic economic situation has remained challenging for WA universities, with factors such as low unemployment and workforce shortages affecting the entire sector. Alongside domestic intake decreases, our international student numbers rose beyond expectation. While bringing renewed financial stability, these numbers tested our agility and ability to adapt quickly to market changes. I acknowledge the innovative initiatives put in place to support all of our students this year, such as course adjustments and wellbeing initiatives, including the popular International Café, which aligned with our strategic priority of inclusion.

We experienced immense success with the opening of our new academic building Boola Katitjin, which in its first year has not only provided our students with a place to call their own on campus, but has provided exceptional teaching capabilities and been recognised on the international stage, winning multiple awards across categories including education, architecture, engineering and sustainability – including the Project of the Year award at the Engineers Australia Excellence Awards.

We opened three new research centres within the Ngangk Yira Institute for Change allowing us to provide further focus and resources to produce research that has a real-life impact in the lives of Aboriginal peoples. The School

of Indigenous Knowledges was also launched as a multi-disciplinary school, introducing students to Indigenous Knowledges across a range of topics. We deliberately challenge the notion that Indigenous Studies is purely a social science discipline about our culture and politics.

We continued to see research success including four Murdoch academics named 2023 Clarivate Highly Cited Researchers, while Professor Rhonda Marriott's Birthing on Noongar Boodjar was named in the National Health and Medical Research Council's "10 of the Best". The Indo-Pacific Research Centre was launched late in the year, solidifying Murdoch as a knowledge leader in our region. We also saw multiple mutually beneficial relationships developed with commercial and industry partners through our research Institutes, allowing our research to translate to real world projects.

Offshore, our student numbers continued to rise, with a new transnational expansion into Malaysia and enrolments in Dubai increasing more than 50% this year.

Other notable actions taken during 2023 include:

- Launching the Ngala Kwop Biddi: Brighter Futures Scholarships, the first of their kind in Western Australia, based on demonstrated attributes of citizenship and advocacy, with one available for every secondary school in the State.

- The completion of a comprehensive review of the academic promotions framework to strengthen our commitment to recognise and reward academic excellence.
- Progression of the Campus Redevelopment Plan, which will begin delivery in 2024.

As we have gone about our work this year we have done so with the knowledge that the Australian Universities Accord is underway, as is the WA University Sector Review. These both have the potential to create change in coming years. We have been open in our view on both, and I will remain an advocate for our University and our place in the WA higher education ecosystem, whatever may come.

I thank all academic and professional staff for embracing Murdoch's new Strategy this year and for showing support of the changes that have taken place across our University. I also express appreciation to the Senate and committees for their ongoing advocacy and good governance throughout 2023. This year has been one full of positivity and hope. I have noticed a renewed vibrancy on campus and look forward to a productive 2024.

Professor Andrew J Deeks
Vice Chancellor and President

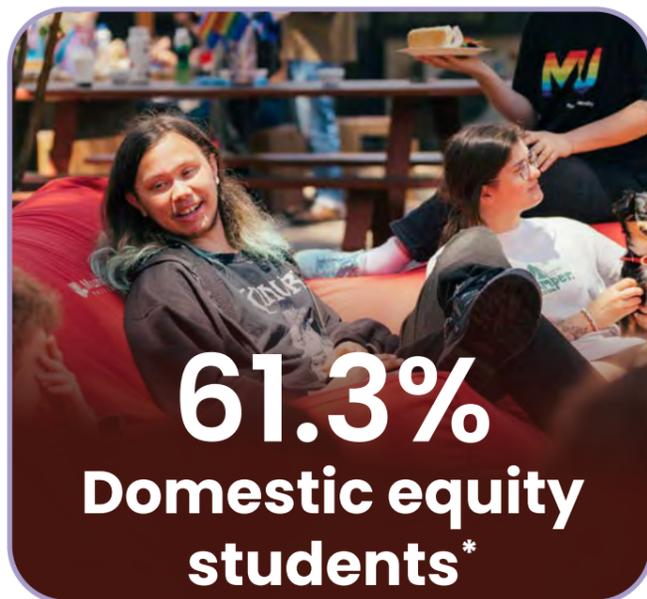
Key Statistics 2023



24,051
students*

Undergraduate	16,766
Postgraduate	7,305
Domestic	11,342
International Onshore	7,271
Transnational Education	5,457

* Student categories do not add to total, as students may have enrolled in multiple categories in the year.



61.3%
Domestic equity students*

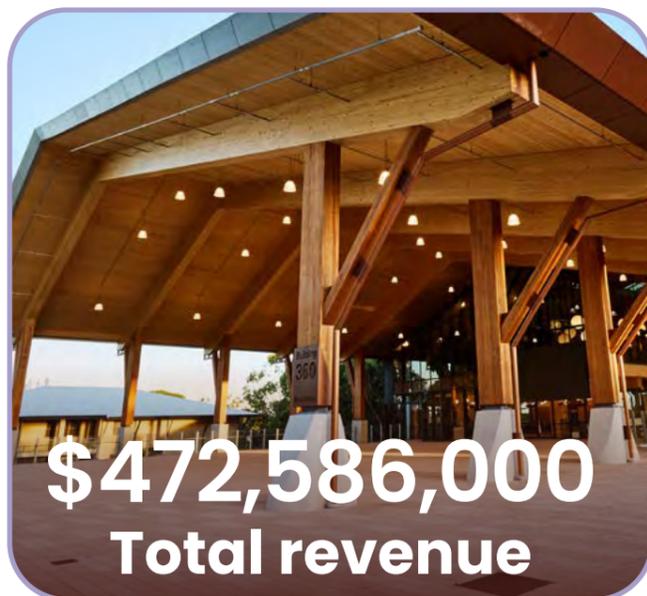
First Nations Students: Proportion of Domestic cohort	2.42%
Low SES Students: Proportion of Domestic cohort	20.83%
Students with a Disability: Proportion of Domestic cohort	22.35%

* Domestic Equity Students figure includes students in one or more identified equity groups - First Nations, low socio economic status, regional and remote, students with a disability and/or first-in-family.



3,105
Full time equivalent staff (FTE)

Academic Staff (FTE)	1,284
Professional Staff (FTE)	1,821



\$472,586,000
Total revenue

Percentage Increase in Revenue from 2022	29.5%
Total research income	\$50,193,000

Purpose and Priorities

Our Vision

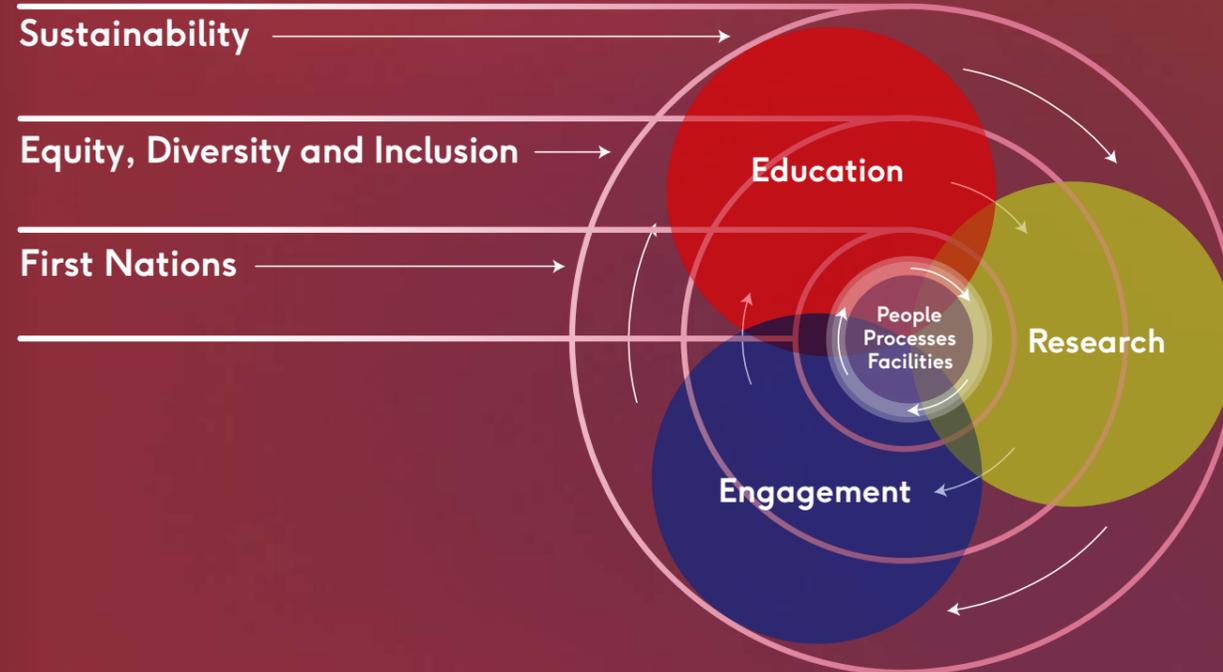
Our vision is to be widely recognised as the university of choice for people who care, who value inclusion, curiosity and innovation, and who desire to make a positive social impact.

Murdoch University will be a leading university in education, teaching and research in sustainability; a thriving, welcoming, diverse and inclusive community. We will be the university of first choice for First Nations peoples, promoting and benefiting from Indigenous Knowledges. Our quality education will be contemporary, accessible and inclusive. Our graduates will be keenly sought by employers and will be known for having adaptability, fresh perspectives, practical skills and a social conscience. Our research will be impactful, and we will have strong industry and institutional collaborations.

Murdoch's legislated purpose is "the advancement of learning and knowledge, and the provision of university education", expressed through our core activities of education, research, and engagement.

Our purpose and vision is put into action through Murdoch University's *Strategy 2023-2030: Ngala Kwop Biddi. Building a Brighter Future, Together.*

The three strategic themes – Sustainability; Equity, Diversity and Inclusion; and First Nations – articulate our values and principles and drive expression of our core activities.



Strategic Themes

- 16 Sustainability
- 18 Equity, Diversity and Inclusion
- 20 First Nations

Our three strategic themes flow through everything that we do, and taken together, characterise the distinctiveness and identity of Murdoch University.

Ngala Kwop Biddi



Strategic themes

During the development of the University's new *Strategy 2023 – 2030 Ngala Kwop Biddi: Building a Brighter Future Together* – three strategic themes were identified which align with Murdoch's identity and focus for the future. These were Sustainability; Equity Diversity and Inclusion; and First Nations.

The themes flow through the three core activities of the University that date back to the statute: education, research and engagement. The activities are underpinned by a set of enablers; our people, our systems and services; and our facilities. The Strategy outlines a clear vision for Murdoch that reclaims and emphasises our core values through the three strategic themes. While each theme is significant itself and led by an appointed Pro Vice Chancellor, all themes work to support each other and have shared initiatives.

Connected through the holistic principles of compassion, competence, and care, the strategic pillars of Sustainability, Equity Diversity and Inclusion, and First Nations are linked through a shared narrative that sees diversity of perspectives as key to understanding and addressing complex problems, and acknowledges the interconnectedness and interdependence of people, culture, and place.

Equity Diversity and Inclusion is about intentionally creating a campus climate and culture that is inclusive, respectful, and supportive of all individuals. The focus is on showcasing and valuing the diversity within our community through a range of education, representation, celebration, and support initiatives.

Sustainability is about developing, adopting and championing ecologically sound approaches to matters of energy, water and waste, as well as biodiversity, infrastructure and transport.

Our sustainability objectives will be met through collaborative efforts that will lead to campus re-design, adoption of tested technologies and accredited methodologies, and behavioural changes among our community.

We also aim to become the university of first choice for First Nations peoples, and an exemplar in embracing, promoting and benefiting from Indigenous Knowledges and cultural inclusivity. We will achieve this by showcasing and recognising Indigenous excellence across our curriculum, research and leadership, and moving away from deficit narratives to strength-based narratives.

In June 2023, Murdoch launched the **Ngala Kwop Biddi: Brighter Futures Scholarship**, which align with the University's strategic themes. The scholarships allow each WA secondary school to nominate one of their graduating year 12 students, who by their leadership and activity has effected positive change in their school or community, related to one of the strategic themes. Each of the University's teaching and research areas was this year mapped against the University's three strategic themes. This exercise was supported by students, who in the process gained vital literacies and competencies in areas aligned to the themes.

Ngala Kwop Biddi defines aspirational targets for each of the themes, with progress measured and reported to the University community as we continue to work toward a more inclusive and sustainable future.

By 2030, two key performance targets to be reached by 2023 are carbon neutrality in our operations and zero waste to landfill. Carbon neutrality is balancing Greenhouse Gas emissions by offsetting an equal amount of carbon for the amount produced. Reducing waste to landfill requires strengthening the principles of a circular economy on campus, preventing waste and increasing reuse and recycling.



Sustainability



Our strategic objective is to be a leading university in education, teaching, and translational research in sustainability, nurturing mindsets and creating solutions for a better and more sustainable world, a university renowned for its commitment to, and expertise in, sustainability and environmental, social and corporate governance (ESG), providing a model and the tools for behaving and operating sustainably.

Ngala Kwop Biddi

Associate Professor Martin Brueckner
Pro Vice Chancellor Sustainability

Since its foundation almost 50 years ago, Murdoch University has championed conservation, the environment and sustainability. With the formal adoption of Sustainability as a key strategic theme in 2023, the University conducted a review of operations to ensure a sustainability ethos guides all future activities. Audits were also undertaken and processes put in place to embed change across operational areas, education, research and campuses to support sustainability.

2023 highlights

Associate Professor Martin Brueckner was appointed the inaugural Pro Vice Chancellor Sustainability to guide the University in this area.

An energy **audit was undertaken using an 'all of university' approach**, with Electrical Engineering students involved in the process, and research staff consulted to provide advice on renewable energy technology options. A waste audit was also conducted, generating data on waste types and volumes. All results will be used to inform the future development and implementation of an Operational Sustainability Plan, with the goal of achieving a truly sustainable campus, with carbon neutrality in operations and 0% waste to landfill by 2030.

Murdoch joined the **UN Sustainable Development Solutions Network**, which works under the auspices of the UN Secretary-General to mobilise the world's universities, think tanks and national laboratories, for action on the Sustainable Development Goals (SDGs) and the Paris Agreement on Climate Change. Murdoch is a signatory of the United Nations SDGs with teaching and research priorities facilitating student engagement in all 17 SDGs.

Staff and students participated in **Earth Hour**, turning off lights, computers and other electric devices and joining a global community to reflect on nature. People at Murdoch's South Street campus were encouraged to step outside and reconnect with nature on Bush Court. Free bike safety checks and solar power demonstrations were also offered.



Staff living Murdoch's values by planting trees to encourage others to live sustainably.

SUSTAINABILITY

Results of a two-year study released in 2023, demonstrated Murdoch's clear **solar glass greenhouse**, constructed by ClearVue Technologies, had offset nearly 40% of energy consumption. **The facility** used three different versions of transparent solar photovoltaic glazing panels to optimise solar energy. The building is generating consistent energy and significantly offsetting facility energy costs and consumption. Knowledge gained from the study — co-authored by Murdoch University Adjunct **Associate Lecturer David Goodfield** — will contribute to advancements which are expected to expand the utilisation of solar energy. The greenhouse makes a vital contribution to the University's objective of achieving carbon neutrality by 2030.

A month-long **Sustainable September Challenge** was held, with staff and students joining together in on and off campus activities. A different sustainability expert spoke each week as part of a Sustainable September Seminar Series.

Murdoch joined the **Responsible Futures International Pilot** in October 2023. Responsible Futures embeds sustainability through all aspects of teaching and learning, working in partnership with students at universities around the world. Six universities are involved in piloting the program and all are International Association of University (IAU) members who have been invited to join in recognition of their existing commitment to sustainable development. Being part of the pilot is providing Murdoch with the opportunity to engage students in curriculum mapping and to share good practices, issues and challenges.



The late Emeritus Professor Tom Lyons

During **Climate Change Week** an Ecotage Roundtable Discussion was held, organised by the Murdoch Philosophy and Environmental Justice Programs. Titled 'Climate activism and ecotage: how far should environmental protest go?' — a panel of climate activists, students and academics explored if eco-sabotage can ever be justified.

The **Tom Lyons Honours Scholarship** was established in honour of one of the most influential academic figures in Murdoch history. The late Emeritus Professor Tom Lyons started his career at Murdoch as a lecturer in Environmental and Life Sciences, before becoming Professor and Executive Dean of the former Division of Science and Engineering. Professor Lyons was an atmospheric physicist, and his expertise in meteorology and the impact of air pollution was invaluable in the study of climate change. The Tom Lyons Honours Scholarship is awarded to a student enrolled in the Environmental and Conservation Science discipline. Benjamin Camer-Pesci was named the inaugural recipient in 2023.

Equity, Diversity and Inclusion



Our strategic objective is to build a welcoming, diverse and inclusive community and environment that is equitable and safe, and that provides a culturally safe and supportive environment where all members of our community can realise their potential.

Ngala Kwop Biddi

Dr Rebecca Bennett
Pro Vice Chancellor Equity, Diversity and Inclusion

Building a welcoming, diverse, and inclusive community for students and staff is part of Murdoch's history and identity. This intention took a more deliberate and measured approach in 2023 with the first year of delivery of *Ngala Kwop Biddi*. Pro Vice Chancellor Equity, Diversity and Inclusion (EDI) Dr Rebecca Bennett led the development of EDI as a core strategic theme, putting processes, committees and actions in place to create a campus culture that is inclusive, respectful and supportive of all individuals. Initiatives commenced this year will be developed throughout the lifetime of the University's Strategy.

2023 highlights

A Manager and Project Coordinator were appointed in June 2023 to support the Pro Vice Chancellor EDI. A new **Equity Diversity and Inclusion Sub-strategy** was also developed. This sub-strategy will deliver on Murdoch's commitments and will launch in 2024. A wide range of views were canvassed in the development of the sub-strategy.

Three **new community advisory groups** were established in September 2023 reporting to the EDI Committee. These groups offer lived experience insights and feedback to inform initiatives and calls for action within the university community:

- LGBTIQ+ Advisory Group
- Culturally and Linguistically Diverse Advisory Group
- Disabilities and Neurodiversity Advisory Group

The state-wide initiative, **Pride Month**, was celebrated at Murdoch both on and off campus across November to support the LGBTIQ+ community. For Murdoch students and staff, a Pride BBQ was held at Kulbardi Aboriginal Centre, and a Pride Picnic at the Den. For the broader WA community, Murdoch hosted a Pride in Storytelling Panel in Boola Katitjin. This event brought together storytellers, both alumni and current students of WA universities, to have a conversation about the importance of LGBTIQ+ representation, both in and out of the curriculum.

A West Pride Archive launch was held at Geoffrey Bolton Library. This archive holds important artifacts of LGBTIQ+ history in WA with over 5,000 items in the collection. Off campus, Murdoch participated in Pride WA's Fair Day and annual Pride Parade through the streets of Northbridge. Murdoch staff, students and alumni enthusiastically took part in both events, promoting Murdoch's commitment to LGBTIQ+ inclusion.

In 2023 Murdoch joined the **Diversity Council Australia (DCA)**, a step that underscores Murdoch's commitment to fostering an inclusive and diverse community on campus. DCA is a not-for-profit organisation and the leading voice on diversity and inclusion in the workplace. The partnership brings a range of benefits and opportunities to empower staff, including learning and development, meaningful networking and access to research and best practices from various industries. The additional knowledge will allow Murdoch to continually improve diversity and inclusion initiatives, creating a more harmonious, respectful and enriching environment and experience for all.

Murdoch reconfirmed commitment to SAGE **Athena Swan** accreditation. This internationally recognised framework aims to improve gender equity, diversity and inclusion in science, technology, engineering, mathematics, and medicine (STEMM) in the Australian higher education and research sector. Murdoch attained SAGE Athena Swan Bronze Accreditation in 2020 and has commenced initiatives to fulfil the requirements of Silver Accreditation by 2027.

A **Parental Leave toolkit** was developed for staff to help employees easily access reliable information about parental leave and related resources. The comprehensive guide was designed to help employees create a leave plan to suit them and their families and fulfilled a commitment within Murdoch's SAGE Athena Swan action plan.

Sector leading **Gender Affirmation Policies and leave entitlements** were approved in the second half of 2023.

Murdoch University Vice Chancellor Professor Andrew Deeks joined **CEOs for Gender Equity** in 2023. The vision of CEOs for Gender Equity is to accelerate gender equity in Western Australia by inspiring and supporting CEOs to take action.



In 2023 there was a focus on showcasing and valuing the diversity within the Murdoch community through a range of education, representation, celebration, and support initiatives.



First Nations



Our strategic objective is to become the University of first choice for First Nations peoples, and an exemplar in embracing and promoting and benefiting from Indigenous Knowledges and cultural activity.

Ngala Kwop Biddi

Chanelle van den Berg
Pro Vice Chancellor First Nations

In 2023 Murdoch delivered actions from the new Strategy to celebrate, respect, engage and learn from the original Custodians of the land. The University's Perth campuses are located on the lands of the Whadjuk and Binjareb people of the Noongar nation and include parts of the Beeliiar wetlands. Development of a First Nations sub-strategy also commenced.

2023 highlights

Three new centres were launched as part of the **Ngangk Yira Institute for Change**. The Yorga, Maaman and Koolanga Research and Advocacy Centre, Yawardani Jan-ga Research and Advocacy Centre and Coolamon Research and Advocacy Centre will each focus on different factors affecting the lives of Aboriginal families and communities.

Murdoch launched the **School of Indigenous Knowledges**, co-located in Kulbardi Aboriginal Centre. This is a multi-disciplinary school that introduces students to Indigenous Knowledges across a range of topics including health sciences, education, physical sciences and the social sciences. Units aim to share knowledge generated by Indigenous peoples, locally and globally, informed by Indigenous ways of knowing, being and doing. Units within the School are designed to complement students' learning in each of their disciplines.

Murdoch acknowledged the importance of Connection to Country as **Boola Katitjin** opened in February 2023. The Noongar name Boola Katitjin translates to 'lots of learning' and was chosen by Dr Richard Walley and endorsed by the Aboriginal and Torres Strait Islander Advisory Group. The name reflects the different levels and functions of the building and the knowledge that will be passed on in the space. Connection to Country is at the core of the building and reflected throughout with yarning circles and artwork. Boola Katitjin aims to create a safe and welcoming space for everyone.

Kulbardi Aboriginal Centre's **Deadly Dreaming** program expanded to offer year-long engagement and outreach activities for more than 500 high school students. This free program seeks to empower Aboriginal and Torres Strait Islander high school students in designing their future. The new ongoing activities allow strong relationships to develop, complementing the original program of annual events. Kulbardi staff, alumni and student ambassadors share their stories with students, providing vital role modelling and inspiring school leavers to pursue opportunities offered by the University.

A world first Elder-led intervention for improving the social and emotional wellbeing of Aboriginal and Torres Strait Islander LGBTIQ+ young people is being developed for trial. **Pride Yarns**, a joint research project by Murdoch, Edith Cowan University, Telethon Kids Institute, the Youth Pride Network, Wungening Aboriginal Corporation and Yorgum Healing Services, brings together Aboriginal and Torres Strait Islander LGBTIQ+ youth with community members and Elders to safely discuss how LGBTIQ+ identities can be accepted and celebrated within culture. The project is led by [Associate Professor Bep Uink](#).

Yamatji Elder **Mara West** was [awarded Murdoch's highest honour](#), the degree of Doctor of the University (honoris causa) an honorary doctorate, in recognition of her significant contribution to the welfare and development of Aboriginal peoples in Western Australia.

Murdoch Research Masters student **Rebecca Famlonga** was named [WA's Aboriginal STEM Student of the Year](#) at the 2023 Premier's Science Awards. A proud Wadawurrung woman and senior research officer with Telethon Kids Institute, Rebecca commenced her Research Masters externally while based in Broome. Working with a remote Kimberley community, she co-designed community-led child skin health interventions.

Birak Festival was transformed into a larger, more significant event in 2023, with people of all ages and backgrounds coming together as one to celebrate the Aboriginal and Torres Strait Islander community. The event was held in December with market stalls, performances, free activities, food and music.



Mara West (left) receiving Doctor of the University from Chancellor Gail McGowan at the 2023 September ceremony.

Murdoch's Senior Leadership Team pledged their support for the **Uluru Statement from the Heart** and unanimously agreed to support a 'Yes' vote for the Indigenous Voice to Parliament in the 2023 referendum. The decision to make a clear statement of support reflected Murdoch's commitment to become "the University of first choice for First Nations peoples, and an exemplar in embracing and promoting and benefiting from Indigenous Knowledges and cultural inclusivity", as articulated in the University's Strategy. Kulbardi Aboriginal Centre held a Healing Day for staff and students following the unsuccessful referendum to provide a space to yarn, cry, laugh and heal together.

Murdoch presented **Distinguished Alumni Awards** to **Professor Patricia (Pat) Dudgeon AM**, in recognition of her dedication to improving the mental health and wellbeing of Indigenous Australians and to **Dr Chris Sarra**, an acclaimed Australian educator and leader, particularly in the field of Indigenous education.

Connection to Country is at the core of Boola Katitjin and reflected throughout with yarning circles and artwork. Boola Katitjin aims to create a safe and welcoming space for everyone.

Core Activities

- 24 Education
- 31 Colleges
- 42 Research
- 62 Engagement

To support the realisation of our vision, we have identified an overarching objective for each of our core activities.

Ngala Kwop Biddi



Education



Our key objective is to deliver contemporary, accessible and inclusive education, with a high quality and engaging student experience, producing graduates who are adaptable and have fresh perspectives and a social conscience.

Ngala Kwop Bidli

Professor Don A. Klinger
Deputy Vice Chancellor Education

Murdoch's student cohort changed significantly during 2023. Following the global pandemic, international students began to return to Murdoch, and in much greater numbers than predicted.

Low unemployment and workforce shortages in Western Australia affected the domestic sector as a whole, so while international numbers rose, local enrolments fell. This change occurring at such pace meant that 2023 became a year of adapting to the needs of the new student cohort, while educating and providing support. Strategic priorities of Sustainability; Equity, Diversity and Inclusion; and First Nations were also considered across education offerings and enabling programs.

The start of 2023 saw a new College structure put in place, along with Associate Deans of Learning and Teaching. The new structure consists of **five colleges**:

- Business
- Environmental and Life Sciences
- Health and Education
- Law, Arts and Social Sciences
- Science, Technology, Engineering and Mathematics

In July Professor Don A. Klinger commenced as Deputy Vice Chancellor of Education. Professor Klinger has overall responsibility for delivering the educational aspirations of Murdoch, with leadership responsibility for the University's teaching and learning activities, including the academic quality of the University's courses, while promoting the value of diversity in all its forms in the learning environment. The role also helps build partnerships with other educational institutions in the teaching and learning sphere.

Strategic priorities of Sustainability; Equity, Diversity and Inclusion; and First Nations were also considered across education offerings and enabling programs.

2023 highlights



Learning and teaching in Boola Katitjin

Following the [official opening of Boola Katitjin](#) on February 14, teaching commenced from Semester One. Boola Katitjin's variety of contemporary learning spaces enables staff to experiment with innovative approaches afforded by large-class, flat-floor, technology-enhanced, and collaborative learning environments. All the learning spaces in Boola Katitjin have been designed to put students at the centre of an active and social learning experience. Boola Katitjin has four new kinds of formal learning spaces for timetabled teaching including Collaborative Learning Spaces, Technology-Enhanced Learning Spaces, Computer Labs and a Digital Immersive Lab.

In 2023, teaching staff were supported in Boola Katitjin through an extensive **professional learning program**, including development workshops in pedagogical design and practice, training workshops in the use of the technology-rich features and a range of self-learning resources and modules. A team of student helpers (referred to as TEL Ambassadors) were engaged for the first few weeks of each of the main teaching periods to provide in-class support for staff.

The **Digital Immersive Lab (or Digilab)** lived up to the expectation of innovation in learning and teaching, with a range of virtual reality (VR) and augmented reality (AR) activities incorporated into the curriculum across a variety of disciplines. The School of Nursing hosted anatomy labs using the VR technology with positive feedback from students. The Digilab proved to be a popular destination for outreach activities with schools and other external visitors.



Support for international students

Supporting the growth in international students was a key operational priority for 2023. The tiered learning support framework was established in 2019, during a previous surge in international students, and proved a strong framework to again ensure appropriate support was provided alongside curriculum for international and domestic students.

Key features included:

- **Studiosity**, a 24/7 online service where students can submit draft assignments for writing feedback
- **Grammarly**, an online writing assistance tool available to all students
- **Peer Academic Coaches**, in-person and online study advice and guidance by specially trained peers
- **Embedded workshops on academic skills**, including literacy and academic integrity, in gateway units
- **Navigating Academic Integrity workshops**
- **Individual consultations**, designed to enable specialist support for students who may benefit from additional support.

All the learning spaces in Boola Katitjin have been designed to put students at the centre of an active and social learning experience.



The Commonwealth is providing funding of \$13 million over four years through the **National Priorities and Industry Linkage Fund (NPILF)** for a number of Murdoch initiatives. The fund is designed to support enhanced engagement between universities and industry to produce career-ready graduates.

Murdoch is undertaking projects that enhance student employability with three areas of focus: STEM-skilled graduates, Work Integrated Learning (WIL) and industry partnerships. In 2023, NPILF funded 10 positions, including eight within Work Integrated Learning and roles in the Graduate Research Office and Future Student Engagement.

Key 2023 achievements included:

- An expanded Work Integrated Learning team to support new Work Integrated Learning opportunities for undergraduate and postgraduate students in non-accredited degrees.
- 97% of Work Integrated Learning partners reporting a positive or very positive experience when engaging with Murdoch in the first ever partner survey.
- Supporting the Outreach team to expand their programs for minority groups who wish to study STEM courses including WISE Women for women and girls in STEM, and a Microbiology Camp for regional First Nations students.
- Exceeding the enrolment target by over 100% in the new data analytics unit *MSP200 – The Search for Everything: Data Analytics and Storytelling in the Twenty First Century*.
- Industry experts contributing to teaching and curriculum design in the College of Business, and the Schools of Agricultural Sciences, Environmental and Conservation Life Sciences, Indigenous Knowledges, Law and Criminology, Media and Communication, and Humanities, Arts and Social Sciences. Thirty-eight units have industry input with the financial support of NPILF and a further 33 units have received in-kind support from industry. These numbers are expected to grow in 2024.
- The availability of Microsoft Learn certifications for all onshore students.
- Submission of the second annual touch point report to the Department of Education, on track to meet or exceed all metric targets by the end of 2024.

The emergence of Chat GPT and generative artificial intelligence (AI) more generally provided a new frontier for learning and teaching activities in 2023.



The Federal Government committed \$18.5 million to the **Microcredentials Pilot** in Higher Education. Murdoch made a successful round one funding application and [Professor Christopher Lund](#) is leading the [Strategic Decarbonisation Management Microcredential](#) from Murdoch's School of Engineering and Energy. The delivery of the first microcredential is in the design and development stage, with delivery set for Trimester 1, 2024.

2023 milestones included governance approval of the microcredential, establishment of a Working Group and a new web page being activated in MyAdmissions. Detailed learning design was also undertaken, and content development and copyright clearance achieved in partnership with the Learning Design and Technologies team (and University Copyright Coordinator). Digital badge requirements were established, and a Licence Agreement finalised with legal services to share microcredential learning materials with other eligible universities.

Murdoch introduced a new **Assessment Policy Framework** at the beginning of 2023, following significant stakeholder consultation across the previous 18 months. The principles-based policy incorporates four key pillars for assessment. These are: Fosters Learning Through Assessment; Authentic and Future Focused Assessment; Constructive Alignment of Assessment Activities to Intended Learning Outcomes and; Upholds Professional and Academic Standards.

The emergence of ChatGPT and **generative artificial intelligence (AI)** more generally provided a new frontier for learning and teaching activities in 2023. While the technology is still relatively new in terms of mainstream adoption, its rapid evolution is an emerging issue which will require attention in terms of adoption within curriculum and consideration of impacts on assessment practices. A forum series regarding AI and ChatGPT was held for staff in the first half of the year and staff were also encouraged to engage with a series co-hosted by TEQSA and Deakin's Centre for Research in Assessment and Digital Learning (CRADLE).

Murdoch committed to a new period of **Advance Higher Education Partnership and Fellowships Accreditation** for Murdoch staff from 2024 to 2027, for globally recognised professional fellowships in Higher Education, Learning and Teaching. Accreditation documents were submitted to Advance Higher Education in October.

There was a significant return to **face-to-face exams** following the extensive pivot to online exams in 2020 due to the COVID pandemic. The return of face-to-face exams commenced in 2022, but by Semester 2, 2023, 83% of exams were being held face-to-face. This allowed exams to be undertaken in supervised conditions, which was important with the rapid emergence of generative artificial intelligence.

Microsoft Teams is the core technology underpinning hybrid learning in the learning spaces in Boola Katitjin. All classes booked in Boola Katitjin are hybrid-enabled, allowing students to join the class from anywhere.

Microsoft Teams was incorporated into the **digital learning environment** in 2023, becoming a vital part of teacher-student and student-student collaboration. The digital learning environment became a critical element of the learning and teaching experience in recent years due to adaptation required during the pandemic. Microsoft Teams has now been integrated with Moodle (the core Learning Management System) as the virtual classroom tool used when teaching staff facilitate a fully online class. Microsoft Teams is also the core technology underpinning hybrid learning in the learning spaces in Boola Katitjin. All classes booked in Boola Katitjin are hybrid-enabled, allowing students to join the class from anywhere.

Murdoch has a long-standing partnership with **Open Universities Australia**. This partnership continues to extend Murdoch's reach to students in other Australian states and to new students who are not recent school leavers. During 2023 an internal review was undertaken and a continued commitment to this partnership was made. Ongoing continuous improvement in curriculum offerings, curriculum management, learning design, student management, and systems and processes remain a focus.



Pitchfest winner Tallulah Chong with Deputy Vice Chancellor Education Professor Don A. Klinger.

Murdoch University offers a number of flexible pathways into University, to ensure students from a range of backgrounds can access tertiary education.

Murdoch alumnus Donna Buckley was awarded the **2023 Prime Minister's Prize for Excellence in Science Teaching**. Ms Buckley, a teacher at John Curtin College of the Arts, was recognised for inspiring students from diverse backgrounds to think creatively about mathematics. She completed an undergraduate course in mathematics and statistics at Murdoch and a diploma in secondary education, first enrolling in 1994 via a one-week alternative entry program for single mothers offered at the time.

The **WA Teaching and Learning Forum** was hosted by Murdoch in February, with almost 300 staff attending from across all Western Australian universities over two days. The event facilitated the sharing of ideas between universities and helped to position Murdoch as a collaborative partner in higher education. Participant feedback was very positive and highlighted the success of the forum.

Nine of Murdoch's brightest entrepreneurs competed for \$10,000 at **Launchpad Academy PITCHFEST 2023**, with Tallulah Chong and her startup Giveagain being crowned the winner. Giveagain is a social enterprise on a mission to help people gift sustainably, through 100% biodegradable, organic fabric wrap designed to last for a lifetime of giving. The PITCHFEST competition is a catalyst for innovation and a springboard for the next generation of entrepreneurs. The finalists were selected from participants nearing the end of the three-month long Launchpad Academy incubator program, which supports emerging entrepreneurs through masterclasses and mentorships from industry professionals in the startup, business, tech and leadership fields.



Colleges

Academic Structure Organisational Chart



College of Business



The College of Business provides a comprehensive array of undergraduate, postgraduate and professional learning programs to equip students with extensive knowledge, practical experience and skills across diverse areas of business.

Professor Antonia Girardi
Pro Vice Chancellor and Head of College

The College's academic members possess a unique blend of real-world business experience, industry connections, and cutting-edge academic knowledge, fostering a dynamic environment for continuous learning and professional advancement.

The **Murdoch Business School** sits within the College, offering courses across Perth, Singapore and Dubai to prepare students for the complex challenges of leading companies and collective enterprises with humility, to generate long-term prosperity.

2023 highlights

The **Eco-Economy Project Team**, consisting of staff from the Murdoch Business School and Murdoch International, established a partnership with Project Hiu, an island-based NGO in Lombok, Indonesia to offer students a unique, practical opportunity through a work-integrated learning program.

The community lacked fresh food and water, regular schooling, and other income sources. Students designed and developed business models to decrease the community's reliance on shark fishing and **create a more sustainable future** through education and advocacy. The business proposals presented by students have already seen real-world results as the community begins to implement many of the ideas.

The Eco-Economy Project team was awarded a commendation in the 2023 Australia-Indonesia Institute's Indonesian Studies Awards and recognised at Murdoch University's Vice Chancellor's Awards.

"The program offered students rich academic and life experiences in social and global contexts that challenged their assumptions and broadened and redefined their understandings."

Dr David Zhang, Lecturer in Management within the College of Business



Business students on their trip to Indonesia as part of Project Hiu.

The Murdoch Business School is a partner of the National Indigenous Business Summer School (NIBSS), named Katitjiny Boya Birrit, and is **designed for Aboriginal and Torres Strait Islander secondary students with an interest in business or commerce**. Katitjiny Boya Birrit is in its fifth year of operation and provides a unique program each year, presenting students with **a real-world business challenge** delivered in partnership with industry partners. When Murdoch hosted the summer school, students worked on proposals to transform a commercial space in central Perth into a vibrant business.

The College of Business has developed a new approach to value-based education through the creation of a **major in Entrepreneurship and Innovation**. Each of the eight units in this major are project-based and have **specific United Nations Sustainability Development Goals (UNSDGs)** woven through the curriculum.

The major was created to address an emerging need for an **industry-aligned learning** experience for students and businesses. The curriculum emphasises hands-on experiences, including real-world projects, case studies, and client-based consultancy work. The program also provides networking opportunities that extend beyond the classroom, opening doors to mentorship, partnerships, and potential investors.

"This unit [BUS354] has taught me a lot about the importance of values, innovation and thinking outside the box. These lessons will be something I take with me throughout my life and continue to reflect on these lessons to keep myself on track for success."

Neil Irani, Bachelor of Commerce



National Indigenous Business Summer School program participants.

College of Environmental and Life Sciences



The College of Environmental and Life Sciences prepares students to become leaders in addressing global challenges related to the environment, biodiversity, sustainability, food production and human and animal health. With diverse courses, hands-on learning, and renowned academics, students gain knowledge and skills for impactful careers.

Professor Jennifer Verduin
Pro Vice Chancellor and Head of College

Through interdisciplinary projects and partnerships, experienced academic and support staff help students apply their expertise and understanding of environmental and life sciences in real-world settings.

The College is comprised of the following Schools:

- [School of Agricultural Sciences](#)
- [School of Environmental and Conservation Sciences](#)
- [School of Medical, Molecular and Forensic Sciences](#)
- [School of Veterinary Medicine](#)

2023 highlights

Murdoch University's [School of Agriculture](#) introduced the inaugural 'Livestock Industry Career Readiness' unit in 2023, facilitating student networking and industry connections. The initiative, supported by Australian Wool Innovation and featuring the AG4U Career Pipeline Program, connects final-year WA university students with industry mentors. The program [welcomed the Western Australian Minister for Agriculture](#), Hon. Jackie Jarvis MLC, who shared insights into agriculture career options during her visit to Murdoch. The unit aims to enhance students' preparedness for the livestock industry by providing valuable industry exposure and professional perspectives.



Agriculture students with the WA Minister for Agriculture Hon. Jackie Jarvis MLC.



Marine Biology students at Efeló Beach, Vancouver Peninsula.



Dr David Byrne, Senior Lecturer in Equine Medicine (right), speaking with David Hunter, Racing WA Chief Racing Officer (left).

Murdoch's [School of Environment and Conservation Sciences](#) emphasised **real-world experience** for second and third-year students through fieldwork in Albany, Point Peron, and the bushland campus. Activities included plant and animal projects, marine biodiversity, and quenda research, fostering practical skills and enhancing connections. Students collected, analysed, and interpreted environmental data, gaining a holistic understanding of the research process. Positive feedback indicates the success of **integrating theory into practical contexts** for enriched learning and skill development.

Large collaborative projects involving Environmental and Conservation Sciences (ECS) researchers commenced in 2023, with a strong sustainability and community focus. As part of the research to offset the impacts of the Westport Development in Cockburn Sound, the Western Australian Marine Science Institution developed the Westport Marine Science Program. The program includes **30 research projects**, several of which are led by ECS researchers [Dr James Tweedley](#) and [Professor Jennifer Verduin](#). These projects provide opportunities for Murdoch Honours and research students to participate in real-world research.

[Dr Paola Magni](#), Associate Professor and Dean of Engagement at the [School of Medical, Molecular, and Forensic Sciences](#), garnered national and international acclaim in 2023. In Italy, she was [appointed a Knight of the Order of the Star](#) by Italian President Sergio Mattarella for fostering international cooperation. Dr Magni also received the Vice Chancellor's Excellence in Teaching and Learning Award for her dedication to immersive forensic science education.

Forensic Science PhD candidate, Ruby Dixon researched the potential for [identifying perpetrators based on bacterial profiles](#), marking her first publication in Forensic Science International. The research, envisaged by Senior Lecturer [Brendan Chapman](#), draws on his decade-long experience with law enforcement. He received a \$4.6 million government grant for the 'Hair Genetically Variant Peptide Project,' aiming to analyse proteins in small hair strands to potentially determine a person's identity. Collaborating with ChemCentre, WA Police, PathWest, and Edith Cowan University, Brendan Chapman's significant contributions to forensic science include groundbreaking research and projects that advance the industry's capabilities.

The [Animal Hospital at Murdoch University \(TAHMU\)](#) unveiled [Western Australia's leading equine diagnostic imaging facility](#), featuring a Qalibra standing CT machine and the State's inaugural standing MRI scanner for detecting soft tissue injuries in horses. Since its 2023 debut, TAHMU has scanned 55 horses on the MRI machine and 25 on the CT machine, empowering students with hands-on experience in advanced technologies. The Standing Advanced Imaging Suite provides veterinarians with cutting-edge tools to identify and prevent equine injuries, fostering a bridge between clinical practice and future research for students.

Murdoch University offers the only veterinary course in Western Australia and is ranked in the top 50 universities in the world for veterinary medicine in the Global Rankings of Academic Subjects for 2023.

College of Health and Education

The College of Health and Education readies students for impactful careers in healthcare and education, emphasising community wellbeing. With state-of-the-art facilities and robust industry ties, students engage in real-world scenarios, internships, and hands-on experiences, ensuring graduates are well-prepared to address evolving challenges in these fields.

Professor Guillermo Campitelli

Pro Vice Chancellor and Head of College

The College is comprised of the following Schools:

- [School of Allied Health](#)
- [School of Education](#)
- [School of Nursing](#)
- [School of Psychology](#)

2023 highlights

In March 2023, three researchers from the College of Health and Education were named as Emerging Leaders in the Western Australia **Near Miss Awards-Emerging Leaders** 2022 Program. This is a prestigious honour for those who obtained an improvable evaluation on their National Health and Medical Research Council (NHMRC) grant application. Each of these recipients were awarded funding from the Department of Health towards several research projects.

[Associate Professor Ann-Maree Vallence](#), WA Emerging Leader from the School of Psychology, received \$100,000 towards the research project, *Strengthening cortical connectivity in Parkinson's disease to reduce tremor*. Alongside this grant, Associate Professor Ann-Maree Vallence, Dr Hakui Fujiyama and Professor Peter Drummond were awarded \$99,611 from the Bryant Stokes Neurological Research Fund towards this research.



[Associate Professor Yvonne Learmonth](#), WA Emerging Leader from the School of Allied Health, received \$100,000 towards her research *Optimising HCP promotion of positive health behaviour in neurological conditions*.

[Associate Professor Belinda Brown](#), WA Emerging Leader from the School of Allied Health, received \$100,000 towards her research *Physical activity and dementia prevention*.



Five Murdoch Chiropractic students and Dr Lyndon Woods at the Broome Circle community centre.

Five chiropractic students from the [School of Allied Health](#), led by Dr Lyndon Woods, undertook a **placement in Broome** for the first time in 2023. Whilst providing free chiropractic services at the Broome Circle community centre for the underprivileged, they also introduced chiropractic as a career path to Year 12's at Broome Senior High School. The team was interviewed by the ABC and Goolarri Radio Stations, with the aim to **raise awareness about chiropractic care and its benefits** in the local community, combining clinical work with educational outreach.

The [School of Education](#) led new engagement activities throughout the year and **prioritised industry connections** for students. Engaging activities, such as Mondays at Murdoch and the Early Childhood Education Conference, targeted education professionals, featuring public speakers discussing hot topics to inspire new ways of thinking in new and experienced educators.

Key statistics for student learning:

- **Partnered with 401 education providers to offer Work Integrated Learning placements for students**
- **1,389 individual student placements completed**
- **Pre-service teachers spent a total of 23,655 days on placement**

[Associate Professor Peter Wright](#) from the School of Education received a \$60,000 grant from the Big hART organisation towards the research project, *Creative evaluation of Big hART's arts and social change projects: A Research-Practitioner Partnership*. This project seeks new ways to creatively and culturally evaluate social change. By applying multi-modal ways of working, the project will work with Big hART and young people to consider digital content and storytelling art to reveal creative approaches to change, understanding, and knowledge translation.

The [School of Nursing](#) at Murdoch University requires students to complete 840 practical hours with an opportunity to fulfil a portion of these through an **international practicum in Vietnam**.

The program involves placements in hospitals and communities, collaborating with local nursing and medical staff. Students offer health education, assessments, and can participate in the Days for Girls Kits initiative. This opportunity offers students an **insight into foreign healthcare systems** and fosters quality education, experiential learning, and the development of a robust social conscience among nursing students.

"I will be able to see first-hand the impacts of limited healthcare in rural areas and the toll it takes on communities and their overall health. This experience will allow me to be open minded and be more alert in treating and managing patients holistically in their care. Every placement improves my judgement and confidence in my knowledge." – Emily Tamblin, Bachelor of Nursing.

[Professor Peter Drummond](#) from the [School of Psychology](#) received the **2023 Russell Cole Memorial ANZCA Research Award**, securing \$70,000 for his project *Is complex regional pain syndrome associated with structural or functional changes in the locus coeruleus?* The award was created to support a pain related research grant, with a preference for the relief of cancer pain. The funding will contribute to advancing knowledge and addressing health concerns for the benefit of individuals and communities.

As part of their practical learning, Murdoch postgraduate Psychology students are offered the opportunity to complete their internships at the [Murdoch Psychology Clinic](#) on the South Street Campus.

2023 Murdoch Psychology Clinic statistics:

- **190 clients, 118 of which were allocated to postgraduate interns**
- **Total number of attended appointments was 1,286**
- **11 interns in 2023**

College of Law, Arts and Social Sciences



The College of Law, Arts and Social Sciences prepares students to become influential contributors in their fields of choice. With comprehensive programs and a strong emphasis on innovation, engagement, and practical learning opportunities, students gain the knowledge, skills, and critical thinking abilities they need to navigate the complexities of the professional world.

Professor Deborah Gare
Pro Vice Chancellor and Head of College

The College is comprised of the following Schools:

- [School of Humanities, Arts and Social Sciences](#)
- [School of Indigenous Knowledges](#)
- [School of Law and Criminology](#)
- [School of Media and Communication](#)

2023 highlights

The College experienced exceptional growth in its postgraduate programs, with **1,400 new students commencing in 2023**. The most notable courses of growth were [Master of Community Development](#), [Master of Sustainable Development](#), [Master of Communication](#) and [Master of Criminology](#). This growth was supported by a number of new staff appointments.

Following the University restructure, the College **established two new schools** in 2023: Media and Communication and Indigenous Knowledges. A number of new leadership roles were filled, including [Professor Dee O'Connor](#) as Dean of Humanities, Arts and Social Sciences (HASS), [Professor Jacqueline Lo](#) as Director of the Indo-Pacific Research Centre, [Dr Bep Uink](#) as the inaugural Dean of Indigenous Knowledges and [Renaë Desai](#) as the inaugural Dean of Media and Communication.



Olman Walley from Boorloo Aboriginal Cultural Experiences met with students in the School of Indigenous Knowledges on our Boorloo (South Street) campus.

The new [School of Indigenous Knowledges](#) emphasises interdisciplinary sharing of Indigenous understandings, offering programs in two-way science, wellbeing, culture, country, and community. In 2023, the School introduced an undergraduate Minor and launched its first postgraduate unit, SIK502 Wandju Boodja, which offers a comprehensive exploration of Australian Aboriginal culture from the perspective of the Noongar people.

The [Indo-Pacific Research Centre \(IPRC\)](#) was launched at the end of 2023 within the [School of Humanities, Arts and Social Sciences](#). The IPRC is a centre of excellence focusing on critical issues in the region like security, governance, climate change, justice, and environmental challenges. Led by newly-appointed Professor Jacqueline Lo, the IPRC **represents the spirit of collaboration and exchange** that underpins Murdoch University's international agenda and commitment to research excellence and impact.

The real-world expertise of the [School of Law and Criminology](#) was recognised in November through a signed articulation agreement with the Western Australian Police, **establishing a pathway for police analysts** through the [Graduate Certificate in Criminology](#). The College would like to thank the Western Australian Police, Western Australian Museum, Department of Justice, Public Sector Commission, British Foreign Office, United States Consulate, Indonesian Consulate, and the Australasian Council of Deans of Arts, Social Sciences and Humanities (DASSH).

The College maintains strong ties with Bhutan and India, hosting numerous international students from both countries. Following a July 2023 delegation visit to Jindal University near Delhi, substantial funding from the New Colombo Plan enables Murdoch students to participate in **International Justice programs at Jindal**. Ongoing engagement with Bhutan involves interactions with government officials, student recruitment agents, alumni, and community organisations, leading to the launch of initiatives supporting in-country programs.

The College delivered many enriching student opportunities, including important international field work and study programs. The School of Law and Criminology offered its **Human Rights program in Geneva and European Law Program in Macerata (Italy)** in 2023. Students received real-world experiences, including site visits to the UN High Commissioner for Refugees (UNHCR) and UN Refugee Agency. Both programs align with UN [Sustainability Goal 16](#) and emphasise real-world learning. The School of Humanities, Arts and Social Sciences **led students to Japan** for an intensive, in-country experience—the first program to be co-delivered by Perth and Singapore campuses.

The College celebrated outstanding achievements by Transnational Education (TNE) students in 2023. Anastasia Margareta received the **Outstanding Young PR Professional award** from the Institute of Public Relations Singapore. In Dubai, students received the **Best Student Campaign** category at the Public Relations and Communications Association (PRCA) MENA Regional Awards for *Together at MU*, demonstrating global recognition of Murdoch's Media and Communication programs.

On the South Street campus, the [School of Media and Communication](#) ended the year with a showcase of student work arising from the creative media, theatre and creative writing disciplines. The Kinetica showcase was planned and executed by third-year Graphic Design students and hosted nearly 1000 guests in Bush Court, Geoffrey Bolton Library and Boola Katitjin. The event displayed diverse student work from various creative subjects, emphasising student talent and imagination, client-based initiatives, and multidisciplinary collaborations.

Filmmakers from the creative media and arts disciplines were recognised for their work in film. 'Survivors of Wadjemup' was selected for the International World Film Awards, while 'Dandjoo: Be a Voice for Generations' was screened at multiple international film festivals.

The College delivered many enriching student opportunities in the past year, including important international field work and study programs.

College of Science, Technology, Engineering and Mathematics



The College of Science, Technology, Engineering, and Mathematics provides a well-rounded education, integrating theory and practical skills to prepare students for successful careers. Emphasising hands-on experience, industry partnerships, teamwork, and leadership, students are inspired to drive change and contribute significantly to science, technology, engineering, and mathematics fields.

Professor Parisa Bahri
Pro Vice Chancellor and Head of College

The College is comprised of the following Schools:

- [School of Engineering and Energy](#)
- [School of Information Technology](#)
- [School of Mathematics, Statistics, Chemistry and Physics](#)

2023 highlights

Two researchers within the College received recognition at the 2023 Vice Chancellor's Staff Awards. [Dr Hai Wang](#) – awarded the **Early Career Research Award** – leads the University's Advanced Robotics and Autonomous Systems Research Laboratory. [Professor Aleks Nikoloski](#), recipient of the **Distinguished and Sustained Achievement** and 20 years of service awards, has published 47 papers in the last 12 years. His lithium, vanadium, and rare earths research has positioned Murdoch University at the forefront of hydrometallurgical process development in Australia.

In 2023, the [School of Mathematics, Statistics, Chemistry and Physics](#) received a **Scanning Electron Microscope (SEM) loaned by Chevron**. The SEM will allow continuation of the Harry Butler Institute's Biodiversity research group in biosecurity diagnostics and imaging, in their ongoing projects with Chevron. The SEM is available for use by the broader University community, including material science, mineral sciences, biology, agriculture and more.

The research team led by [Associate Professor GM Shafiullah](#) from the [School of Engineering and Energy](#), proposed a **sustainable solution for the Jinparinya and Warralong Aboriginal communities** in the Pilbara region of Western Australia. Their research suggests implementing renewable energy microgrids with [hybrid battery-hydrogen storage systems](#) to **reduce greenhouse gas emissions and provide reliable energy**. Partnering with Indigenous mining logistics company Cundaline Resources, the project aligns with the communities' goals towards sustainability. Simulations indicate a compelling business case, with payback periods comparable to suburban solar panels, promoting cleaner and denser energy in regional and remote areas.

[School of Information Technology](#) student, Shuang Li, received the prestigious **Australian Computer Society (ACS) 1962 Prize for top university undergraduate in Computing/Information Systems**. Graduating with First Class Honours, her Honours thesis focused on privacy and security in remote patient monitoring systems, proposing a solution involving data collection, blockchain technology, and homomorphic encryption.

The School of Engineering and Energy addresses the demand for sustainable energy expertise with a **pioneering microcredential course in Strategic Decarbonisation Management**. Funded by a \$333,962 grant from the Commonwealth Government, the course positions Murdoch at the forefront of sustainability education. Developed in collaboration with industry practitioners, the short course **focuses on practical skills**, including greenhouse gas measurement, decarbonisation planning, and achieving Net Zero emissions. The pilot is set for Trimester 1 and 2 of 2024, reflecting the University's commitment to fostering a sustainable and environmentally responsible future.

Researchers from the School of Mathematics, Statistics, Chemistry and Physics received over \$1.1M for their project, *Unlocking mine waste potential: carbon sequestration and metals extraction*. The project focuses on a proof-of-concept **engineering process to convert mine waste** – specifically ultramafic nickel mine tailings – into value. Researchers aim to efficiently sequester carbon dioxide, extract critical metals like nickel, and produce high-purity magnesium

carbonate hydrate and silica. The outcomes can contribute to **mitigating global warming**, supplying critical metals for renewable energy, and **fostering sustainability** in Australia's mining industry, showcasing the potential for transforming mine waste into valuable resources.

The Gender and Diversity Committee in the College secured \$30,000 to **promote equity and inclusion in science and technology**. Five research grants, each valued at \$5,000, aim to support female scholars in traditionally male-dominated fields. An additional \$5,000 is allocated for capacity-building efforts, **enhancing skills and capabilities of female STEM scholars**. This initiative addresses gender disparities, fosters a supportive environment, and inspires future generations of female scientists and engineers, contributing to the University's strategic emphasis on Equity, Diversity, and Inclusion.

The School of Engineering and Energy **introduced two scholarships** in 2023 aimed at fostering diversity and inclusion in engineering. The **Murdoch University Access Engineering Scholarship** targets under-represented groups, including Aboriginal and Torres Strait Islander students, those from regional areas, females in STEM, first-generation university students, those facing financial hardship, and LGBTQIA+ community members. The **Murdoch University Indigenous Engineering Pathway Scholarship** specifically supports Aboriginal and Torres Strait Islander students enrolling in the Bachelor of Engineering Technology, promoting inclusivity in the engineering sector for a sustainable future.



Shuang Li pictured with her award.

Research



Our key objective is to increase impactful and progressive research in our areas of strength and excellent research across our disciplines.

Ngala Kwop Biddi

Professor Peter Eastwood
Deputy Vice Chancellor Research and Innovation

Murdoch research performed strongly in 2023. Research income increased from \$41.7 million in 2022 to \$50.1 million. International rankings published in 2023 also demonstrated improvement.

Over the past decade, Murdoch has focused its research in health, food and the environment – areas of traditional strength. In line with the University's new Strategy, Murdoch's research base is being broadened to ensure research is conducted across all teaching areas.

To drive this new Strategy, Professor Peter Eastwood was appointed to the role of Deputy Vice Chancellor, Research and Innovation in July 2023. The role has overall responsibility for the strategic direction and focus of research undertaken within the University and is active in developing closer research links and a funding base with both private and public sector users and providers.

Highlights in the research and innovation space in 2023 included the official launch of three new centres as part of the [Ngangk Yira Institute for Change](#) and the launch of the [Indo Pacific Research Centre](#), in the School of Humanities, Arts and Social Sciences.

The University's new **academic structure** and approach to research presented opportunities for collaborative research crossing the usual disciplinary boundaries during 2023. This work will continue over the life of the Strategy through the

development of strong, respectful relationships between researchers across all Murdoch campuses, accompanied by the development and implementation of strategies to grow existing talent, broaden the research income base, increase the number of postgraduate research students, facilitate relationships between University researchers and industry and enable success through the provision of world-class research infrastructure.

Research opportunities were identified at the 2023 WA Energy Transition Summit, including the important role Murdoch can play in research into green energy. There are also new **international collaborative research opportunities** on the horizon as part of Murdoch's membership of the Australian Africa Universities Network. Local and Australian opportunities emerging and underway include collaborative research with members of the WA Agricultural Research Collaboration, State Agricultural Biotechnology Centre, Innovative Research Universities, Pawsey Supercomputing Research Centre, CRCTIME, Grains Research and Development Corporation, The Raine Study and through the Food Innovation Precinct Western Australia.

Murdoch's strong relationship with **Department of Primary Industries and Regional Development** (DPIRD) will continue with DPIRD's new biosecurity and research facility to be co-located on Murdoch's South Street Campus in the future.

The strategic objective of increasing the volume of research across our disciplines will be measured from 2023 by the number of conference proceedings, reviews and articles recorded by authors with a Murdoch University address in Scival. This is a lagging key performance indicator and will be formally reported from 2024, with annual targets set through to 2030 that project sustained growth.

2023 highlights

Four Murdoch academics were named **Clarivate Highly Cited Researchers** in 2023. [Professor Davey Jones](#) and [Professor Rajeev Varshney](#) from the [Food Futures Institute](#) and Health Futures Institute researchers [Professor Jeremy Nicholson](#) and [Professor Elizabeth Phillips](#) made the exclusive list. Of the world's population of scientists and social scientists, Highly Cited Researchers are one in 1,000, selected for their

exceptional performance in one or more of 21 broad fields, having demonstrated significant influence through the publication of multiple highly cited papers during the last decade.

The National Health and Medical Research Council published its 14th annual edition of the *10 of the Best* an annual showcase of significant research projects that support the improvement of human health. The annual edition featured [Birthing on Noongar Boodjar](#), led by Ngangk Yira Institute for Change Director [Professor Rhonda Marriott](#).

[Professor Elaine Holmes](#), ARC Laureate Fellow and Director of the Centre for Computational and Systems Medicine, was the only person from Western Australia elected as a Fellow to the Australian Academy of Sciences this year.

[Dr Paola Magni](#) was one of four finalists for Western Australia's 2024 Australian of the Year. As well as undertaking world-leading research she has become a champion for women in STEM and an advocate against gender-based violence.

Professor Elaine Holmes



Commercialisation and Innovation

Researchers discovered further commercial opportunities in algae, through Murdoch's commercial algae spin-off **Algae Harvest**. A new partnership with green energy company Cyclion is exploring the role algae can play in turning the waste bound for landfill or the sea into electricity and energy. It is estimated that 6.1 million tonnes of plastics enter aquatic environments each year, with 1.7 million tonnes entering the ocean, all of which could be harnessed for energy generation. Cyclion has developed a process to liquify plastics and biomass, like food scraps, paper and wood, and convert it into fuel for electricity generation while minimising harmful emissions.

New biotechnology company **ProGenis Pharmaceuticals** was launched in 2023 to develop innovative treatments for various inherited and acquired diseases, including type 2 diabetes, multiple sclerosis, Duchenne muscular dystrophy, and Rett syndrome. The company is led by **Associate Professor Rakesh Veedu**, from the Centre for Molecular Medicine and Innovative Therapeutics, a joint research centre between Murdoch and the Perron Institute; and Professor Marvin Caruthers, a distinguished American biochemist who revolutionised DNA/RNA manufacturing technology. ProGenis Pharmaceuticals specialises in developing precision RNA therapeutics. The company presents an avenue for the University's research to transition to a clinical setting and improve lives.

Murdoch entered into a strategic intellectual property agreement with Suvo Strategic Minerals Ltd to produce Geopolymer Concrete. **Geopolymer Concrete** aims to use waste products such as fly ash from the Collie Power Station and convert this into concrete for sound panels and other products.

The **CSIRO-Murdoch-Industry Bioplastics Innovation Hub** commenced the research scale production of Bio-Plastics in 2023, with the aim of developing commercialisation, along with research partners, of 100% compostable bioplastics. This is part of CSIRO's ending plastic waste initiative.

The **Australian National Phenome Centre** has partnered with Bruker Biospin and Bruker Daltonics to work towards the commercialisation of long COVID diagnostic technologies. This collaboration will progress the global understanding of how diverse environmental and cultural conditions affect a range of serious diseases and conditions.



Associate Professor Veedu says this approach to treating diseases presents a big opportunity for major diseases, like diabetes, as well as rare diseases, which disproportionately affect children, adolescents and young adults.



Food Futures Institute



Professor Peter Davies
Pro Vice Chancellor Food
Futures Institute

Led by Pro Vice Chancellor Professor Peter Davies, the Food Futures Institute (FFI) collaborates closely with industry and government partners in Western Australia, nationally and around the world to improve accessibility and availability of sufficient, safe, sustainably produced and nutritious food.

The Institute incorporates three research centres and one research service centre:

The **Centre for Crop and Food Innovation**, undertaking research on major broadacre and horticultural crops to improve yield, quality and enhance tolerance and protection from biological and environmental stresses.

The **Centre for Animal Production and Health**, working across the value chain to support the production of meat, milk and fibres for human consumption and use.

The **Centre for Sustainable Farming Systems**, working to increase farm productivity without further degradation of water, land and soils.

WA State Agricultural Biotechnology Centre, a platform that provides access to world class research facilities such as sequencing machines, equipment, greenhouses and laboratories for researchers from the WA government and industry.

Continued engagement with industry in 2023 further strengthened the FFI's research initiatives to deliver commercialisation and innovation outcomes that positively support the WA economy.

Professor Rajeev Varshney was elected a Fellow of the Royal Society (FRS), the first person in Murdoch's history to receive this honour.



2023 highlights

Murdoch's first Royal Society Fellow

Professor Rajeev Varshney was elected a **Fellow of the Royal Society (FRS)**, the first person in Murdoch's history to receive this honour. An expert in crop genomics, genetics, molecular breeding and capacity building in developing countries, Professor Varshney is the third scientist from Australia to join the prestigious organisation from the field of Agricultural Sciences and Forestry, and one of just 13 worldwide. He is the fifth from Western Australia to be elected from any discipline. The UK based Royal Society is the most prestigious and oldest continuously existing scientific academy in the world, with 85 Nobel Laureates in its cohort, including some of the world's best known scientific leaders.

Professor Varshney also received the Crop Science Research Award 2023 from the Crop Science Society of America for outstanding contributions to crop science, and the Friendship Award from the People's Republic of China's Guangdong Province.

In 2023, Centre for Crop and Food Innovation (CCFI) researchers, led by Professor Varshney published over 70 research papers and review highlights in high-impact scientific journals.

The Genomics, Pre-Breeding and Bioinformatics group, led by Professor Varshney, developed reference-grade genome assemblies for five tropical fruit crops, supporting the Australian Horticulture Industry, and high-quality genome assemblies for 15 Australian chickpea varieties for developing the pangenome of chickpea. Greenhouse and field-based heat screening and genome sequencing of 300 wheat lines is ongoing, providing tools and knowledge for improved Australian wheat varieties in high-temperature conditions.

A barley variety identification test has led to a breakthrough in breeding projects of new grains that will help secure supply into the future as farmers utilise crops that can adapt to frost, drought, climate change and other environmental conditions.

The **Crop Biotechnology Research Group**, under the leadership of **Professor Mike Jones**, achieved notable milestones in the field of crop biotechnology. The group's innovative research included the successful use of CRISPR-Cas9 gene-editing techniques to enhance potato cultivars. Dr Diem Ly's work, disrupting genes related to browning and acrylamide formation, resulted in crisps with significantly reduced acrylamide content. Dr Sadia Iqbal's breakthrough in doubling the proportion of resistant starch in potatoes showcased the group's commitment to improving nutritional qualities. Additionally, collaborative efforts led by **Dr John Fosu-Nyarko** demonstrated progress in developing cold-tolerant wheat varieties.

The **Western Barley Genetics Alliance**, led by **Professor Chengdao Li**, developed a barley variety identification test, using DNA fingerprinting technology to determine the identity and purity of Australian barleys. The team then used DNA-based technology – genomics-assisted breeding – to select the ideal genes for breeding specific traits. This breakthrough is underpinning breeding projects of new grains that will help secure supply into the future as farmers utilise crops that can adapt to frost, drought, climate change and other environmental conditions.

Simultaneously, genetics research focused on narrow-leaf lupins, conducted in partnership with the Department of Primary Industries and Regional Development (DPIRD), Curtin University and Australian Grain Technologies. The five-year project aims to provide new genetic resources for lupins and strives to equip breeders with precision tools for accelerated variety development, making a tangible positive impact through collaboration and delivery of practical outcomes to industry partners.

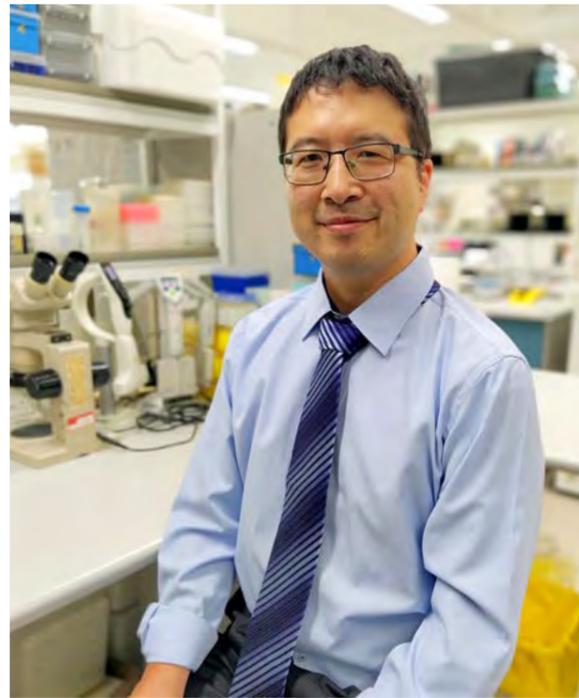


Research by [Dr Tona Sanchez-Palacios](#) and [Professor Richard Bell](#) focused on **enhancing the nutritional content of wheat grains**. Their study, published in *Frontiers in Plant Science*, examined the use of nanoscale and lipid-chelated fertilisers to boost zinc levels in wheat, aiming to improve human nutrition.

The Centre for Entomology's [Dr Wei Xu](#) and [Dr Penghao Wang](#) were awarded a \$500,000 grant from the Australian Research Council to find out **why some people are more prone to mosquito bites than others**. The results of this collaborative project between Murdoch University, Queensland Institute of Medical Research and University of California will allow better understanding of the transmission of diseases and development of sustainable ways to keep mosquitos at bay. The study's outcomes will also improve understanding of the mosquito smell system and behaviours.

A specialised **Food Science and Nutrition campus** was launched in February 2023. Murdoch's Food Science and Nutrition campus is part of the Food Innovation Precinct of Western Australia (FIPWA) and complemented by the Food Technology Facility.

The Institute continued to work closely with the School of Agricultural Sciences. A new **Graduate Certificate Program in Plant Biosecurity** was reviewed addressing a critical need in biosecurity education and aligning with industry demands. There were also new initiatives in the Crop Protection and Plant Biosecurity course which led to significantly higher student feedback in surveys.



Dr Wei Xu

The **SoilsWest** Team worked closely with the CSIRO and the United Nations Food and Agricultural Authority to address Action on Emissions of Greenhouse Gases for Integrated Sustainability (AEGIS). [Associate Professor Frances Hoyle](#) and [Dr Fran Brailsford](#) discussed soil carbon and greenhouse gas policies with the United Nations Food and Agriculture Organisation in Thailand as part of the AEGIS collaboration.

The WA State Agricultural Biotechnology Centre (SABC) is collaboratively enhancing food accessibility, safety, sustainability and nutrition.



The SoilsWest Team received the Vice Chancellor's Excellence Award for Community Industry Impact and Engagement.

The SoilsWest Team received the Vice Chancellor's Excellence Award 2023, **Community Industry Impact and Engagement Award**. Led by [Associate Professor Fran Hoyle](#), the SoilsWest Team brought together academia, government and industry to deliver a more integrated approach to soil science and grower outcomes. The team works closely with other researchers, leading agronomists, development officers and growers to package information on current knowledge and best-practice techniques.

The WA State Agricultural Biotechnology Centre (SABC), led by Professor Rajeev Varshney FRS, is collaboratively enhancing food accessibility, safety, sustainability and nutrition. The Centre's activities are helping to improve primary production of commercial livestock, crop plants or microbes and supporting research in biosecurity, biomedical sciences and environmental biotechnology. A major highlight of 2023 was the successful international symposium 'Genomics and Biotechnology for Agriculture: Present and Future', celebrating the SABC's 30th anniversary in September. The symposium featured 26 speakers with more than 180 registered participants from 15 countries including Australia, Brazil, China, Ghana, India, Israel, Kenya, Senegal, South Korea, Singapore, Switzerland, Thailand, Türkiye, the United Kingdom and the United States of America.

SABC participated in outreach and community engagement throughout the year, educating people about careers in agriculture through a Department of Primary Industries and Regional Development and Curtin University collaboration at the WA Robotics Playoffs and robotics activations at Dowerin Machinery Field Day; Perth Royal Agricultural Show; Brunswick Agricultural Show; and Mandurah Tech Showdown 2023.

SABC and Centre for Crop and Food Innovation, in collaboration with the Australian Centre for International Agricultural Research (ACIAR), The Crawford Fund, Asia-Pacific Association of Agricultural Research Institutions (APAARI), and the Forum for Agricultural Research in Africa (FARA), hosted a **Virtual Panel Session** in October as part of the International Borlaug Dialogue of the World Food Prize Foundation. This event focused on 'Harnessing science innovations for a sustainable, equitable and nourishing food system' and speakers included internationally renowned scientists, research leaders, administrators and policymakers in international agriculture. A total of 700 colleagues from 58 countries registered for the event.

A Murdoch University Senate Medal was awarded to [Professor Mike Jones](#) for his dedication and outstanding contribution across several areas of the University, in particular, as Foundation Director of the WA SABC.

Harry Butler Institute



Professor Simon McKirdy
Pro Vice Chancellor,
Harry Butler Institute

Led by Deputy Vice Chancellor Professor Simon McKirdy, the Harry Butler Institute champions a research space where community, business and biodiversity can co-exist, spearheaded by multidisciplinary research centres.

The Harry Butler Institute incorporates four research centres:

The **Centre for Biosecurity and One Health**, comprising research across themes including One Health, antimicrobial resistance, biosecurity of environmental and production systems, vector and water borne diseases, epidemiology, food safety and zoonotic diseases.

The **Centre for Sustainable Aquatic Ecosystems**, with a vision for healthy and productive freshwater, estuarine and marine ecosystems that support diverse societies within Australia and the Indo-Pacific.

The **Centre for Terrestrial Ecosystem Science and Sustainability**, comprising a multidisciplinary team, working together to maintain sustainable and biodiverse ecosystems through scientific excellence.

The **Centre for Water, Energy and Waste**, focusing on research that supports these vital services while ensuring that their impact on biodiversity is minimised.

Lena Long and Caroline Long
(Birriliburu Rangers) speaking at
the Biodiversity Conference held
in October 2023. By Viewfinder
Photography.



2023 highlights

Over \$700,000 was granted to Murdoch through the WA Government's Investment Attraction Fund for a **new batteries research hub** to be established in Rockingham. Western Australia produces more than half the world's lithium, an essential component in rechargeable batteries, and has a globally significant storage of vanadium, a metal central to long-duration batteries. Embedding this industry-relevant research laboratory in a developing industry precinct will allow the timely communication of industry problems and development of practical solutions.

The hub will support WA's economic agenda to move beyond being a commodities exporter to a technology powerhouse. The Hydrometallurgy Research Group, under the guidance of leading metals scientist **Professor Aleksandar Nikoloski**, are experts in the hydrometallurgical processes used to extract and produce critical metals (lithium, nickel, cobalt, vanadium) from primary (ores) and secondary (recyclables such as e-waste) materials. The hub will further allow the research group to collaborate with industry and government.

A **Memorandum of Understanding was signed** with **Spinifex Brewing Co** that pledges to tackle climate change by turning waste into profit. Both Murdoch and Spinifex are foundation tenants of the Food Innovation Precinct located in the Peel Business Park. The use of waste will support carbon capturing algal biomass production and additional value-add products. The agreement will see collaboration in various fields of research and teaching, with a focus on value chain optimisation and algal research for potential commercialisation opportunities. Spinifex, which produces craft beers, will collaborate closely with Murdoch on several projects looking to transform brewery waste such as spent grain and yeast into value-add products. The use of waste to support carbon capturing algal biomass production will also be investigated through Murdoch's commercial entity, Algae Harvest.

The **Saving our Snake Necked Turtles Project** expanded to cover 30 wetlands across 21 local government areas between Joondalup and Albany. The project aims to train citizens to track and help nesting turtles across the entire range of the species to protect turtle populations from extinction.

Information sessions were attended by more than 500 community members and taught participants about the turtle's biology and threats to survival and how to use a Turtle Tracker App. Participants gained skills to monitor and protect female turtles and their nests, which has a major impact on populations. Data collected has helped to build a clearer picture of the turtle populations, providing essential insights into the way they use wetlands to inform management guidelines for local governments.

A **Biodiversity Conference**, held in October with the theme 'Listen to Country', saw approximately 650 attendees and speakers gather to discuss the future of biodiversity and hear from Traditional Landowners about the importance of caring for Country. Harry Butler Institute played a large role in the conference's inception and facilitation, with **Pro Vice Chancellor Professor Simon McKirdy** collaborating with botanical ecologist Professor Stephen Van Leeuwen to shape the event.

The Biodiversity Conference was an example of First Nations peoples, community and industry coming together to share best practice in environmental conservation and to demonstrate current studies. The Conference was chaired by Associate Professor Rachel Standish. BHP Foundation, Business Events Perth and Rio Tinto contributed significant funds to support costs covering travel, accommodation and registration for event speakers.



Dr Whale's research is a proof-of concept study that involves a small prototype of the novel VAWT design.

A four-year project to integrate social, cultural and ecological research into management of marine and coastal areas with Yawuru Traditional Owners was endorsed by UNESCO as a **UN Ocean Decade Action**. The UN Ocean Decade is a 10-year framework to identify, generate and use critical knowledge to manage the ocean sustainably.

The **Yagarrajalajalan nagula buru** project, co-led by Murdoch's **Dr Adrian Gleiss**, tackles the problem of how equity in resource management can be achieved with First Nations peoples.

The project concentrates on a single jointly managed marine park in Yawuru Nagulagun (Roebuck Bay). The project is funded by the Department of Jobs, Tourism, Science and Innovation with additional support provided by the Department of Biodiversity, Conservation and Attractions and Rio Tinto and will see Harry Butler Institute work with partners including Nyamba Buru Yawuru, University of Notre Dame Australia, James Cook University, Edith Cowan University, The University of Western Australia and the Department of Biodiversity, Conservation and Attractions.

The **Keep Carnaby's Flying – Ngoolarks Forever** community empowerment program was launched in May, with support from Lotterywest, to help protect the endangered birds. The program brings together researchers, Aboriginal organisations, local governments and conservation groups. Working with four local governments each year, the project supports

community-led on-ground activities including revegetation of black cockatoo habitat and installation of water drinking stations, while developing black cockatoo Conservation Action Plans for councils to safeguard their black cockatoo flocks in the long term.

Dr Grey Coupland was selected as a **finalist in Australia's leading science awards**, the **Australian Museum Eureka Prizes**, for her Miyawaki Forest Outreach Program. Based on a method developed by Japanese botanist Professor Akira Miyawaki, Dr Coupland and citizen scientists plant dense forests using locally indigenous species to help rehabilitate degraded areas. Dr Coupland guides participants as they monitor their forest, learning valuable STEM skills and seeing the tangible impact of their environmental stewardship. 'Pocket forests' are now found at primary schools across Perth and Western Australia.

New wind turbines developed by **Dr Jonathan Whale** have the potential to make wind an even more efficient source of large-scale renewable energy. Dr Whale's latest innovation is a **wind turbine with a single vertical blade**, which does not require any tower or support and so reduces the average cost of electricity achieved by the turbine. Dr Whale's research is a proof-of concept study that involves a small prototype.

A state-of-the-art regional **climate modelling project** will deliver more detailed and reliable projections for local areas across Western Australia. The projections will be used to inform planning for infrastructure and climate-sensitive sectors such as agriculture and conservation.

Dr Jatin Kala is leading the team working closely with the Pawsey Supercomputing Research Centre to create the State's most comprehensive climate change projections. The project is part of the Climate Science Initiative (CSI) being led by the Department of Water and Environmental Regulation (DWER) in partnership with the New South Wales Government, through the NSW Department of Planning and Environment's New South Wales, Australian Regional Climate Modelling Project (NARClIM 2.0) and the Pawsey Supercomputing Research Centre.

Researchers from Harry Butler Institute were awarded substantial funding to develop **AI software** that can **detect bushfires in their earliest stages**. The initial stage of the project involved collecting data during prescribed burns to visually train AI to detect the composition of different fires. Worldwide technology leader Cisco is funding the project, as part of its Cisco Research Gift Program.

Once the software is developed, the research team, including Harry Butler Institute's Director of Operations Andre deSouza, **Dr David Murray** and **Professor Kevin Wong** from the School of

Information Technology, hope the AI model will be deployed within cameras Australia-wide and even globally. The project will help facilitate rapid detection and response to bushfires particularly in regional and remote areas. The ability to have year-round, all-hours automated systems to detect and trigger human responses to bushfires will reduce the risk to the environment, property and potentially save lives.

Delegates from 43 countries attended Murdoch for the **International Water Association's Conference on Water and Waste Management** in December. The conference had a special focus on developing countries and provided a platform for sharing experiences, ideas and tools to ensure safe water supply and wastewater management – resources that are fundamental to the socio-economic development and ecological sustainability of developing countries. As good quality water becomes scarce – particularly in developing countries – due to population growth and pollution, safe wastewater treatment options are urgently needed.

Locally the theme addressed the poor quality and palatability of water affecting 142 remote Aboriginal communities across Western Australia. Researchers from Harry Butler Institute's Centre for Water, Energy and Waste and Murdoch's School of Engineering and Energy were among the 100 experts delivering presentations and tours over the six-day conference.



Health Futures Institute



Professor Jeremy Nicholson
Pro Vice Chancellor,
Health Futures Institute

The Institute collaborates closely with industry and government partners in Western Australia, nationally and internationally.

Led by Pro Vice Chancellor Professor Jeremy Nicholson, the Health Futures Institute breaks down traditional silos to deliver revolutionary research that will transform how long and how well people live, not just in Australia, but around the world. The Institute collaborates closely with industry and government partners in Western Australia, nationally and internationally.

The Institute incorporates four research centres:

The **Australian National Phenome Centre (ANPC)**, which supports almost every area of bioscience. As the international centre of expertise in metabolic phenotyping, the ANPC provides an important new platform for research across the full spectrum of health, food and the environment.

The **Centre for Molecular Medicine and Innovative Therapeutics** is a joint research centre between Murdoch University and the Perron Institute. The Centre for Molecular Medicine and Innovative Therapeutics focuses on developing precision medicine solutions to combat diseases affecting society today.

The **Centre for Computational and Systems Medicine** brings scientists and clinicians together in an interdisciplinary environment in cutting edge analytical chemistry, data science and data visualisation.

The **Centre for Healthy Ageing** investigates novel ways of maintaining quality of life and promoting healthy ageing in older adults.



2023 highlights

Major funding boost for global COVID-19 research

The Western Australian Government allocated **\$3.4 million to the ANPC for Long COVID research**. This additional funding follows a 2021 grant from the National Health and Medical Research Council. The Centre will use advanced metabolic phenotyping to comprehensively analyse biological fluids from Long COVID patients to understand the disease's complexities and its impact on organs, particularly sustained cardiovascular effects.

The research also seeks to identify new biomarkers for disease detection and patient risk assessment, aiding the development of precise treatments for Long COVID. With 5% to 10% of Australian COVID-19 cases developing Long COVID, the research, supported by various entities, aligns with UN Sustainable Development Goal 3 for global wellbeing.

A multinational collaboration led by the ANPC revealed the **key biological indicators** that predict when a person will have a severe reaction to a disease and even death. The markers, discovered as part of a **major global study of COVID-19 health outcomes** led by Professors **Jeremy Nicholson** and **Julien Wist**, are relevant to the current pandemic and other respiratory viruses and diseases as well. The research found that the severity of disease is related to respiratory and confirmed systemic multi-organ involvement, affecting a variety of pathways throughout the body, each having distinct features. This provides the basic science for developing more accurate diagnostic tools for more effective clinical management of COVID-19 patients. The Australian funding for this research comes from the WA Government, Spinnaker Health Research Foundation, the McCusker Charitable Foundation, and the Medical Research Future Fund.

Visit by the Australian Academy of Sciences President. Left to right, Professor Jeremy Nicholson, Professor Lyn Beazley AO, Chief Operating Officer of Australian Academy of Sciences Ms Melissa Abberton, Professor Elaine Holmes, Professor Julian Gale, President of Australian Academy of Sciences Professor Chennupati Jagadish.



The Centre for Molecular Medicine and Innovative Therapeutics (CMMIT), a joint venture with the Perron Institute, has fully integrated commercialisation into its research ethos, an approach that has paid dividends in terms of producing RNA-based therapeutics for the treatment of a diverse range of diseases. CMMIT researchers were early pioneers in the use of RNA-based therapeutics called antisense oligonucleotides. In a research journey spanning over a quarter of a century, three FDA-approved antisense therapeutics have now been developed for the childhood disorder, Duchenne muscular dystrophy. There are now over 50 diseases under investigation at CMMIT.



Professor Anthony Akkari, CMMIT's Director, has been reshaping the Centre's research with the goal of focusing even more sharply on commercialising the antisense therapeutics it develops. This approach is driven by the belief that basic research and its translation must go together, so that there is a clear pathway to commercialisation from the very outset of research on therapeutics and diagnostics. Recent years have seen a major boost in funding, a spate of novel patents and the emergence of four spin off companies - RAGE Biotech, SynGenis, Progenis and Black Swan Pharmaceuticals. The lead MND molecule for Black Swan BSP 0001 has now successfully completed its preclinical safety and efficacy studies, has had successful engagement with the FDA and is ready to take its first MND targeted therapeutic developed at Murdoch/Perron into the clinic in 2024.

Basic research and its translation must go together, so that there is a clear pathway to commercialisation from the very outset of research on therapeutics and diagnostics.

As part of an Australian Research Council (ARC) laureate funded research program, the Centre for Computational and Systems Medicine has launched a new **'Artificial Gut'**. This platform mimics the digestive tract allowing the role of the gut bacteria on human health to be explored. This facility brings together genetic characterisation of the gut bacteria and functional phenotyping. The project is generating new data on how nutrients and drugs are processed by the gut microbes.

Professor Elaine Holmes, ARC Laureate Fellow and Director of the Centre for Computational and Systems Medicine, was the only person from Western Australia elected as a **Fellow to the Australian Academy of Sciences** this year. Professor Holmes is an internationally distinguished computational biologist renowned for her pioneering contributions to the development and implementation of metabolic phenotyping in translational clinical paradigms. Her impactful research extends across several clinical fields, including cardiometabolic and neurodegenerative diseases, with tangible applications influencing disease diagnosis and prognosis. Professor Holmes was recognised not only for her scientific achievements but also as a great role model in the field, particularly in encouraging more girls and women to thrive in STEM subjects.

Professor Jeremy Nicholson presented a **public lecture** for industry, community and business stakeholders in May, about how precision medicine will change lives and address the real-world problems of current and future health care. Professor Nicholson spoke about the transformative potential of precision medicine, in deciphering the intricate interplay between genes and the environment leading to the onset and progression of disease.

The groundbreaking research, which utilises real time diagnostic tools and preventative health programs enables the development of preventive strategies and precision medicine programs previously not possible, promising to redefine global healthcare. Professor Nicholson's lecture sets the stage for future public lectures exploring food, culture, and environmental research.

Murdoch researchers contributed to an international study which identified **the first genetic marker for multiple sclerosis (MS) severity**. This discovery has opened the door to treatments for long-term disability in people diagnosed with this chronic disease of the central nervous system. Clinical **Professor Allan Kermode** and Dr Marzena Fabis-Pedrini, who hold appointments at Murdoch, Perron Institute and UWA, led the WA component, collecting and processing hundreds of DNA samples and clinical data from a WA cohort.

The study discovered the first genetic variant associated with faster disease progression that can rob patients of their mobility and independence. In MS, the immune system mistakenly attacks the brain and the spinal cord, resulting in symptom flares known as relapses as well as longer-term degeneration. Despite the development of effective treatments for relapses, none can reliably prevent progressive disability over time. The discovery provides exciting new navigation around neurological repair and regeneration in MS within the nervous system, and also has implications for other neurological conditions such as Parkinson's and motor neurone disease.

A new research effort involving the Centre for Molecular Medicine and Innovative Therapeutics (CMMIT) is **offering hope to children with dementia** and their families, with scientists exploring whether **genetic 'whiteout'** might be an effective therapy. Children living with dementia have the same symptoms as adults with dementia, with most not reaching adulthood. There are around 700,000 children living with dementia around the world, which is caused by more than 70 rare genetic conditions.

Dr May Aung-Htut is leading Murdoch's involvement in this research. Many genetic diseases that cause childhood dementia involve accumulation of specific fat molecules within brain cells, causing them to become dysfunctional and die. Inhibiting production of these fat molecules using traditional drugs has shown promise for these conditions in the laboratory, but these drugs have limitations and side effects that mean they are unsuitable as a therapy. The new drugs exploit the cell machinery to trick cells into responding as if there is no gene message, acting as genetic 'whiteout'. They were originally developed by Professors Sue Fletcher and Steve Wilton of CMMIT and the Perron Institute.

Dr Aung-Htut is working on the research with Associate Professor Tony Cook at the University of Tasmania and colleagues from Menzies Institute for Medical Research, the Tasmanian School of Medicine and Tasmanian Health Service.



Ngangk Yira Institute for Change



Professor Rhonda Marriott,
Pro Vice Chancellor Ngangk
Yira Institute for Change

Led by Pro Vice Chancellor Professor Rhonda Marriott AM, Ngangk Yira Institute for Change is committed to transforming life trajectories to enhance the health and social and emotional wellbeing of future Aboriginal generations.

In September 2023, the Institute launched three new research centres:

- **Yorga, Maaman and Koolanga Research and Advocacy Centre** builds on Ngangk Yira Institute for Change's foundational research to support Aboriginal women and families ease of access to culturally secure health and social service systems.
- **Yawardani Jan-ga Research and Advocacy Centre**, providing culturally secure social and emotional wellbeing services run by Aboriginal people for Aboriginal young people, as part of a program of research to solve complex social and emotional issues. The Centre's primary focus is the delivery of innovative experiential learning that works alongside horses to promote the development of life-skills.
- **Coolamon Research and Advocacy Centre** undertakes research to understand the widespread and cumulative effects of climate change, and the social, cultural and environmental factors impacting the lives of Aboriginal people. The work of this Centre will identify and implement solutions to close the gap on a range of physical health, social and emotional wellbeing outcomes.

The three distinct yet interconnected research centres focus on positively building the health, social and emotional wellbeing, empowerment and self-determination of Aboriginal families and communities.

The research priorities of each centre, and the Institute as a whole, are determined through a partnership between Elders, community stakeholders, Aboriginal and non-Aboriginal researchers and focus on complex issues in Aboriginal health and the achievement of social equity.



2023 highlights

Professor Rhonda Marriott AM was recognised for her seminal research, **Birth on Noongar Boodjar**, by the National Health and Medical Research Council (NHMRC) in their **10 of the Best** publication for 2023 – an annual showcase of significant research projects that support the improvement of human health. To arrive at the 10 of the Best, selected projects are drawn from hundreds of NHMRC funded research projects and reviewed by an expert panel for scientific merit.

Birth on Noongar Boodjar investigated the needs and experiences of Aboriginal women birthing on and off Country in a project that brought together 18 investigators, 13 partner organisations and 11 members of the Aboriginal Advisory Group. The study found that more Aboriginal midwives and culturally secure models of care in hospitals are critical to closing the gap in maternity care and childbirth outcomes for Aboriginal women and families.

The recommendations from Professor Marriott's research were presented to the Minister for Health of Western Australia at the time and now Premier, the Hon Roger Cook. Minister Cook then funded the establishment of an Aboriginal Maternity Group Practice at the Women and Newborn Health Service at King Edward Memorial Hospital. This new practice will create a culturally secure maternity services pathway for Aboriginal women, co-designed with key stakeholders and Aboriginal community experts.

FEALING Program (Family Empowerment Across Life – Indigenous Growth Program) will undertake research into Aboriginal men and their interests for the first time, with the support of the Ian Potter Foundation. The research has traditionally focused on generating evidence through projects which respond to articulated Aboriginal community needs related to maternal and child, youth, and lifelong family health. Community and family needs related to Aboriginal men will now be a new focus for this program.

The program **Baby Coming You Ready (BCYR)**, led by Senior Research Fellow **Dr Jayne Kotz**, is co-designed by Aboriginal people, for Aboriginal people, to overcome the many barriers Aboriginal mothers experience in their antenatal and post-natal care. The program provides non-Aboriginal professionals with a culturally safe and strengths-based approach to empower Aboriginal mothers to be the best they can be, giving control back and supporting them to prioritise their own needs and expectations.

The highly successful pilot program took place across metropolitan and regional Western Australia and has now been completed. Early outcomes were excellent, with overwhelmingly positive results in the areas of child protection and domestic violence. There were no reports to child protection within the group of more than 300 women involved in BCYR. All of those involved that needed a safety plan (20% had reported domestic violence and had safety plans in place) were safe during their pregnancy.

The program continues to positively change perinatal clinical practice through a culturally designed digital platform. Aboriginal women and health care practitioners work together to problem-solve and create strengths-based care plans. The program promotes inclusivity and understanding about what Aboriginal parents need to maintain resilience, social and emotional wellbeing. This understanding is the basis for developing effective and culturally appropriate programs and services. BCYR was chosen by the International Research Universities (IRU) as a research case study in celebration of their 20-year anniversary.



Two Aboriginal staff from Ngangk Yira Institute for Change, [Trish Ratajczak](#) and [Bridgette Kelly](#), completed Murdoch's Accelerated Masters Research Training program and a third Aboriginal staff member, [Janinne Gliddon](#), is also completing a Research Masters Degree. These studies will contribute to the **strengthening of internal and community knowledge and capacity building**. Ms Ratajczak explored how BCYR contributes to the strengths and resilience of Aboriginal women. Ms Kelly examined how BCYR contributes to building therapeutic relationships between child health clinicians and Aboriginal mothers and adapting BCYR outcomes to the work of Child Health Nurses. The new postnatal model of care has relevance in maternity settings across the state. Ms Gliddon is exploring how developing a maternal navigator role and course could provide culturally responsive support to Aboriginal women in Western Australia in their pregnancy journey.

Ngangk Yira Institute for Change entered into a highly innovative partnership agreement with Telethon Kids Institute in June to **Develop a blueprint for vaccine trials in Aboriginal communities** (\$590,000). The project is part of the **Australian Strep A Vaccine Initiative (ASAVI)**. This Australian-led global initiative aims to reduce the disease burden caused by Strep A infections through effective vaccination. The commissioned work will take place across the northern region of Australia – the Kimberley, Northern Territory and northern Queensland. Ngangk Yira Institute for Change will work to identify barriers to vaccine acceptance, in particular Strep A Vaccine, and to educate communities. The project will be led by [Professor Roz Walker](#).

Replanting the Birthing Trees, an Aboriginal-led project, is transforming compounded cycles of intergenerational trauma and harm to positively reinforce cycles of intergenerational nurturing and recovery for First Nations parents and babies during the first 2000 days. This five year research project is being undertaken in partnership with University of Melbourne and funded by the Medical Research Future Fund. A key highlight of the research was a symposium conducted in March.

ICARE – It's time to flourish is co-designed perinatal and early years care, self-determined by Aboriginal and Torres Strait Islander women. This five year National Health and Medical Research Council (NHMRC) targeted call is improving Indigenous maternal and child health in the early years and resulting in policy and practice transformation. The research aims to empower Aboriginal and Torres Strait Islander women and their families in South Australia and Western Australia to access the healthcare they need after identifying their concerns via the culturally safe app, Baby Coming You Ready?.

Whilst improving maternal healthcare knowledge, the program will directly address two Closing the Gap targets: healthy birthweights for babies; and children being developmentally on track in their early years. The project will seek to identify strength-based, action-oriented approaches and interventions that value Aboriginal and Torres Strait Islander people's concepts of health and wellbeing, cultural practices, knowledge and learning.

Ngangk Yira Institute for Change completed research for the Royal Australian and New Zealand College of Obstetricians and Gynaecologists (RANZCOG) about how First Nations women access **support for gynaecological health** issues and how services could be more culturally appropriate. Information from this report is being considered for use in the WA Public Health system to help overcome barriers women face when accessing services and support.

Replanting the Birthing Trees, an Aboriginal-led project, is transforming compounded cycles of intergenerational trauma and harm to positively reinforce cycles of intergenerational nurturing and recovery for First Nations parents and babies during the first 2000 days.



Yawardani Jan-ga forges new territory

The [Yawardani Jan-ga \(Horses Helping\)](#) research program is an Equine Assisted Learning program that is led by a panel of predominantly Aboriginal Chief Investigators and is guided by a Cultural Governance Group made of Kimberley Aboriginal community members. The research program adopts a neurodevelopment lens to understand the multifaceted social-emotional challenges experienced by Aboriginal young people and youth. Research to date suggests that equine-assisted interventions are effective for people facing a wide variety of behavioral and emotional challenges because they offer repeated soothing sensory experiences such as brushing, patting, or breathing, which have the potential to reorganise the neural systems improving cognitive, behavioral, and emotional functioning.

The strengths-based program gives Aboriginal children and young people from six to 26 years of age relational and regulation skills for life. The Yawardani Jan-ga program recognises the importance of **community engagement and the involvement of local Indigenous leaders**. By partnering with Elders and cultural leaders, the program facilitates the preservation and transmission of traditional knowledge and practices. This collaborative approach is strengthening the program's acceptance and sustainability, fostering a sense of ownership and cultural continuity within the community.

In 2023 [Professor Juli Coffin](#) had the opportunity to present the Yawardani Jan-ga program addressing the therapeutic power of the



human-horse bond to address trauma, wellbeing, self-regulation, emotional challenges and leadership, as well as all facets and challenges of young Aboriginal person's life at:

- World Community Development Conference
- The Australian ADHD Professional Association Conference
- Lowitja Conference

Yawardani Jan-ga's success could not be possible without the support of the donors including principle donor, Mineral Resources (MRL) and the Ellison family whose generosity is enabling further program expansion to begin development of an all-weather facility in 2024. Continued donations, from Mary McKillop Today, will allow the program to facilitate the goal of expanding operations in Halls Creek, Derby and Fitzroy Crossing. Yawardani Jan-ga has directly impacted on the lives of over 350 Aboriginal young people and families within the Kimberley region through 2023.

Engagement



Our strategic objective is to build engagement with our local community, our State, our Nation and our global society, creating mutually beneficial partnerships at all levels.

Ngala Kwop Biddi

Professor Simon McKirdy
Deputy Vice Chancellor Global Engagement

With Western Australia’s borders opening post COVID, 2023 saw Murdoch University significantly re-engaging with the world. This included the implementation of a Global Engagement portfolio led by a Deputy Vice Chancellor to support the implementation of partnership initiatives to support the University’s new Strategy.

Global Engagement

Several major delegations were conducted through the year aimed at enhancing our global research and education activities. In many cases this involved a broad range of staff from across the University, reflecting the new approach of a more comprehensive and collective approach to global activities led and coordinated by the Global Executive team.

As part of this initiative, the team launched Murdoch’s first ever **Global Forum**. In July, the team coordinated a two-day activity in Boola Katitjin bringing together the full International and Transnational Education offices, including those based offshore, together with the Schools, Colleges, Senior Leadership team, Academic Council and significant external stakeholders in international education. This is planned now as an annual activity.

This all sets the scene for 2024, where many of the major formative initiatives which commenced in 2023 will be formalised into actions and activities that contribute meaningfully to the University’s strategy and global ambitions. This activity also includes a major focus on engaging with First Nations partnerships globally in support of this strategic pillar.

Outbound Delegations

North America: Attendance at NAFSA Conference and meetings with partners North Carolina State University, Kansas State University and the University of North Carolina at Chapel Hill, University of Victoria (Canada) and University of Hawaii at Manoa.

India and Bhutan: Included meetings with major partner OP Jindal University in India as well as a meeting in Bhutan with Her Majesty the Queen Mother.

China: Exploratory visit to Nanjing, Nanchang, Hefei and Guangzhou in preparation for a more senior delegation in 2024 as plans and ambitions are solidified for engagement with China.



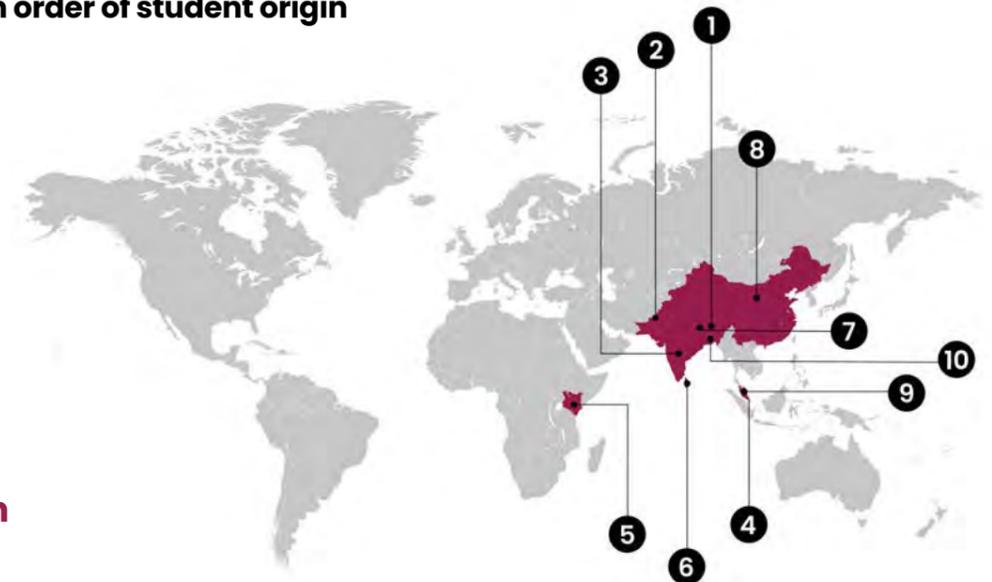
In 2023 Murdoch experienced the largest ever intake year of international students, by a significant margin. The previous largest number of international students was 2,295 in the year 2019. The total in 2023 was 5,839.

Recruitment

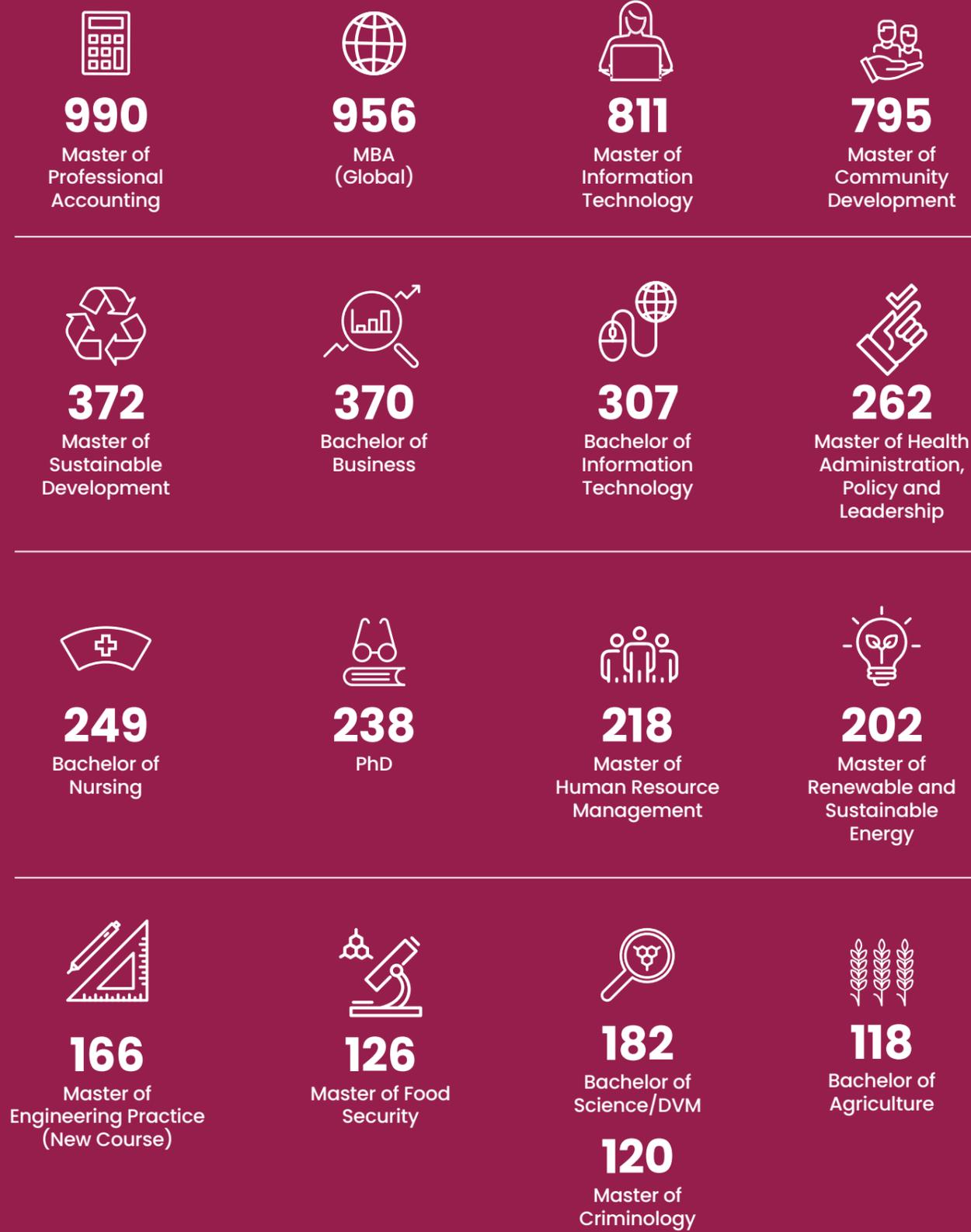
Intake with load	Undergraduate / Postgraduate coursework	Higher Degree by Research	Non award	Total
2023	5475	38	327	5839

Top 10 countries in order of student origin

1. Bhutan
2. Pakistan
3. India
4. Singapore
5. Kenya
6. Sri Lanka
7. Nepal
8. China
9. Malaysia
10. Bangladesh



Most popular courses in order (headcount)



Strategy development

Relationship and strategy development and strategy for smaller, diverse markets were on the agenda in 2023 and included the following activities:

Sri Lanka

Facilitating activation of articulation agreements with Human Resource Management Institute (Business) and Prospects Academy (Education) through webinars and campus visits for 2025 commencement onshore, working closely with intermediary agents to promote Biomedical, Psychology and Nursing courses directly in schools and institutions.

Nepal

Increasing confidence amongst the agent network via improved application turnaround time (through India/Nepal pilot project), collaborative activities including admission days across Nepal in collaboration with AIP Education, and agent training and appreciation events.

Bangladesh

Exploring viability of current and new articulation opportunities between Northern University Bangladesh and College of Business; building on the current webinar series and organising course specific webinars targeting prospective students; actively engage existing and new agent network to maintain current growth trajectory.

Vietnam

The establishment of an in-country Murdoch representative was proposed to support agent recruitment and identify suitable articulation partnerships; brand building through Murdoch specific events/promotions using agent network; continuous agent management and support through in-person visits, webinars, agent training on Genuine Temporary Entrant (GTE) process and admissions requirements.

Philippines

The establishment of an in-country Murdoch representative was proposed to support agent recruitment through physical, virtual and digital engagement resources with a focus on identified key agents. In conjunction with the University's Marketing and Communication Office, development and supply of targeted course assets (primarily health related) for digital promotion on social media; prioritisation of community engagement through sponsorship of the Murdoch Filipino Society group.



Chancellor Gail McGowan, Australian Consul-General Dubai Her Excellency Bryony Hillless, Valedictorian Bhakti Ghaghda, Vice Chancellor Professor Andrew Deeks at a graduation ceremony in Dubai



Transnational education

Murdoch's Transnational Education continued to flourish in 2023. In the **United Arab Emirates**, Murdoch Dubai's reputation substantially strengthened while enrolments increased more than 50% and are on track to exceed 1000 students in 2024.

Dubai's economy greatly improved following the pandemic, and the campus saw growth across a range of disciplines - particularly Information Technology. A highlight was the signing of a Memorandum of Understanding with Dubai Police in November. This partnership will see Murdoch working with the Dubai Police to offer short courses and microcredentials in areas such as Forensic Sciences, Biosecurity, Cyber-security and Criminology.

In **Singapore** a new strategic plan, Building a Brighter Future in Singapore, was very well received. The new strategy will see Murdoch Singapore seek to grow its student enrolment to over 7,000 students over the next 10 years.

Underpinning this growth is a significant expansion of the course portfolio to include STEM courses as well as new offerings delivered online from Perth. Murdoch Singapore will also grow international student enrolments and conduct classes and learning activities from a fully branded 'Murdoch' campus.

In 2023, Murdoch Singapore also began offering a new major in Artificial Intelligence as well as new postgraduate courses in Communication. Murdoch Singapore expanded its transnational

education activity through a new partnership with UCSI College Malaysia. UCSI College based in Kuala Lumpur will deliver the Bachelor of Information Technology with majors in Cyber Security and Business Information Systems in 2024.

In 2023, Murdoch Singapore delivered a successful five-day program for 33 Australian undergraduate students known as the Disruptive Leaders Program. The program, supported through the Westpac Scholars Trust, has also been approved for delivery in 2024.

Murdoch Singapore was successful in winning a contract from the Australian Department of Education to deliver an executive education course in Vietnam. The **Digital Transformation Leadership** course was delivered in November in collaboration with the Postal and Telecommunications Institute of Vietnam.

The year also saw three Murdoch Alumni in Singapore achieve public accolades. Priyanka Annucia was crowned Ms Universe Singapore and has spoken of using her status to combat human trafficking in Thailand, while first nations member of the Orang Laut, Firdaus Sani was recognised in Singapore Prestige's list of **40 Distinguished Singaporeans under the age of 40**. Mr Sani has worked to establish a digital repository to preserve the culture of the Orang Laut - the Indigenous seafaring people of Singapore. Finally, Mathilda D'Silva received a Distinguished Alumni Award for her work in establishing the social enterprise Ocean Purpose Project.

Agreement highlights

The first intake of students as part of Murdoch College was in February 2023. From 2024 Murdoch College will have the full complement of agreed programs including English pathway, Postgraduate Qualifying Program, Foundation, Diplomas of Information Technology and Business. Whilst focusing on consolidation of these programs, development of new Diplomas will be explored in Health Sciences, STEM and Humanities.

Agreements with **Rangsit University (Thailand)** and **Ghangzhou Maritime University (China)** represent a new way for students to enter Murdoch postgraduate courses.

An innovative partnership with **Ross University School of Veterinary Medicine (St Kitts and Nevis)** enables students to undertake a clinical year in Veterinary Sciences at Murdoch's Perth campus.

The partnership with key and prestigious Indian partner **OP Jindal University Articulation (India)** was expanded to include student articulations, study abroad and research engagement.

A partnership with the **Western Australian Institute of Further Studies** represents a significant developing opportunity for recruitment of high-quality students from Nanjing, China.

Murdoch will lead development of biosecurity expertise in the Philippines, thanks to an agreement with the **Department of Science and Technology (Philippines)**. Austrade commented that this was done 'in record time'.

A Memorandum of Understanding was signed with **Kansas State University** to enhance and expand existing research engagement in Biosecurity.

Murdoch College exceeded its agreed targets for its first year of operation by 70%.



Study Abroad and Student Exchange

New Colombo Plan

- **Hokkaido, Japan** Ten Sustainable Tourism Development Murdoch students from diverse cultural backgrounds, including Indigenous and Singaporean students, travelled to Hokkaido, Japan and engaged with language instruction, cultural visits, tourism stakeholder sessions, and guest speaker sessions.
- **East Java Exploration** Students travelled to East Java to participate in a 15 day study tour and cultural immersion. They enjoyed both academic and cultural sessions at nine of the 10 East Java universities. WA universities will welcome a group of students from East Java in September 2024.
- **Borneo** Fourteen students from diverse backgrounds travelled to **Malaysian Borneo** and were immersed in a rainforest environment. Students had first-hand networking opportunities with ecotourism operators and guides as well as with fellow peers from University Malaysia Sabah (UMS).

Tokyo City University

Over 200 students from this major Japanese partner travelled to Murdoch to participate in the TCU Australia Program (TAP). This is a program in which Japanese students undertake a semester long study experience through the School of Humanities, Arts and Social Sciences.

International Student Recruitment and Admissions Internal Audit

As part of a process of continuous improvement and ongoing compliance management, an internal audit was carried out scoping end to end admissions; country and agent risk management; agent integrity and performance monitoring; student experience evaluation; recruitment strategy/plan and performance monitoring. This successful audit reinforced the high level of compliance and best practice in these areas.



Sustainable Tourism Development students travelled to Hokkaido, Japan



The annual calendar highlight was once again the Distinguished Alumni Awards. Elaine Pearson, Professor Andrew Knight, Mitch Taylor, Professor Pat Dudgeon, Dr Chris Sarra and Mathilda D'Silva were the six alumni honoured, joining an eminent group of individuals who are pioneers in their fields and embody the core values of Murdoch.

Alumni Engagement

The University engages with its 100,000 global alumni community every year through a range of communications activities, programs and events. Murdoch alumni are generous with their time, giving back by sharing their knowledge and experience with the current student cohort. In 2023, their commitment included more than 1,200 hours of voluntary work at University and alumni events. The annual calendar highlight was once again the Distinguished Alumni Awards. Elaine Pearson, Professor Andrew Knight, Mitch Taylor, Professor Pat Dudgeon, Dr Chris Sarra and Mathilda D'Silva were the six alumni honoured, joining an eminent group of individuals who are pioneers in their fields and embody the core values of Murdoch.

Enablers

- 72 Empower and Develop Our People
- 74 Develop and Enhance Our Facilities
- 77 Improve Our Systems and Processes

Three key enablers will underpin our ability to achieve our vision.

Ngala Kwop Bididi





Sharon Russell
Chief People Officer



Tony Pine
Chief Financial Officer

Empower and Develop Our People

A new College and School structure was fully implemented at the beginning of 2023. This structure empowers academic leadership and management at the School level and delegates decision-making, approvals, workload allocation and budget management to the lowest appropriate level with the guiding principle of ‘empowerment with oversight’.

Schools are the primary budget and management unit. Through light-touch organising and coordination, Colleges provide their component Schools with oversight, connection with the senior leadership team, and coordination and alignment with the University strategy. Heads of Schools work together, supporting each other to achieve the strategic goals of the University.

College and School Heads are generally fractional appointments, maintaining their research and teaching contributions. Roles and responsibilities are clearly defined, and the active academic involvement of Heads supports alignment of decision making with the needs of staff. This focus on local decision making empowers staff and ensures they meet their teaching and research goals.

This structure empowers academic leadership and management at the School level and delegates decision-making, approvals, workload allocation and budget management to the lowest appropriate level with the guiding principle of ‘empowerment with oversight’.

Acknowledgment of Academic Promotions for 2023

The following Murdoch academic staff received academic promotions for the year 2023.

Name	Department	New Position
Jonathan Whale	School of Engineering and Energy	Associate Professor
Jeremiah Peiffer	Research and Innovation	Professor
Ferdous Sohel	School of IT	Professor
Cecilia Prele	School of Medical, Molecular and Forensic Sciences	Associate Professor
Mohd Fairuz Shiratuddin	School of IT	Associate Professor
Hamid Sohrabi	School of Psychology	Professor
Andrew Thompson	School of Agricultural Sciences	Professor
Sarah Etherington	School of Medical, Molecular and Forensic Sciences	Associate Professor
David Henry	School of Maths, Stats, Chemistry and Physics	Professor
Stephen Beatty	Harry Butler Institute – Centre Sustainable Aquatic Ecosystems	Associate Professor
Liselotte Pannier	School of Agricultural Sciences	Associate Professor
Charlotte Oskam	School of Medical, Molecular and Forensic Sciences	Associate Professor
Brendan Scott	School of Allied Health	Associate Professor
Melinda Bell	School of Veterinary Medicine	Associate Professor
Kevin Wong	School of IT	Professor
Andrew Currie	School of Medical, Molecular and Forensic Sciences	Professor
Hai Wang	School of Engineering and Energy	Associate Professor
Serina Hancock	School of Agricultural Sciences	Associate Professor
Anthea Rasis	School of Veterinary Medicine	Associate Professor
Alasdair Dempsey	School of Allied Health	Associate Professor
Paola Magni	School of Medical, Molecular and Forensic Sciences	Associate Professor
Yvonne Learmonth	School of Allied Health	Associate Professor
David Keatley	School of Law and Criminology	Professor
Bethany Jackson	School of Veterinary Medicine	Senior Lecturer Level C
Bob Du	Harry Butler Institute – Research Centres	Senior Lecturer Level C
Erica Mason	School of Media and Communications	Lecturer Level B
Jenna Woods	School of Humanities, Arts and Social Sciences	Lecturer Level B
Brianna Hastie	School of Psychology	Senior Lecturer Level C
Lian Yeap	School of Vet Medicine	Senior Lecturer Level C
Kimberly Beasley	School of Education	Lecturer Level B
Amanda Ash	School of Medical, Molecular and Forensic Sciences	Senior Lecturer Level C
Danielle Mathersul	School of Psychology	Senior Lecturer Level C
Fatemeh Rezaeibagha	School of IT	Senior Lecturer Level C
Melissa Merchant	School of Humanities, Arts and Social Sciences	Senior Lecturer Level C
Ilanthe Pitout	Centre for Molecular Medicine and Innovative Therapeutics	Lecturer Level B
Karissa Lear	Harry Butler Institute - Sustainable Aquatic Ecosystems Research (Team)	Lecturer Level B
Xiangpeng Gao	School of Engineering and Energy	Senior Lecturer Level C
Alethea Mary Rea	School of Mathematics, Statistics, Chemistry and Physics	Senior Lecturer Level C
Amirmehdi Yazdani	School of Engineering and Energy	Senior Lecturer Level C
Craig McIntosh	Centre for Molecular Medicine and Innovative Therapeutics	Lecturer Level B
Veronica Gardiner	School of Education	Senior Lecturer Level C
Rajeni Rajan	EDLE - Support for Academic Learning	Lecturer Level B
Loren Flynn	Centre for Molecular Medicine and Innovative Therapeutics	Senior Lecturer Level C
Linda Li	School of Engineering and Energy	Senior Lecturer Level C

Develop and Enhance Our Facilities



Boola Katitjin

Murdoch University's new student learning building, [Boola Katitjin](#) (meaning 'lots of learning' in Noongar), was officially opened in February 2023. Designed, built and informed by First Nations knowledges, sustainability and student experience, Boola Katitjin was embraced by our students.

Each of its four levels offers digitally immersive learning spaces, computer labs, teaching and staff spaces and breakout areas, all with easy access and views of the inspiring external environment – the Beelias wetlands. The building is a hub for students – and along with state-of-the-art teaching spaces, offers student support services, study areas, spaces to unwind, kitchen facilities, all gender amenities, parents' rooms and retailers.

Boola Katitjin is the largest mass-engineered timber building in Western Australia, spanning 180 metres in length. The building was made with sustainable timber, complete with PV cells across the roof, gaining a Six Star Green Star rating.

With artworks on every floor representing First Nations history, student well-being and life at Murdoch, each space focuses on providing an area of belonging and learning. Key artworks such as ['Beelias Boodja Bidi'](#) by Christopher Pease, ['The River'](#) by Rebecca Dagnall and the [Stories of Murdoch](#) directed by Matt Sav and Melle Branson represent Murdoch's commitment to our three key pillars— Sustainability; Equity, Diversity and Inclusion; and becoming the University of Choice for First Nations people.

The building is a hub for students – and along with state-of-the-art teaching spaces, offers student support services, study areas, spaces to unwind, kitchen facilities, all gender amenities, parents' rooms and retailers.



Award winning architecture

Boola Katitjin won seven sustainability and architectural awards in 2023 for its engineering innovation, strong connection to Country, inclusivity and sustainability. It has been described in award winning citations as successfully integrating its design brief in a solution that is striking, elegant, flexible, inclusive and of its place.

Engineers Australia Excellence Awards

Engineering Project of the Year: This national award is given to a project that contributes to advancing society through great engineering; creates resourceful and innovative engineering solutions or pioneering use of materials or methods; and contributes to sustainable, inclusive and ethical practices. The award was presented to project engineers Aurecon.



Australian Institute of Architects

The following awards were presented to Lyons, Silver Thomas Hanley, Officer Woods Architects, and The Fulcrum Agency:

- National Award for Sustainable Architecture
- Daryl Jackson Award for Educational Architecture
- George Temple Poole Award (Western Australian Architecture Awards – The highest honour award)
- Wallace Greenham Award for Sustainable Architecture (Western Australian Architecture Awards)

2023 World Architecture Festival

Higher Education and Research Building Winner:

This award was presented to Lyons, Silver Thomas Hanley, Officer Woods Architects, The Fulcrum Agency, and Aspect Studios.

Australian Timber Design Awards

ATD People's Choice Awards: This award was presented to Aurecon, Lyons and Multiplex.

The **Campus Development Plan Stage 1 – Constraints and Opportunities Report** was completed and circulated to Murdoch's Senior Leadership Team.

In October 2023, expressions of interest were called for to develop the 3,500m² **Gateway Innovation Centre development site** owned by Murdoch in the WA Government's Health and Knowledge Precinct on South Street, Murdoch. An Innovation Centre on the site could connect the South Street campus to the Health and Knowledge Precinct, offer an innovation and incubation centre aligned to health and sustainability, and support collaborative partnerships.

Negotiations are underway for a long-term lease on a property in the Kimberley for the **Yawardani Jan-ga Research Centre**. Yawardani Jan-ga is an Equine Assisted Learning program that adopts a neurodevelopmental lens to understand multifaceted social-emotional challenges assisted by Aboriginal young people and youth.

The Development Deed for the Department of Primary Industry and Regional Development (DPIRD) to relocate to the Murdoch Campus was executed. The State Government's new \$320 million **agricultural biosecurity and research headquarters** will be located on Murdoch's South Street campus.

Construction of DPIRD's new facility is expected to begin in mid-2024 and finish in 2027.

Around 350 DPIRD staff are expected to relocate to the new Murdoch facility, which will include cutting-edge specialist laboratories to support biosecurity, market access and primary industries research and development; an incident and emergency management operational centre; and glasshouses and field plots for on-site research.

The DPIRD facility covers just over 11 hectares of the campus' south-east corner. Co-location of the new facility will provide more opportunities for Murdoch, and other WA universities involved in agricultural research, to share data, co-author grant submissions, provide new opportunities for students, and build industry partnerships. Architects Woods Bagot have been selected as the lead design consultants on the new DPIRD facility with responsibility for urban design, architecture and interior design. Despite the technical requirements of the project, they are focused on a design that embraces the landscape, the cultural context, open air and sustainability.

The **Food Innovation Precinct of Western Australia (FIPWA)** in Nambelup officially opened. A specialised Food Science and Nutrition campus establishes a world-class destination for food professionals and researchers committed to advancing knowledge and production of food that is both good to eat and good for you. The project connects the University with industry and focuses on high impact areas.

Accreditation projects for **The Animal Hospital at Murdoch University (TAMHU)** were completed including necropsy, day yards and equine MRI and CT scanners.

The **histopathology lab in building 250** was completed.

Improve Our Systems and Processes

Quality assurance and improvement

Murdoch is committed to a culture of quality assurance and improvement that supports the achievement of the University strategy and ensures regulatory compliance. In 2023 Academic Council recommended new policies and procedures that outline the University's commitment to a range of quality activities. This includes a seven-year cycle of reviews of all academic and professional areas. For academic areas, it incorporates new procedures for course review and accreditation.

The Quality Policy Framework provides a high-level overview of the policy and procedures governing the quality functions at Murdoch.

Workday

Since its implementation over a year ago, Workday has been enhanced to best support employees across the University. The software has enabled updates that focus on improving employee experience with HR and Finance functions.

Budget model

A new budget model was introduced in 2023 that is simple, transparent and formulaic and helps to align the financial interests of the Schools and Colleges with the broader University. Under the model, Schools are fully accountable for their costs and receive a portion (40%) of income growth.

In this way it will incentivise Schools, and the Colleges which support them, to achieve income growth, and to directly share in the benefits of that income growth whilst building economic resilience over time.

School budgets for 2024 have been set using the new model and, in aggregate, have increased by 17.5%. Schools will be responsible for meeting salary costs for their staff, including wages indexation, as well as their direct non-salary expenditures.

The model supports the strategic Enabler that seeks to simplify processes and better align financial responsibility with decision making. An improved culture of accountability with Schools having clarity of annual funding and budget parameters, will be supported by the funding model to strengthen the sustainability of the University's finances into the future.

Donors and Partners

Murdoch University thanks all our generous supporters.



Donors and Partners

Murdoch University's 2023 Philanthropy Community

With gratitude, we would like to thank all our generous 2023 supporters. Following is a list of our valued donors and partners from the value of \$10,000 and above. In addition, we would like to acknowledge the supporters who have chosen to remain anonymous.

Lotterywest
 The Channel 7 Telethon Trust
 The George Alexander Foundation
 The Ian Potter Foundation
 The Ragdoll Foundation Pty Ltd
 The Stan Perron Charitable Foundation

Racing for MNDi Foundation
 Hill's Pet Nutrition Pty Ltd (Australia)
 Westpac Scholars Ltd
 Care Cure Support Ltd
 Emeritus Professor Ian Robertson and Dr Cathy Robertson
 Herbert Smith Freehills
 Newmont Australia
 Mary MacKillop Today
 Google Asia Pacific Pte Ltd
 Dr Malcolm Eric Nairn, AM
 Ms Patricia Dawn New

Mr Ross Sumich
 Ms Andrea Wendy Gillett
 Mr Rodney Tucker
 Leo Cussen Centre for Law
 Tony Chong
 Rowe Scientific Foundation
 The May Trust
 The Jock Clough Marine Foundation
 Australian Chiropractors Association (WA)
 Professor Susan Fletcher, AO
 Busselton Veterinary Hospital
 BMT Commercial Australia Pty Ltd
 Janet Holmes à Court, AM
 Ecological Society of Australia Ltd
 Chamber of Commerce and Industry of WA
 Francis Burt Chambers
 St Francis Veterinary Hospital
 Mineral Resources Limited
 Royal Canin Australia Pty Ltd
 Japan Chamber of Commerce and Industry in Perth Inc
 Ms Gilly Gammell

Valued Bequestors

The Estate of Winifred Violet Scott
 The Estate of Enid Sedgwick
 The Estate of Margaret Harrison
 The Estate of Jon Rock

2023 Artwork Donations

Dr Fred Nagle & Georgina Nagle
 Janet Holmes à Court, AM
 Marcel Teschendorf
 Ric Chaney & Chris Hair
 Robert and Helen Hewitt
 Seva Frangos & John Catlin
 Angela Stewart
 Jason & Robyn Ricketts
 Alan R. Dodge, AM & Neil Archibald

Murdoch University Art Collection's 50th Anniversary Artwork Fundraising Campaign

Lead Gift Donor

Tony Chong

Supporting gift donor

Emeritus Professor Malcolm Nairn, AM

Gift Donors

Allan Miles & Steve Shadwell
 Robyn Glindermann
 Dr Janice Dudley
 Kate McGurk, OAM
 Ole & Geri Hanson
 Tony Jones, OAM CitWA & Pam Jones
 Claire Brittian, OAM & John McKay
 Melvin Yeo & Brigette Sheen
 Brandon & Angela Munro
 Ray Haeren & Mark Stewart



Our Structure



Our Structure

Senate

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 five committees:

- The Audit and Risk Committee helps Senate meet its governance, risk and compliance oversight responsibilities.
- 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 Senate members.
- 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.
- The People Safety and Culture Committee advises on governance issues in relation to staff and students. It oversees strategies to enhance people and organisational effectiveness, and staff and student engagement and safety. It monitors complaints, allegations of misconduct, integrity and critical incidents.
- 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 Gary Smith stepped down as Chancellor on 15 May 2023. Following a selection process, Ms Gail McGowan was elected as Chancellor by Senate and took up the role effective 16 May 2023. Mr Ross Holt, who was Deputy Chancellor until 9 June 2023, completed his third and final term on Senate. Emeritus Professor Robyn Owens was elected as Deputy Chancellor effective 10 June 2023.

As set out in the *Murdoch University Act 1973*, 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. Professor Andrew Deeks is the Vice Chancellor having taken up the position on 26 March 2022.

Senate had commissioned two governance reviews and received the reports in 2021. While the University was found to have the expected governance framework similar to that of other comparable universities and no fundamental issues were found, recommendations for improvements were made. An implementation plan to address the recommendations was established. Work on implementation was finalised during 2023 and will be reviewed in mid-2024.

Voluntary Code of Best Practice for the Governance of Australian Universities

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 2023, the University materially complied with the protocols contained in the Voluntary Code. Reporting for the University's subsidiary companies is under continued review and enhancement.

Academic Freedom

Senate attests that Murdoch University has established *Freedom of Speech and Academic Freedom Regulations* ("the Regulations") which serve to uphold freedom of speech and academic freedom as paramount values, as required under the Model Code; maintain an institutional environment in which freedom of speech and academic freedom are upheld and protected; and address questions in relation to the management of freedom of speech and academic freedom issues promptly, actively and in good faith.

Following approval of the Regulations (which being Regulations are above policies in the hierarchy of legislation at the University and thus prevail over any inconsistencies between the Regulations and policy/procedure/guideline documents), a review of the University's legislative

documents was completed to determine inconsistencies and amendments were approved by the relevant approval bodies.

No issues of concern have come to the attention of Senate regarding freedom of speech and academic freedom in 2023.

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 stepped down as President of Academic Council effective 31 December 2022. Associate Professor Garth Maker was elected for the balance of Professor Bahri's term to 31 December 2023 and was again elected for a three-year term effective 1 January 2024. The President of Academic Council is an ex-officio member of the University's Senate.

Academic Council and its subordinate committees play 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.

In 2022 an opportunity was identified to clarify the roles and reorganise the subordinate committees of Academic Council and the subordinate management committees of the Senior Leadership Team of the University in order to provide an appropriate separation of governance and management.

Committees with management functions were moved to Deputy Vice Chancellor and Pro Vice Chancellor portfolios to align with the core activities and strategic themes of the Murdoch University Strategy 2023-2030 with Committees with significant governance functions retained as Academic

Council subordinate committees. The process further aimed to strengthen governance functions through explicit reporting to and from management committees; establish Boards of Studies aligned with new academic structure; and ensure continued alignment with HESF compliance obligations.

This new academic governance structure was implemented effective 1 January 2023.

Student Representation and Advocacy

The annual Student Services and Amenities Fee (SSAF) is set in accordance with a resolution of Senate. Priorities for SSAF expenditure are set in consultation with the Guild of Students.

Student representation on University governance committees is as follows:

- One undergraduate student and one postgraduate student on Senate as set out in the *Murdoch University Act*. One of these students is also a member of the Senate's People, Safety and Culture Committee and the other is a member of the Honorary Awards and Ceremonial Committee.
- The Guild President, Guild Education Vice-President, the Guild General Secretary, and the President Murdoch University Postgraduate Students Association are *ex officio* members of Academic Council. There are also four elected students (two undergraduate, one postgraduate coursework, and one postgraduate research) on Academic Council. There is one undergraduate student and one postgraduate student as elected members of Academic Council's subordinate committees – Academic Courses and Admissions Committee; Quality and Standards Committee; and Student Experience Committee.

Students are also involved in other committees across the University including the Student Appeals Committee where there is a student as a member of each Hearing Panel convened to hear an appeal.



Internal Audit

Internal audits are undertaken in accordance with an annual Internal Audit Plan that is aligned to the University's key risks. The Internal Audit Plan, which includes the objectives and scope of the audits, is approved by the Audit and Risk Committee. Internal Audit reports are presented and reviewed in the Audit and Risk Committee meetings. The University has a robust mechanism in place for follow-up and reporting on implementation of internal audit recommendations.

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.

The Audit and Risk Committee receives regularly 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 was reviewed and updated, and outlines the approach to identification, management and reporting of risks and specifies formal roles and responsibilities for these activities, aligned with contemporary best practices.

The University's Risk Management Framework was reviewed and revised and is aligned to AS ISO 31000:2018 Risk Management – Guidelines. The revision included a comprehensive review of the Risk Assessment Criteria to align with the University's strategic themes, core activities and enablers as per the Strategy 2023-30.

Risk Appetite

In light of the Strategic Plan 2023-30 and the revised Risk Management Framework, the University's Risk Appetite was reviewed to ensure that it can function as a meaningful tool for decision making in relation to key initiatives and activities across the University.

A new Risk Appetite model with Rewards consideration was developed and approved by Senate. This model considers Risks together with Rewards to enable better and more informed decision making.

Strategic Risk Management

The University's Strategic Risk Profile was holistically reviewed and updated in alignment with the Strategy 2023-30 of the University. The key risks to the University's strategic themes, core activities and enablers were identified and assessed, with these risks actively managed through a suite of actual and planned mitigation controls.

Fraud, Corruption and Misconduct Control Framework

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

1. Fraud, Corruption and Misconduct Policy.
2. 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.

Critical Incident Management Plan

The University's Critical Incident Management Plan was reviewed and updated and guides the University's response to critical incidents across all its campuses and activities. The process for potential critical incident identification, determination and reporting have been further streamlined.

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.

Quality Assurance and Improvement

Murdoch is committed to a culture of quality assurance and improvement that supports the achievement of University strategy and ensures regulatory compliance. Quality review and improvement activities play a crucial role in ensuring adherence to educational standards, fostering continuous improvement, and enhancing the overall quality of our teaching and research, with a focus on staff and student wellbeing and success.

Our quality assurance practices are aligned with the expectations of the Tertiary Education Quality and Standards Agency (TEQSA) to ensure compliance with the Higher Education Standards Framework (HESF) and the Education Services for Overseas Students (ESOS) Framework.

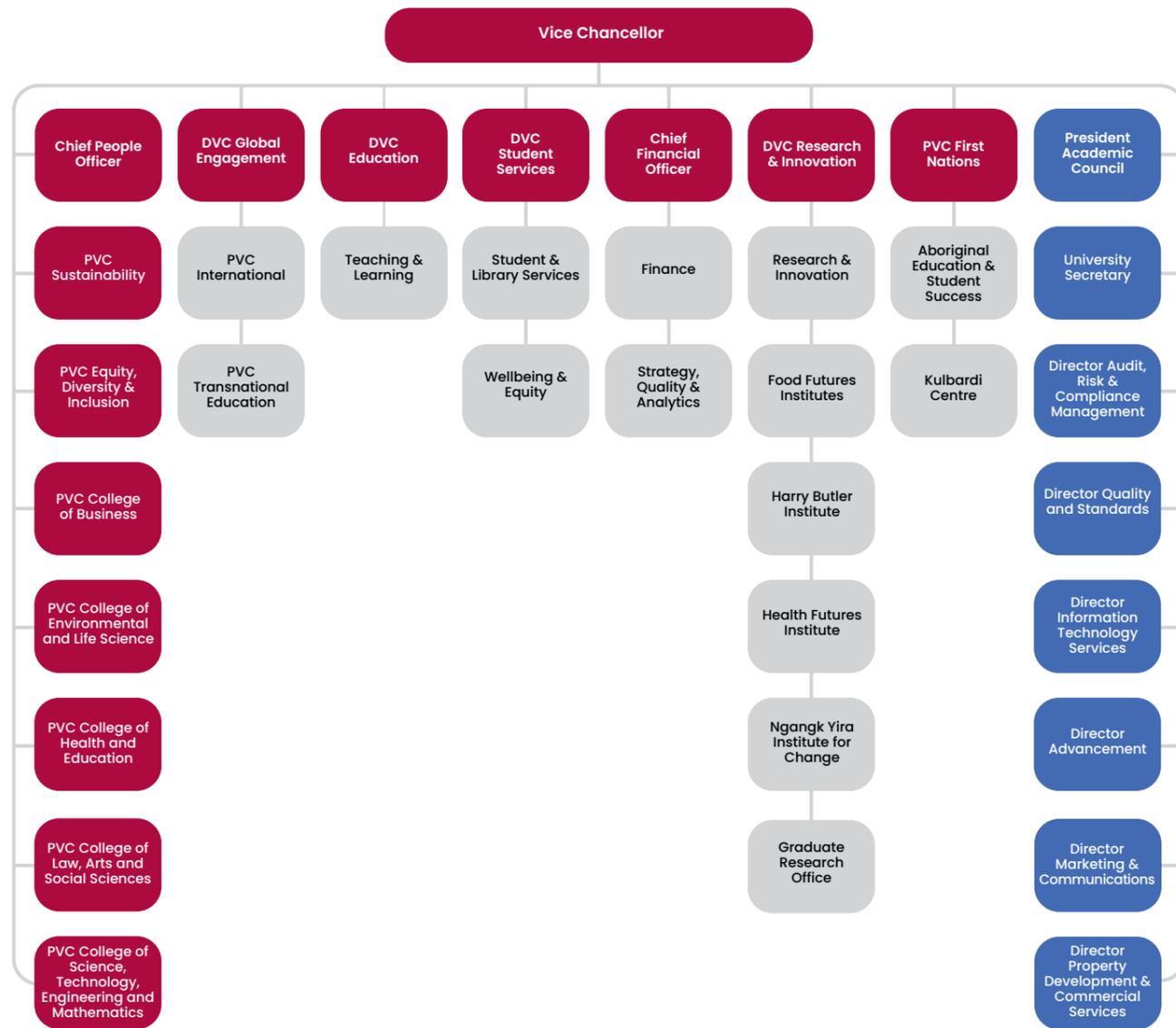
Distinct from the internal audit functions at Murdoch, quality reviews support this commitment to a culture of quality assurance and improvement through systematic reviews that focus on self-evaluation, external benchmarking and independent expert opinion. They aim to identify areas of excellence, opportunity and improvement as well as ensure the University is meeting its regulatory obligations.

In 2023, a range of new policies and procedures were approved that outline the University's commitment to a range of quality activities. This includes a seven-year cycle of reviews of all academic and professional organisational areas, a new approach to systematic robust course and curriculum review, and a defined procedure to ensure careful management of all professionally accredited courses.

Feeding into academic organisational area quality reviews, course and curriculum review is woven together to build a robust framework of review aligned with the HESF expectations of interim monitoring and comprehensive course review. This includes annual course monitoring and a cycle of three-yearly unit reviews.

Organisational Structure

As at 1 January 2023



Senate Member Terms for 2023

Senate Member	Basis of Appointment	Term	Term of Office
1. Austic, Ms Heidee	Elected from and by the undergraduate students, section 12(1)(e)(i)	1	07 November 2022 – 06 November 2023
2. Belford, Mr Roland	Elected from and by the graduates of the University, section 12(1)(f)	1 2	01 January 2018 – 31 December 2020 01 January 2021 – 31 December 2023
3. Buckingham, Mr Gavin	Co-opted by Senate, section 12(1)(h)	1 2	18 August 2017 – 17 August 2020 18 August 2020 – 17 August 2023
4. Cusi, Ms Jaztine	Elected from and by the undergraduate students, section 12(1)(e)(i)	1	07 November 2023 – 06 November 2024
5. Deeks, Professor Andrew	Ex-officio, as Vice Chancellor, section 12(1)(b)	1	26 March 2022 – current
6. Holt, Mr Ross	Appointed by the Governor, section 12(1)(f)* Co-opted by Senate, section 12(1)(h) Elected Deputy Chancellor, section 11(1)	1	10 June 2014 – 01 January 2017 02 January 2017 – 09 June 2017
		2	10 June 2017 – 09 June 2020
		3	10 June 2020 – 09 June 2023
7. Hughes, Mr Ross	Co-opted by Senate, section 12(1)(h)	1	02 September 2017 – 01 September 2020
		2	02 September 2020 – 01 September 2023
		3	02 September 2023 – 01 September 2026
8. 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
		3	22 December 2021 – 21 December 2024
9. Maker, Associate Professor Garth	Ex-officio, as President Academic Council, section 12(1)(i)	1	20 February 2023 – current (31/12/2023)
10. McGowan PSM, Ms Gail	Appointed by the Governor, section 12(1)(g) Ex-officio, as Chancellor, section 12(1)(a)	1	05 April 2022 – 16 May 2023
		1	17 May 2023 – 16 May 2026
11. Odunyemi, Mr Adelakun	Elected from and by the postgraduate students, section 12(1)(e)(ii)	1	07 November 2022 – 06 November 2023

Senate and Sub-Committees Consolidated Attendance for 2023

These meetings do NOT include decisions by circular resolution	Senate		Audit & Risk Committee		Chancellor's & Nominations Committee		Honorary Awards & Ceremonial Committee		People, Safety and Culture Committee		Resources Committee		
	A	B	A	B	A	B	A	B	A	B	A	B	
Austic, Ms Heidee			HACC					2	2				
Belford, Mr Roland				PSCC						5	5		
Buckingham, Mr Gavin					RC							3	3
Cusi, Ms Jaztine													
Deeks, Professor Andrew			HACC	PSCC	RC			2	2	5	5	5	5
Holt, Mr Ross			CNC	HACC	RC			3	2	1	1		2
Hughes, Mr Ross	ARC		CNC					6	6				
Kerr, Mr Peter			CNC		RC			6	6			5	5
Maker, Garth													
McGowan, Ms Gail			CNC	HACC	PSCC			6	6	1	1	5	5
Odunyemi, Mr Adelakun					PSCC					3	3		
Owens, Emeritus Professor Robyn	ARC		CNC	HACC				6	6	6	6	1	1
Schoeman, Mr Jethro			HACC					2	0#				
Schroeder-Turk, Professor Gerd			HACC	PSCC				2	2	5	5		
Sen, Professor Krishna					RC							2	1
Smith, Mr Gary			CNC	HACC				3	3	1	1		
Smith-Walley, Ms Robyn	ARC												
Unwin, Ms Stephanie					PSCC			6	6			1	1
Wangchuk, Mr Karma													
Whitlock, Ms Julie			HACC					2	2				
Winmar, Mr Barry													

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

Notes:

The Senate Sub-Committee members that are not Senate members are not included in the table above.

Disclosure and Legal Compliance

- 96 Certification of Financial Statements and Key Performance Indicators
- 98 Report on the audit of the Financial Statements and Key Performance Indicators
- 103 Financial Statements
- 154 Key Performance Indicators
- 158 Other Disclosures
- 161 Governance Disclosures



Disclosure and Legal Compliance

Certification of Financial Statements and Key Performance Indicators

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 2023 and the financial position as at 31 December 2023.

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,
- we are not aware of any circumstance which would render the particulars included in the financial statements misleading or inaccurate.



Ms Gail McGowan PSM
Chancellor



Professor Andrew Deeks
Vice Chancellor



Anthony Pine
Chief Financial Officer

12 March 2024

Certification of Financial Statements required by the Department of Education and Training

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.



Ms Gail McGowan PSM
Chancellor



Professor Andrew Deeks
Vice Chancellor

12 March 2024

Certification of Key Performance Indicators

We hereby certify that the 2023 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 2023.



Ms Gail McGowan PSM
Chancellor



Professor Andrew Deeks
Vice Chancellor

12 March 2024



Auditor General

INDEPENDENT AUDITOR'S REPORT

2023

Murdoch University

To the Parliament of Western Australia

Report on the audit of the financial statements

Opinion

I have audited the financial statements of Murdoch University (university) and its controlled entities (the Group) which comprise:

- the consolidated statement of financial position as at 31 December 2023, the consolidated income statement, the consolidated statement of comprehensive income, the consolidated statement of changes in equity, and the consolidated statement of cash flows for the year then ended
- Notes comprising a summary of significant accounting policies and other explanatory information.

In my opinion, the financial statements of the Group are:

- based on proper accounts and present fairly, in all material respects, the operating results and cash flows of the Group for the year ended 31 December 2023 and the financial position at the end of that period
- in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and relevant Treasurer's Instructions, Division 60 of the *Australian Charities and Not-for-profits Commission Act 2012 (ACNC Act)* and the *Australian Charities and Not-for-profits Commission Regulations 2022 (ACNC Regulations)*.

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

Emphasis of matter – Franking credit receivable

I draw attention to Note 12 of the financial statements which describes the judgements made by the Group in the recognition of franking credits receivable on the fully franked in specie dividend of IDP Education Limited shares as part of the wind up of the University's investment in Education Australia Limited. My opinion is not modified in respect of this matter.

Responsibilities of the University Senate for the financial statements

The University Senate is responsible for:

- keeping proper accounts
- preparation and fair presentation of the financial statements in accordance with Australian Accounting Standards, the *Financial Management Act 2006* and relevant Treasurer's Instructions, the *ACNC Act* and the *ACNC Regulations*
- 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 entity's ability to continue as a going concern
- disclosing, as applicable, matters related to going concern
- using the going concern basis of accounting unless government funding affects the continued existence of the university.

Auditor's responsibilities 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. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations or the override of internal control.

A further description of my responsibilities for the audit of the financial statements is located on the Auditing and Assurance Standards Board website. This description forms part of my auditor's report and can be found at https://www.augas.gov.au/auditors_responsibilities/ar3.pdf.

Report on the audit of 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 the State's financial reporting framework (the overall control objectives).

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 the State's financial reporting framework during the year ended 31 December 2023.

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.

An assurance engagement 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 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 audit of 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 2023. 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 2023.

The University Senate's responsibilities 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 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 responsibilities

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 University'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 management relating to the report on financial statements, 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 ASQM 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Reports and Other Financial Information, or Other Assurance or Related Services Engagements*, the Office of the Auditor General maintains a comprehensive system of quality management including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Other information

The University Senate is responsible for the other information. The other information is the information in the entity's annual report for the year ended 31 December 2023, but not the financial statements, key performance indicators and my auditor's report.

My opinions on the financial statements, controls and key performance indicators do not cover the other information and, accordingly, I do not express any form of assurance conclusion thereon.

In connection with my audit of the financial statements, controls and key performance indicators my responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the financial statements, key performance indicators or my knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work I have performed, I conclude that there is a material misstatement of this other information, I am required to report that fact. I have nothing to report in this regard.

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 2023 included in the annual report on the University's website. The University's management is responsible for the integrity of 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, controls and key performance indicators described above. It does not provide an opinion on any other information which may have been hyperlinked to/from the annual report. 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 contact the entity to confirm the information contained in the website version.



Sandra Labuschagne
Deputy Auditor General
Delegate of the Auditor General for Western Australia
Perth, Western Australia
13 March 2024

Financial Statements

Statement of Comprehensive Income

for the year ended 31 December 2023

	Note	Consolidated		University	
		2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Income from continuing operations					
Australian Government financial assistance					
Australian Government grants	2	128,289	126,105	128,289	126,105
HELP - Australian Government payments	2(b)	61,966	66,415	61,966	66,415
State and local government financial assistance	3	7,806	5,072	7,806	5,072
HECS-HELP - student payments		3,994	4,190	3,994	4,190
Fees and charges	4	175,922	92,443	173,127	90,194
Net investment revenue	5	23,147	4,795	22,605	6,276
Consultancy and contract research	6	32,483	29,023	32,483	29,023
Other revenue	7	38,960	37,259	30,373	37,363
Other income	7	19	26	19	26
Total income from continuing operations		472,586	365,328	460,662	364,664
Expenses from continuing operations					
Employee related expenses	8	247,019	221,400	244,116	218,690
Depreciation and amortisation	15&16	31,778	24,802	31,606	24,622
Repairs and maintenance	9	14,381	13,427	11,120	10,587
Borrowing costs		5,154	305	5,146	295
Impairment of assets		752	286	752	286
Loss on disposal of assets		457	1,610	457	1,610
Other expenses	10	167,403	140,709	158,405	129,342
Total expenses from continuing operations		466,944	402,539	451,602	385,432
Net result before income tax		5,642	(37,211)	9,060	(20,768)
Income tax		36	(13)	-	-
Net result after tax from continuing operations attributable to members of Murdoch University		5,606	(37,198)	9,060	(20,768)

The above Statement of Comprehensive Income should be read in conjunction with the accompanying notes.

Statement of Comprehensive Income

for the year ended 31 December 2023

	Note	Consolidated		University	
		2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Net result after income tax for the period		5,606	(37,198)	9,060	(20,768)
(Loss) / gains on equity instruments designated at fair value through comprehensive income, net of tax	21	(185)	254	(185)	254
Exchange differences on translation of foreign operations	21	(30)	458	(27)	-
Gains on revaluation of land, buildings, infrastructure and service concession assets, net of tax	15&21	38,147	47,960	38,147	47,960
Total comprehensive income attributable to members of Murdoch University		43,538	11,474	46,995	27,446

The above Statement of Comprehensive Income should be read in conjunction with the accompanying notes.

Statement of Financial Position

as at 31 December 2023

Note	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Assets				
Current assets				
Cash and cash equivalents	11	110,679	106,191	100,879
Trade and other receivables	12	44,680	41,676	46,365
Contract assets	12	9,210	5,398	9,210
Inventories		1,095	1,180	1,094
Other financial assets	13	57,575	70,956	54,038
Prepayments		13,751	10,747	13,483
Total current assets		236,990	236,148	225,069
Non-current assets				
Receivables	12	6	1,016	6
Other financial assets	13	85,514	76,997	85,614
Investment properties	14	269,357	264,545	269,357
Property, plant and equipment	15	932,420	896,096	932,237
Intangible assets	16	18,101	16,690	18,101
Total non-current assets		1,305,398	1,255,344	1,305,315
Total assets		1,542,388	1,491,492	1,530,384
Liabilities				
Current liabilities				
Trade and other payables	17	43,030	30,860	42,509
Borrowings	18	7,195	1,709	7,127
Provisions	19	51,622	49,828	36,422
Other liabilities	20	271,775	258,505	51,001
Contract liabilities	20	59,154	57,293	59,154
Total current liabilities		432,776	398,195	196,213
Non-current liabilities				
Borrowings	18	98,875	127,015	98,864
Provisions	19	19,541	17,996	19,462
Other liabilities	20	11,691	12,320	11,691
Deferred tax liability		123	122	-
Total non-current liabilities		130,230	157,453	130,017
Total liabilities		563,006	555,648	326,230
Net assets		979,382	935,844	1,204,154
Equity				
Reserves	21	470,733	432,801	470,719
Retained earnings	21	508,649	503,043	733,435
Total equity		979,382	935,844	1,204,154

The above Statement of Financial Position should be read in conjunction with the accompanying notes.

Statement of Changes in Equity

for the year ended 31 December 2023

Consolidated

	Reserves \$'000	Retained Earnings \$'000	Total \$'000
Balance at 1 January 2022	384,129	540,227	924,356
Net Result	-	(37,198)	(37,198)
Revaluation of land, buildings, infrastructure and service concession assets	47,960	-	47,960
Gain on financial assets at fair value through OCI	254	-	254
Loss on foreign exchange	458	14	472
Total comprehensive income	48,672	(37,184)	11,488
Balance at 31 December 2022	432,801	503,043	935,844
Balance at 1 January 2023	432,801	503,043	935,844
Net Result	-	5,606	5,606
Revaluation of land, buildings, infrastructure and service concession assets	38,147	-	38,147
Loss on financial assets at fair value through OCI	(185)	-	(185)
Loss on foreign exchange	(30)	-	(30)
Total comprehensive income	37,932	5,606	43,538
Balance at 31 December 2023	470,733	508,649	979,382

University

Balance at 1 January 2022	384,570	745,143	1,129,713
Net Result	-	(20,768)	(20,768)
Revaluation of land, buildings, infrastructure and service concession assets	47,960	-	47,960
Gain on financial assets at fair value through OCI	254	-	254
Total comprehensive income	48,214	(20,768)	27,446
Balance at 31 December 2022	432,784	724,375	1,157,159
Balance at 1 January 2023	432,784	724,375	1,157,159
Net Result	-	9,060	9,060
Revaluation of land, buildings, infrastructure and service concession assets	38,147	-	38,147
Loss on financial assets at fair value through OCI	(185)	-	(185)
Loss on foreign exchange	(27)	-	(27)
Total comprehensive income	37,935	9,060	46,995
Balance at 31 December 2023	470,719	733,435	1,204,154

The above Statement of Changes in Equity should be read in conjunction with the accompanying notes.

Statement of Cash Flows

for the year ended 31 December 2023

Note	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
CASH FLOWS FROM OPERATING ACTIVITIES:				
Australian Government grants	193,891	193,485	193,891	193,485
State and Local Government grants	6,244	4,717	6,244	4,717
HECS-HELP - student payments	3,994	4,190	3,994	4,190
OS-HELP (net)	648	(1,359)	648	(1,359)
Receipts from student fees and other customers	253,334	199,642	245,034	203,959
Dividends and distributions received	3,091	4,217	3,069	5,825
Interest received	6,597	1,799	6,248	1,635
Payments to suppliers and employees	(402,674)	(363,697)	(393,525)	(354,810)
Lease payments for short term and low value assets	(4,292)	(4,733)	(3,903)	(4,948)
Interest and other costs of finance paid	(4,805)	(401)	(4,797)	(391)
Income taxes paid	(27)	(37)	-	-
Net cash provided by operating activities	56,001	37,823	56,903	52,303
CASH FLOWS FROM INVESTING ACTIVITIES:				
Proceeds from sale of property, plant and equipment	78	145	78	145
Payments for property, plant and equipment, intangibles and investment property	(41,098)	(112,847)	(41,016)	(112,841)
(Payments)/redemption of bank deposits	15,127	(23,735)	13,332	(27,565)
Net proceeds/(payments) for financial assets	(2,956)	54,353	(2,952)	54,351
Proceeds from loan to external party	1,000	1,000	1,000	1,000
Net cash (used in)/provided by investing activities	(27,849)	(81,084)	(29,558)	(84,910)
CASH FLOWS FROM FINANCING ACTIVITIES:				
Repayment of borrowings	(120,000)	(454)	(120,000)	(454)
Repayment of lease liabilities	(1,300)	(1,000)	(1,145)	(841)
Proceeds from borrowings	97,498	91,664	97,498	91,664
Net cash used in financing activities	(23,802)	90,210	(23,647)	90,369
Net increase/(decrease) in cash and cash equivalents held	4,350	46,949	3,698	57,762
Cash and cash equivalents at beginning of year	106,191	58,854	97,041	38,891
Effects of exchange rate changes on cash and cash equivalents	138	388	140	388
Cash and cash equivalents at end of financial year	110,679	106,191	100,879	97,041

Financing arrangements 18

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

The above Statement of Cash flows should be read in conjunction with the accompanying notes.

Index of Notes to the Financial Statements

1	Summary of significant accounting policies
2	Australian Government financial assistance including Australian Government loan programs (HELP)
3	State and Local Government financial assistance
4	Fees and charges
5	Investment income and losses
6	Consultancy and contract research
7	Other revenue and other income
8	Employee related expenses
9	Repairs and maintenance
10	Other expenses
11	Cash and cash equivalents
12	Receivables
13	Other financial assets
14	Investment properties
15	Property, plant and equipment
16	Intangible assets
17	Trade and other payables
18	Borrowings
19	Provisions
20	Other liabilities
21	Equity
22	Reconciliation of net result after income tax to net cash flows from operating activities
23	Remuneration of auditors
24	Contingent assets and contingent liabilities
25	Events subsequent to reporting date
26	Commitments for expenditure
27	Key management personnel compensation
28	Financial risk management
29	Fair value measurement
30	Related parties
31	Superannuation – UniSuper defined benefit division
32	Acquittal of Australian Government financial assistance (University only)
33	US Department of Education financial responsibility supplementary schedule

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.

The 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 the University's Senate members on 12 March 2024.

Historical cost convention

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

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, infrastructure and service concession assets
- 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.

- Franking credit receivables – refer to Note 12

1 Summary of significant accounting policies (continued)

(a) Basis of consolidation

Subsidiaries

The consolidated financial statements incorporate the assets and liabilities of all subsidiaries of the University as at 31 December 2023 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 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 statement of comprehensive income, 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 statement of comprehensive income, 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.

(c) New accounting standards and interpretations

The following standards have been issued but are not mandatory for 31 December 2023 reporting period.

The Group has elected not to early adopt any of these standards, amendments and/or interpretations. The Group's assessment of the impact of these new standards, amendments and interpretations is set out below:

Standard	Application date	Implications	
AASB2020-1	Amendments to Australian Accounting Standards – Classification of Liabilities as Current or Non-current – Amendments to AASB101	1 January 2024	The amendments are not expected to have a material impact on the Group.
AASB2022-5	Amendments to Australian Accounting Standards – Lease Liability in a Sale and Leaseback – Amendments to AASB16	1 January 2024	The amendments are not expected to have a material impact on the Group.
AASB2022-10	Amendments to Australian Accounting Standards – Fair Value Measurement of Non-Financial Assets of Not-for-Profit Public Sector Entities	1 January 2024	The amendments are not expected to have a material impact on the Group.
AASB2022-6	Amendments to Australian Accounting Standards – Non-current Liabilities with Covenants	1 January 2024	The amendments are not expected to have a material impact on the Group.
AASB2023-1	Amendments to Australian Accounting Standards – Supplier Finance Arrangements	1 January 2024	The amendments are not expected to have a material impact on the Group.
AASB2014-10	Amendments to Australian Accounting Standards – Sale or Contribution of Assets between an Investor and its Associate or Joint Venture – Amendments to AASB10 and AASB128	1 January 2025	The amendment is not expected to apply to the Group.
AASB17	Insurance Contracts	1 January 2027	The amendment is not expected to apply to the Group.
AASB2022-8	Amendments to Australian Accounting Standards – Insurance Contracts: Consequential Amendments	1 January 2027	The amendment is not expected to apply to the Group.
AASB2022-9	Amendments to Australian Accounting Standards – Insurance Contracts in the Public Sector	1 January 2027	The amendment is not expected to apply to the Group.

(d) Comparative amounts

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

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

(a) Commonwealth Grants Scheme and Other Grants

Note	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Commonwealth Grants Scheme (CGS) ^{#1}	95,506	97,920	95,506	97,920
Higher Education Disability Support Program ^{#2}	277	147	277	147
Indigenous, Regional and Low-SES Attainment Fund ^{#3}	2,765	3,160	2,765	3,160
Indigenous Student Success Program ^{#4}	1,213	1,145	1,213	1,145
National Priorities and Industry Linkage Pool	3,394	3,279	3,394	3,279
Higher Education and Domestic Micro-credentials	60	-	60	-
Total Commonwealth Grants Scheme and Other Grants	103,215	105,651	103,215	105,651

(b) Higher Education Loan Programs

HECS - HELP	53,150	57,002	53,150	57,002
FEE - HELP	7,119	7,532	7,119	7,532
SA - HELP	1,697	1,881	1,697	1,881
Total Higher Education Loan Programs	61,966	66,415	61,966	66,415

(c) Education Research

Research Training Program	9,700	9,827	9,700	9,827
Research Support Program	6,382	7,502	6,382	7,502
Total Education Research Grants	16,082	17,329	16,082	17,329

(d) Australian Research Council

Discovery	1,208	1,669	1,208	1,669
Linkages	286	444	286	444
Total ARC	1,494	2,113	1,494	2,113

(e) Other Australian Government financial assistance

Non-capital Research funding	7,498	1,012	7,498	1,012
Total Other Australian Government financial assistance	7,498	1,012	7,498	1,012
Total Australian Government financial assistance	190,255	192,520	190,255	192,520

Reconciliation

Australian Government grants	(a),(c),(d) &(e)	128,289	126,105	128,289	126,105
HELP - Australian Government payments	(b)	61,966	66,415	61,966	66,415
Total Australian Government financial assistance		190,255	192,520	190,255	192,520

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

^{#1} Includes the basic CGS grant amount, Medical Student Loading, Transition Fund Loading, Allocated Places and Non-Designated Course.

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

^{#3} Includes the Higher Education Participation and Partnership Program, Regional Loading and Enabling Loading.

^{#4} Indigenous Student Success Program replaced the Indigenous Commonwealth Scholarships Program and the Indigenous Support Program as of 1 January 2017

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Non-Capital				
State Government	7,721	4,727	7,721	4,727
Local Government	85	345	85	345
Total State and Local Government financial assistance	7,806	5,072	7,806	5,072

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Course fees and charges				
Fee-paying onshore overseas students	130,178	45,345	130,178	45,345
Fee-paying offshore overseas students	26,354	25,102	8,709	5,571
Continuing education	219	109	219	109
Fee-paying domestic postgraduate students	1,319	1,525	1,319	1,525
Other domestic course fees and charges	2,801	4,904	2,832	4,904
Total course fees and charges	160,871	76,985	143,257	57,454
Other non-course fees and charges				
Student services and amenities fees from students	32(h) 2,000	1,000	2,000	1,000
Service and management fees	-	-	15,153	16,705
Other fees and charges	3,762	5,215	3,442	5,770
Recovery charges	3,360	3,817	3,152	3,747
Parking fees	1,857	1,668	1,870	1,668
Rental and lease charges	4,072	3,758	4,253	3,850
Total other fees and charges	15,051	15,458	29,870	32,740
Total fees and charges	175,922	92,443	173,127	90,194

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 are recognised over time as and when the service is provided over the period.

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

5 Investment income and losses

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Interest on bank deposits	7,501	2,102	7,039	1,861
Dividends and franking credits received	540	1,306	500	2,907
Income distributions from managed funds	2,830	974	2,830	974
Net gains or loss on financial assets designated at fair value through profit or loss ^{#1}	7,492	(14,598)	7,452	(14,477)
Fair value adjustment on investment property	4,784	15,011	4,784	15,011
Net Investment revenue	23,147	4,795	22,605	6,276

^{#1}2022 is inclusive of net gains relating to IDP ASX listed shares acquired via in-specie distribution upon the 2021 wind-up of Education Australia investment (unlisted equity instrument, fair valued through other comprehensive income).

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Contract research	28,153	28,561	28,153	28,561
Consultancy	4,330	462	4,330	462
Total consultancy and contract research	32,483	29,023	32,483	29,023

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 papers 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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Other revenue				
Deferred management fee	6,665	6,421	-	-
Donations and bequests	3,140	4,718	5,450	15,268
Non-government grants	55	18	55	18
Common service fees and electives	2,466	2,234	-	-
Other revenue	5,533	4,272	4,205	2,924
Revenue related to service concession arrangements	629	629	629	629
Scholarships and prizes	1,415	1,100	1,415	1,100
Sponsorships income	905	437	895	427
Trading income	18,152	17,430	17,724	16,997
Total other revenue	38,960	37,259	30,373	37,363
Other income				
Bad debts recovered or written back	19	26	19	26
Total other income	19	26	19	26

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.

Donations and bequests are 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.

Revenue related to service concession arrangements is usually recognised as access to the service concession asset is provided to the operator over the term of the service concession arrangement. Revenue is not recognised immediately by the grantor at the inception of the service concession arrangement. Instead, a liability is recognised and subsequently reduced as revenue earned based on the economic substance of the service concession arrangement.

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Academic				
Salaries	93,773	79,394	92,702	78,470
Contribution to superannuation and pension schemes	14,485	12,002	14,422	11,945
Payroll tax	6,097	5,186	6,097	5,186
Worker's compensation	937	800	937	800
Annual leave	1,653	199	1,654	219
Long service leave expense	3,935	3,498	3,935	3,498
Total academic	120,880	101,079	119,747	100,118
Non-academic				
Salaries	99,495	94,747	97,993	93,290
Contribution to superannuation and pension schemes	15,259	14,082	15,070	13,903
Payroll tax	6,462	6,195	6,411	6,143
Worker's compensation	1,068	945	1,068	945
Annual leave	1,116	423	1,107	408
Long service leave expense	2,739	3,929	2,720	3,883
Total non-academic	126,139	120,321	124,369	118,572
Total employee related expenses	247,019	221,400	244,116	218,690

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Buildings and grounds	10,082	10,071	6,842	7,248
Other	4,299	3,356	4,278	3,339
Total repairs and maintenance	14,381	13,427	11,120	10,587

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 are 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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Administration expenditure	11,407	10,294	11,048	7,956
Advertising, marketing and promotions	6,160	5,614	5,885	5,304
Audit fees, bank charges, legal costs, insurance and taxes	6,306	6,313	4,525	4,578
Donations and sponsorships	695	1,011	674	1,043
Expenditure related to commercial operations	4,121	4,215	4,120	4,211
General consumables	6,694	6,209	6,624	6,137
Licence and royalty fees	11,121	10,993	11,331	10,966
Non-capitalised equipment	2,467	2,850	2,455	2,835
Occupancy costs	9,056	9,331	8,815	9,104
Operating lease payments	4,292	3,690	3,903	3,905
Other expenditure	11,976	10,295	12,095	11,135
Other research related expenditure	9,020	7,232	9,020	7,232
Other student and teaching related expenditure	43,571	13,487	43,672	13,491
Scholarships, grants and prizes	10,476	10,581	10,476	10,581
Fair value loss in resident loans	6,141	7,635	-	-
Technology and software maintenance	8,393	15,506	8,393	15,506
Telecommunications	432	558	423	547
People development, training and travel	15,075	14,895	14,946	14,811
Total other expenses	167,403	140,709	158,405	129,342

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Current				
Cash at bank and on hand	44,015	102,785	34,215	94,341
Bank bills and deposits	66,664	3,406	66,664	2,700
Total cash and cash equivalents	110,679	106,191	100,879	97,041

(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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Unrestricted	71,313	72,887	65,141	67,197
Restricted	39,366	33,304	35,738	29,844
Balance as per statement of cash flows	110,679	106,191	100,879	97,041

(b). Cash at bank and on hand

The Group cash at bank and on hand had an average floating interest rate of 1.14% as at 31 December 2023 (2022: 1.12%).

The University cash at bank and on hand had an average floating interest rate of 1.09% as at 31 December 2023 (2022: 1.09%).

(c). Restricted Cash

The Group maintains cash balances which are restricted for use. Our reported restricted cash is comprised of:

Philanthropic funds: Philanthropic funds have been received from benefactors who, in some (not all) instances, by contract / agreement, have stipulated a limitation in the use and / or purpose of funds. For transparency, all Philanthropic funds are reported as Restricted.

Major Capital Funded Project: Major Capital Funded Projects are classified as restricted cash as the funds have been received from the funder and by the terms of their contractual agreement with the funder, the use and / or purpose of the funds is restricted.

(d). Bank bills and deposits

The consolidated bank bills and deposits are bearing average fixed interest rates of 5.04% as at 31 December 2023 (2022: 0.78%). These deposits have an average maturity of 77 days (2022: 76 days).

The University bank bills and deposits are bearing average fixed interest rates of 5.04% as at 31 December 2023 (2022: 0.90%). These deposits have an average maturity of 77 days (2022: 90 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	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Current				
Trade receivables	19,775	14,719	20,717	17,533
Student fees receivable	2,285	1,500	2,285	1,500
Less: allowance for expected credit losses	(1,232)	(673)	(1,218)	(659)
	20,828	15,546	21,784	18,374
Loans receivable	1,000	1,000	1,000	1,000
Franking credit receivable	22,831	23,009	22,831	23,002
Other	21	2,121	750	2,121
Total trade and other receivable	44,680	41,676	46,365	44,497
Contract assets	9,210	5,398	9,210	5,398
Total current receivables	53,890	47,074	55,575	49,895
Non-current				
Loans receivable	-	1,000	-	1,000
Other	6	16	6	16
Total non-current receivables	6	1,016	6	1,016

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	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
At 1 January	673	2,438	659	2,424
Provision for expected credit losses	800	429	800	429
Write-off	(222)	(1,806)	(222)	(1,806)
Debt recovery	(19)	(388)	(19)	(388)
At 31 December	1,232	673	1,218	659

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 solely representing 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.

Contract assets are inclusive of research grants related receivables.

Loans receivable represent loans to third parties for specified purposes with interest and repayments in line with relevant lending agreements. The non-current loan receivable is due in full by 31 December 2024.

Franking credits receivable are expected to be received within 12 months of the end of the reporting period. The 2022 and 2023 balance is inclusive of \$22.8 million in franking credits receivable on the fully franked in specie dividend of IDP Education Limited (IDP) shares as part of the wind up of the University's investment in Education Australia Limited. The Group recognised this receivable on the basis that the franking credit tax offsets are refundable under Division 67 of the Income Tax Assessment Act 1997 and there was no provision in this Act which denied the Group from claiming a refund. As part of forming this view, the Group has determined, supported by legal advice, that it has received immediate custody and control of the IDP shares and this was not impacted by the Shareholder Restriction Deed.

Subsequent to claiming the franking credits, the Australian Tax Office issued a Notice of Assessment disputing the validity of the Group's claim for the refund of the franking credits under section 207-112 of the Income Tax Assessment Act 1997. The Group has received legal advice following the receipt of the ATO Tax Assessment and the Group's view supported by the legal advice, remains that it is entitled to receive the franking credits refund. At the date of this report, the Group has formally objected to the Tax Assessment issued by the ATO. The Group considers that it is probable that its claim will be accepted either through the objection or further court process and therefore continues to recognise the full amount.

13 Other financial assets

Current

	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Unrestricted				
Other financial assets at fair value through profit or loss - listed securities	538	509	-	-
Other financial assets at amortised costs - bank deposits	50,600	65,726	48,234	61,565
Total unrestricted current other financial assets	51,138	66,235	48,234	61,565
Restricted				
Other financial assets at fair value through profit or loss - listed securities	6,437	4,721	5,804	4,102
Total current other financial assets	57,575	70,956	54,038	65,667

Non-current

Unrestricted

Other financial assets at fair value through profit or loss - managed funds	78,898	70,204	78,898	70,204
Other financial assets at amortised costs - shares in subsidiaries	-	-	100	100
Investments in equity instruments designated at fair value through other comprehensive income - unlisted securities	6,483	6,668	6,483	6,668
Total unrestricted non-current other financial assets	85,381	76,872	85,481	76,972

Restricted

Other financial assets at fair value through profit or loss - managed funds	133	125	133	125
Total restricted non-current other financial assets	133	125	133	125
Total non-current other financial assets	85,514	76,997	85,614	77,097

Total other financial assets

143,089	147,953	139,652	142,764
----------------	----------------	----------------	----------------

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 cashflow 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 (continued)**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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Opening balance at 1 January	264,545	249,534	264,545	249,534
Fair value gain	4,784	15,011	4,784	15,011
Investment property additions	28	-	28	-
Closing balance at 31 December	269,357	264,545	269,357	264,545

Investment properties include:

- operating leases to third parties, that include those for land only and those for commercial buildings
- residential properties bequeathed to the University; and
- St Ives Retirement Village Murdoch

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

14 Investment properties (continued)**(a). Amounts recognised in the income statement for operating leases to third parties**

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Rental income	3,657	3,370	3,657	3,370
Direct operating expenses	-	(167)	-	(167)
Fair value (loss) / gain	(98)	3,565	(98)	3,565
Total recognised in profit or loss	3,559	6,768	3,559	6,768

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

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Fair value gain/(loss)	4,883	11,416	4,883	11,416
Total recognised in profit or loss	4,883	11,416	4,883	11,416

(c). Amounts recognised in the income statement for residential property

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Fair value gain	-	30	-	30
Total recognised in profit or loss	-	30	-	30

(d). Operating lease (as lessor) to third parties

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
The future minimum lease payments under non-cancellable leases are as follows:				
Within one year	2,859	1,712	2,859	1,712
Later than one year but not later than five years	8,510	6,806	8,510	6,806
Greater than 5 years	34,883	36,101	34,883	36,101
	46,252	44,619	46,252	44,619

Investment properties exclude properties held to meet service delivery objectives of the University. Service delivery objectives are reviewed at each reporting period to assess continued appropriateness of asset classification.

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 the 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 statement of comprehensive income as part of the other income.

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

15 Property, plant and equipment

University	Land	Buildings	Infrastructure	Construction in progress	Plant and equipment*	Artworks	Library Books	Leasehold Improvement	Service concession assets	Right of use assets**	Total
\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 1 January 2022	-	17	532	59,882	147,529	133	1,174	8,490	-	7,193	224,950
- Cost	227,154	295,741	35,974	-	(83,918)	8,716	(416)	(2,508)	51,931	(2,744)	619,516
- Independent Valuation	-	-	(3)	-	-	-	-	-	-	-	(89,589)
Accumulated depreciation and impairment	-	-	-	-	-	-	-	-	-	-	-
Net book amount	227,154	295,758	36,503	59,882	63,611	8,849	758	5,982	51,931	4,449	754,877
Year ended 31 December 2022											
Opening net book amount	227,154	295,758	36,503	59,882	63,611	8,849	758	5,982	51,931	4,449	754,877
Revaluation increment	61	40,159	3,322	-	-	-	-	-	4,418	-	47,960
Additions	-	205	138	111,336	4,629	177	94	46	-	2,614	119,239
Disposals	-	(1,139)	(36)	-	(571)	-	-	(9)	-	(259)	(2,014)
Transfers in/(out)	-	1,567	3,902	(22,126)	15,966	57	-	634	-	-	-
Transfer to profit and loss	-	-	-	(2,795)	-	-	-	-	-	(56)	(2,851)
Transfer to software	-	-	-	(13)	-	-	-	-	-	-	(13)
Depreciation charge	-	(5,929)	(748)	-	(11,864)	-	(389)	(719)	(893)	(831)	(21,373)
Closing net book amount	227,215	330,621	43,081	146,284	71,771	9,083	463	5,934	55,456	5,917	895,825
At 31 December 2022											
- Cost	-	251	417	146,284	156,656	367	1,268	9,161	-	8,249	322,653
- Independent Valuation	227,215	330,370	42,664	-	-	8,716	-	-	55,456	-	664,421
Accumulated depreciation and impairment	-	-	-	-	(84,885)	-	(805)	(3,227)	-	(2,332)	(91,249)
Net book amount	227,215	330,621	43,081	146,284	71,771	9,083	463	5,934	55,456	5,917	895,825
Year ended 31 December 2023											
Opening net book amount	227,215	330,621	43,081	146,284	71,771	9,083	463	5,934	55,456	5,917	895,825
Revaluation increment	10,301	23,196	1,830	-	-	-	-	-	2,820	-	38,147
Additions	-	71	35	29,410	3,162	237	71	-	-	1,156	34,142
Disposals	-	-	-	-	(669)	-	-	-	-	(12)	(681)
Transfers in/(out)	-	141,583	255	(160,397)	18,221	338	-	-	-	-	-
Transfers to profit or loss	-	-	-	(5,878)	-	-	-	-	-	-	(5,878)
Transfer to software	-	-	-	(1,525)	-	-	-	-	-	-	(1,525)
Depreciation charge	-	(8,889)	(866)	-	(14,787)	-	(327)	(748)	(960)	(1,216)	(27,793)
Closing net book amount	237,516	486,582	44,335	7,894	77,698	9,658	207	5,186	57,316	5,845	932,237
At 31 December 2023											
- Cost	-	2,746	289	7,894	175,943	942	921	9,136	-	9,381	207,252
- Independent Valuation	237,516	483,846	44,050	-	-	8,716	-	-	57,316	-	831,444
Accumulated depreciation and impairment	-	(10)	(4)	-	(86,245)	-	(714)	(3,950)	-	(3,536)	(106,459)
Net book amount	237,516	486,582	44,335	7,894	77,698	9,658	207	5,186	57,316	5,845	932,237

15 Property, plant and equipment (continued)

Consolidated	Land	Buildings	Infrastructure	Construction in progress	Plant and equipment*	Artworks	Library Books	Leasehold Improvement	Service concession assets	Right of use assets**	Total
\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
At 1 January 2022	-	17	532	59,882	147,754	133	1,174	8,791	-	7,534	225,817
- Cost	227,154	295,741	35,974	-	(84,088)	8,716	(416)	(2,808)	51,931	(2,957)	619,516
- Independent Valuation	-	-	(3)	-	-	-	-	-	-	-	(90,272)
Accumulated depreciation and impairment	-	-	-	-	-	-	-	-	-	-	-
Net book amount	227,154	295,758	36,503	59,882	63,666	8,849	758	5,983	51,931	4,577	755,061
Year ended 31 December 2022											
Opening net book amount	227,154	295,758	36,503	59,882	63,666	8,849	758	5,983	51,931	4,577	755,061
Revaluation increment	61	40,159	3,322	-	-	-	-	-	4,418	-	47,960
Additions	-	205	138	111,336	4,632	177	94	46	-	2,873	119,501
Disposals	-	(1,139)	(36)	-	(571)	-	-	(9)	-	(259)	(2,014)
Transfers in/(out)	-	1,567	3,902	(22,126)	15,966	57	-	634	-	-	-
Transfer to profit and loss	-	-	-	(2,795)	-	-	-	-	-	(56)	(2,851)
Transfer to software	-	-	-	(13)	-	-	-	-	-	-	(13)
Foreign exchange differences	-	-	-	-	2	-	-	-	-	-	3
Depreciation charge	-	(5,929)	(748)	-	(11,882)	-	(389)	(719)	(893)	(993)	(21,553)
Closing net book amount	227,215	330,621	43,081	146,284	71,813	9,083	463	5,935	55,456	6,145	896,096
At 31 December 2022											
- Cost	-	251	417	146,284	156,860	367	1,268	9,462	-	8,622	323,531
- Independent Valuation	227,215	330,370	42,664	-	-	8,716	-	-	55,456	-	664,421
Accumulated depreciation and impairment	-	-	-	-	(85,047)	-	(805)	(3,527)	-	(2,477)	(91,856)
Net book amount	227,215	330,621	43,081	146,284	71,813	9,083	463	5,935	55,456	6,145	896,096
Year ended 31 December 2023											
Opening net book amount	227,215	330,621	43,081	146,284	71,813	9,083	463	5,935	55,456	6,145	896,096
Revaluation increment	10,301	23,196	1,830	-	-	-	-	-	2,820	-	38,147
Additions	-	71	35	29,410	3,245	237	71	-	-	1,157	34,226
Disposals	-	-	-	-	(669)	-	-	-	-	(12)	(681)
Transfers in/(out)	-	141,583	255	(160,397)	18,221	338	-	-	-	-	-
Transfer to profit or loss	-	-	-	(5,878)	-	-	-	-	-	-	(5,878)
Transfer to software	-	-	-	(1,525)	-	-	-	-	-	-	(1,525)
Depreciation charge	-	(8,889)	(866)	-	(14,805)	-	(327)	(748)	(960)	(1,370)	(27,965)
Closing net book amount	237,516	486,582	44,335	7,894	77,805	9,658	207	5,187	57,316	5,920	932,420
At 31 December 2023											
- Cost	-	2,746	289	7,894	176,197	942	921	9,461	-	9,752	208,202
- Independent Valuation	237,516	483,846	44,050	-	-	8,716	-	-	57,316	-	831,444
Accumulated depreciation and impairment	-	(10)	(4)	-	(98,391)	-	(714)	(4,275)	-	(3,832)	(107,226)
Net book amount	237,516	486,582	44,335	7,894	77,806	9,658	207	5,186	57,316	5,920	932,420

15 Property, plant and equipment (continued)

* 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, service concession assets, library books, motor vehicles and artworks have no minimum capitalisation limit.

Land, buildings, infrastructure, service concession assets 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 statement of comprehensive income during the financial period in which they are incurred (refer to note 9).

Construction in progress is stated at cost.

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% to 20%
Library Books	25%
Leasehold improvements	Over the lease terms
Right of use assets	Over the lease terms
Service concession asset - buildings	2%

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, infrastructure and service concession assets. 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 statement of comprehensive income.

15 Property, plant and equipment (continued)**(a) Right-of-use assets**

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

	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Buildings				
At 1 January	5,125	4,150	4,953	4,100
Additions	251	1,941	251	1,682
Disposal	-	(232)	-	(232)
Depreciation charge	(842)	(687)	(710)	(547)
Adjustments	-	(50)	-	(50)
Foreign exchange differences	-	3	-	-
At 31 December	4,534	5,125	4,494	4,953
Motor Vehicles				
At 1 January	127	50	127	50
Additions	57	191	57	191
Disposal	(8)	(25)	(8)	(25)
Depreciation charge	(80)	(89)	(80)	(89)
At 31 December	96	127	96	127
Computer Equipment				
At 1 January	399	116	399	116
Additions	143	375	142	375
Disposal	(4)	(2)	(4)	(2)
Depreciation charge	(200)	(84)	(200)	(84)
Adjustments	-	(6)	-	(6)
At 31 December	338	399	337	399
Other Equipment				
At 1 January	494	261	438	183
Additions	706	366	706	366
Depreciation charge	(248)	(133)	(226)	(111)
At 31 December	952	494	918	438
Total right-of-use assets	5,920	6,145	5,845	5,917

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:

- 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.
- The customer has the right to obtain substantially all of the economic benefits from the use of the asset throughout the period of use.
- 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:
 - The customer has the right to direct how and for what purpose the identified asset is used throughout the period of use; or
 - 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.

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.

Short-term leases and leases of low-value assets

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.

15 Property, plant and equipment (continued)

(b). Service concession asset(s)

	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Land				
Opening balance	7,306	7,306	7,306	7,306
Independent valuation	281	-	281	-
Total service concession land	7,587	7,306	7,587	7,306
Buildings				
Opening balance	48,150	44,625	48,150	44,625
Independent valuation	2,539	4,418	2,539	4,418
Accumulated depreciation and impairment	(960)	(893)	(960)	(893)
Total service concession buildings	49,729	48,150	49,729	48,150
Total service concession assets	57,316	55,456	57,316	55,456

An asset constructed for the University (as a public sector grantor), and upgrades or major component replacements for existing assets of the University by private operators, are recognised as a service concession asset when the Group (grantor) controls the asset. Control of service concession assets arises when the University controls or regulates what services the operator must provide with the asset, to whom it must provide them, and at what price. Control assessment further requires that the University must control through ownership, beneficial entitlement, any significant residual interest in the asset at the end of the term of the arrangement. Grantor also controls the asset if it will be used in a service concession arrangement for either its entire economic life or the major part of its economic life.

Service concession assets are initially recognised at fair value, which is their current replacement cost in accordance with the cost approach to fair value in AASB13.

When an existing asset is used in a service concession arrangement, such an asset is reclassified as a service concession asset and measured at current replacement cost at the date of reclassification. At the date of reclassification, where there is a difference between the carrying amount of the asset and its fair value (current replacement cost), the difference is accounted for as a revaluation of the asset and recognised in other comprehensive income and accumulated in the asset revaluation reserve.

After initial recognition or reclassification, service concession assets are carried at fair value less any depreciation and impairment.

Construction in progress

Costs in relation to service concession assets under construction are recognised as Construction in Progress assets.

Refer to notes 7, 20 and 29 for further details of the accounting policy relating to, and to the impact of, service concession arrangements for the Group.

16 Intangible assets

	Consolidated		University		
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000	
Electronic library materials	16,406	15,946	16,406	15,946	
Software and software licences	1,695	744	1,695	744	
Total intangible assets	18,101	16,690	18,101	16,690	
			Electronic Library Materials	Software and Software Licences	Total
			\$'000	\$'000	\$'000
Consolidated and University					
At 1 January 2022					
Cost	29,058	4,038	33,096		
Accumulated amortisation and impairment	(13,405)	(2,895)	(16,300)		
Net book amount	15,653	1,143	16,796		
Year ended 31 December 2022					
Opening net book amount	15,653	1,143	16,796		
Additions	3,130	-	3,130		
Transfer from Construction in Progress	-	13	13		
Amortisation Charges	(2,837)	(412)	(3,249)		
Closing net book amount	15,946	744	16,690		
At 31 December 2022					
Cost	29,543	4,051	33,594		
Accumulated amortisation and impairment	(13,597)	(3,307)	(16,904)		
Net book amount	15,946	744	16,690		
Year ended 31 December 2023					
Opening net book amount	15,946	744	16,690		
Additions	3,636	63	3,699		
Transfer from construction in progress	-	1,525	1,525		
Amortisation Charges	(3,176)	(637)	(3,813)		
Closing net book amount	16,406	1,695	18,101		
At 31 December 2023					
Cost	33,179	5,639	38,818		
Accumulated amortisation and impairment	(16,773)	(3,944)	(20,717)		
Net book amount	16,406	1,695	18,101		

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 four years. Costs incurred below these thresholds are immediately expensed directly to the income statement.

17 Trade and other payables

	Note	Consolidated		University	
		2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Current					
Trade payables		10,893	853	10,575	412
Current tax liability		31	23	-	-
Accruals and other payables		30,540	29,067	30,368	28,021
OS-HELP liability to Australian Government	32(g)	1,566	917	1,566	917
Total current trade and other payables		43,030	30,860	42,509	29,350

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	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Current				
Secured				
Lease liabilities	1,415	1,224	1,347	1,026
Western Australian Treasury Corporation ^{#1}	5,780	485	5,780	485
Total current secured borrowings	7,195	1,709	7,127	1,511
Total current borrowings	7,195	1,709	7,127	1,511
Non-current				
Secured				
Lease liabilities	4,696	5,039	4,685	5,004
Western Australian Treasury Corporation ^{#1}	94,179	1,976	94,179	1,976
Commonwealth Bank of Australia	-	120,000	-	120,000
Total non-current secured borrowings	98,875	127,015	98,864	126,980
Total non-current borrowings	98,875	127,015	98,864	126,980
Total borrowings	106,070	128,724	105,991	128,491

^{#1} Loan from Western Australian Treasury Corporation is as follows:

Peel Campus loan 1: \$1.98 million (2022: \$2.46 million) which is secured by a Guarantee of the Treasurer of the State, interest bearing at a fixed rate of 6.86% and repayable in quarterly instalments by April 2027.

Boola Katitjin loan (fixed): \$48.99m which is secured by a Guarantee of the Treasurer of the State, interest bearing at a fixed rate of 4.88% and repayable in semi annual instalments by 2033.

Boola Katitjin loan (variable): \$48.99m which is secured by a Guarantee of the Treasurer of the State, interest bearing at a weighted average rate of 4.54% and repayable in semi annual instalments by 2033.

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.

18 Borrowings (continued)

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 standalone price of the lease component and the aggregate standalone 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 and other situations e.g. change in the assessment of an option to purchase the underlying asset, with a corresponding adjustment to the right-of-use asset.

(a). Financing arrangements

	Consolidated		University	
	2023 \$'000	2022 \$'000	2023 \$'000	2022 \$'000
Facilities				
Hire purchase facility	1,000	1,000	1,000	1,000
Western Australian Treasury Corporation loan facility	100,000	100,000	100,000	100,000
Commonwealth Bank of Australia	-	120,000	-	120,000
	101,000	221,000	101,000	221,000
Facilities utilised at reporting date				
Western Australian Treasury Corporation loan facility	99,959	2,461	99,959	2,461
Commonwealth Bank of Australia	-	120,000	-	120,000
	99,959	122,461	99,959	122,461
Facilities not utilised at reporting date				
Asset finance (Finance Leases)	1,000	1,000	1,000	1,000
Western Australian Treasury Corporation loan facility	41	97,539	41	97,539
	1,041	98,539	1,041	98,539

In January 2018 the University signed an agreement with Western Australia Treasury Corporation (WATC) to increase its loan facility limit to \$100 million. The amount and timing of drawdowns is subject to specific limits in the conditions of funding. 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.

On 3 May 2021 the University signed a \$120 million three year committed cash advance facility agreement with the Commonwealth Bank of Australia (CBA). It is a bridging facility to support the construction of Boola Katitjin, which was completed in February 2023. By the end of November 2023, \$120 million was repaid to CBA and the facility was subsequently terminated.

Simultaneously with the CBA repayments, the University utilised the remaining capacity of the existing WATC loan facility (\$98 million).

(b). Reconciliation of liabilities arising from financing activities

	2022		2023		
	Carrying amount	Cash flows	Non-cash changes		Carrying amount
			Acquisitions	Transfer adjustments	Other
Consolidated	\$'000	\$'000	\$'000	\$'000	\$'000
Long-term borrowings	121,976	(27,278)	-	(519)	-
Short-term borrowings	485	4,776	-	519	-
Lease liabilities	6,263	(1,413)	1,024	-	237
Total liabilities from financing activities	128,724	(23,915)	1,024	-	237
					106,070

18 Borrowings (continued)

(b). Reconciliation of liabilities arising from financing activities (continued)

University	2022	Cash flows	Non-cash changes			2023
	Carrying amount		Acquisitions	Transfer	Other adjustments	Carrying amount
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Long-term borrowings	121,976	(27,278)	-	(519)	-	94,179
Short-term borrowings	485	4,776	-	519	-	5,780
Lease liabilities	6,030	(1,252)	1,024	-	230	6,032
Total liabilities from financing activities	128,491	(23,754)	1,024	-	230	105,991

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.

19 Provisions

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Current provisions expected to be settled within 12 months				
Employee benefits:				
Annual leave	10,864	10,073	10,797	9,987
Long service leave	2,254	1,816	2,245	1,809
Employment on-costs	1,209	1,205	1,206	1,204
Other provisions:				
Management fees - St Ives Retirement Village	1,363	1,309	-	-
Other provisions	1,150	3,771	1,127	3,749
	16,840	18,174	15,375	16,749
Current provisions expected to be settled after more than 12 months				
Annual leave	5,378	3,501	5,348	3,467
Long service leave	12,559	11,812	12,508	11,766
Employment on-costs	3,202	2,957	3,191	2,946
Other provisions:				
Management fees - St Ives Retirement Village	13,643	13,384	-	-
	34,782	31,654	21,047	18,179
Total current provisions	51,622	49,828	36,422	34,928
Non-current				
Employee benefits:				
Long service leave	15,734	14,475	15,670	14,419
Employment on-costs	3,572	3,286	3,557	3,273
Other provisions	235	235	235	235
Total non-current provisions	19,541	17,996	19,462	17,927
Total provisions	71,163	67,824	55,884	52,855

19 Provisions (continued)

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	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Employment on-costs provision				
Balance at beginning of year	7,448	7,132	7,423	7,115
Additional provision	845	1,441	840	1,426
Amounts used	(310)	(1,125)	(309)	(1,118)
Carrying amount at end of period	7,983	7,448	7,954	7,423
Management fees				
Balance at beginning of year	14,693	14,481	-	-
Additional provision	1,485	1,593	-	-
Amounts used	(1,172)	(1,381)	-	-
Carrying amount at end of period	15,006	14,693	-	-
Other				
Balance at beginning of year	4,006	3,822	3,984	3,802
Additional provisions	1,127	1,300	1,127	1,298
Amounts used	(3,408)	(746)	(3,408)	(746)
Unused amount reversed	(340)	(370)	(341)	(370)
Carrying amount at end of period	1,385	4,006	1,362	3,984

19 Provisions (continued)

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.

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'. 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.

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.

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 long service leave provision is actuarially assessed and 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.

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.

Retirement benefit obligations are reported as Other Provisions.

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.

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.

Termination benefits are reported as Other Provisions.

20 Other liabilities

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Current				
Income received in advance	68,077	58,678	48,961	39,038
Australian government unspent financial assistance	1,411	2,310	1,411	2,310
GORTO liability	629	629	629	629
Resident loans*	201,658	196,888	-	-
Total current other liabilities	271,775	258,505	51,001	41,977
Contract liabilities	59,154	57,293	59,154	57,293
Total current contract and other liabilities	330,929	315,798	110,155	99,270
* Resident loans obligation	268,031	261,890	-	-
Less: Deferred Management Fees	(66,373)	(65,002)	-	-
	201,658	196,888	-	-
Non-current				
GORTO liability	11,691	12,320	11,691	12,320
Total non-current other liabilities	11,691	12,320	11,691	12,320

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. Contract liabilities are inclusive of research grant related obligations.

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. This classification distorts the University's working capital position.

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. It is highly improbable that all the residents would vacate their units at the same time and within the next 12 months.

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.

GORTO liability - grant of a right to the operator model

To the extent that the service concession liability does not give rise to a contractual obligation to provide cash to the operator, a GORTO liability is recognised as the unearned portion of the revenue arising from the exchange of assets between the University and the operator. The liability is subsequently amortised into the income statement according to the economic substance of the service concession arrangement, generally on a straight-line basis.

24 Contingent assets and contingent liabilities

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

In December 2019 the University announced it would undertake a proactive and wide-reaching review of payroll and leave entitlements. This review followed a number of well-documented incidents of underpayment of entitlements by several large organisations in Australia. The intention was to ensure that all staff at Murdoch University, past and present, received their correct entitlements. Due to the scale and complexity of this review, it is being conducted in phases, including a broad forensic audit which focuses on payroll accuracy in relation to applicable key legislation, industrial instruments and/or contractual and policy compliance. This review is ongoing; however several major phases have been completed between 2019 and 2023 and where applicable, the financial impact reflected in the Group's financial position. On the basis that the outcome of the ongoing review is not yet known, and the probability of an outflow is potentially greater than remote, the University has a contingent liability in this regard.

Other than what has been noted above, there are no other known contingent liabilities which may materially affect the Group's financial position as at the reporting date.

25 Events subsequent to reporting date

There are no 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**(a). Capital commitments**

Capital expenditure contracted for at the reporting date but not recognised as liabilities is as follows:

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Capital expenditure contracted for at the reporting date but not recognised as liabilities is as follows				
Within one year ^{#1}	2,743	18,583	2,743	18,583
Later than one year but not later than five years	669	-	669	-
Total PPE commitments	3,412	18,583	3,412	18,583

^{#1} 2022 is inclusive of commitments in relation to the construction of Boola Katitjin.

(b). Other expenditure commitments

	Consolidated		University	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Commitments relating to other expenditure are as follows:				
Within one year	10,188	8,432	10,188	8,432
Later than one year but not later than five years	10,020	12,246	10,020	12,246
Total other expenditure commitments	20,208	20,678	20,208	20,678

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	
	2023	2022	2023	2022
\$0 - \$10,000	7	6	-	-
\$10,001 - \$20,000	2	3	-	-
\$20,001 - \$30,000	3	1	-	1
\$30,001 - \$40,000	3	2	-	1
\$40,001 - \$50,000	-	1	-	-
\$50,001 - \$60,000	2	-	1	-
\$60,001 - \$70,000	-	-	-	1
\$70,001 - \$80,000	-	1	-	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	-	-	3	-
\$160,001 - \$170,000	-	1	1	-
\$170,001 - \$180,000	1	1	-	-
\$180,001 - \$190,000	1	-	2	2
\$190,001 - \$200,000	-	-	1	-
\$200,001 - \$210,000	-	1	-	1
\$210,001 - \$220,000	-	-	1	-
\$220,001 - \$230,000	-	-	1	1
\$230,001 - \$240,000	-	-	1	1
\$240,001 - \$250,000	-	-	1	1
\$250,001 - \$260,000	-	-	1	1
\$260,001 - \$270,000	-	-	1	1
\$270,001 - \$280,000	-	-	1	1
\$280,001 - \$290,000	-	-	1	1
\$290,001 - \$300,000	-	-	1	1
\$300,001 - \$310,000	-	-	1	1
\$310,001 - \$320,000	-	-	1	1
\$320,001 - \$330,000	-	-	1	1
\$330,001 - \$340,000	-	-	1	1
\$340,001 - \$350,000	-	-	1	1
\$350,001 - \$360,000	-	-	1	1
\$360,001 - \$370,000	-	-	1	1
\$370,001 - \$380,000	-	-	1	1
\$380,001 - \$390,000	-	-	1	1
\$390,001 - \$400,000	-	-	1	1
\$400,001 - \$410,000	-	-	1	1
\$410,001 - \$420,000	-	-	1	1
\$420,001 - \$430,000	-	-	1	1
\$430,001 - \$440,000	-	-	1	1
\$440,001 - \$450,000	-	-	1	1
\$450,001 - \$460,000	-	-	1	1
\$460,001 - \$470,000	-	-	1	1
\$470,001 - \$480,000	-	-	1	1
\$480,001 - \$490,000	-	-	1	1
\$490,001 - \$500,000	-	-	1	1
\$500,001 - \$510,000	-	-	1	1
\$510,001 - \$520,000	-	-	1	1
\$520,001 - \$530,000	-	-	1	1
\$530,001 - \$540,000	-	-	1	1
\$540,001 - \$550,000	-	-	1	1
\$550,001 - \$560,000	-	-	1	1
\$560,001 - \$570,000	-	-	1	1
\$570,001 - \$580,000	-	-	1	1
\$580,001 - \$590,000	-	-	1	1
\$590,001 - \$600,000	-	-	1	1
\$600,001 - \$610,000	-	-	1	1
\$610,001 - \$620,000	-	-	1	1
\$620,001 - \$630,000	-	-	1	1
\$630,001 - \$640,000	-	-	1	1
\$640,001 - \$650,000	-	-	1	1
\$650,001 - \$660,000	-	-	1	1
\$660,001 - \$670,000	-	-	1	1
\$670,001 - \$680,000	-	-	1	1
\$680,001 - \$690,000	-	-	1	1
\$690,001 - \$700,000	-	-	1	1
\$700,001 - \$710,000	-	-	1	1
\$710,001 - \$720,000	-	-	1	1
\$720,001 - \$730,000	-	-	1	1
\$730,001 - \$740,000	-	-	1	1
\$740,001 - \$750,000	-	-	1	1
\$750,001 - \$760,000	-	-	1	1
\$760,001 - \$770,000	-	-	1	1
\$770,001 - \$780,000	-	-	1	1
\$780,001 - \$790,000	-	-	1	1
\$790,001 - \$800,000	-	-	1	1
\$800,001 - \$810,000	-	-	1	1
\$810,001 - \$820,000	-	-	1	1
\$820,001 - \$830,000	-	-	1	1
\$830,001 - \$840,000	-	-	1	1
\$840,001 - \$850,000	-	-	1	1
\$850,001 - \$860,000	-	-	1	1
\$860,001 - \$870,000	-	-	1	1
Total	21	19	16	13

Short-term employee benefits

Post-employment benefits

Other long-term benefits

Termination benefits

Total key management personnel compensation

	Senate members		Senior officers	
	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000
Short-term employee benefits	1,724	1,764	3,971	2,372
Post-employment benefits	144	147	519	282
Other long-term benefits	35	74	81	82
Termination benefits	-	-	-	414
Total key management personnel compensation	1,903	1,985	4,571	3,150

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

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.

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.

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.

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 2023 Consolidated

	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
Financial assets													
Cash and Cash	110,679	(553)	(553)	553	553	(264)	(264)	264	264	-	-	-	-
Equivalents - at bank													
Amount receivable in foreign currency	1,998	-	-	-	-	(200)	(200)	200	200	-	-	-	-
Other financial assets													
Bank deposits	50,600	(253)	(253)	253	253	-	-	-	-	-	-	-	-
Listed securities	6,975	-	-	-	-	-	-	-	-	(698)	(698)	698	698
Unlisted securities	6,483	-	-	-	-	-	-	-	-	(648)	(648)	648	648
Managed funds	79,031	-	-	-	-	-	-	-	-	(7,903)	(7,903)	7,903	7,903
Financial liabilities													
Borrowings	106,070	245	245	(245)	(245)	-	-	-	-	-	-	-	-
Total increase/(decrease)		(561)	(561)	561	561	(464)	(464)	464	464	(9,249)	(9,249)	9,249	9,249

31 December 2022 Consolidated

	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
Financial assets													
Cash and Cash	106,191	(531)	(531)	531	531	(419)	(419)	419	419	-	-	-	-
Equivalents - at bank													
Amount receivable in foreign currency	386	-	-	-	-	(39)	(39)	39	39	-	-	-	-
Other financial assets													
Bank deposits	65,726	(329)	(329)	329	329	-	-	-	-	-	-	-	-
Listed securities	5,230	-	-	-	-	-	-	-	-	(523)	(523)	523	523
Unlisted securities	6,668	-	-	-	-	-	-	-	-	(667)	(667)	667	667
Managed funds	70,329	-	-	-	-	-	-	-	-	(7,033)	(7,033)	7,033	7,033
Financial liabilities													
Total increase/(decrease)		(860)	(860)	860	860	(458)	(458)	458	458	(8,223)	(8,223)	8,223	8,223

28 Financial Risk Management (continued)

(a). Market risk (continued)

31 December 2023 University

	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
Financial assets													
Cash and Cash	100,879	(504)	(504)	504	504	(264)	(264)	264	264	-	-	-	-
Equivalents - at bank													
Amount receivable in foreign currency	1,998	-	-	-	-	(200)	(200)	200	200	-	-	-	-
Other financial assets													
Bank deposits	48,234	(242)	(242)	242	242	-	-	-	-	-	-	-	-
Listed securities	5,804	-	-	-	-	-	-	-	-	(580)	(580)	580	580
Unlisted securities	6,483	-	-	-	-	-	-	-	-	(648)	(648)	648	648
Managed funds	79,031	-	-	-	-	-	-	-	-	(7,903)	(7,903)	7,903	7,903
Financial liabilities													
Borrowings	105,991	245	245	(245)	(245)	-	-	-	-	-	-	-	-
Total increase/(decrease)		(501)	(501)	501	501	(464)	(464)	464	464	(9,131)	(9,131)	9,131	9,131

31 December 2022 University

	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
Financial assets													
Cash and Cash	97,041	(485)	(485)	485	485	(419)	(419)	419	419	-	-	-	-
Equivalents - at bank													
Amount receivable in foreign currency	386	-	-	-	-	(39)	(39)	39	39	-	-	-	-
Other financial assets													
Bank deposits	61,565	(308)	(308)	308	308	-	-	-	-	-	-	-	-
Listed securities	4,102	-	-	-	-	-	-	-	-	(410)	(410)	410	410
Unlisted securities	6,668	-	-	-	-	-	-	-	-	(667)	(667)	667	667
Managed funds	70,329	-	-	-	-	-	-	-	-	(7,033)	(7,033)	7,033	7,033
Financial liabilities													
Total increase/(decrease)		(793)	(793)	793	793	(458)	(458)	458	458	(8,110)	(8,110)	8,110	8,110

(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.

28 Financial Risk Management (continued)

(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			
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Consolidated										
Financial Assets:										
Cash at bank	44,015	102,785	44,015	102,785	44,015	102,785	-	-	-	-
Term deposits	117,264	69,132	117,264	69,132	117,264	69,132	-	-	-	-
Receivables	53,896	48,090	53,896	48,090	53,890	47,074	6	1,016	-	-
Total Financial Assets	215,175	220,007	215,175	220,007	215,169	218,991	6	1,016	-	-
Financial Liabilities:										
Borrowings	106,070	128,724	140,126	136,416	9,882	6,872	35,864	127,792	94,380	1,752
Payables	43,030	30,860	43,030	30,860	43,030	30,860	-	-	-	-
Resident loan	201,658	196,888	201,658	196,888	201,658	196,888	-	-	-	-
Total Financial Liabilities	350,758	356,472	384,814	364,164	254,570	234,620	35,864	127,792	94,380	1,752
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
University										
Financial Assets:										
Cash at bank	34,215	94,341	34,215	94,341	34,215	94,341	-	-	-	-
Term deposits	114,898	64,265	114,898	64,265	114,898	64,265	-	-	-	-
Receivables	55,581	50,911	55,581	50,911	55,575	49,895	6	1,016	-	-
Total Financial Assets	204,694	209,517	204,694	209,517	204,688	208,501	6	1,016	-	-
Financial Liabilities:										
Borrowings	105,991	128,491	140,046	136,190	9,814	6,724	35,852	127,715	94,380	1,752
Payables	42,509	29,350	42,509	29,350	42,509	29,350	-	-	-	-
Total Financial Liabilities	148,500	157,841	182,555	165,540	52,323	36,074	35,852	127,715	94,380	1,752

29 Fair value measurement

(a). Fair value measurements

The fair value of financial assets and liabilities 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
- Service concession assets
- 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).

Recognised fair value measurements

Fair value measurements recognised in the statement of financial position are categorised into the following levels at 31 December 2023 and 2022.

		Carrying amount	Fair value	Level 1	Level 2	Level 3
	Note	\$'000's	\$'000	\$'000	\$'000	\$'000
2023 Consolidated						
Financial assets						
Cash and cash equivalents	11	110,679	110,679	-	-	-
Trade receivables	12	20,828	20,828	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	50,600	50,600	-	-	-
Financial assets at fair value through profit or loss						
Listed securities	13	6,975	6,975	6,975	-	-
Managed funds	13	79,031	79,031	79,031	-	-
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,483	6,483	-	-	6,483
Total financial assets		274,596	274,596	86,006	-	6,483
Non-financial assets						
Investment properties	14	269,357	269,357	-	269,357	-
Land	15	237,516	237,516	-	237,516	-
Buildings	15	486,582	486,582	-	-	486,582
Infrastructure	15	44,335	44,335	-	-	44,335
Service concession assets	15	57,316	57,316	-	7,587	49,729
Artworks	15	9,658	9,658	-	9,658	-
Total non-financial assets		1,104,764	1,104,764	-	524,118	580,646
Financial liabilities						
Payables	17	43,030	43,030	-	-	-
Borrowings	18	99,959	99,959	-	-	-
Lease liabilities	18	6,112	6,112	-	-	-
Resident loans	20	201,658	201,658	-	-	201,658
Total liabilities		350,759	350,759	-	-	201,658

29 Fair value measurement (continued)

Fair value hierarchy (continued)

	Note	Carrying amount \$000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
2022 Consolidated						
Financial assets						
Cash and cash equivalent	11	106,191	106,191	-	-	-
Trade receivables	12	15,546	15,546	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	65,726	65,726	-	-	-
Other financial assets at fair value through profit or loss						
Listed securities	13	5,230	5,230	5,230	-	-
Managed funds	13	70,329	70,329	70,329	-	-
Investments in equity instruments designated at fair value						
Unlisted securities	13	6,668	6,668	-	-	6,668
Total financial assets		269,690	269,690	75,559	-	6,668
Non-financial assets						
Investment properties	14	264,545	264,545	-	264,545	-
Land	15	227,215	227,215	-	227,215	-
Buildings	15	330,621	330,621	-	-	330,621
Infrastructure	15	43,081	43,081	-	-	43,081
Service concession assets	15	55,456	55,456	-	7,306	48,150
Artworks	15	9,083	9,083	-	9,083	-
Total non-financial assets		930,001	930,001	-	508,149	421,852
Financial liabilities						
Payables	17	30,860	30,860	-	-	-
Borrowings	18	122,461	122,461	-	-	-
Lease liabilities	18	6,263	6,263	-	-	-
Resident loans	20	196,888	196,888	-	-	196,888
Total liabilities		356,472	356,472	-	-	196,888

29 Fair value measurement (continued)

Fair value hierarchy (continued)

	Note	Carrying amount \$000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
2023 University						
Financial assets						
Cash and cash equivalent	11	100,879	100,879	-	-	-
Trade receivable	12	21,784	21,784	-	-	-
Other financial assets at amortised cost						
Bank deposit	13	48,234	48,234	-	-	-
Other financial assets at fair value through profit or loss						
Listed securities	13	5,804	5,804	5,804	-	-
Managed funds	13	79,031	79,031	79,031	-	-
Shares in subsidiaries	13	100	100	-	-	100
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,483	6,483	-	-	6,483
Total financial assets		262,315	262,315	84,835	-	6,583
Non-financial assets						
Investment properties	14	269,357	269,357	-	269,357	-
Land	15	237,516	237,516	-	237,516	-
Buildings	15	486,582	486,582	-	-	486,582
Infrastructure	15	44,335	44,335	-	-	44,335
Service concession assets	15	57,316	57,316	-	7,587	49,729
Artworks	15	9,658	9,658	-	9,658	-
Total non-financial assets		1,104,764	1,104,764	-	524,118	580,646
Financial liabilities						
Payables	17	42,509	42,509	-	-	-
Borrowings	18	99,959	99,959	-	-	-
Leases	18	6,032	6,032	-	-	-
Total liabilities		148,500	148,500	-	-	-

29 Fair value measurement (continued)

Fair value hierarchy (continued)

	Note	Carrying amount \$'000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
2022 University						
Financial assets						
Cash and cash equivalent	11	97,041	97,041	-	-	-
Trade receivables	12	18,374	18,374	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	61,565	61,565	-	-	-
Financial assets at fair value through profit or loss						
Listed securities	13	4,102	4,102	4,102	-	-
Managed funds	13	70,329	70,329	70,329	-	-
Shares in subsidiaries	13	100	100	-	-	100
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,668	6,668	-	-	6,668
Total financial assets		258,179	258,179	74,431	-	6,768
Non-financial assets						
Investment properties	14	264,545	264,545	-	264,545	-
Land	15	227,215	227,215	-	227,215	-
Buildings	15	330,621	330,621	-	-	330,621
Infrastructure	15	43,081	43,081	-	-	43,081
Service concession assets	15	55,456	55,456	-	7,306	48,150
Artworks	15	9,083	9,083	-	9,083	-
Total non-financial assets		930,001	930,001	-	508,149	421,852
Financial liabilities						
Payables	17	29,350	29,350	-	-	-
Borrowings	18	122,461	122,461	-	-	-
Lease liabilities	18	6,030	6,030	-	-	-
Total liabilities		157,841	157,841	-	-	-

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.

29 Fair value measurement (continued)

(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 three years. Land, buildings, infrastructure and service concession assets (classified as property, plant and equipment) are valued independently every three 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 2023 valuation for the University buildings under operating lease (including commercial buildings) was conducted by an independent licensed valuer, McGees Property. 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 land (including land under operating lease) was performed by McGees Property. The buildings, infrastructure and service concession assets were independently valued by Mash 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 a 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.

29 Fair value measurement (continued)

(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 2023 and 2022.

Consolidated	Buildings	Infrastructure	Service concession assets	Unlisted securities	Resident loan	Total
2023	\$'000	\$'000	\$'000	\$'000	\$'000's	\$'000
Fair value at start of period	330,621	43,081	48,150	6,668	(196,888)	231,632
Acquisition	141,654	290	-	-	-	141,944
Settlements	-	-	-	-	1,371	1,371
Revaluation increment / decrement recognised through other comprehensive income	23,196	1,830	2,539	(185)	-	27,380
Depreciation expense	(8,889)	(866)	(960)	-	-	(10,715)
Revaluation decrement recognised in profit and loss	-	-	-	-	(6,141)	(6,141)
	486,582	44,335	49,729	6,483	(201,658)	385,471
2022						
Fair value at start of period	295,758	36,503	44,625	6,414	(188,837)	194,463
Acquisition	1,772	4,040	-	-	-	5,812
Settlements	-	-	-	-	(416)	(416)
Revaluation increment recognised through other comprehensive income	40,159	3,322	4,418	254	-	48,153
Depreciation expense	(5,929)	(748)	(893)	-	-	(7,570)
Disposals	(1,139)	(36)	-	-	-	(1,175)
Revaluation decrement recognised in profit and loss	-	-	-	-	(7,635)	(7,635)
	330,621	43,081	48,150	6,668	(196,888)	231,632

University	Buildings	Infrastructure	Service concession assets	Unlisted securities	Total
2023	\$'000	\$'000	\$'000	\$'000	\$'000
Fair value at start of period	330,621	43,081	48,150	6,668	428,520
Acquisition	141,654	290	-	-	141,944
Revaluation increment / decrement recognised through other comprehensive income	23,196	1,830	2,539	(185)	27,380
Depreciation expense	(8,889)	(866)	(960)	-	(10,715)
	486,582	44,335	49,729	6,483	587,129
2022					
Fair value at start of period	295,758	36,503	44,625	6,414	383,300
Acquisition	1,772	4,040	-	-	5,812
Revaluation increment recognised through other comprehensive income	40,159	3,322	4,418	254	48,153
Depreciation expense	(5,929)	(748)	(893)	-	(7,570)
Disposals	(1,139)	(36)	-	-	(1,175)
	330,621	43,081	48,150	6,668	428,520

Transfers between levels 2 and 3 and changes in valuation techniques.

There were no transfers of financial assets / liabilities between levels 2 and 3.

29 Fair value measurement (continued)

(d). Fair value measurements using significant unobservable inputs (level 3) (continued)

Valuation inputs and relationships to fair value

Consolidated and University Description	Fair value at 31 December 2023 \$'000's	Fair value at 31 December 2022 \$'000's	Valuation technique	Unobservable inputs	Range of inputs (probability weighted average)	Relationship of unobservable inputs to fair value
Investment in unlisted securities	763	1,072	Adjusted asset approach	Estimated net assets available for distribution to shareholders upon wind-up	Not applicable	Increase in equity will result in higher fair value
Investment in unlisted securities	5,720	5,596	Adjusted asset approach	Estimated net assets available for distribution to shareholders upon wind-up	Not applicable	Increase in equity will result in higher fair value

30 Related Parties

(a). Parent entity

The ultimate parent entity within the Group is Murdoch University.

(b). 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 %	
		2023	2022
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
Murdoch Singapore Pte Ltd	Singapore	100	100
The Alan & Iris Peacocke Research Foundation	Australia	100	100
Algae Harvest Pty Ltd	Australia	100	100

(c). Key management personnel

The University had no material related party transactions (greater than \$10,000) with Senate members, Senior Officers or their close family members or their controlled entities. Other disclosures relating to key management personnel are set out in note 27.

(d). Transactions with related parties

Aggregate amounts included in the determination of the net result from ordinary activities that resulted from transactions with related parties:

	University	
	2023	2022
	\$'000	\$'000
Wholly owned entity		
Donations, sponsorships and bequests	2,310	10,550
Other fees and charges	14,759	16,705
Dividend received	-	1,650
Rental and lease charges	188	198
Other expenditure	(1,502)	(84)
Recovery of salaries	(843)	(265)

(e). Outstanding balances

Aggregate amounts receivable from, and payable to, each class of related parties at balance date:

	University	
	2023	2022
	\$'000	\$'000
Wholly owned entity		
Inter-entity receivable	2,092	3,648
Inter-entity (payable)	(1,058)	-

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 2023, the assets of the DBD in aggregate were estimated to be \$5.2 million above vested benefits, after allowing for various reserves. The Vested Benefit Index based on funding assumptions was 119.9%. 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 2023, the assets of the DBD in aggregate were estimated to be \$7.8 million above accrued benefits, after allowing for various reserves. The Accrued Benefit Index based on best estimate assumptions was 132.9%. 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 2023. The financial assumptions used were:

	Vested Benefits	Accrued Benefits
Gross of tax investment return - DBD pensions	6.7% p.a.	7.6% p.a.
Gross of tax investment return - commercial rate indexed pensions	3.8% p.a.	3.8% p.a.
Net of tax investment return - non pensioner members	5.8% p.a.	6.6% p.a.
Consumer Price Index		
- Year 1	5.0% p.a.	5.0% p.a.
- Year 2	3.5% p.a.	3.5% p.a.
- Beyond 2 years	2.5% p.a.	2.5% p.a.
Inflationary salary increases		
- For the next 2 years	4.25% p.a.	4.25% p.a.
- Beyond 2 years	3.50% p.a.	3.50% p.a.

Assets have been included at their market value; that is, after allowing for realisation costs.

32 Acquittal of Australian Government Financial Assistance

	Commonwealth Grants Scheme ^{#1}		Indigenous Student Success Program ^{#4}		Access and Participation Pool		Disability Performance Funding ^{#2}		Indigenous, Regional and Low-SES Attainment Fund		Higher Education and Domestic Micro-credentials		Promotion of Excellence in Learning and Teaching		National Priorities and Industry Linkage Fund		Other		Total	
	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022	2023	2022
Parent Entity (University) Only	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	95,506	97,920	1,213	1,145	-	-	277	147	2,765	3,160	60	-	-	-	3,394	3,279	-	-	103,215	105,651
Revenue for the period	2(a)	95,506	97,920	1,213	1,145	-	277	147	2,765	3,160	60	-	-	-	3,394	3,279	-	-	103,215	105,651
Adjustment ^{#3}	-	-	-	-	-	-	-	318	-	-	-	-	-	-	-	-	-	-	-	318
Surplus/(deficit) from the previous year	-	-	(80)	(102)	(14)	(14)	-	-	37	-	-	-	45	45	5,529	3,167	4	-	5,521	3,096
Total revenue including accrued revenue	95,506	97,920	1,133	1,043	(14)	(14)	277	465	2,802	3,160	60	-	45	45	8,923	6,446	-	-	108,736	109,065
Less expenses including accrued expenses	(95,506)	(97,920)	(1,216)	(1,123)	-	-	(279)	(465)	(2,817)	(3,123)	(60)	-	-	-	(1,726)	(917)	-	(4)	(101,604)	(103,552)
Transfer from Balance Sheet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	4	-	4
Surplus/(deficit) for reporting period	-	-	(83)	(80)	(14)	(14)	(2)	-	(15)	37	-	-	45	45	7,197	5,529	-	-	7,132	5,517

^{#1} Includes the basic CGS grant amount, CGS – Regional Loading, CGS – Enabling Loading, CGS – Medical Student Loading, CGS – 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.

^{#3} Funded by the University.

^{#4} 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 (excl OS-HELP)

	HECS-HELP (Aust. Government payments only)		FEE-HELP		SA-HELP		Total
	2023	2022	2023	2022	2023	2022	2023
Parent Entity (University) Only	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Cash Payable/(Receivable) at the beginning of the year	(31)	1,123	302	313	62	306	1,498
Financial assistance received in cash during the reporting period	53,313	55,848	6,596	7,521	1,702	1,854	61,611
Cash available for the period	53,282	56,971	6,898	7,834	1,737	1,916	66,721
Revenue earned	53,150	57,002	7,119	7,532	1,697	1,881	66,415
Cash Payable/(Receivable) at the end of the year	132	(31)	(221)	302	40	35	(49)

32 Acquittal of Australian Government Financial Assistance (continued)

(c). Department of Education and Training Research

	Research Training Program		Research Support Program		Total	
	2023	2022	2023	2022	2023	2022
Parent Entity (University) Only	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	9,700	9,827	6,382	7,502	16,082	17,329
Revenue for the period	2(c)	9,700	9,827	6,382	7,502	16,082
Surplus/(deficit) from the previous year	(1,206)	(1,206)	-	-	(1,206)	(1,206)
Total revenue including accrued revenue	8,494	8,621	6,382	7,502	14,876	16,123
Less expenses including accrued expenses	(8,494)	(9,827)	(6,382)	(7,502)	(14,876)	(17,329)
Surplus/(deficit) for reporting period	-	(1,206)	-	-	-	(1,206)

(d). Total Higher Education Provider Research Training Program expenditure

	Total domestic students	Total overseas students
	\$'000	\$'000
Research Training Program Fees offsets	4,859	522
Research Training Program Stipends	2,657	456
Total for all types of support	7,516	978

(e). Other Capital Funding

	Other Capital Funding			Total
	2023	2022	2023	2022
Parent Entity (University) Only	\$'000	\$'000	\$'000	\$'000
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	500	8,000	500	8,000
Net accrual adjustments	(379)	(8,496)	(379)	(8,496)
Revenue for the period	121	(496)	121	(496)
Surplus/(deficit) from the previous year	-	496	-	496
Total revenue including accrued revenue	121	-	121	-
Less expenses including accrued expenses	(121)	-	(121)	-
Surplus/(deficit) for reporting period	-	-	-	-

(f). Australian Research Council Grants

	Discovery		Linkages		Total	
	2023	2022	2023	2022	2023	2022
Parent Entity (University) Only	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	1,208	1,769	286	444	1,494	2,213
Net accrual adjustments	-	(100)	-	-	-	(100)
Revenue for the period	2(d)	1,208	1,669	286	444	1,494
Surplus/(deficit) from the previous year	3,327	3,067	2,587	2,143	5,914	5,210
Total revenue including accrued revenue	4,535	4,736	2,873	2,587	7,408	7,323
Less expenses including accrued expenses	(1,167)	(1,409)	(15)	-	(1,182)	(1,409)
Surplus/(deficit) for reporting period	3,368	3,327	2,858	2,587	6,226	5,914

32 Acquittal of Australian Government Financial Assistance (continued)

(g). OS-HELP

	2023	2022
	\$'000	\$'000
Parent Entity (University) Only		
Cash (returned)/received during the reporting period	1,368	(401)
Cash spent during the reporting period	(719)	(228)
Net cash received	649	(629)
Cash surplus/(deficit) from the previous period	917	1,546
Cash surplus/(deficit) for the reporting period	17	917

(h). Student Services and Amenities Fee

	2023	2022
	\$'000	\$'000
Parent Entity (University) Only		
Unspent/(overspent) revenue from previous period	(393)	(198)
SA-HELP revenue earned	2(b) 1,697	1,881
Student Services and Amenities Fees direct from students	4 2,000	1,000
Total revenue expendable in period	3,304	2,683
Student services expenses during period	(3,274)	(3,076)
Unspent/(overspent) student services revenue	30	(393)

33 US Department of Education financial responsibility supplemental schedule

For the year ended 31 December 2023, the US Department of Education require the financial information used to compute the 'composite score' be included in the higher education providers financial statement, which was previously lodged separately. The below information has been disclosed for the current year only, being 31 December 2023 as the required information for the comparative year has been separately submitted.

Location in Financial Statement & Related Notes	Note	Financial Element	2023 \$'000
Primary Reserve Ratio: Expendable Net Assets			
Calculated (Exclude Note 11a restricted cash)	A	Net assets without donor restrictions	957,983
Statement of Financial Position		Net assets with donor restrictions	979,382
Note 30: Related Parties		Secured and Unsecured related party receivable	-
Note 30: Related Parties		Unsecured related party receivable	-
Note 15: PPE		Property, plant and equipment, net (includes Construction in progress)	932,420
Calculated (Exclude CIP)	D	Property, plant and equipment – pre-implementation	-
Note 15: PPE		Construction in progress	7,894
Note 15: PPE		Property, plant and equipment - post implementation with outstanding debt for original purchase	932,420
Note 15: PPE		Property, plant and equipment - post implementation without outstanding debt for original purchase	832,461
Note 15: PPE		Lease right-of-use asset, net	5,920
Note 16: Intangible assets		Intangible assets	18,101
Note 19: Provisions		Total provisions	71,163
Note 19: Provisions		Post-employment and pension liabilities	-
Note 18: Borrowings		Long-term debt - for long term purposes	99,959
Note 18: Borrowings		Lease right-of-use asset liability	6,111
Statement of Financial Position		Net assets with donor restrictions: restricted in perpetuity	979,382
Primary Reserve: Expenses and Losses			
Income Statement		Total expenses without donor restrictions –taken directly from Statement of Activities	466,944
Statement of Comprehensive Income	C	Non-Operating and Net Investment (loss)	37,962
Equity Ratio: Modified Net Assets			
Calculated (Excluded Note 11a restricted cash)		Net assets without donor restrictions	957,983
Statement of Financial Position		Net assets with donor restrictions	979,382
Note 16: Intangible Assets		Intangible assets	18,101
Note 30: Related Parties		Secured and Unsecured related party receivable	-
Note 30: Related Parties		Unsecured related party receivables	-
Net Income Ratio			
Equity Ratio: Modified Assets			
Statement of Financial Position		Total assets	1,542,388
Note: 16 Intangible Assets		Intangible assets	18,101
Note 30: Related Parties		Secured and Unsecured related party receivable	-
Note 30: Related Parties		Unsecured related party receivable	-
Statement of Financial Position	A-B	Change in Net Assets Without Donor Restrictions	38,211
Income statement less (Net assets released from restrictions)		Total Revenues and Gains	472,586
Notes to US Department of Education financial responsibility supplementary schedule			
A - Net assets without donor restrictions 2023			
Statement of Financial Position		2023 Net Assets	979,382
Note 11a restricted cash (Philanthropic funds only)		less: Donor Restrictions	(21,399)
Calculated (Exclude Note 11a restricted cash)		Net assets without donor restrictions 2023	957,983
B - Net assets without donor restrictions 2022			
Statement of Financial Position		2022 Net Assets	935,844
Note 11a restricted cash (Philanthropic funds only)		less: Donor Restrictions	(16,072)
Calculated (Exclude Note 11a restricted cash)		Net assets without donor restrictions 2022	919,772
C - Non-Operating and Net Investment (loss)			
Statement of Comprehensive Income		Gains on revaluation of land, buildings, infrastructure and service concession assets, net of tax	38,147
Statement of Comprehensive Income		Gain on equity instruments designated at fair value through OCI	(185)
Statement of Comprehensive Income		Non-Operating and Net Investment (loss)	37,962
D - Property, plant and equipment – post-implementation			
Note 15: PPE		Property, plant and equipment, net (includes Construction in progress)	932,420
Note 15: PPE		Less: Construction in progress	(7,894)
Calculated (Exclude CIP)		Property, plant and equipment – post-implementation	924,526

Key Performance Indicators

Murdoch University's purpose is "the advancement of learning and knowledge, and the provision of university education". Our Purpose and Vision is put into action through Strategy 2023-2030: Building a Brighter Future, Together: *Ngala Kwop Bididi*.

The Strategy is built on three Strategic Themes – Sustainability; Equity Diversity and Inclusion (EDI); and First Nations – that articulate our values and principles and drive expression of our Core Activities of Education, Research, and Engagement. Achievement of these strategic objectives is supported by three strategic Enablers, which underpin our ability to achieve our Vision – Empower and develop our people; Improve our systems and processes; and Develop and enhance our facilities.

In *Ngala Kwop Bididi*, we acknowledged that finding metrics to measure progress against the individual strategic objectives is challenging. Measuring our success is an important driver of behaviour at both the institutional and individual level. Therefore, the University will measure its performance against the broad outcomes to be achieved through the objectives for the strategic themes (Sustainability, EDI, First Nations) and core activities (Education, Research and Engagement).

Key Performance Indicators (KPIs) approved by the Murdoch University Senate provide a measure of overall progress against the Strategic Themes and Core Activities of the Strategy 2023-2030. They each measure either the effectiveness of the University's efforts in reaching strategic goals by achieving a given result, or the efficiency of the University's efforts by comparing one result to another in a ratio.

Throughout the Strategy there are some aspirational targets defined. Based on these targets and benchmarking across the sector, Senate endorsed management defined targets that will allow the University to measure its performance and provide appropriate direction for future actions. These annual targets may be adjusted over time to reflect progress made and to help continue momentum towards achieving, and even going beyond, the goals of *Ngala Kwop Bididi*.

Satisfaction with overall experience

Murdoch University provides a supportive and flexible educational environment that seeks to produce graduates who are adaptable and have fresh perspectives and a social conscience. The interaction between courses, pedagogy and curriculum that underpin students' education and the learning support and institutional culture embodied in the strategic themes is critical to students' overall experience at Murdoch.

We aim to deliver education "with a high quality and engaging student experience" (Education Objective) and to "build a welcoming, diverse and inclusive community and environment that is equitable and safe" (EDI Objective). Undergraduate Student Satisfaction is a measure of student perceptions of their engagement with the University. It is a student-centric measurement that links directly to current student experience that provides evidence of success in meeting these key components of our strategic objectives.

The University participates in the annual national Student Experience Survey (SES). The SES is a national survey run by the Quality Indicators in Learning and Teaching (QILT) team from the Social Research Centre (SRC). Current students are offered this survey after completing at least one study period with their institution, with data collected in August each year. This includes perspectives from domestic and international students across undergraduate and postgraduate coursework degrees.

An aspirational target of 83% has been set for 2030 for both undergraduate and postgraduate students, with interim targets assuming linear improvement from the 2022 result.

The return of students to campus after the disruptions of Covid across 2020-2022 – in particular to the new Boola Katitjin academic building – together with an increase in international student numbers, who generally are more satisfied with their studies, has seen strong improvement in student satisfaction for both undergraduate and postgraduate students.

Year	2022	2023 Target	2023	2030 Target
Undergraduate Overall Satisfaction	75.1%	76.1%	77.4%	83.0%
Postgraduate Overall Satisfaction	73.5%	74.7%	79.8%	83.0%
Response Rate	37.0%		46.1%	

Proportion of Domestic Students that identify themselves as of Aboriginal and Torres Strait Islander heritage

Building the proportion of all First Nations students in the domestic student population reflects the objective of "becoming the University of choice for First Nations peoples" (First Nations Objective) both in terms of attraction and success.

The proportion of First Nations students is measured as those domestic students that self-identify as being of Aboriginal or Torres Strait Islander heritage, as a proportion of all domestic students. Domestic students are those having domestic citizenship, with reportable load and not enrolled on a cross-institutional basis, extracted from a snapshot of the report year's student data taken no earlier than 31 January of the following year*.

The Strategic Plan target is for the proportion of First Nations students in our domestic student population to match their representation in Western Australia's population by 2030. In the 2021 census, First Nations people represented 3.3% of population.

* The data source used to calculate Proportion of Domestic Students that identify themselves as of Aboriginal and Torres Strait Islander heritage has changed. As indicated, calculations of this KPI have been made using an internal annual data snapshot. The prior-year's result has been recalculated from the new data and disclosed for comparative purposes.

Through the support offered to prospective and enrolled students by the Kulbaradi Aboriginal Centre, Murdoch has been successful in attracting First Nations students. Programs such as *Deadly Dreaming*, which offers engagement and outreach activities for more than 500 high school students, and the successful K Track Enabling Program have strengthened engagement with community and provided opportunities for First Nations students to pursue university study.

2022	2.0%
2023 Target	2.4%
2023	2.4%
2030 Target	3.30%

Normal Retention Rate for Domestic Commencing Bachelor Students

Our Education Objective seeks to "deliver contemporary, accessible and inclusive education, producing graduates who are adaptable and have fresh perspectives and a social conscience". In order to *graduate* students from a variety of backgrounds, Murdoch must provide a quality learning experience that *retains* students over time to allow them to complete their course of study. Improving student retention also indicates that the educational experience is meeting the educational needs of our students (contemporary, accessible, inclusive).

We focus on the retention rate of domestic students who have recently commenced studying towards a bachelor's degree. For many in this cohort, particularly school leavers, their undergraduate enrolment represents their first exposure to tertiary-level study, and we want to make the transition as smooth as possible. Supporting students through their first year of undergraduate study lays a solid foundation for success throughout their course, leading to eventual graduation.

Retention measures what proportion of a cohort is still present in a subsequent time period. The normal retention rate includes only those students continuing at Murdoch, allowing for a timely calculation of retention that is better aligned to strategic action.

The base for the Normal Retention rate for 2022 is those students who commenced a bachelor-level course and undertook reportable load in 2022*.

Students who were still enrolled at Murdoch at census in 2023, not necessarily in the same course, are classified as 'retained'. A small proportion of students will no longer be enrolled as they have graduated, classified as 'completed', and the remaining students are classified as "not retained".

The normal retention rate for 2022 is then calculated as the number of students 'retained' into 2023 as a proportion of the combined number of students either 'retained' or 'not retained' into 2023.

This measure is a lag indicator that demonstrates the proportion of students retained into the current year from the previous year. As such the reported results are for 2022 and the 2023 retention rate will be reported in 2024.

In line with the objectives of *Ngala Kwop Biddi*, an aspirational target was set for 2030 of 83.0%; annual targets reflect continued momentum with growth of around two percentage points each year.

Strategies to improve our retention rate include early identification of students at risk of attrition combined with effective, compassionate, and supportive options that leave dropping out as the avenue of last resort. Student surveys indicate that students are increasing their engagement with their peers and are more satisfied with their teaching quality and engagement with teaching staff. These indicators, together with our focus on at risk students provide a strong signal that Murdoch is taking positive steps to achieve future targets for retention.

* The Normal Retention Rate for Domestic Commencing Bachelor Students includes only students who are retained at Murdoch, a change from prior year's calculation which included students retained in the sector as per Government reported data. The reported result has been calculated using an internal annual data snapshot and the prior-year's result has been recalculated from the new data and disclosed for comparative purposes.

2021	70.8%
2022 Target	72%
2022	70.4%
2030 Target	83%

Total Domestic Undergraduate Load (EFTSL)

Domestic student load is a core driver of the size and shape of the University as well as providing evidence of the attractiveness of our curriculum offerings and the way in which they are delivered through our ability to attract and retain a broad student base.

Increasing domestic student load meets the Education Objective of delivering in-demand courses but also reflects on our ability to meet the University's purpose of "the provision of university education" to strengthen the Western Australian economy.

This measure captures the total reportable Equivalent Full Time Student Load (EFTSL) of all domestic undergraduate enrolments, extracted from a snapshot of data taken no earlier than 31 January of the previous year's student data**.

The Strategy 2023-2030 anticipates growth in domestic student load, both undergraduate and postgraduate. Domestic undergraduate student load projections to 2030 have been prepared as part of the budget forecast and provide annual targets for domestic undergraduate load that are built on a compound annual growth rate of 5% in student intake from the existing student base.

Declining ATAR attainment and associated national decline in domestic student enrolments and current low unemployment rates have limited the potential pool of new students, reducing intakes over recent years which has put downward pressure on total load.

2022	7,133
2023 Target	6,450
2023	6,358
2030 Target	7,156

** The source used to calculate student load (EFTSL) data has changed from 2022. As indicated, calculations of this KPI have been made using an annual data snapshot. Previous reporting relied on lagging Government data. Prior-year's result has been recalculated from the new data and disclosed for comparative purposes.

Total Onshore International Student Load (EFTSL)

Murdoch seeks to develop and strengthen its global engagement to ensure the University derives the maximum benefit from our international engagement, both teaching and research, for our domestic students and our research outcomes. This aligns with our Engagement Objective to build engagement with our global society, creating mutually beneficial partnerships at all levels.

Attracting international students onshore at all levels (undergraduate, postgraduate coursework, and higher degree research) provides a measure of the success of our engagement strategies and the strength of our reputation internationally.

Total Onshore International Student Load is defined as the total reportable Equivalent Full Time Student Load (EFTSL) of all international students studying at any of Murdoch's onshore campuses, extracted from a snapshot of data taken no earlier than 31 January of the previous year's student data³.

By 2030 it is anticipated that the University will have strong growth in international students coming to our WA campuses from a wide range of countries. Murdoch is actively recruiting international students and, as part of our budget forecasting, has projected growth of 10% year-on-year in intakes from the current base.

Murdoch saw strong growth in the international student market, reflecting national trends as students return to onshore study post-Covid as well as strong recruiting programs across diverse international markets.

2022	1,681
2023 Target	4,389
2023	4,927
2030 Target	11,977

Consolidated Operating Margin (%)

Critical to the effective management of the University's operations to maintain its educational and research excellence is a framework that delivers financial sustainability.

The *Murdoch University Act* defines our purpose as "the advancement of learning and knowledge, and the provision of university education". *Ngala Kwop Biddi* sets out three Enablers that underpin the University's ability to achieve the six Strategic Outcomes. They are Empower and Develop our People; Improve our Systems and Processes; and Develop and Enhance our Facilities.

These Enablers shape the financial framework within which the Operating Margin demonstrates the financial capacity to support the University's capital and strategic investment requirements. The Operating Margin provides an *efficiency* measure, indicating the level of resourcing able to be retained while delivering the strategic and statutory directions of the University.

The Operating Margin is calculated as the consolidated surplus or deficit as a percentage of total consolidated revenue. The annual target is set through the budget process.

In 2023, Murdoch University forecast a balanced budget and, through effective management and increased international student numbers, was successful in attaining a surplus.

2022	-10.2%
2023 Target	-4.7%
2023	1.2%

Other Disclosures

People and Culture

Chief People Office

In a proactive response to the evolving landscape of higher education and the dynamic needs of its workforce, Murdoch University initiated a strategic realignment within the Chief People Office in 2023. Under the leadership of the Chief People Officer, this transformation focused on the development of three key areas crucial to the University's success. The Head of Health, Safety, and Wellbeing spearheaded efforts to enhance the holistic wellness and safety of the university community. The Head of Leadership Services and People Strategy dedicated efforts to fortify the leadership capabilities of the university, fostering a culture of innovation and collaboration. The Head of People Services and People Strategy are focussed on initiatives to optimise operational efficiency and align human resources with the overarching organisational strategy. This strategic reconfiguration, supported by Employee Relations, underscores Murdoch University's commitment to delivering on its University Strategy while simultaneously meeting operational and compliance requirements in the ever-evolving higher education landscape.

Senior Leadership Team

Professor Don A. Klinger assumed the role of Deputy Vice Chancellor Education on 3 July, bringing his wealth of experience to this pivotal position. Joining him on the same date, Professor Peter Eastwood took on the role of Deputy Vice Chancellor Research and Innovation, contributing his expertise to drive innovation and research excellence at the university. We also welcomed our Chief Financial Officer on 18 February, whose strategic financial leadership is integral to our continued success. Additionally, on 1 February, we were privileged to welcome Associate Professor Martin Brueckner as Pro Vice Chancellor Sustainability, Ms Chanelle van den Berg as Pro Vice Chancellor First Nations, and Dr Rebecca Bennett as Pro Vice Chancellor Equity, Diversity, and Inclusion. These esteemed leaders bring diverse perspectives and expertise to their respective roles, aligning with our commitment to inclusivity.

On 1 January, 2024 Alex Iles will commence as Chief Experience Officer, completing the senior leadership team structure. These appointments reflect the University's dedication to assembling a team of accomplished professionals who will contribute to continued growth and success.

Academic Promotion Review

Over the past year, Murdoch University, through the Academic Development Working Group, has conducted a comprehensive review of the academic promotion framework, aiming to fortify a commitment to recognising and rewarding academic excellence, while fostering an inclusive and diverse environment. The Academic Development Working Group was led by the Vice Chancellor, two National Tertiary Education Union (NTEU) appointed representatives and senior academic leaders who are professors and the Chief People Officer. It is anticipated that the updated framework will be released in 2024, with a reviewed policy, procedure, application process, assessment criteria and committee structure.

Fixed Term Contract Conversions

Murdoch University embarked on a year-long initiative to convert a majority of fixed-term contracts, excluding funded roles. This transformation aligns with amendments to the *Fair Work Act 2009 (Cth)* and, more importantly, reflects the University's dedication to the principles outlined in the "Building a Brighter Future" initiative, prioritising continuing employment over casual and fixed-term arrangements. The project was led by the People and Culture Office, with support from the Finance Office. The conversion of these contracts marks a significant milestone in Murdoch University's commitment to creating a supportive and secure environment for its valued staff.

Enterprise Agreement

Negotiations with the NTEU for the 2023 Agreement commenced in June 2023, with the University being represented by both Professional and Academic employees. The negotiations commenced with a smoking ceremony and comments from the Vice Chancellor and WA Branch President of the NTEU.

The bargaining teams adopted a novel approach to negotiations which was to ensure that the Murdoch Values of authenticity, integrity, respect, inclusivity, and openness were adhered to. This decision allowed for the bargaining meetings to take place in good faith with positive, outcomes-focussed discussions.

2023 was very much a watershed year for agreements with significant legislative changes needing to be incorporated as well as the Murdoch team focussing on delivering an agreement that would meet the needs of the University over the next 3 years.

Key initiatives in the 2023 Enterprise Bargaining Agreement (EBA)

- Increased cultural and ceremonial leave for First Nations employees.
- An allowance to acknowledge the cultural workload of our First Nations employees.
- A commitment to increase the number of First Nations employees to approximately 35 FTE.
- A new Academic workload model that recognises the dynamic nature of academic work
- A commitment to create 35 continuous academic roles.
- 30 days paid gender affirmation leave.
- An increase to 20 days (from 5) paid Partner Leave
- 2 days paid volunteering leave.
- Regular six-monthly pay increases during the life of the Agreement

Workday

The University successfully embedded the core Human Capital Management (HCM) Phase 1. Building on the implementation of Phase 1, Phase 2 was focussed on delivering increased

functionality including: flexible financial planning tools to enable data driven insights for more informed decision making; integrating time tracking functions for timesheet employees to enable more effective legislative compliance and payroll processing.

Remediation

The Payroll Remediation Program completed the casual professional classification and step increment review, which saw approximately 900 current and former employees receive remediation payments relating to incorrect classification and/or step increments dating back to 2015. The program also oversaw changes to systems and procedures to prevent this type of issue occurring again. Additionally, the program completed a review of award and EBA entitlements for employees of MU Active. The review identified a small number of current and former employees who had not received the correct penalties and overtime allowances, and payments to these employees are underway and expected to be completed in early 2024. The current focus for the program is a review of casual academic payments.

Pulse Survey

In September 2023, the University conducted an anonymous Staff Pulse Survey to gauge engagement and sentiment among its staff. 881 staff members participated, representing a commendable 26% response rate. Notably, over 58% of respondents were from professional staff, just over 37% from academic staff, and the remainder bridging both categories. This survey marked the first since 2021, and the outcomes reflected a noteworthy upswing in overall sentiment and optimism throughout the University. An encouraging 66% of staff expressed positivity about Murdoch's current trajectory. The results also pinpointed specific areas warranting attention, and we are pleased to report that initiatives addressing these gaps are already underway. Looking ahead, plans are in motion for a more comprehensive engagement survey in the coming year. The forthcoming survey will serve as a foundation for further University-wide and local-level action planning, ensuring a strategic and targeted approach to enhancing our University's work environment.

Health Safety and Wellbeing

A five year Health Safety and Wellbeing strategy was developed in 2023. The strategic objective is to build an inclusive, safe, healthy and caring environment where all community members can reach their full potential. During 2023 the strategic focus was compliance to Work Health and Safety and Workers compensation legislation and integration of Wellbeing into Health and Safety for Murdoch employees.

The focus on compliance resulted in a review and re-development of key foundational safety requirements. Key achievements include, to date 27 procedures reviewed, many totally re-written and in final consultation with Health and Safety Representatives. The Health Safety and Wellbeing (HSW) consultation and communication process was reviewed and six new HSW Committees developed with meeting conducted and all HSR's trained. The risk management process has been reviewed and totally re-written.

There are extensive high-quality resources available to Murdoch University employees and students regarding Wellbeing. Onsite this includes a chiropractic clinic, several psychology services, a medical centre, and gym. Most of these services are provided at minimal cost to employees and students. Employee assistance (EAP) is available to employees with the current provider Assure.

In 2023 the utilisation rate was nine percent. During 2023 the Lost Time Injury Frequency Rate was 3.11. There have been no improvement notices for Murdoch University and three notifiable incidents.

Headcount	Continuous and Fixed Term	Casual
Academic	663	621
Professional	1010	811
Total	1673	1432

Significant Factors Affecting the University

Economic Fundamentals and Competition

Economic conditions in Western Australia through 2024 are expected to ease, with the domestic economy expected to grow by around 2.25% in 2023-2024.

Wage growth is expected to outpace inflation and increases in the commercial sector expected to flow on to government agencies and higher education.

Strong migration to WA and stabilisation of the number of people employed give rise to an expected rise in unemployment from 3.5% in 2022-23 to 4.5% by 2025-26, albeit well below the long-run average of 6.1%. This relatively low rate of unemployment puts pressure on student demand for university study, both for a significant proportion of school leavers to whom both TAFE and industry are more appealing than university, as well as mature age students for whom the economic trade-off of study versus employment favours the latter.

One of the outcomes of the Employment White Paper was a process to consult on a National Skills Passport aimed at supporting a more dynamic and efficient labour market. This will lead to a framework that will seek to make all credentials; including university and VET qualifications, microcredentials and employment related credentials; standardised, digitised, shareable and verifiable.

Australian Universities Accord

Under the auspices of the Australian Universities Accord, a Panel, chaired by Professor Mary O'Kane, conducted a 12-month review of the sector with the objective of improving the quality, accessibility, affordability and sustainability of higher education, in order to achieve long term security and prosperity for the sector and the nation.

The Panel released an interim Report in July 2023, making five recommendations for priority action. In response, the Commonwealth acted to:

- Establish additional Regional University Study Hubs and new Suburban University Study Hubs.
- Abolish the 50 percent pass rule but require increased reporting on student progress.
- Extend demand driven funding to all eligible First Nations students.
- Extend the Higher Education Continuity Guarantee for a further two years to provide funding certainty to universities, although universities are required to invest any remaining funding from their grant each year on additional academic and learning support for students from poor backgrounds, from the regions and from other under-represented groups.
- Work with State and Territory governments to improve university governance, with a focus on student and staff safety and ensuring universities are good employers.

The Panel presented its Final Report to the Minister for Education on 28 December 2023. It contains 47 recommendations for change. Over 2024, consultation on the implementation of the recommendations will take place with significant legislative and financial implications for the sector.

Governance Disclosures

Impact of legislation

The *Higher Education Support Amendment (Response to the Australian Universities Accord Interim Report) Act 2023* made amendment to the Higher Education Support Act 2023.

The University is subject to the *Building and Construction Industry (Security of Payment) Act 2021*. Stage 2 came into effect on 1 February 2023 and Stage 3 to come into effect on 1 February 2024).

The *Fair Work Legislation Amendment (Secure Jobs, Better Pay) Act 2022* has implemented a number of changes to the Fair Work Act, to which the University is subject. Various amendments came into effect in 2023.

With effect from 9 November 2023, the *Competition and Consumer Act 2010* has been amended to expand the scope of the unfair contract terms regime, and the penalties thereunder.

Insurance of Officers

During the financial year, the Group has paid premiums in respect of a contract insuring Directors, Company Secretary and other Officers against liabilities incurred in their capacity as Director or Officer, as the case may be, of the consolidated entity. The contract prohibits disclosure of the nature of the liabilities and the amount of the premium.

Complaints handling

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: <https://www.murdoch.edu.au/explore/leadership-governance/complaints>

The feedback provided through the complaints process informs University's continuous improvement.

Freedom of information

This year Murdoch University received five valid applications (of which one application is still current) under Freedom of Information legislation. In addition, the University received two requests for information that could be provided outside of the Freedom of Information process.

Records Management

The University has an approved Recordkeeping Plan 2018 and Sector Disposal Authority in compliance with the *State Records Act 2000*. The Recordkeeping Plan is reviewed every five years.

A review was commenced in 2023. A report on the review was submitted to the State Records Office and an amended Recordkeeping Plan will be submitted to the State Records Commission by 10 August 2024.

The University conducts an online recordkeeping awareness training course for staff. The training addresses responsibilities under the *State Records Act 2020* including the creation, capture, access, management, and disposal of records. All staff are required to complete course on appointment and to complete it again every two years to maintain currency of knowledge.

The University is currently progressing readiness for the State Government's forthcoming Privacy and Responsible Sharing of Information legislation.

Media and Advertising Expenditure

Section 175ZE of the *Electoral Act 1907* requires the University to include a statement in the Annual Report setting out details of expenditure incurred by the University during the financial year in relation to advertising agencies, direct mail organisations, media advertising organisations and market research organisations.

The total expenditure incurred by the University during the 2023 financial year in that respect is \$3,754,332 and is outlined below:

Advertising Agencies	\$437,199
-----------------------------	------------------

Wunderman Thompson
 Edukudu
 Nani Creative
 &Partners Agency Pty Ltd
 Gettin Hectic Australia

Media Advertising	\$3,094,134
--------------------------	--------------------

Dentsu X Australia
 Equilibrium Interactive
 Meltwater News Australia Pty Ltd
 Calyco Productions
 Clip Media
 Rift Photography WA Pty Ltd

Market Research	\$223,000
------------------------	------------------

Kantar Public Australia
 The RepTrak Company





Perth campus
90 South Street,
Murdoch WA 6150

Rockingham campus
Dixon Road,
Rockingham WA 6168

Mandurah campus
Education Drive,
Mandurah WA 6210

Murdoch Dubai
Level 1, Block 18
Dubai Knowledge Park
P.O. Box 500700
Dubai, United Arab Emirates

Murdoch Singapore
#06-04 Kings Centre,
390 Havelock Road,
Singapore 169 662