

# Annual Report 2022



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## 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.



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# Statement of Compliance

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


9 March 2023

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 2022.

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



**Gary Smith**  
Chancellor



**Professor Andrew J Deeks**  
Vice Chancellor and President

# Chancellor's Foreword



**In 2022, we all experienced a transition from the emergency pandemic response of the prior two years to a more “COVID-managed” position. The virus was still with us following more than 900 days in a government-declared State of Emergency, but Western Australia finally moved to a lower alert level.**

Throughout the year, Murdoch people continued to deliver excellence in teaching and research, to the benefit of the University and its stakeholders.

I pay homage to the resilience of staff over the last few years, not only in dealing with the impact of the pandemic on our students and University operations, but also engaging powerfully in the inevitable period of disruption that arises from the significant change introduced through several new leadership appointments.

One of the most significant steps taken by the University Senate in 2022 was the commencement of a highly experienced Vice Chancellor and President in Professor Andrew Deeks.

Professor Deeks came to Murdoch after many years in senior leadership roles at universities in the United Kingdom and Ireland, including eight years as the President of University College Dublin. Prior to his leadership experience on the other side of the world, Professor Deeks spent much of his career at The University of Western Australia. This broad experience has allowed him to bring to Murdoch University an understanding of the Australian higher education landscape with a strong global reputation and focus, evidenced by his appointment as President of the prestigious International Association of Universities in 2022.

Emerging from COVID and the impact on domestic and international student numbers, the University is in a position that is common to many universities across the world, where we must carefully tend our financial resources. It has been pleasing to see our new Vice Chancellor move quickly to develop a 2023–2030 University Strategy which, among its many ambitions, provides a clear pathway for strong student growth and financial sustainability that carries support from across the entire University community.

During 2022 and prior to the arrival of Professor Deeks, we

enjoyed the strong support of Professor Jane den Hollander AO as Interim Vice Chancellor for the University. Jane will be remembered positively for her willingness to immediately engage transparently and compassionately with staff, providing an opportunity for our staff and student community to speak freely about challenges confronting the University. Our new Vice Chancellor has taken that feedback and translated it into a series of strategic actions to set the University up for long-term success and stability.

Whilst these comments may be a little sobering for some, it is important that we acknowledge a difficult time and thank those that have endured and even thrived through the last couple of years. It is also important to note, however, that our University continues to excel in many areas.

2022 was a year that saw the University receive its maximum seven-year re-registration from our national regulatory body, the Tertiary Education Quality and Standards Agency; we witnessed the return of face-to-face graduation ceremonies at Murdoch’s campuses in Perth, Singapore and Dubai; we proudly launched a new Indigenous research institute – the Ngangk Yira Institute for Change; our Australian National Phenome Centre led by Professor Jeremy Nicholson performed world-leading research on Long COVID; and Murdoch continued to attract world-leading academics to the benefit of our students and research beneficiaries globally.

It was also pleasing to monitor the construction of the new academic building Boola Katitjin (Noongar for “lots of learning”) over the course of 2022 – the first major investment in Murdoch’s learning and teaching infrastructure for many years – and we look forward to its commencement as a major teaching facility at our Perth campus early in 2023.

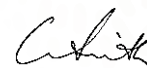
Importantly, I acknowledge the Senate and its members, members of committees and subsidiary company boards. I also acknowledge two outstanding Senate appointments in Professor Robyn Owens and Gail McGowan.

I also report that during 2022, I announced my intention to step down from my role as Chancellor during 2023. It has been an enormous honour to serve Murdoch University since mid-2019 and I look forward to a supportive transition for my successor in due course.

I will leave Murdoch University as it strongly reasserts a new strategy with foundational values focused on a teaching and research sustainability agenda that is well-placed to address society’s most pressing challenges.

As this will be my last report, I close in wishing Murdoch’s community of scholars, professional staff, students

and our many stakeholders the very best as we move from strength to strength. I will watch closely and with pride the progress of the University over the years ahead.



**Gary Smith**  
Chancellor

*Chancellor Gary Smith with Adele Chew Ee Lin, who delivered the Valedictory Address at the Singapore graduation ceremony in 2022*



# Vice Chancellor's Report



I am pleased to present my first annual report as Vice Chancellor of Murdoch University. It has been a pleasure to return to my home State of Western Australia after more than a decade working in universities abroad, including the last eight years as President of University College Dublin. Much had changed during my time away, with Perth maturing as a globally competitive and confident city that is also recognised as one of the world's best places to live.

Founded in 1974 as the State's second University, Murdoch is widely known for its commitment to the environment and conservation; social justice and inclusion; and for providing pathways into higher education for more people.

While every aspect of the way we live, work and relate to one another has changed fundamentally since 1974, Murdoch's historic alignment with sustainability and social justice is as relevant as ever. As I said at my Investiture ceremony in May, Murdoch is a natural leader for this agenda – not only in Western Australia, but nationally and globally.

2022 has been a challenging year, particularly financially, as the world emerges from the shadow of the COVID-19 pandemic. Nevertheless, we have worked together as a community to support our students through their learning journeys, pushed forward our research, and undertaken a number of significant actions to position the University well for the future and provide a foundation from which we can build.

In December, we launched our new *Strategy 2023–2030 Building a Brighter Future, Together – Ngala Kwop Biddi*, which focuses on three key themes:

- **Sustainability:** a leading university in education, teaching and translational research in sustainability.
- **Equity, Diversity and Inclusion:** building a welcoming, diverse and inclusive community and environment which is equitable and safe.
- **First Nations:** becoming the University of choice for First Nations people.

The Strategy provides the opportunity to restate the University's overarching values, identity and purpose, while anticipating future opportunities and the steps we will take to achieve our vision. It also provides a framework for achieving a truly sustainable campus by 2030.

Other important actions taken during 2022 to position Murdoch include:

- Adoption of a new School and College structure, which empowers academic leadership and management at the Discipline/School level, with newly appointed leaders to take up roles from 1 January 2023.
- Retirement of the previous academic workload model to ensure all research-active colleagues can conduct research.
- Incremental implementation of Workday, with Murdoch becoming the first WA university to move to an Enterprise Resourcing Platform. Workday will support productivity and streamline our Finance and People and Culture activities.
- Setting a sustainable budget for 2023, recognising that the University's financial position remains extremely challenging in the short to medium term.
- A project to develop research institute and school websites that empower academic staff to deepen their engagement with students, partners and collaborators.





*Chancellor Gary Smith, Professor Andrew Deeks and WA Governor Kim Beazley AC stand on Bush Court following the Investiture Ceremony on May 31*

On a personal note, I enjoyed the Staff Awards in November, recognising the wonderful contributions of Murdoch people across teaching and learning, research and professional services, and attending graduation ceremonies – my first as Vice Chancellor – in Perth, Singapore and Dubai.

Our successes across Teaching and Learning, Research and Innovation, engagement activities, diversity and equity, and capital development – including our new academic building Boola Katitjin – are all captured in this Annual Report. But none of our successes are possible without our people,

and in my relatively short time as Vice Chancellor, I have discovered a community of passionate researchers, educators and professional staff who are committed to building a brighter future for Murdoch. I thank everyone for welcoming me and staying the course through a very busy year, but one which puts in place the strategies and structures we will need to support Murdoch's success.

I also express my gratitude to Interim Vice Chancellor Jane den Hollander AO for so ably supporting the Murdoch community in the early months of 2022. Jane did vital work following a

period of turbulence, laying some important foundations for rebuilding the University collective.

My appreciation also to the Senate for its good governance and guidance, and to Chancellor Gary Smith, who has been a source of ongoing support and encouragement to me and served the University so well over the past 3 ½ years. I wish him well in all future endeavours.

**Professor Andrew J Deeks**  
Vice Chancellor and President

# Key Statistics



## Student Statistics\*

		2022	2021	2020	2019	2018
<b>Number of students</b>	<b>Total</b>	<b>21,270</b>	<b>23,296</b>	<b>25,406</b>	<b>25,426</b>	<b>24,095</b>
	Commencing	7,574	8,480	9,551	10,553	10,134
<b>Student load (EFTSL)*</b>	<b>Total</b>	<b>13,864</b>	<b>15,435</b>	<b>17,335</b>	<b>17,412</b>	<b>16,066</b>
	Undergraduate	11,904	13,173	14,294	14,211	13,569
	Postgraduate	1,960	2,262	3,041	3,202	2,497
Student load by	Commonwealth Grant Scheme	7,656	8,801	9,897	9,569	9,168
funding source	Research Training Program	322	352	323	316	338
(EFTSL)*	Domestic fee paying					
	- Undergraduate	6	1	5	1	2
	- Postgraduate	486	593	591	584	604
	International onshore	1,668	1,886	2,923	3,112	2,109
	Transnational	3,699	3,759	3,558	3,798	3,816
	Other	28	42	39	32	30
OUA student load	Total	409	554	670	436	470
(EFTSL)*	Murdoch reported*	191	283	314	177	201
	OUA reported	218	272	356	260	270

## Staff Statistics^

<b>Staff (FTE)</b>	<b>Total</b>	<b>1,699</b>	<b>1,641</b>	<b>1,808</b>	<b>1,890</b>	<b>1,771</b>
	Academic					
	Teaching only or mainly	320	330	368	410	298
	Research only or mainly	101	96	96	79	76
	Teaching and research	278	266	301	324	376
	Other	22	21	24	28	19
	Professional	979	929	1,019	1,048	1,002

## Financial Statistics (Consolidated)

	2022	2021	2020	2019	2018
			Restated		
Net operating result (\$000s)	-37,198	14,637	-7,198	24,294	15,603
Operating margin (%)	-10.2	3.7	-1.8	6.0	4.2
Net assets (\$000s)	935,844	924,356	863,260	857,714	821,829
Total assets (\$000s)	1,491,492	1,338,893	1,230,622	1,206,674	1,149,687
Total revenue (\$000s)	365,328	392,308	392,724	406,919	371,923
Total research income (\$000s)	35,768	31,251	32,033	38,630	36,036

\*Data based on Murdoch University's reportable student load only. Values are subject to student revisions.

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

# Purpose and Priorities

## Our Shared Purpose

To change lives and society for the better through accessible education and research, contributing to the solution of societal and environmental challenges and providing an inclusive, caring community in which everyone can realise their potential.

## Our Values

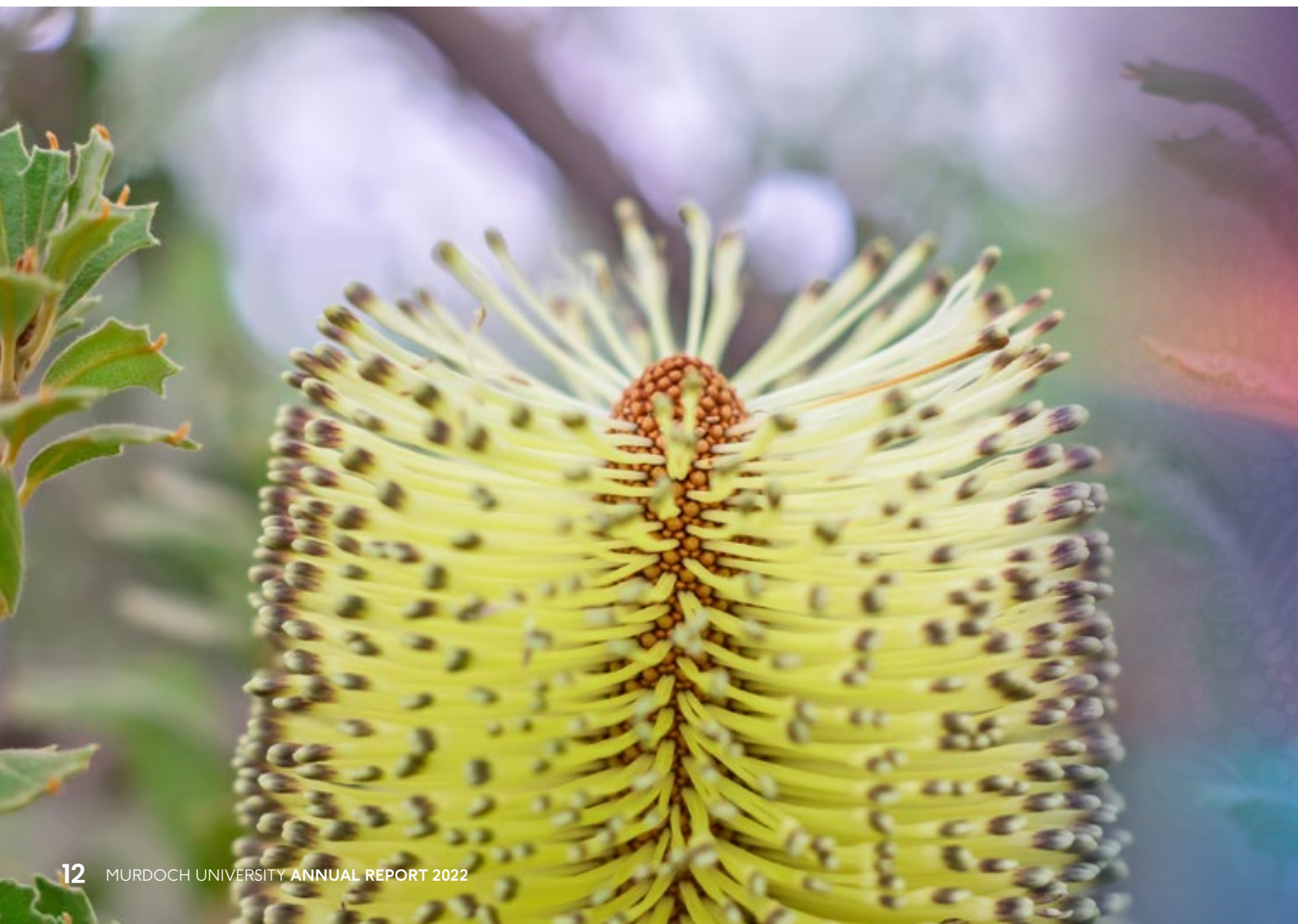
These five values guide how we behave individually and as a collective as we undertake our purpose:

- Authenticity
- Integrity
- Respect
- Inclusivity
- Openness

## Our Principles

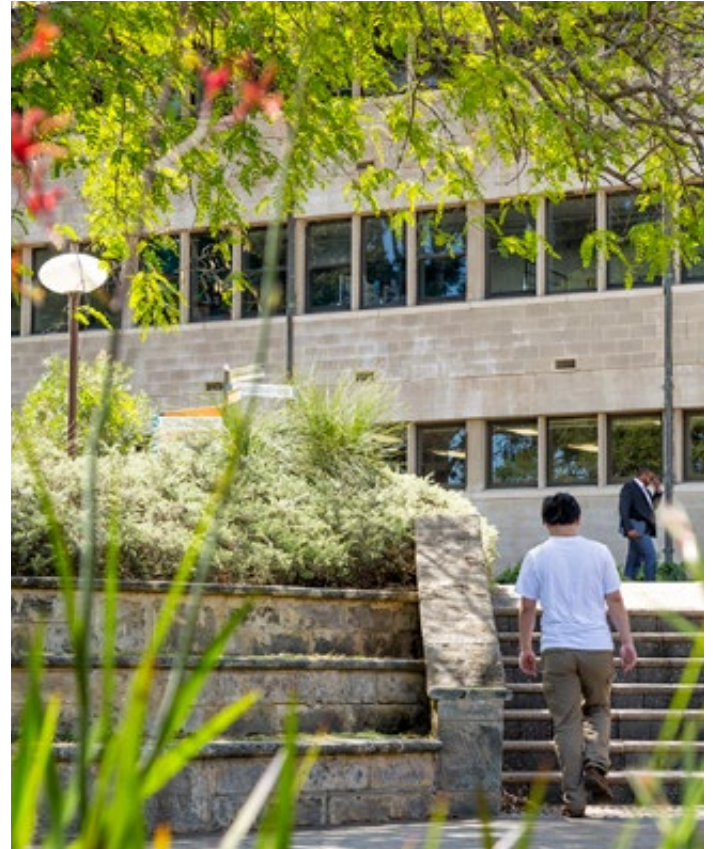
These eight principles guide how we lead, manage and work together. We will:

- Act with justice, respect and responsible care
- Be collegiate and respectful of other points of view
- Protect academic freedom
- Be agile, flexible and resilient
- Make decisions at the most appropriate level
- Be transparent in decision-making and with information
- Adopt common approaches to common tasks
- Be careful stewards of our resources



## Our Vision

Our vision is that Murdoch University will 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 societal impact. We will be a leading university in education, teaching and research in sustainability; a thriving, welcoming, diverse and inclusive community. Murdoch University 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.



### Sustainability

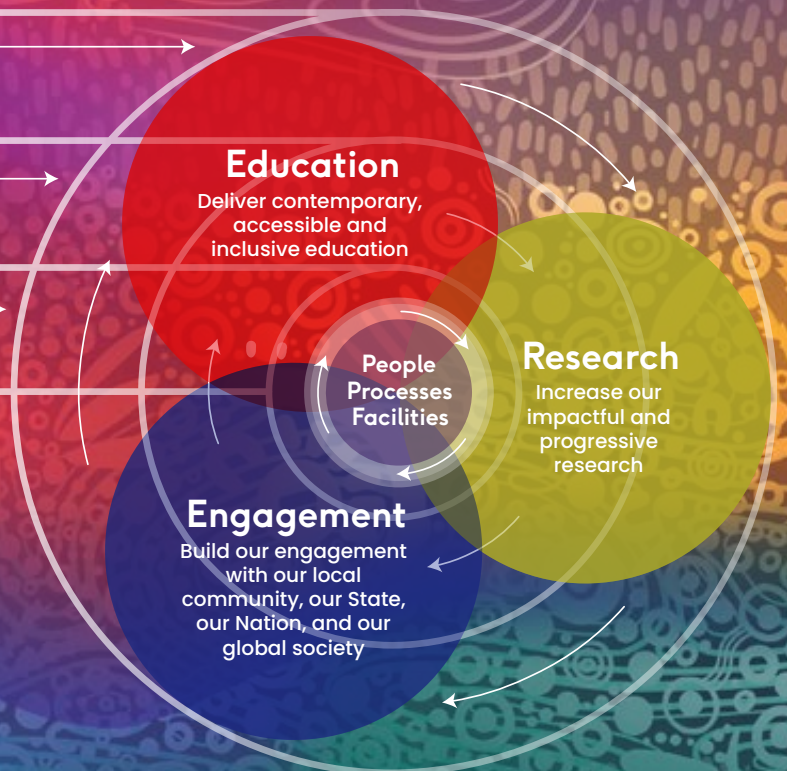
Be a leading university in education, teaching, and translational research in sustainability

### Equity, diversity and inclusion

Build a welcoming, diverse and inclusive community

### First Nations

Become the University of Choice for First Nations peoples



# Education

*2022 graduation ceremonies were held across all Murdoch campuses*



***Key objective: 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.***

**Despite the residual impact of the COVID-19 pandemic and closed borders on student intake in 2022, Murdoch academics continued to deliver excellent outcomes for students through a holistic approach encompassing all aspects of the University experience.**

Murdoch students were able to stay on their study path through a combination of face-to-face and online learning, under the guidance of world-leading academics and with access to cutting edge research and technology – all delivered within an inclusive, caring environment which actively supports student wellbeing.

The University's approach was recognised in the **QS Stars University Ratings** released in 2022, with Murdoch achieving five-star ratings in teaching, employability, research, internationalisation, innovation and inclusiveness.

During the year, significant changes were made to the previous academic structure, with the standing down of the previous two-College structure and the creation of five new Colleges effective from 1 January 2023: the College of Business; College of Environmental and Life Sciences; College of Health and Education; College of Science, Technology, Engineering and Mathematics; and the College of Law, Arts and Social Sciences.

Following widespread consultation with key stakeholders, the University also launched **a new Strategy** at the end of 2022 with the core activity of Education to be delivered via contemporary, accessible and inclusive education, with a high quality and engaging student experience producing graduates who are adaptable, have fresh perspectives and a social conscience.

Key to this ambition is developing a strong and compelling expression of the University's collective identity and the uniqueness of its offerings, focusing on Murdoch's strengths and differences.



## Academics prepare for the opening of landmark education building 'Boola Katitjin'

Alongside its construction during 2022, academic staff prepared to transition to teaching and learning in Boola Katitjin, which is fitted with a variety of innovative technologies and learning spaces.

A Learning and Teaching Change Team was recruited to support academics and preparations included professional learning, guidance for teaching staff, promotions and timetabling support. A pilot learning space modelled on Boola Katitjin was also established as a proof of concept and to assist with professional learning.

Boola Katitjin is designed to maximise collaborations and interactions between students. Technology will also deliver a better hybrid learning experience for those students who, by necessity or preference, are learning online.

Online students or students at Murdoch's Singapore and Dubai campuses, for example, could join Perth students in real time to participate in group work with their Australian-based peers.

Once open from Semester 1 2023, the University expects 35% of compatible teaching activities will be timetabled in Boola Katitjin.

Academic staff and students will teach and learn in a variety of new spaces including:

- Nine Collaborative Learning Spaces for 60, 90 and 120 students. These flexible spaces feature state-of-the-art technology, including screens, microphones and tracking cameras, multiple large whiteboards and digital displays.
- Eight Technology Enhanced Learning (TEL) spaces, equipped with the latest audio-visual and virtual collaboration tools allowing students to engage in individual or group activities virtually and in person. These spaces support the creation of hybrid learning environments, where remote

students can actively participate and collaborate with their in-person peers.

- The Digital Hub encompassing multiple venues focuses on formal and informal digital learning and includes two 60-person computer labs, a laptop lounge, creative workshop space, and a digital immersive learning space. The computer labs will be used in a wide range of teaching applications and courses, including information technology, graphic design, media, mathematics and statistics, and geospatial data.
- The Creative Workshop Space is designed for a range of uses including workshops, art projects, design models, concept mapping, ideation sessions, rehearsing multi-media performances, or working on theatrical set designs.
- The Digital Immersive Lab will allow students to enter virtual reality environments to better understand complex topics and practice "real-world" simulations.



*Boola Katitjin's Northern Plaza*



## Learning, Teaching and Technology

### 2022 highlights

Murdoch University hosted the **Western Australian Teaching and Learning Forum**, with the theme of (Re)connecting. The forum was attended by more than 200 delegates from the five Western Australian universities and other educational institutions in Western Australia and beyond.

The **Digital On-ramp** project was completed in 2022. This project was originally created in response to the need for online learning and teaching during the COVID-19 pandemic. In 2022, the Digital On-ramp was extended with additional support measures for international students who were unable to study onshore in Australia. The project sought to attract international students to commence their first year of study offshore before moving to Australia to complete their studies.

Activities included a review of unit activities and materials, as well as improving myMurdoch Learning (LMS) unit design, and embedding learning support. A virtual study hub was also established, and student support and success activities were increased. LMS migrated to Microsoft Teams as the new virtual classroom tool, replacing Blackboard Collaborate.

In 2022, **academic and pastoral support** for new and returning international students was expanded.

From the second half of 2022, the University returned to a larger proportion of **face-to-face exams** due to the stability of COVID-related conditions and the winding back of pandemic restrictions.

The **Work Integrated Learning** pillar experienced a modest increase in placements in non-accredited disciplines and continued to strengthen foundational capabilities through increased staffing and establishment of a new mandatory student placement orientation module.

The University completed a substantial redevelopment of its **Assessment and Grades Policy** as a result of consultation with stakeholders and approval from Academic Council. This will provide a better framework for delivery of contemporary assessment and assurance of learning.

**In 2022, the Digital On-ramp was extended with additional support measures for international students who were unable to study onshore in Australia.**



## Education and Equity

### 2022 highlights

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

Murdoch is undertaking projects that enhance student employability from 2022-24 with three areas of focus: STEM-skilled graduates, Work Integrated Learning (WIL), and industry partnerships.

In 2022, the NPILF funded eight positions across Education and Equity, Work Integrated Learning and Strategic Partnerships. Key achievements included:

- Significant updates and improvements to the WIL Sonia interface used by students, business, industry and government to access work placements.
- Governance approval of the Spine alternative unit to teach data analytics to non-STEM students, with 121 students enrolled as at the Semester 2 census.
- Engagement of Prodigy Learning as a partner to provide Microsoft Learn micro-credentials to students.
- Fit-out of the STEM Outreach Lab.
- Industry experts contributing to teaching and curriculum in the Bachelor of Business, Bachelor of Science (Medical, Molecular and Forensic Science), and Bachelor of Food Science and Nutrition.
- The first annual touch point report for the Department of Education.

Funding was allocated through the **Regional Partnerships Project Pool Program** (\$125,000 in phase one with an estimated \$1.1 million for phase two) to run a pilot project aimed at increasing university participation among rural and regional students in the Wheatbelt region.

The project was carried out in the second half of 2022 in a consortium with two other WA universities and included several on-site engagements with local community members including primary schools, high schools and youth clubs.

These engagements uncovered several issues, including a decreasing and ageing population; local schools struggling to attract and retain teachers; general disengagement of students in school; housing availability; the high volume of well-paid low-skilled job offers in the region; unreliable Internet services; low levels of digital literacy; and marginalisation in some areas.

In terms of access to university education, issues included the lack of financial support for low socio-economic status (LSES) students; the reluctance of students to leave home, low morale and active discouragement from parents, and gaps in understanding about the available pathways into university.

The second phase of the project will include a focus on further consultations with a range of stakeholders, providing greater information about options and pathways to local people in positions of influence, and promotion of current and future tertiary qualifications that will be needed in the regions. From there, the project will identify the issues that need to be addressed together and propose solutions that can inform submissions to State and Federal Government agencies.

**Funding was allocated through the Regional Partnerships Project Pool Program (\$125,000 in phase one with an estimated \$1.1 million for phase two) to run a pilot project aimed at increasing university participation among rural and regional students in the Wheatbelt region.**

## Student and Library Services

### 2022 highlights

A **new library system** was implemented in 2022, with the University moving from Sierra to the industry leading product ALMA. This project was delivered on time and on budget. With the digital library being a core component for learning, teaching and research, ALMA allows a more integrated user and staff experience, reducing manual workarounds and providing better management of complex subscriptions. The Library Research Repository is also moving to the research information management system Exploro to meet the changing needs of research repositories. Exploro can provide capacity for the delivery of research staff profiles, ensuring greater visibility of Murdoch's outstanding researchers.

Responding to changes in Federal Government reporting guidelines, the University has successfully implemented the **Tertiary Collection of Student Information (TCSI)** project that reports student enrolments and information to the Government. In addition, the requirement for students to have a Unique Student Identifier as part of Government reporting has been successfully delivered. Implementation of the Job-ready Graduates Package required an extensive rework of not only the University's systems and processes, but also its policies, with significant changes in monitoring to ensure Murdoch students know how to maintain their Commonwealth Supported Place throughout their degree.

The University responded to an unprecedented number of applications from **international students** following the opening of Western Australia's and international borders in 2022. Extensive quality and compliance improvements in international admissions were well tested by the number of international applicants for the first half of 2023, which nearly doubled the previous 2019 record. Admissions staff responded by implementing improved processes and systems to successfully manage the high number of offers and acceptances.



*The Meet Murdoch team*

### Meet Murdoch team among Australia's best

Prospective students often have their first taste of Murdoch University via the Meet Murdoch team. The team includes professional and student casual staff, who provide important insights into university life for future students.

In 2022, Meet Murdoch was benchmarked against a range of industries by customer experience experts CSBA. The service achieved a rating of the best university in Western Australia, second highest across all Australian universities, and fourth across all 203 survey participants from a wide range of Australian industries.

The recognition was a credit to the Meet Murdoch team for providing an outstanding customer experience to prospective students, ensuring they felt cared for from the very beginning of their student journey.



*The Access, Wellbeing and Equity Team won the Vice Chancellor's Living Our Guiding Principles and Values Award*

Murdoch has a long and successful history of providing **flexible enabling pathways** into university education for more people. In 2022, the University made several changes to its existing enabling pathways, which will come into effect from 2023. These included: amalgamation of OnTrack and FlexiTrack to OnTrackFlex for potential students who did not qualify for direct entry into Murdoch; alignment of learning outcomes across University Preparation Pathway (UPP) programs; alignment of unit code prefixes and level across all UPP units; and refinements to flexible study mode and delivery.

The University also signed a formal agreement with Kaplan Higher Education to provide a new pathway college for international students. **Murdoch College** will open at the South St campus from Semester 1 2023, establishing a pathway for students, both domestic and international, to progress to undergraduate and postgraduate degree courses at Murdoch University.

The results of the 2021 **National Student Safety Survey** were released in early 2022. A total of 43,819 students participated nationally, with 1,389 responses from Murdoch students. Of those that responded, 11.9% said they had experienced sexual harassment while 1% experienced sexual assault in the previous 12 months. As a result of the survey, the University is working to ensure all parts of campus are safe spaces; that students are more aware of how to report harassment or assault and know how to seek support and assistance; while all students

understand respectful relationships and consent. The University is increasing the availability of its Bystander Intervention Training so students can actively support their peers.

Murdoch introduced its new **2022–2026 Disability Access and Inclusion Plan (DAIP)** to build on work done over many years to ensure the University provides a safe, accessible, inclusive and equitable physical and digital environment for staff, students and visitors. The plan ensures the University remains accountable and delivers structures, policies and practices that foster inclusion and encourage and celebrate diversity. A range of actions are described in the plan, including mental health and wellbeing support; improved accessibility in digital and physical environments, and access to appropriate resources, information, and assistive technologies.

The University's **Access, Wellbeing and Equity** team won the Vice Chancellor's Living Our Guiding Principles and Values Award at the 2022 Staff Awards Ceremony. The team was recognised for its work in sustaining a learning and working environment where students and staff can thrive. The citation noted that throughout the pandemic, the team responded creatively to support the mental health needs of an increasingly vulnerable student cohort grappling with lockdowns and social isolation, and provided timely COVID advice, contingencies and vaccinations for Murdoch's community.

## Awards, Announcements and Events

Murdoch's Veterinary Sciences was recognised as among the world's best in the **2022 Global Ranking of Academic Subjects** by Shanghai Ranking. Veterinary Sciences climbed four places from the previous year to 43rd in the world and fourth in Australia, reflecting an upward trend over several years. The Animal Hospital at Murdoch (TAHMU) also welcomed the arrival of Western Australia's first standing MRI module to help avoid injuries in horses. The standing MRI can detect soft tissue damage, bone bruising and oedema, which can be early signs of bone injury. Supported by Racing and Wagering WA, the Advanced Standing Imagery Suite will offer a previously unavailable service to the horse community and TAHMU's veterinary partners from 2023.

Murdoch was recognised with two citations in the prestigious **Australian Awards for University Teaching**. Professor Cassandra Berry and Murdoch's SimLab™ were both awarded a Citation for Outstanding Contribution to Student Learning. The judges described Professor Berry as a *"dedicated teacher with an eye for introducing and developing innovative approaches"* while Murdoch's SimLab™ was recognised for offering students a sector-leading virtual classroom teaching experience.

Higher Degree by Research (HDR) students benefited from the extension and redevelopment of the University's Kaadadjiny Program. The Kaadadjiny training schedule supports HDR students to develop skills and knowledge relevant to both academia and industry, including writing, public speaking, project management, coding, research funding, and quantitative and qualitative analyses. Students graduate with valuable transferable skills to accompany their strong research experience and expertise.

One of the training highlights of 2022 was the development and delivery of coding and statistics training. Coding is a highly sought-after skill; and over 150 Murdoch HDR candidates developed their coding skills in 2022. The academic team also piloted an intensive two day course, which saw over 40 Murdoch staff and HDR candidates receive training in the R programming environment.



Professor Cassandra Berry

In 2022, the University observed significant growth in HDR completions. From 2017 to 2021, mean HDR conferrals were 111 (range: 105 to 121). In 2022, 157 HDR candidates were conferred, an increase of 41% from the last five-year average, led by a significant increase in the number of conferrals (+328%: 2022 = 36 conferrals, 2017 to 2021 average = 8.4) attributed to the Accelerated Research Masters with Training and traditional Research Masters with Training. These outcomes were shared across the University, with 20 different areas of research contributing to this success. As HDR completions are important drivers of future Research and Training Program block grant funding, this outcome is helping to ensure future research success at Murdoch University.

Senior academic and researchers Dr Paola Magni was inducted into the **WA Women's Hall of Fame** in 2022. Dr Magni, a forensic entomologist, analyses insects to help solve murders, suspicious deaths and cold cases. She is one of only 120 women in her field world-wide and leading the world in her niche area of solving crimes that occur underwater. Dr Magni was one of 16 women inducted into the Hall of Fame, which recognises and celebrates the achievements of outstanding WA women.

Murdoch's Kulbardi Aboriginal Centre welcomed 24 young Aboriginal people from across Western Australia for the **National Indigenous Business Summer School WA**. The four-day summer school offered students from years 9 to 11 the opportunity to spend time with business academics and mentors from Murdoch and partner host universities Curtin, UWA, Notre Dame and ECU. With the theme *Katitjiny Boya Birrit* – Noongar for *"pathway to understanding business"* – the summer school was organised with the support of the Australian Business Deans Council to provide students with an immersive experience and taste of university life, all within a supportive environment.

# Global outlook



**By the end of the year, international acceptances for the first half of 2023 were tracking at nearly double the same time in 2019 and nearly triple 2020, with 2023 set to be the largest international intake on record.**



Emerging from the most challenging period of the COVID-19 pandemic, demand from international students wishing to study at Murdoch rebounded strongly in 2022.

The State Government opened the borders in March, and this coincided with a dramatic increase in commencements from international students.

By the end of the year, international acceptances for the first half of 2023 were tracking at nearly double the same time in 2019 and nearly triple 2020, with **2023 set to be the largest international intake on record**. This was being achieved at the same time as new governance processes were established to ensure commencing international students were deemed suitable to undertake study at Murdoch. All key indicators are that risk remains at very low levels.

Murdoch, along with other WA universities, also worked with the State Government on the development of a \$41.2 million package of initiatives to rebuild the pipeline of onshore international students. These initiatives include new scholarships, bursaries, funding to StudyPerth, a global international education marketing campaign, and re-engagement with the international education agents' network.

At the 2022 Staff Awards, **Murdoch International** won the Vice Chancellor's Excellence Professional Staff team award for achieving exceptional outcomes for the University. The citation noted the team's clear guidance through the pandemic, ensuring the University was well placed to achieve its goals once the borders opened.



*The Murdoch International team, led by Pro Vice Chancellor International Kelly Smith, with the Vice Chancellor's award*



*New Colombo Plan Scholarship recipients  
Brianna Fisher and Daniella Deary*

**For the 2023 New Colombo Plan Mobility program, Murdoch University received \$191,400 for three projects in Vietnam, Indonesia and India to support 58 students in 2023.**

## Onshore international students

The timing of the border opening meant some students commencing in Trimester 1 and Semester 1 needed to remain engaged online, and they were supported through this period by the University's **Virtual Study Hub**.

Once the border opened, students were able to travel to Western Australia for the start of Trimester 2 classes. By the end of 2022, all Murdoch international students were studying on campus, although many of the support provisions developed during the pandemic – such as the Virtual Study Hub – were kept in place and continued to support the international student cohort.

2022 also saw a significant increase in interest from international partners wishing to visit Murdoch.

## Outbound student mobility

With borders opening all around the world, 2022 saw a return to outbound student mobility, enabling Murdoch to send 16 semester-based exchange students to seven different countries. Almost 100 students were sent to six different locations in the Indo Pacific under the New Colombo Plan Mobility short term programs led by Murdoch academics.

New Colombo Plan Mobility Program funding secured in previous rounds will be used in 2023, with 289 students across eight different countries being afforded an opportunity to participate.

As part of the New Colombo Plan Scholarship round for 2023, two Murdoch students – Brianna Fisher and Daniella Deary – were successful in 2022, in line with the outcomes from our Western Australian peers.

For the 2023 New Colombo Plan Mobility program, Murdoch University received \$191,400 for three projects in Vietnam, Indonesia and India to support 58 students in 2023.

Interest for outbound mobility in 2023 is strong, with 29 students applying for semester-based study in four different countries, with strong demand for the United Kingdom and Japan.



## Inbound student mobility

Inbound in-person student mobility also returned in 2022, with a small number of students from Murdoch's international partners and sponsors attending Murdoch for a semester-based program.

The pipeline of students from partners and sponsors is very strong for 2023, ensuring that these students will continue to add to Murdoch's international student diversity.

## Pathway college

In the absence of an on-campus pathway provider, several engagements occurred with a select four pathway colleges to support a continued pipeline of international students. These providers were:

- Academies Australasia & Language Links
- Canning College
- National Institute of Technology
- Phoenix Academy

These partnerships ensured the University was able to secure close to 400 new international students during the preferred partnership period.

In September, the University announced an agreement to establish a new pathway for students – both domestic and international – to progress to postgraduate and undergraduate degree courses, Murdoch College. The College is based at Murdoch's South St campus and is being operated by Kaplan Higher Education. This builds on a successful collaboration with Kaplan, who partner to operate Murdoch Singapore.

The new College will ensure a strong, well prepared and diverse cohort of new international students over the coming years.

**The College is based at Murdoch's South St campus and is being operated by Kaplan Higher Education. This builds on a successful collaboration with Kaplan, who partner to operate Murdoch Singapore.**



*Vice Chancellor Andrew Deeks and Kaplan ANZ Executive Director Steve Knussen*



Singapore graduates

## Transnational Education

### Singapore and Dubai

Murdoch Singapore and Dubai continued to perform strongly in 2022, with a record financial return to the University from transnational education. The year also saw the gradual relaxation of COVID restrictions and a significant uptick in activity at both cities' international airports.

The Dubai campus achieved a major success when it received a maximum five-star rating from the UAE's Knowledge and Human Development Authority in its annual classification of higher education institutions. The ratings by the regulator are influential and serve as an important source of information for parents and prospective students. A five-star institution is described as offering "a world-class standard of education demonstrating strength across all categories". The improved rating has been accompanied by continued growth in enrolment at Murdoch Dubai which now boasts approximately 600 students.

2022 also marked the return to full face-to-face graduation ceremonies for Singapore and Dubai students.

Singapore celebrated graduates' achievements in four ceremonies held in October while the Dubai graduation was held at the iconic Atlantis Hotel in November. The ceremonies also provided Alumni with an opportunity to reconnect and meet with the Vice Chancellor, Professor Andrew Deeks at well-attended Alumni events.

In July 2022, Murdoch Singapore co-hosted (with Common Purpose) the Westpac Disruptive Leaders Program. The Disruptive Leaders Program is a key scholarship program of the prestigious \$100 million Westpac Scholars Trust and supports dozens of undergraduate students across Australia in STEM disciplines. Murdoch Singapore's program focused on technology and sustainability in Singapore and featured eminent speakers from Singapore Government, the Australian High Commission to Singapore and digital and renewable energy sectors. Murdoch Singapore will continue this collaboration with the Westpac Scholars Trust in 2023.



Murdoch Singapore along with partner Kaplan Singapore were joint sponsors of the 'Campus Legends' e-sports tournament in 2022. The e-sports competition is the largest in Singapore and reaches thousands of young people studying at schools and polytechnics, offering a unique way to raise Murdoch's profile among younger Singaporeans.

In November, Murdoch Singapore hosted the Annual Learning & Teaching Symposium involving presenters from Perth, Singapore and Dubai as well as contributions from partner staff. The Symposium's theme focused on blended learning with keynote speakers Mike Fardon and Ashleigh Prosser highlighting the collaborative learning technologies that will be available through Boola Katitjin.

Towards the end of 2022, Senate approved the University entering into a new Transnational Education Partnership agreement with UCSI College in Malaysia. UCSI College is part of the broader UCSI Group which also includes UCSI University – ranked in the top 300 universities globally. This partnership will initially see Murdoch degree courses in Information Technology and Business being delivered in Kuala Lumpur. The partnership will also provide Malaysian students with more mobility options with students able to start their Murdoch degree in Kuala Lumpur and transfer to Singapore, Dubai or Perth.

**Towards the end of 2022, Senate approved the University entering into a new Transnational Education Partnership agreement with UCSI College in Malaysia. UCSI College is part of the broader UCSI Group which also includes UCSI University – ranked in the top 300 universities globally.**

# Equity, Diversity and Inclusion

*Strategic objective: Build a welcoming, diverse and inclusive community and environment that is equitable and safe and provides a culturally safe and supportive environment where all members of our community can realise their potential.*

Murdoch has a long, successful and proud history of embedding **social justice and inclusion** principles across all University activities. The new Strategy launched in 2022 elevates Equity, Diversity and Inclusion to one of three strategic themes that will further guide and shape the University's direction over the remainder of this decade and beyond.

Dr **Rebecca Bennett** was appointed the University's first Pro Vice Chancellor Equity, Diversity and Inclusion to lead this area, with responsibility for building a welcoming, respectful and inclusive culture and create an environment where all members of the University community can reach their full potential.

The University's stated values, shared purpose, principles and vision also connect strongly to the concepts of **inclusion, caring and justice**. This commitment ensures that Murdoch will continue to build a culturally safe and inclusive study and work environment that builds on a long tradition of providing pathways into university education for more people.

**Murdoch has a long, successful and proud history of embedding social justice and inclusion principles across all University activities.**

## 2022 highlights

The 2022–2025 **Disability Access and Inclusion Plan** (DAIP) was launched to ensure the University provides an environment in which everyone can engage fully in work, study and community life. The new DAIP builds on work done over many years to ensure students and staff with a disability are well supported and involved extensive consultation from all parts of the University. In total, the DAIP contains more than 40 actions encompassing mental health and wellbeing support; improved accessibility in digital and physical environments; and access to appropriate resources, information, and assistive technologies. These actions are to be initiated and achieved over a three-year period. A key feature within the DAIP is a range of inclusions for Murdoch's new academic building Boola Katitjin, which will make it a more accessible building, as well as teaching and learning innovations using assistive technological advancements.



The results of the **National Student Safety Survey** were published in 2022, with the results helping the University understand the experiences of students and identify where more action needs to be taken to reduce incidents of discrimination, harassment and sexual assault. The survey found that 11.9% of Murdoch students had reported sexual harassment in the 12-month period leading up to the survey, and 1% had experienced sexual assault in the same period. The Vice Chancellor's Advisory Group was reconfigured to further explore options to prevent sexual assault and harassment from taking place, including increasing access to Bystander Intervention Training. The University also worked with the Student Guild to promote awareness of the support services available, and to ensure students know how to report an incident.

Murdoch celebrated **Pride Month** with staff and students participating in the city's annual Pride Parade and hosting a range of on-campus events including a Fair Day, Pride picnic and sundowner. The University also appointed an LGBTIQ+ Academic Lead and a Pride and Respect Projects Officer in 2022 to identify areas for continual improvement across Murdoch. Other initiatives included Ally training to help staff support LGBTIQ+ staff and students and the ongoing work of the LGBTIQ+ Advisory Group.



Training to support LGBTIQ+ staff and students continued, with Ally training offered to equip staff with skills to support their colleagues and students. The LGBTIQ+ Advisory Group convened over the year, calling on expertise across professional and academic spheres to enhance LGBTIQ+ inclusion.



Law and communications student Zahra Al Hilaly was named **WA Young Person of the Year 2022** and won the Mission Australia Young Changemaker Award. Zahra was recognised as an inspiring young leader whose advocacy for gender equality, migrants and refugees, and intersectional representation, has garnered global attention. She is an Australian representative for UN Women, Chair of the Minister for Youth's Advisory Council and the 2022 WA Young Multicultural Person of the Year. She has addressed the UN General Assembly in New York and served as a youth delegate at conferences in Italy, China and France.

**Zahra was recognised as an inspiring young leader whose advocacy for gender equality, migrants and refugees, and intersectional representation, has garnered global attention.**



# First Nations

***Strategic objective: Become the university of first choice for First Nations peoples, and an exemplar in embracing, promoting and benefiting from Indigenous knowledges and cultural inclusivity.***

Murdoch has long championed First Nations peoples, cultures and knowledges through its teaching, learning and research.

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 Beeliar wetlands – an important source of food and medicine, cultural and spiritual connection, and a place of teaching and learning for thousands of generations. The University honours this connection in its new Strategy, launched in 2022, through celebrating, respecting, engaging and learning from the original custodians of this land.

Over the past decade, the University has successfully grown the number of Aboriginal students both studying and graduating from Murdoch, with the Kulbardi Aboriginal Centre playing a central role in providing pathways into the University for Aboriginal students, as well as support through their student journey.

As a result, Murdoch now has the highest proportion of Aboriginal students at any Western Australian university with an improving success rate that now approaches our non-Aboriginal cohort.

In teaching and learning, a strong curriculum is in place to support students and foster a culture of Indigenous truth-telling: being bold and brave around the issues that affect Indigenous people. Work is also being done to develop a School of Indigenous Knowledges, to support the culture of safety developed at Kulbardi and extending this into all parts of the University.

In 2022, the University launched a flagship research institute – the **Ngangk Yira Institute for Change**. Led by Professor Rhonda Marriott AO, the Institute is committed to maintaining the highest standards of cultural integrity by applying Aboriginal knowledge to achieve culturally informed concepts, ideas and solutions which support and advance the oldest living culture in the world.

**Chanelle van den Berg** was appointed the inaugural Pro Vice Chancellor First Nations to further support the University's new Strategy in this area. She was also recognised in the Vice Chancellor's Excellence in Leadership Awards for her abilities to drive vision and purpose, encourage innovation, collaboration and self-reflection.

## 2022 highlights

Kulbardi Aboriginal Centre achieved a significant milestone in 2022 when the total cohort of graduating Aboriginal and Torres Strait Islander students supported by the centre exceeded 500 for the first time. Students graduated from a range of disciplines in September, including Biomedical Science, Engineering, Veterinary and Animal Science, Law, Forensics, Creative Media and Biological Sciences. K-Track, the award-winning enabling program, is credited for providing a pathway into higher education for many Aboriginal students. Kulbardi was established by Murdoch in 1988 with a core goal of increasing university participation among Aboriginal and Torres Strait Islander people.

*Creative Arts graduate Sasha Ihms is one of more than 500 Indigenous students who have thrived with the support of Kulbardi Aboriginal Centre*



Teams from five WA universities competed in the UniSport **Western Series Indigenous Games**, with the Kulbardi Aboriginal Centre team winning the State shield for the first time.

Two Indigenous researchers won prizes at the **WA Institute of Education Research (WAIER) Awards**. Ashah Tanoa won the WAIER-Fogarty Foundation Postgraduate Student Research Prize for her research investigating ways to help Indigenous students succeed and thrive at university. *Let's yarn about uni: conversations around the Indigenous student university experience* seeks to understand and address the leaving rate of Indigenous students – especially in their first year. Murdoch alumnus Dr Elizabeth Jackson-Barrett won the Postgraduate Award for her thesis: *On country learning: towards a culturally responsive pedagogy for Aboriginal education*.

A film by Dr Glen Stasiuk, **Survivors of Wadjemup**, premiered during Reconciliation Week and tells the story of four prisoner-descendants of the Rottne Island prison.

A big range of events and celebrations were held across the University during **National Reconciliation Week 2022**, including a flag raising ceremony; online business panel featuring First Nations business founders; movie screening; guided walks around the lands Murdoch University is situated on; and special displays of posters and First Nations ephemera around campus. National Reconciliation Week encourages all Australians to learn more about the nation's shared histories, culture and achievements.

**The Kulbardi Aboriginal Centre at Murdoch University has supported and contributed to the lives of more than 500 students since its creation in 1988.**

# Research







***Strategic objective: Increase our impactful and progressive research in our areas of strength and excellent research across our disciplines.***

Murdoch research performed strongly in 2022 – research income was up from \$33.8 million in 2021 to \$41.7 million in 2022 – along with increasing quality research publications, numbers of postgraduates completed and a maximum five-star rating for research from QS Stars University Ratings.

International rankings published in 2022 also demonstrated consistent improvement. The Shanghai Academic Ranking of World Universities (ARWU) has trended upward from the 700–800 band in 2019 to, for the first time, the 400–500 band in 2022. Murdoch moved into the 400–500 band in the Times Higher Education (THE) Ranking from the 500–600 band the year before.

Four Murdoch researchers working at the cutting edge of food, soil, environmental and health sciences were named in the prestigious Clarivate Highly Cited Researchers list for 2022.

Two researchers from the University's Health Futures Institute, **Professor Jeremy Nicholson** and **Professor Elaine Holmes**, were named for careers dedicated to understanding and treating numerous global diseases through precision medicine and personalised therapies.

And two innovators from the Food Futures Institute, **Professor Rajeev Varshney** and **Professor Davey Jones** were named for outstanding contributions to crop genetics and food security and plant-soil-microbe interactions, respectively.

Professor Varshney was also named the nation's top agronomy and crop scientist in *The Australian* newspaper's annual top 250 research list, along with colleagues **Professor Navid Moheimani** (marine sciences and fisheries) and **Professor Una Ryan** (tropical medicine and parasitology).

In 2022, a new research institute focusing on Aboriginal and Torres Strait Islander health and wellbeing joined Murdoch's three established institutes to create a powerful interdisciplinary research model that is developing sustainable solutions across the University's key research themes of the environment, food and health.

By the end of the year, the new University Strategy was released with a vision for Murdoch as a leading university for research in sustainability,

emphasising impactful research with strong industry and institutional collaborations.

The State Government also announced that one of the University's most significant long-term partners, the WA Department of Primary Industries and Regional Development (DPIRD), would receive \$320 million to build a new world-class agricultural headquarters co-located at Murdoch.

The DPIRD Biosecurity and Research Facility will provide biosecurity and research and development functions to protect and grow WA's primary industries. The move will accelerate collaborative agricultural research between Murdoch scientists and DPIRD and provide new opportunities for students to engage in industry research supervision and internships.

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DPIRD Director General Heather Brayford, Agriculture Minister Alannah MacTiernan, WA Premier Mark McGowan and Vice Chancellor Professor Andrew Deeks at the announcement of DPIRD's co-location at Murdoch University



*Murdoch is conducting cutting-edge research and training a new generation of food science and nutrition students at the new Food Innovation Precinct Western Australia*

## Food Futures Institute

Led by Pro Vice Chancellor Professor Daniel Murphy, the Food Futures Institute is focused on providing solutions on the sustainable use of limited land and water resources to economically and ethically improve food, forestry and fibre production.

The Institute incorporates three research centres:

- **The Centre for Crop and Food Innovation** keeping Australian farmers competitive in the world marketplace.
- **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** increasing farm productivity without further degrading water, land and soils.

## 2022 highlights

### Precinct heralds new era for WA food innovation

In 2022, the \$50 million **Food Innovation Precinct Western Australia** (FIPWA) opened at the Peel Business Park in Nambelup. FIPWA is a partnership between Murdoch, the Future Food Systems Cooperative Research Centre, DPIRD, the Shire of Murray and Peel Development Commission.

Murdoch began operations from FIPWA's Research and Development Centre, utilising specialist science laboratories, analytical laboratories and bench scale production facilities to test new food products for industry while educating and training food science and nutrition students. The University saw strong interest from prospective students, with early enrolments exceeding expectations.

Engagement with the food industry will strengthen the University's research efforts to deliver commercialisation outcomes, innovation and impact that support the WA economy. It is estimated that FIPWA could increase WA's food and beverage sector output by up to 3% within its first five years of operation, representing more than 50 new food businesses, up to 500 new jobs and \$330 million in economic value. An example of industry collaboration in 2022 was an Innovation Connection project with Bannister Downs Dairy that successfully determined a significant difference in WA milk nutrition and quality.

FIPWA also includes a new state-of-the-art Food Technology Facility (FTF) – a food manufacturing pilot plant designed as a “one-stop shop” to activate food processing innovation in WA.

In December, Agriculture Minister Alannah MacTiernan announced an additional \$2.2 million for the project to expedite construction of the FTF, which will open for business in 2023.

The University has re-activated its Rockingham campus through the **CSIRO-Murdoch-Industry Bioplastics Innovation Hub**. The hub will play a key role in the national science agency's mission to reduce Australia's plastic waste by 80% over the course of this decade. The CSIRO's Ending Plastic Waste Mission seeks to change the way plastics are made, used and recycled; support a sustainable plastics circular economy; and revolutionise packaging and waste systems. Murdoch researchers are developing a new generation of 100% compostable bioplastic products like bottles, caps and wrappers to replace the first-generation bioplastics, which require UV light to break down. These new bioplastics under development will break down in compost, landfill or water without leaving a trace. The first key project for the Bioplastics Innovation Hub is a project with Ecopha Biotech Pty Ltd to develop a new process for water bottle production using compostable bioplastics from food industry waste products.



*PhD student Crystal Young screening microbial populations for their ability to produce compostable bioplastics*



*The National Soil Advocate Penelope Wensley AC with Vice Chancellor Andrew Deeks and Murdoch soil researchers*

**SoilsWest** – an alliance between the University and DPIRD bringing industry, government and academics together for the discovery and development of soils research – consolidated and expanded its presence during 2022, after relocating to Murdoch the year before. The National Soil Advocate, Penelope Wensley AC, visited campus and heard how Murdoch has invested in soil science to address global challenges in climate mitigation, food security, safeguarding soil resources and translational science. SoilsWest also appointed a Regional Soil Coordinator to build stronger connections between researchers, farmers and community groups through the Southwest WA Drought Resilience Adoption and Innovation Hub, led by the Grower Group Alliance, and to assist in the adoption of agricultural innovation and better soil practices. A key strength of SoilsWest and the University is a joint commitment to community engagement, which grew in 2022 through the expansion of the Soils in Schools outreach program. The program gives high school students the opportunity to discover the importance of soil to our changing environment, as well as the chance to learn about possible career pathways and university life.

Murdoch will establish an **advanced genomics platform** to help producers overcome industry challenges and improve the performance and value of five popular fruit crops: banana, pineapple, papaya, custard apple and passionfruit. The \$13.7 million project is led by Murdoch's Professor Rajeev Varshney with co-investment by Hort Innovation and other partner organisations.



Professor Rajeev Varshney

Researchers will study the genetic material in the plants' cells (genome map) and create a compact, cost-effective genotyping tool that can aid in the selection process of quality traits to enhance crop yield, develop climate resistance and improve fruit quality and resistance breeding applications.

Professor Rajeev Varshney led an international study, published in *Nature Genetics*, on the evolution of peas. His team used next-generation sequencing technology to map the genetic structure and variations of 118 cultivated and wild pea genotypes. The information will help plant breeders develop new hardier varieties with superior drought and disease tolerance.

An authoritative review of **gene-editing policy and regulations in the Asia-Pacific** region was published in *Plants* by Professor Michael Jones and colleagues. The research highlighted the need for consistency in gene-editing policy to help feed growing populations. The technology will be crucial to the developing world, where food and nutritional security in a changing climate is a major challenge. The research provides an overview of the science that underpins gene editing, the current regulatory status of gene-edited produce among trading partners in the Asia-Pacific and maps the path-to-market for each country.

Murdoch scientists are leading a project that explores how particular combinations of microbes can boost the **growth of valuable fruit and vegetable crops** including potatoes, tomatoes and avocados. The \$1.4 million project led by Associate Professor Kirsty Bayliss is identifying the microbes most associated with healthy crops and using them to increase crop yield and productivity for Australian growers.



Lamb trade study

Professor Graham Gardner is Chief Investigator for the ALMTech Project – a seven-year \$35 million national project funded through Regional Development Commissions and a Commonwealth Rural Research for Profit grant. Since its inception, ALMTech has **changed the trading language for lamb and beef**, introducing new traits that can be traded upon. The project has developed technologies that measure these traits. In 2022, for example, researchers tested a hand-held microwave system that can non-invasively measure fat in sheep and cattle.

Professor Gardner's team is also conducting experiments testing the **latest innovations in animal welfare** at 100 participating farms across Australia and in 2022, entered a new collaboration to initiate benchmarking the welfare of cattle within their supply chain, with the intention of implementing a commercial monitoring and intervention program. A similar activity is being undertaken with other collaborating feedlots across Australia through a Meat and Livestock Australia-funded project. Also in 2022, the team developed a gut-on-a-chip test for *Cryptosporidium* in livestock. This rapid method will be adapted to other enteric pathogens in future research.

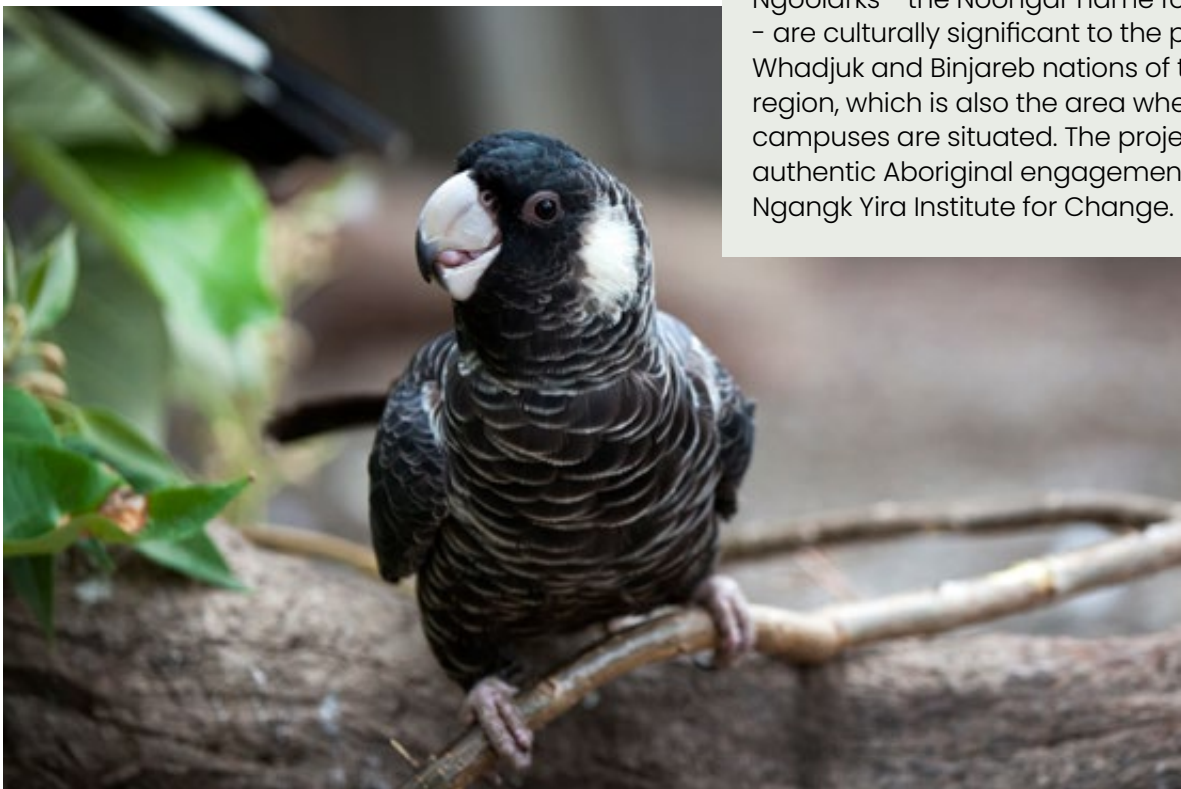
Murdoch joined the **WA Agricultural Research Collaboration** (WARC), which includes other WA universities, the Department of Primary Industries and Regional Development and the CSIRO. WARC – launched in 2022 with a \$25 million three-year investment by the WA Government – is designed to boost the State's agricultural research and development capabilities.

## Harry Butler Institute

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

The institute incorporates four research centres:

- **The Centre for Water, Energy and Waste** conducts research to ensure human activities can coexist with biodiversity and sensitive ecosystems.
- **The Centre for Terrestrial Ecosystem Science and Sustainability** represents a collaboration of academic researchers working with the community, industry and management partners to maintain sustainable and biodiverse ecosystems.
- **The Centre for Sustainable Aquatic Ecosystems** provides adaptive and lasting solutions to protect the health of aquatic ecosystems.
- **The Centre for Biosecurity and One Health** recognises the linkages between health, biosecurity and the environment and adopts a transdisciplinary approach to address complex problems related to the health of animals, wildlife, plants, humans and ecosystems.



## 2022 highlights

### Major research push to save iconic WA cockatoos

The **Black Cockatoo Conservation Management Project** continued its ground-breaking health and ecological research on the threatened Western Australian birds.

Led by Professor Kris Warren from the University's School of Veterinary Medicine, the project is using innovative tracking methods to undertake a movement ecology study of Carnaby's, Baudin's and forest red-tailed black cockatoos to determine habitat use and threatening processes in modified landscapes.

The research project incorporates health research to better understand the potential impact of disease and aims to support government decision-making about the most appropriate land areas to conserve to halt black cockatoo population decline.

In 2022, the State Government through Lotterywest awarded funding of more than \$1.5 million to the *Ngoolarks Forever* project, working with four local government authorities each year, along with community stakeholders, to deliver a range of on-ground activities to protect and preserve the species.

Ngoolarks - the Noongar name for the iconic birds - are culturally significant to the people of the Whadjuk and Binjareb nations of the Perth-Peel region, which is also the area where Murdoch's WA campuses are situated. The project incorporates authentic Aboriginal engagement through the Ngangk Yira Institute for Change.

The Mikawaki Forest program led by Dr Grey Coupland (second from right) has won international attention



The Institute progressed a significant project to build an innovative environmental, research and educational hub, to be known as the **Harry Butler Science Centre**. Architects Woods Bagot were awarded the tender to design the new centre, which will be based at Murdoch's main campus in Perth. Woods Bagot were selected for their commitment to delivering inclusive, sustainable future-oriented projects that respond to the way people use space, and flexibly accommodate changes to come. Once built, the Harry Butler Science Centre will be a hub for innovation in sustainability and a place for community, industry and academia to collaborate towards scientific solutions that protect the planet while achieving a coexistence of human development and biodiversity.

A research team led by Professor Aleks Nikoloski secured almost \$7 million to develop cutting-edge cost-effective processing technology for converting lithium ore to value-added lithium chemicals used as precursors in the production of lithium-ion batteries. The project - *Beneficiation and Chemical Processing of Lithium Minerals - Stage 2* will ultimately **secure the supply of lithium** as a critical metal for application in electric cars and other clean energy storage systems, particularly portable ones. Professor Nikoloski also secured \$1.6 million to develop and optimise vanadium battery electrolytes production processes as well as VRFB (vanadium redox flow battery) performance. VRFBs are considered one of the best options for **large scale clean energy storage systems**, particularly stationary ones.

Associate Professor Belinda Robson was part of a global cross-disciplinary team of scientists that developed the **first comprehensive classification of the world's ecosystems** across land, rivers and wetlands and seas. The study explored the science that underpins ecosystem typology, as well as how it can help achieve objectives in global policy that flow to individual countries. This typology will enable more coordinated and effective biodiversity conservation, critical for human wellbeing. It enables governments, environmental managers and scientists to quickly access a description of how each ecosystem type functions and the key processes driving them - underpinning improved management of ecosystems and the species that depend on them. The extensive collaboration included the International Union for Conservation of Nature (IUCN), which comprises about 1,400 member organisations and more than 100 specialist ecosystem scientists around the world.

**The Miyawaki forest outreach program**, led by Dr Grey Coupland, was one of two Australian projects featured on the United Nations Education, Scientific and Cultural Organization's (UNESCO) 2021-22 Green Citizens campaign. The program encourages Western Australian citizen scientists to plant dense pocket-forests in urban areas based on a method developed by Japanese botanist Professor Akira Miyawaki. During 2022, several WA metropolitan and regional schools planted their own Miyawaki forest. Using local species, the Miyawaki method can help to restore biodiversity in urban areas and provide people with the capacity for tangible local environmental action.

The world's foremost authorities on renewable energy gathered at Murdoch University for the **21st World Renewable Energy Congress** to share research and ideas on renewable energy science, technology, policy and social issues. A host of eminent speakers addressed the congress, including Professors Ross Garnaut, Martin Green, Peter Newman and Bill Hare.

More than 150 people from across industry, government and the community attended a major **research showcase** by the Harry Butler Institute. The event addressed the ongoing threats of climate and environmental change, including bushfires, pollution and urban sprawl, and how they are placing further pressure on the world's threatened species, water systems and forests. Participants were able to hear first-hand from a dozen world-class experts on how their research is increasing biodiversity, growing new forests and building the resilience of native species, systems and communities to restore nature.

Led by Dr Martin Anda, researchers have developed a **sustainable concrete** that could form the basis of a new building and construction industry in the southwest town of Collie. The novel Geopolymer Concrete (GPC) – called Collicrete – was launched by the University with Regional Development Minister Alannah MacTiernan. The State Government provided \$600,000 through the Collie Industry Development and Attraction Fund to support its development. Collicrete is an environmentally superior concrete using up to 90% industrial by-product waste materials while producing up to 80% lower CO<sub>2</sub> emissions. It is also cheaper to produce than the commonly used Portland cement.



*A juvenile snake-necked turtle released into wetlands at Bibra Lake*

Lotterywest allocated funding to a project which aims to **prevent further decline in southwestern snake-necked turtle populations**. Murdoch researchers found that across 35 Perth metropolitan wetlands, there were almost no juvenile turtles due to predation by introduced species, death from road strikes, and a lack of suitable nesting habitat. The project is supporting the roll-out of a citizen science engagement and education program by local government and community groups to track turtles and conduct important population and predation tracking surveys. As part of the project, 61 baby southwestern snake-necked turtles were released into Bibra Lake wetlands as part of an important incubation project to improve waning numbers in the area.



*Agriculture Minister Alannah MacTiernan, Vice Chancellor Professor Andrew Deeks, Collie MLA Jodie Hanns and Dr Martin Anda at the launch of Collicrete*





*Southwestern brown bandicoot*

Researchers are working to understand how the disease sarcoptic mange is manifesting in quenda – also known as the **southwestern brown bandicoot** – in the Perth hills suburb of Roleystone. Roleystone community and wildlife rehabilitation centres have noticed an increase in quenda with sarcoptic mange, which is caused by the skin mite *Sarcoptes scabiei*.

Dr Charlotte Oskam is leading research into the **movement and spread of ticks in WA cattle**. Bovine anaemia is caused by a blood parasite transmitted by bush ticks. Once bitten, the parasite makes its way into the bloodstream of cattle, where it destroys the red blood cells. Dr Oskam and her team are investigating the risk of tick-associated cattle diseases and ways to prevent the entry of other threatening species into the State. Dr Oskam was also recognised by the Australian Institute of Policy and Science with the 2022 WA Young Tall Poppy Award.

Professor Sam Abraham is conducting laboratory analysis of poultry, pork and beef as part of a two-year Food Standards Australia New Zealand project to investigate **antimicrobial resistant bacteria in the national food supply**. On average, 290 Australians – and 700,000 people globally – die each year due to infections caused by resistant bacteria. The Australia-first survey is part of a One Health approach to tackling antimicrobial resistant bacteria.

The Institute also championed a beach clean-up activity, encouraging staff and student volunteers to help remove waste at Coogee beach in Perth. The clean-up was held to mark the end of **Plastic Free July**, with a group of almost 40 volunteers giving up a Sunday to remove 91kg of rubbish from Woodman Point.

**On average, 290 Australians – and 700,000 people globally – die each year due to infections caused by resistant bacteria. The Australia-first survey is part of a One Health approach to tackling antimicrobial resistant bacteria.**

## Health Futures Institute

Led by Pro Vice Chancellor Professor Jeremy Nicholson, the Health Futures Institute conducts research into the interlinked facets of human health, from understanding the genome to disease surveillance, health data linkage and mental health.

The Institute incorporates four research centres:

- **The Centre for Molecular Medicine and Innovative Therapeutics** – a joint centre between Murdoch University and the Perron Institute that focuses on developing precision medicine solutions to fight disease.
- **The Centre for Healthy Ageing** investigates novel ways to maintain quality of life and promote healthy ageing in adults.
- **The Centre for Computational and Systems Medicine** conducts cutting-edge analytical chemistry, data science and data visualisation.
- **The Australian National Phenome Centre (ANPC)** conducts globally significant research in metabolic phenotyping and provides an important new platform for research across Murdoch's key themes of health, food and the environment. Since the advent of the COVID pandemic, the ANPC has also spearheaded internationally significant research into the new disease, with a particular focus on Long COVID.

## 2022 highlights

### New tool for doctors supporting Long COVID-19 patients

The ANPC has made a vital technological breakthrough that could help GPs diagnose the **long-term effects of COVID-19 and Long COVID** in their patients.

With no current framework or diagnostic tools, patients suffering from the effects of COVID-19 and Long COVID-19 can present to their doctors with significant symptoms including severe headaches, extreme exhaustion, heart palpitations and brain fog.

Researchers at the ANPC deployed nuclear magnetic resonance (NMR) technology to identify new diagnostic molecular biomarkers that can tell if someone has the disease without the need to detect the disease itself. They then used this work to develop an inexpensive clinical NMR that can rapidly detect vital blood markers to predict the long-term effects of the conditions and monitor patient recovery from COVID-19. ANPC researchers also believe the technology could be deployed in other diagnostic areas, including cardiovascular disease.

The technology was developed in conjunction with the ANPC's strategic partner, Bruker BioSpin GmbH, which manufactures the NMR instruments.

The ANPC's Long COVID research program receives \$3.4 million from the Medical Research Future Fund and other funding support from the Spinnaker Health Research Foundation and WA Government.



*Researchers are developing new tests and technologies to better understand COVID-19's long-term impact on health*



*Nuclear Magnetic Resonance Spectroscopy suite at the ANPC*

The ANPC, in partnership with Bruker Corporation, launched a new nuclear magnetic resonance (NMR) test for phenomics research to address and understand the symptoms of Long COVID. The test, developed by Professor Nicholson, provides researchers with the ability to **monitor early-stage risk factors as well as recovery from COVID-19** infection. The test uses a new NMR Supramolecular Composite (SPC) Marker in combination with composite signals of glycoproteins and phospholipids to provide researchers with specific information about the risks of secondary organ damage including those associated with cardiovascular diseases, type II diabetes, kidney dysfunction and hyper-inflammation. The rapid 20-minute blood test is a multi-level and multi-parameter healthcare assessment tool for that is now available for research use.

Professors Steve Wilton AO and Susan Fletcher AO received a major life sciences industry award from AusBiotech in 2022. The Industry Leadership Award recognised the duo's pioneering research to develop **treatments for rare childhood diseases**, in particular the development of novel drugs for the treatment of Duchenne muscular dystrophy and other diseases. Professor Fletcher was also inducted as a Fellow of the Australian Academy of Health and Medical Sciences in recognition of her critical research into rare diseases.



Professor Elaine Holmes and Dr Luke Whiley, with partners at Imperial College London, led a study that discovered one of the root molecular mechanisms of **Alzheimer's disease**. The research links abnormal genes to blood plasma metabolites, laying crucial groundwork for the development of future therapies. The discovery was made by applying a new analytical technique, Metabolome Wide Association Studies, which was originally developed by Professor Holmes and Professor Nicholson to help understand the metabolites which underpin an individual's risk of disease. The research is globally significant because worldwide, a person develops dementia every three seconds and in women, the disease is responsible for 11% of deaths each year.

Associate Professor Hamid Sohrabi and his team at the Centre for Healthy Ageing progressed their study into how audio therapies can be used to improve the **quality of life of people living with dementia**. Associate Professor Belinda Brown also received funding through the WA Near Miss Awards Emerging Leaders Program to investigate the role of lifestyle in maintaining a healthy ageing brain and preventing cognitive decline and dementia.

*Associate Professor Hamid Sohrabi*

A new ultra-high Field Nuclear Magnetic Resonance (NMR) spectrometer was installed at the ANPC to support complex chemical and physical measurements used in the detection of a range of diseases, including COVID-19, diabetes, cardiovascular disease, dementia and other metabolic disorders. The instrument is **the most advanced of its type in Australia** and the only one in Western Australia. The new NMR is designed to support scientists in discovery-led research in health, disease profiling, nutrition and the environment, along with research into new drug therapies and personalised dietary interventions for people, based on nutritional biomarkers.

Dr Sarah Rea received State Government funding to develop gene therapy strategies aimed at preventing the interaction of key proteins thought to be critical to the progression of **neurodegenerative diseases**, including dementia. Dr Rea and her team are testing two gene therapy strategies to prevent the interaction of key proteins found in amyotrophic lateral sclerosis (ALS) and frontotemporal lobar degeneration (FTLD).

Researchers from Murdoch and the Perron Institute contributed to new research on the genetic processes underlying nerve cell regeneration in people with **Parkinson's disease**. Professor Sulev Koks found alterations in the nascent transcription of introns (related to DNA sequencing) may be indicators of risk and progression in Parkinson's. The work provides a new avenue of genomic research towards developing novel approaches for improved diagnosis and more targeted intervention into the disease's progression. Professor Koks and colleagues also published research on a new technological platform that can **rapidly and accurately detect COVID**. Avicena Sentinel saliva sampling involves sensitive molecular processes and ultra-high throughput technology for screening potentially infectious, asymptomatic carriers. It can run up to four thousand samples per hour, with results reported within 25 minutes. The results published in the Nature journal *Scientific Reports* demonstrated 98 per cent accuracy in identifying the SARS-CoV-2 virus in samples.

Dr Yvonne Learmonth was awarded \$225,000 from MS Australia to develop and test an online education tool to train exercise physiologists, occupational therapists and physiotherapists in delivering an **exercise treatment for people with multiple sclerosis**. The research builds on work already done in developing a telehealth exercise framework for people with the disease.



## Ngangk Yira Institute for Change

**Wong Mi Bardup (doing it our way) ...  
together we have the solutions**

Led by Pro Vice Chancellor Professor Rhonda Marriott AM, the Ngangk Yira Institute for Change was launched in 2022 to drive translational research collaborations that will contribute towards closing the gap in health, education, employment, justice and other life outcomes between Aboriginal and Torres Strait Islander people and non-Aboriginal people.

During 2022, preparations were made to transition the current research pillars into three centres to attract additional funding and additional talented researchers. The pillars and proposed centres, to be rolled out over 2023, are:

- Maternal and child health Research Pillar: to transition to the **Yorga Koolinga Research and Advocacy Centre for Maternal and Child Health**.
- Family empowerment and resilience Research Pillar: to transition to the **Moorditj Moort Research and Advocacy Centre for Young People's Empowerment and Resilience**.
- Healthy families and communities Research Pillar: to transition to the **Coolamon Research and Advocacy Centre for Healthy Families and Communities**.

The Institute's research priorities are determined through a partnership between the Ngangk Yira Council of Elders, the Kaadaninny Advisory Group, community stakeholders, and Aboriginal and non-Aboriginal researchers.

In addition, the Institute's priorities in research and education will address one of the new Murdoch Strategy's key objectives of becoming the University of Choice for First Nations People and an exemplar in embracing, promoting and benefiting from Indigenous knowledges and cultural inclusivity.

## 2022 highlights

Professor Marriott AM was one of two Australian members of the **World Health Organisation Guideline Development Group** that released new recommendations on the care of preterm and low birth weight (LBW) infants, with a focus on preventive and promotive care; care for complications; and family involvement and support. Professor Marriott said the findings demonstrated the need to recalibrate Australia's maternal healthcare system – especially for Aboriginal and Torres Strait Islander mothers and babies.

The Institute welcomed Professor Juli Coffin, a highly regarded Aboriginal researcher with expertise in cultural security, education and research across a diverse range of chronic diseases, nutrition, contextualising bullying, and health promotion. Professor Coffin leads the Kimberley-based flagship **Yawardani Jan-ga "horses helping" Equine Assisted Learning (EAL)** program, funded by more than \$3 million of funding, to improve the mental, emotional, social and spiritual wellbeing of Aboriginal youth. Yawardani Jan-ga responds to community concerns over youth social and emotional wellbeing with a strengths-based research program to build healthy coping skills among Aboriginal youth and is well supported by Mineral Resources Ltd who are funding partners and have committed \$1 million for a new facility to ensure the Yawardani Jan-ga Program achieves its goals for change.

The Institute is driving ongoing research into the social and emotional wellbeing of expectant Aboriginal mothers through the **Baby Coming You Ready? (BCYR)** project. This flagship program is led by Dr Jayne Kotz. The BCYR team of researchers commenced pilot testing of the innovative BCYR screening tool across several maternity services in Perth and the Wheatbelt Region. In 2023, they plan to extend the program to other regions across WA. The learnings from the BCYR program will drive the development in 2023 of a postgraduate offering in Perinatal Mental Health.

The Institute is also partnering with the University of Melbourne on a \$5 million project titled **Replanting the Birthing Trees**. This 2022 **Medical Research Future Fund (MRFF)** First Nations-led project aims to transform intergenerational cycles of trauma to support parents in achieving their hopes and dreams for a happy, safe and healthy family. The Institute's role includes the co-design and implementation in WA of an innovative program that includes a resource repository for parents, clinicians and decision-makers; support framework; integrated culturally validated assessment tool (which incorporates *Baby Coming You Ready?*); workforce development resources; culturally and emotionally safe continuity-of-care implementation toolkit; and a therapeutic model to support families with complex social and emotional needs to stay together.

The Ian Potter Foundation awarded the Institute \$1.8 million from its prestigious major grant program in 2022. The five-year project, **Family Empowerment Across Life - Indigenous Growth (FEALING) Program**, will fund core research positions and is a central strategic focus for Ngangk Yira in its transition to an Institute. The FEALING project is integrated with other Institute work across the three research pillars, viewed through a systems and policy lens to ensure sustainability and measurable/quantifiable real-world outcomes.

This grant will support the Institute's capacity to engage, develop and retain Aboriginal researchers through mentoring and promoting early and mid-career Aboriginal academics and postgraduate students in a culturally supportive environment, with access to strong cultural and professional networks. The Institute's research team will focus on generating evidence through research projects which respond to articulated Aboriginal community needs related to maternal and child, youth, and lifelong family health.





Members of the Ngangk Yira Research Governance Group, with Director Professor Rhonda Marriott AM second from right

The Ngangk Yira Institute for Change has a strong focus on advocacy and in 2022 hosted two roundtable discussions on **Attachment and the law: rethinking child protection orders**. Noongar Elders Aunty Millie Penny and Uncle Fred Penny were two of five key expert presenters who framed the context of child removals in WA which are known to be complex. Adopting a strength based, solution focused approach, roundtable participants identified a range of profound issues associated with past policies and current practices which impact on Aboriginal and Torres Strait Islander child removals and placement

orders, including the role of Attachment Theory in the making of orders. It is contended by experts that Attachment Theory is misused and/or misapplied by both child protection agencies and the justice system when decision making takes place, and, that this is not in the best interests of Aboriginal children, their families, or kinship groups and communities. The Hon. Simone McGurk attended the first Roundtable and as the Minister for Child Protection, is pivotal in any consideration for policy changes that may be influenced by the recommendations of this important roundtable discussion.

**Adopting a strength based, solution focused approach, roundtable participants identified a range of profound issues associated with past policies and current practices which impact on Aboriginal and Torres Strait Islander child removals and placement orders, including the role of Attachment Theory in the making of orders.**

## More research highlights

The **Indo-Pacific Research Centre** was launched in 2022 to raise awareness of the critical issues facing the region and foster collaborations to address them. The Centre aims to be the leading centre of research expertise in the region, responding to key challenges of the 21st century arising from transformations in the Indo-Pacific – environmental, political, cultural, social and economic. It builds upon the formative Asia Research Centre's international reputation for high impact research and training and draws on research expertise from the Africa Research Group and the Centre for Responsible Citizenship and Sustainability. The Centre has already attracted significant funding, with Interim Co-Director Associate Professor Rochelle Spencer part of a team awarded a \$600,000 ARC Discovery grant for her project exploring infrastructure in East Africa and the Western Indian Ocean to understand its economic, socio-political, cultural and public health impacts.

Dr Anne Schwenkenbecher won the **North American Society for Social Philosophy Book Award** for *Getting Our Act Together. A Theory of Collective Moral Obligations*.

The **Murdoch University Farm Animal Welfare** team – Associate Professor David Miller (lead), Dr Emily Taylor, Professor Trish Fleming, Associate Professor Anne Barnes, Dr Fiona Anderson and Dr Sarah Wickham – received the Agriculture Award at the RSPCA WA Animal Welfare Awards. The team aims to improve the welfare of animals in agriculture and are currently investigating the behaviour of sheep to better understand when the animals require closer veterinary inspection.

Forensic science researchers were awarded \$200,000 from the Australian Department of Defence to improve the capability of police and security agencies to recover DNA results from crime scenes. The grant was part of the National Security Science and Technology Centre's Safeguarding Australia Technology Challenges program. The project is the first competitive research grant to be awarded in the field of forensic science at Murdoch and is being led by **Chief Investigator Brendan Chapman**.

**Forensic science researchers were awarded \$200,000 from the Australian Department of Defence to improve the capability of police and security agencies to recover DNA results from crime scenes.**



# Physical and Digital Environment



*Boola Katitjin under construction in 2022*





## Boola Katitjin

As 2022 drew to a close, final touches were being applied to the **most significant construction project for Murdoch University** since foundation almost 50 years ago.

The new academic building, which sits next to Banksia Court and is oriented south toward the Beeliear Wetlands, is the largest Mass Engineered Timber (MET) building in Western Australia and the largest on any Australian university campus.

During 2022, the building was endowed with the Noongar name “Boola Katitjin”, which translates to “lots of learning” and honours the teaching and learning which has taken place for thousands of years on the land where Murdoch is situated. The name was conceived by Noongar Elder Dr Richard Walley OAM, with the support of the University’s Aboriginal and Torres Strait Islander Advisory Group.

Boola Katitjin forms a new entrance to the University from Discovery Way, with improved connectivity between the Fiona Stanley and St John of God hospital precinct.

The building embodies the University’s new Strategy themes of Sustainability; Equity, Diversity and Inclusion; and First Nations. It is a landmark in modern, sustainable design and when compared to an equivalent concrete building, demonstrates a 90% reduction in operational energy.

Boola Katitjin also features Australia’s first Technology Enabled Learning (TEL) desks, allowing students to connect with any device, collaborate with their group, and present and share their work from anywhere in the world.

Along with the building’s unique timber design, the walls, hallways, elevators and escalators display a range of audio, video and interactive artworks. These works have been created by a range of emerging and experienced artists and form an important part of the overall strategy for engagement and inclusivity.

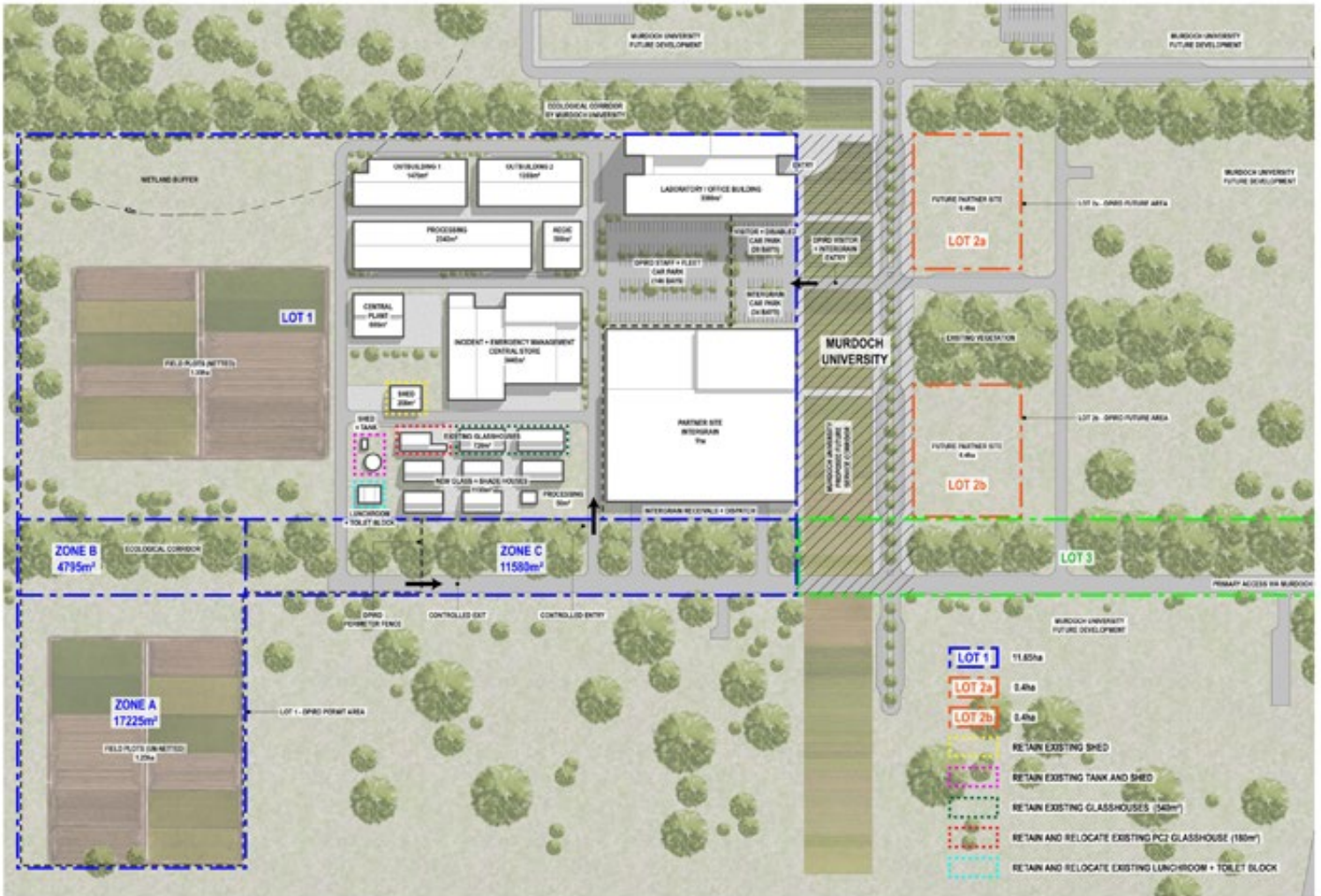
*Murdoch commissioned the artist Christopher Pease to create a major new work for Boola Katitjin. Beeliear Boodja Bidi represents and celebrates the Indigenous heritage of the site – particularly the Beeliear Wetlands, which is a place of immense archaeological, spiritual and cultural value for Noongar people*

## Key Statistics

- Construction commenced mid-2021 by lead contractor Multiplex with opening scheduled for Semester 1, 2023.
- Boola Katitjin spans 16,000m<sup>2</sup> across four storeys, extending 180 metres in length, and includes 1,796 pieces of Mass Engineered Timber. It is large enough to accommodate up to 60% of the entire University’s teaching requirements.
- The building features strong sustainability credentials with an anticipated six-Star Green Star Design and As-Built v1.3 rating, and a 450kW rooftop solar panel array estimated to produce 60% of the building’s operational energy requirements at peak.
- Raised floor systems with heating, ventilation and air conditioning from below, energy efficient LED lighting, occupancy detection and natural lighting detection devices, stormwater harvesting tank, and landscaping with 26,000 native plants.

## Teaching and learning features

- 21 large flat-floor format teaching and learning spaces, technology-rich labs, and immersive industry collaboration facilities.
- Extensive areas for informal “peer to peer” learning, workspaces for staff, student services and a series of innovative research and industry engagement spaces.
- Universal accessibility and inclusive design including lifts, ramps and shaded walkways, all-gender amenities, changing places and parents’ rooms.
- Heatmapping MazeMaps for students seeking a quiet location within Boola Katitjin.
- “Walls of screens” within classrooms, providing a level of immersion and bringing physical and virtual spaces together.



Masterplan of the new DPIRD Biosecurity and Research Facility, supplied by DPIRD

## Workday

The University implemented the cloud-based people and culture, finance management, and planning software platform Workday in 2022 – becoming **the first WA university to move to an Enterprise Resourcing Platform**. Workday supports an improved employee experience and enhanced efficiencies for many common HR and Finance functions.

**The centre is named in honour of the famed Australian environmental pioneer Harry Butler and will be a physical realisation of his unwavering commitment to environmental conservation for the benefit of future generations.**

## Harry Butler Science Centre

International architecture firm Woods Bagot won the tender to design the new Harry Butler Science Centre – an **immersive environmental, research and educational hub**. The centre will foster collaborations between the community, industry and academia, supporting scientific solutions which protect the planet while achieving the coexistence of human development and biodiversity.

The centre is named in honour of the famed Australian environmental pioneer Harry Butler and will be a physical realisation of his unwavering commitment to environmental conservation for the benefit of future generations.

The project will also realise Murdoch’s vision to be at the forefront in education, teaching and translational research in sustainability.

## DPIRD Biosecurity and Research Facility

In late 2022, the WA Government announced the co-location of the Department of Primary Industries and Development's (DPIRD) new agricultural research and biosecurity hub at Murdoch University. The Government has set aside \$320 million to fund the new facility, which will sit on an 11-hectare site and include laboratories, specialised outbuildings, glass houses and field plots. An estimated 320 DPIRD staff will relocate to the new hub upon completion in 2027.

Murdoch has enjoyed a long and successful collaborative relationship with DPIRD, and the co-location will result in **enhanced collaboration between all WA universities involved in agricultural research**, the sharing of data and new opportunities for students to engage in industry research supervision and internships.

## CBD campus

The University **withdrew plans for a new vertical campus** in the Perth CBD. The project had received funding support from the WA Government through the City Deal package but the decision to withdraw was made because the assumptions on which the project was originally based were undermined by the COVID pandemic. The Murdoch proposal differed from those put forward by other universities, given it was based on the need to attract new students, rather than relocate students into the city from existing campuses.



# Engagement



*Pro Vice Chancellor, Food Future Institute, Professor Daniel Murphy with Naresuan University students at a community recycling and composting facility in central Thailand. Professor Murphy is the ANS200 Unit Coordinator*

**The University is also a recognised leader in establishing ties with other institutions and collaborating on important research and academic activities, as well as programs that empower local communities.**

**Strategic objective: Build engagement with our local community, our State, our Nation and our global society, creating mutually beneficial partnerships at all levels.**

Murdoch is widely recognised for engaging powerfully with business, industry, government and the community, with **partnerships and collaborations** extending from the local to the global.

In 2022, the University achieved the maximum five-star ranking from QS Stars on the key indicator of “internationalisation” – awarded to those universities who, among a range of measures, excel at collaborating at a global level to further their research.

The University is also a recognised leader in establishing ties with other institutions and collaborating on important research and academic activities, as well as programs that empower local communities.

## Global engagement

### The **Action on Emission of Greenhouse Gases for Integrated Sustainability** (AEGIS)

– a joint Murdoch’s SoilsWest, CSIRO, United Nations Food and Agriculture Organization and Thailand Government partnership – was launched in Bangkok, Thailand in 2022. AEGIS is leading the establishment of a transnational research consortium on the development, application and evaluation of greenhouse gas measurement, monitoring and control strategies to reduce emissions in the Asia Pacific. While in Thailand, AEGIS representatives visited Naresuan University to establish a joint undergraduate teaching unit in Agricultural and Environmental Science.

Murdoch academic leaders were part of the **Invest and Trade mission** to India in 2022

– the largest multi-sector trade delegation ever launched by the WA Government. As a result, memorandums of understanding were signed with seven Indian universities. The Murdoch delegation also participated in high-level meetings with the Indian Council of Agricultural Research, the Ministry of Agriculture & Farmers Welfare, the Ministry of Science and Technology, the National Academy of Agricultural Sciences and the International Crop Research Institute for the Semi-Arid Tropics.

In 2022, Murdoch signed an MoU with Acharya N.G Ranga Agriculture University (ANGRAU) to promote the **advancement of international understanding**, dissemination of learning and strengthening of ties between the two institutions. ANGRAU is in Andhra Pradesh, known as the

rice bowl of India – and Murdoch will work closely with the university to share and improve knowledge in agricultural research and development.

In 2022, Vice Chancellor and President Professor Andrew Deeks was appointed **President of the International Association of Universities** for a term of four years. The IAU was established in 1950 with the support of the United Nations Educational, Scientific and Cultural Organization (UNESCO) and the aim of facilitating understanding between countries through higher education institutes. The IAU has almost 600 members from 130 countries and with his appointment as President, Professor Deeks has a significant platform to facilitate collaboration and cooperation among higher institutes all over the globe.



## Industry engagement

More than 150 key industry, government and community partners attended a research showcase hosted by the Harry Butler Institute. The **HBI Showcase** included presentations from world-leading experts explaining how their research is saving species from extinction, restoring ecosystems, reducing waste and emissions, expanding renewable energy, addressing environmental pests and diseases, and restoring landscapes and aquatic ecosystems. A key focus for HBI is working towards solutions that support the sustainable co-existence of business and biodiversity.

Murdoch hosted or supported a range of **high-profile research symposia and industry engagement** activities during 2022, including:

- The Lithium, Battery, and Energy Metals Conference, presented jointly with AusIMM (Australasian Institute of Mining and Metallurgy). The conference showcased the latest research, developments and innovative technologies related to the lithium industry.
- The World Renewable Energy Congress, with the theme of *Renewable Energy: A Pathway to Economic Recovery and Climate Change Mitigation*.

- The 4th Australia Hydrogen Day 2022, in collaboration with the Hydrogen Society of WA. The event engaged university students, industry, academics and government officials.
- Africa Down Under reception, a preview of a three-day conference to promote business and government relationship-building between Australia and Africa. The conference is the main pillar of Africa Week, which celebrates the growing business, social and cultural ties between Australia and the African continent.

## Alumni engagement

The University engages with its 90,000+ alumni every year through a series of communications activities and events, culminating in the **Distinguished Alumni Awards**. In 2022, four distinguished alumni – Stephanie Unwin, Wayne Berhmann, Anna Lim and Heidi Mippy – were added to the honour roll. The awards were created in 2011 to celebrate exceptional Murdoch graduates who not only excel in their professional lives but embody Murdoch's core values of equity and social justice.

*Murdoch 2022 Distinguished Alumni Award winners Wayne Berhmann, Stephanie Unwin and Heidi Mippy with Vice Chancellor Professor Andrew Deeks*



## Community engagement

The State Government announced a joint initiative with Murdoch to produce detailed climate projections for WA, co-fund two new research scholarships to advance scientific knowledge of WA's climate and build local climate expertise. The **Climate Science Initiative** is the first project to translate the findings from the latest Intergovernmental Panel on Climate Change into local projections for WA. The Government has allocated \$3.1 million to a series of climate-focused partnerships.

After two years of online and hybrid Open Day events, 2022 saw the University return to an engaging on-campus showcase of all Murdoch has to offer. **Open Day** is Murdoch's single largest annual student recruitment event, offering campus tours, course information sessions, and information on the various entry pathways into university.

The Murdoch University Art Collection and its Board continued to be active in the community during 2022. A major exhibition – **CHROMA: purity, saturation and intensity of colour** – showcased the work of a diverse mix of Australian artwork championing colour. Central to the exhibition was a piece by acclaimed Chinese-Australian painter John Young Zerunge titled *Spectrumfigure XIV*. The Murdoch University Art Board had previously launched a fundraising campaign to acquire a new work for GOLD HORIZON – a special initiative with a mission to expand the University's Art Collection to commemorate Murdoch University Art Collection's 50th anniversary in 2024. *Spectrumfigure XIV* is the artwork that has been selected for the campaign.

*Installation of Chroma exhibition at Murdoch University Art Gallery featuring contemporary art by leading Australian artists including Gemma Smith (foreground), John Young (background left), Sonia Kurarra, Wakartu Cory Surprise and Jukuja Dolly Snell (background right). Photographer: Michael Sampson.*



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 Office of Advancement, please email  
 Advancement@murdoch.edu.au**

# Our Structure

## Governance 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:

1. The Audit and Risk Committee helps Senate meet its governance, risk and compliance oversight responsibilities.
2. The Chancellor's and Nominations Committee advises on governance issues; determines remuneration for Senior Officers; and reviews the performance and succession plans for Vice Chancellors and Senior Officers. This committee also recommends the appointment of Senate members.
3. The Honorary Awards and Ceremonial Committee awards honorary degrees and Senate medals and oversees guidelines and policies relating to honorary degrees, Senate medals, graduation ceremonies and regalia.
4. The 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.
5. The Resources 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 took up the role of Chancellor in August, 2019. Following a global recruitment process, Professor Andrew Deeks was appointed as Vice Chancellor and took up the position on 26 March 2022. Professor Jane den Hollander AO was interim Vice Chancellor from 1 November 2021 to 25 March 2022.

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.

Senate 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 continued through 2022 and the majority of the recommendations have been implemented with those remaining scheduled to be implemented by mid-2023.

### 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 2022, the University materially complied with the protocols contained in the Voluntary Code. The reporting regime for the University's subsidiary companies has been reviewed with bespoke arrangements in place for the entities.

### 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 2022.

### 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 was re-elected as President of Academic Council in 2020 for a second term which expires on 31 December, 2023. 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's 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 Higher Education Standards Framework compliance obligations.

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

### Risk management policy and framework

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

The University's Risk Management Framework underpins the continued rollout of good practice risk management aligned with AS/NZS ISO 31000:2009 Risk Management – Principles and Guidelines and AS ISO 31000:2018 Risk Management – Guidelines.

### Risk appetite statement

The University's Senate has set Risk Appetite Statements, the purpose of which is to articulate what the University is willing to – or not willing to – accept in the achievement of the Strategic Plan.

### Strategic and operational risk management

The University's Strategic Risk Register is reviewed, updated and reported regularly. The register highlights the key strategic risks of the University that are actively managed through a suite of actual and planned mitigation controls. Operational Risk registers are also in place across key areas of the University.

### Fraud, corruption and misconduct control framework

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

- A Fraud, Corruption and Misconduct Policy.
- A Fraud and Corruption Control Plan.
- Conflict of Interest Policy.
- 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 and business continuity

The University has a Critical Incident and Continuity Management Plan that guides critical incident and continuity management for its onshore and offshore campuses and activities.

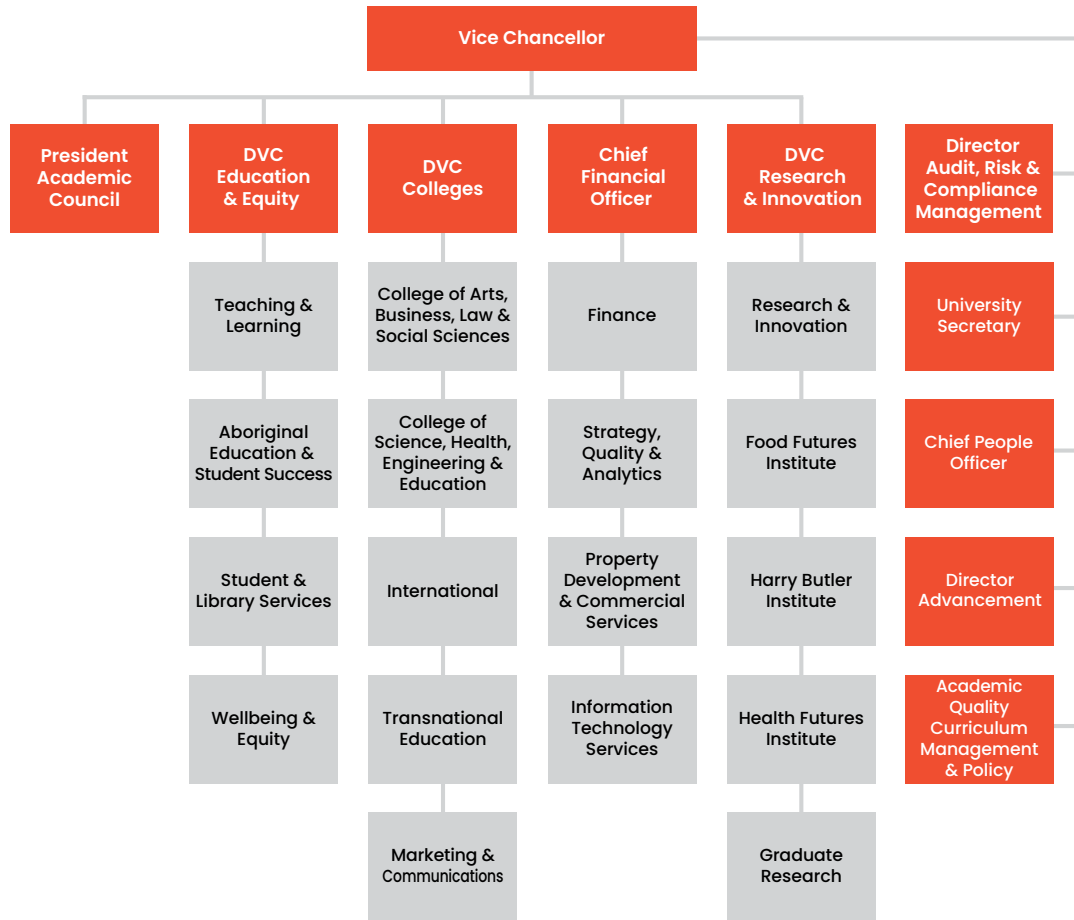
### Compliance management framework

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

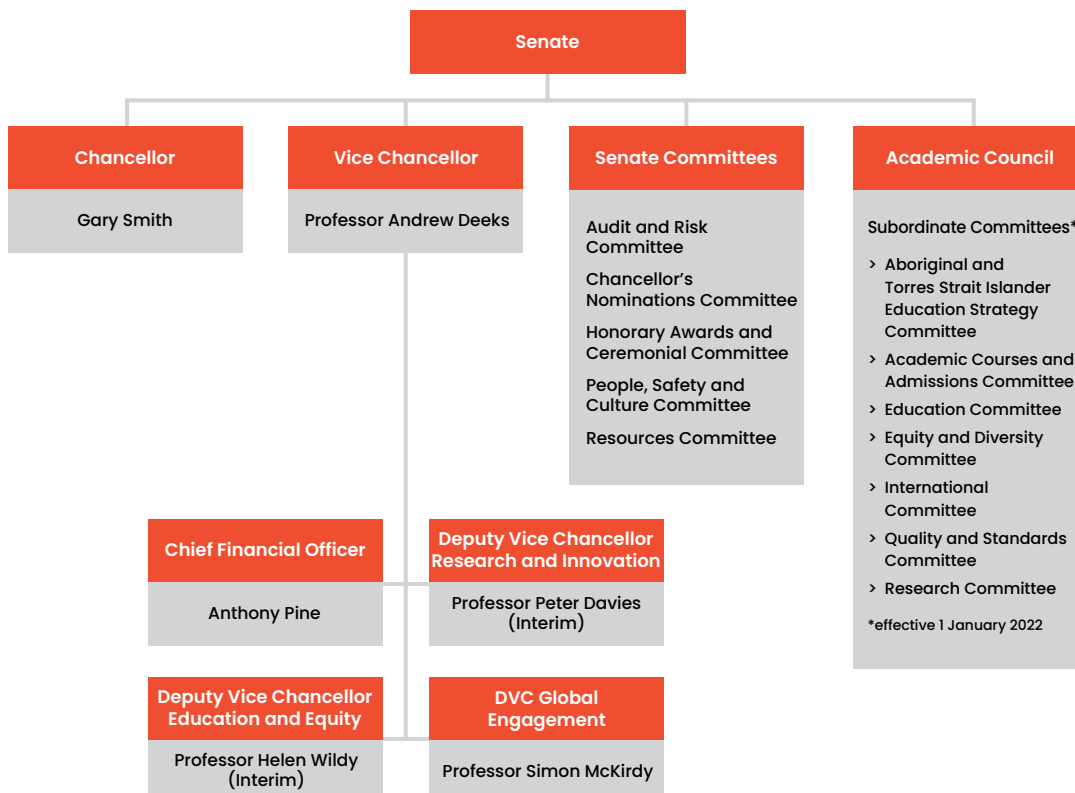
The University's compliance management framework is based on AS/NZS ISO 19600:2015 Compliance Management Systems – Guidelines.

# Organisational Structure

As at 1 January 2022

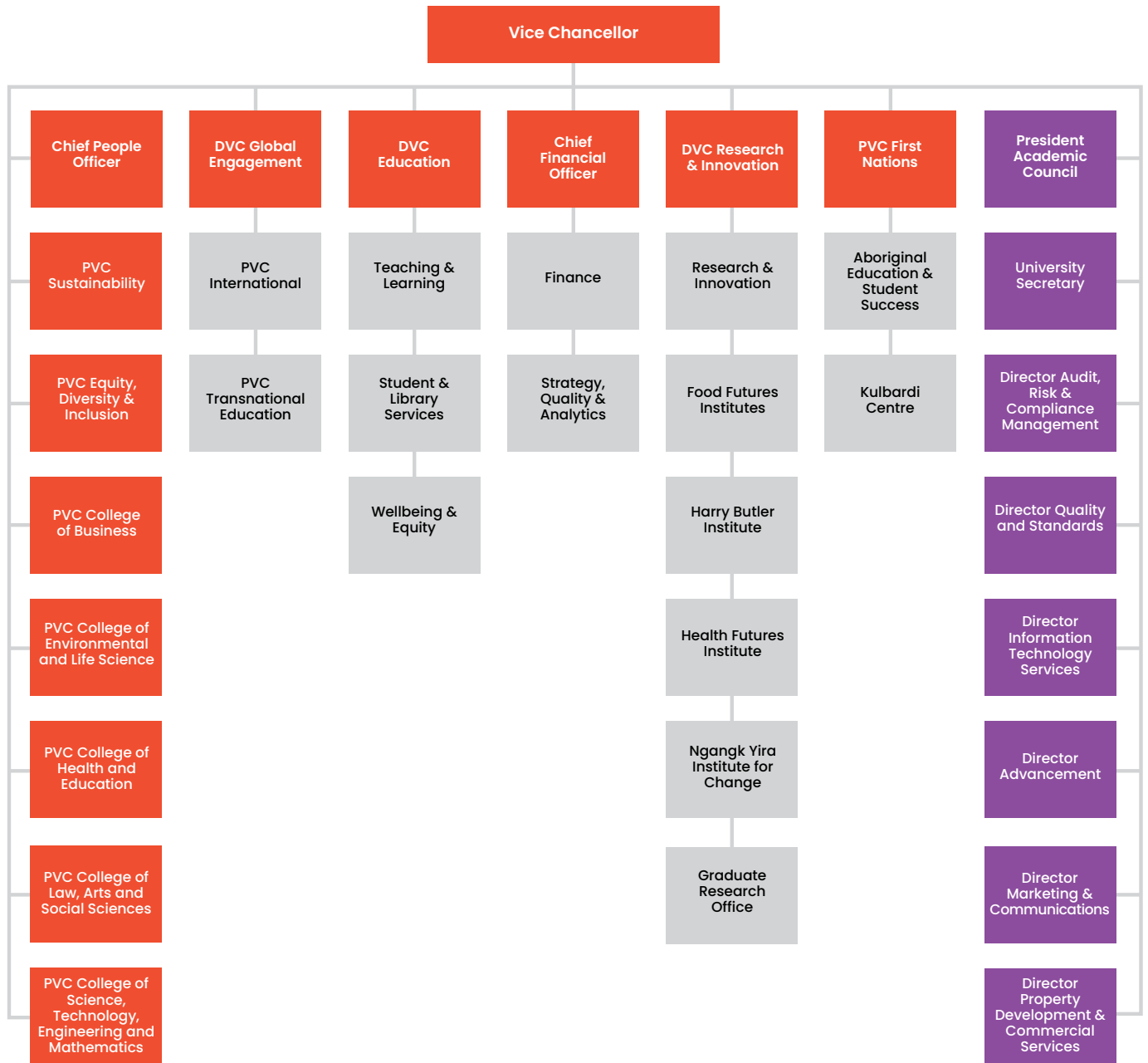


# University Governance and Management



# Organisational Structure

As at 1 January 2023



*The reports in red are members of the University's Senior Leadership Team*

# Senate Member Terms for 2022

	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.	Bahri, Professor Parisa Arabzadeh	Ex-officio, as President Academic Council, section 12(1)(i)	1	18 October 2018 - current (31/12/2023)
3.	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
4.	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
5.	Deeks, Professor Andrew	Ex-officio, as Vice Chancellor, section 12(1)(b)	1	26 March 2022 - current
6.	Den Hollander, Professor Jane	Appointed as Interim Vice Chancellor by Senate	1	1 November 2021 – 25 March 2022
7.	Holt, Mr Ross	Appointed by the Governor, section 12(1)(f)* Co-opted by Senate, section 12(1)(h)	1 2 3	10 June 2014 – 01 January 2017 02 January 2017 – 09 June 2017 10 June 2017 – 09 June 2020 10 June 2020 – 09 June 2023
8.	Hughes, Mr Ross	Co-opted by Senate, section 12(1)(	1 2	02 September 2017 – 01 September 2020 02 September 2020 – 01 September 2023
9.	Kerr, Mr Peter	Appointed by the Governor, section 12(1)(f)* Appointed by the Governor, section 12(1)(g)	1 2 3	22 December 2015 – 01 January 2017 02 January 2017 – 21 December 2018 22 December 2018 – 21 December 2021 22 December 2021 – 21 December 2024
10.	Malekloo, Ms Reyhana	Elected from and by the undergraduate students, section 12(1)(e)(i)	1	14 September 2021 – 13 September 2022
11.	McGowan, Ms Gail	Appointed by the Governor, section 12(1)(g)	1	05 April 2022 – 04 April 2025
12.	Odunyemi, Mr Adelakun	Elected from and by the postgraduate students, section 12(1)(e)(ii)	1	07 November 2022 – 06 November 2023
13.	Owens, Emeritus Professor Robyn	Co-opted by Senate, section 12(1)(h)	1	07 December 2021 – 06 December 2024
14.	Schoeman, Mr Jethro	Elected from and by the graduates of the University, section 12(1)(f)	1	01 January 2022 – 31 December 2024
15.	Schroeder-Turk, Associate Professor Gerd	Elected from and by the Academic Staff 12(1)(c)	1 2	12 March 2018 – 11 March 2021 12 March 2021 – 11 March 2024
16.	Smith, Mr Gary	Ex-officio, as Chancellor, section 12(1)(a)	1 2	08 August 2019 – 07 August 2022 08 August 2022 – 07 August 2023
17.	Ugrinov, Mr David	Elected from and by the undergraduate students, section 12(1)(e)(i) Elected from and by the postgraduate students, section 12(1)(e)(ii)	1 1	01 January 2021 – 31 August 2021 14 September 2021 – 13 September 2022
18.	Unwin, Ms Stephanie	Co-opted by Senate, section 12(1)(h)	1	05 October 2020 – 04 October 2023
19.	Whitlock, Ms Julie	Elected by Non-academic staff, section 12(1)(d)	1 2	09 April 2018 – 08 April 2021 09 April 2021 – 08 April 2024

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

# Senate and Sub-Committees Consolidated Attendance For 2022

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					2	2										
Bahri, Professor Parisa Arabzadeh (A.)					7	6										
Belford, Mr Roland				PSCC	7	7							1	1		
Buckingham, Mr Gavin					RC	7	4								7	5
Deeks, Professor Andrew			HACC	PSCC	RC	6	6				2	2	1	1	6	6
Den Hollander, Professor Jane			HACC		RC	1	1				0	0			1	1
Holt, Mr Ross		CNC	HACC		RC	7	6			5	5	2	2		7	6
Hughes, Mr Ross	ARC	CNC				7	7	5	5	5	3#					
Kerr, Mr Peter		CNC			RC	7	7			5	4				7	7
Malekloo, Ms Reyhana						4	4									
McGowan, Ms Gail		CNC		PSCC		6	5			1	1			1	1	
Oduyemi, Mr Adedokun						2	2									
Owens, Emeritus Professor Robyn	ARC	CNC				7	6	3	3	4	4					
Schoeman, Mr Jethro			HACC			7	6				2	1				
Schroeder-Turk, Professor Gerd			HACC	PSCC		7	6				2	2	1	1		
Smith, Mr Gary		CNC	HACC			7	7			5	5	2	1			
Ugrinov, Mr David			HACC			4	4					1	1			
Unwin, Ms Stephanie	ARC			PSCC		7	3#	5	4					1	1	
Whitlock, Ms Julie			HACC			7	7					2	2			

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 have been excluded from the table above.

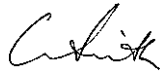
# Disclosure and Legal Compliance

## Certification of Financial Statements

The accompanying financial statements of Murdoch University and the accompanying consolidated financial statements have been prepared in compliance with the provisions of the *Financial Management Act 2006* from proper accounts and records to present fairly the financial transactions for the financial year ended 31 December 2022 and the financial position as at 31 December 2022.

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.



Gary Smith  
**Chancellor**



Andrew Deeks  
**Vice Chancellor**



Anthony Pine  
**Chief Financial Officer**

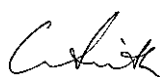
9 March 2023



## 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.



Gary Smith  
**Chancellor**

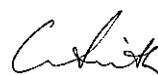


Andrew Deeks  
**Vice Chancellor**

9 March 2023

## Certification of Key Performance Indicators

We hereby certify that the 2022 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 2022.



Gary Smith  
**Chancellor**



Andrew Deeks  
**Vice Chancellor**

9 March 2023



## Auditor General

### INDEPENDENT AUDITOR'S REPORT 2022

#### 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 at 31 December 2022, and 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 2022 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 Regulation 2013 (ACNC Regulation)*.

### 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.

## 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 Regulation*
- 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.

## 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.auasb.gov.au/auditors\\_responsibilities/ar3.pdf](https://www.auasb.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 2022.

## 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 2022. 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 2022.

## 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 the University Senate determines necessary to enable the preparation of key performance indicators that are free from material misstatement, whether due to fraud or error.

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

## Auditor General's 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 control 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 2022, 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 2022 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.



Grant Robinson  
Assistant Auditor General Financial Audit  
Delegate of the Auditor General for Western Australia  
Perth, Western Australia  
16 March 2023

# Financial Statements



## Statement of Comprehensive Income

for the year ended 31 December 2022

	Note	Consolidated		University	
		2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
<b>Income from continuing operations</b>					
Australian Government financial assistance					
Australian Government grants	2	126,105	138,969	126,105	138,969
HELP - Australian Government payments	2(b)	66,415	71,852	66,415	71,852
State and local government financial assistance	3	5,072	3,702	5,072	3,702
HECS-HELP - student payments		4,190	4,186	4,190	4,186
Fees and charges	4	92,443	91,295	90,194	88,782
Net investment revenue	5	4,795	23,129	6,276	22,863
Consultancy and contract research	6	29,023	24,793	29,023	24,793
Other revenue	7	37,259	34,377	37,363	24,777
Other income	7	26	5	26	5
<b>Total income from continuing operations</b>		<b>365,328</b>	<b>392,308</b>	<b>364,664</b>	<b>379,929</b>
<b>Expenses from continuing operations</b>					
Employee related expenses	8	221,400	224,213	218,690	221,691
Depreciation and amortisation	15&16	24,802	25,382	24,622	25,178
Repairs and maintenance	9	13,427	12,035	10,587	9,358
Borrowing costs		305	370	295	366
Impairment of assets		286	580	286	580
Loss on disposal of assets		1,610	89	1,610	89
Share of loss on investments accounted for using the equity method		-	4	-	4
Other expenses	10	140,709	114,984	129,342	108,640
<b>Total expenses from continuing operations</b>		<b>402,539</b>	<b>377,657</b>	<b>385,432</b>	<b>365,906</b>
<b>Net result before income tax</b>		<b>(37,211)</b>	<b>14,651</b>	<b>(20,768)</b>	<b>14,023</b>
Income tax		(13)	14	-	(23)
<b>Net result after tax from continuing operations attributable to members of Murdoch University</b>		<b>(37,198)</b>	<b>14,637</b>	<b>(20,768)</b>	<b>14,046</b>

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



## Murdoch University

**Statement of Comprehensive Income**

for the year ended 31 December 2022

	Note	Consolidated		University	
		2022	2021	2022	2021
		\$'000	\$'000	\$'000	\$'000
<b>Net result after income tax for the period</b>		(37,198)	14,637	(20,768)	14,046
Gain on equity instruments designated at fair value through comprehensive income, net of tax	21	254	32,393	254	32,393
Exchange differences on translation of foreign operations	21	458	(296)	-	-
Gains on revaluation of land, buildings, infrastructure and service concession assets, net of tax	15&21	47,960	14,362	47,960	14,362
<b>Total comprehensive income attributable to members of Murdoch University</b>		<b>11,474</b>	<b>61,096</b>	<b>27,446</b>	<b>60,801</b>

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

## Statement of Financial Position

as at 31 December 2022

		2022	2021	2022	2021
	Note	\$'000	\$'000	\$'000	\$'000
<b>Assets</b>					
<b>Current assets</b>					
Cash and cash equivalents	11	106,191	58,854	97,041	38,891
Trade and other receivables	12	41,676	45,057	44,497	55,224
Contract assets	12	5,398	6,594	5,398	6,594
Inventories		1,180	1,595	1,178	1,593
Other financial assets	13	70,956	108,628	65,667	99,388
Prepayments		10,747	10,452	10,491	10,241
<b>Total current assets</b>		<b>236,148</b>	<b>231,180</b>	<b>224,272</b>	<b>211,931</b>
<b>Non-current assets</b>					
Receivables	12	1,016	2,036	1,016	2,036
Other financial assets	13	76,997	84,286	77,097	84,386
Investment properties	14	264,545	249,534	264,545	249,534
Property, plant and equipment	15	896,096	755,061	895,825	754,877
Intangible assets	16	16,690	16,796	16,690	16,796
<b>Total non-current assets</b>		<b>1,255,344</b>	<b>1,107,713</b>	<b>1,255,173</b>	<b>1,107,629</b>
<b>Total assets</b>		<b>1,491,492</b>	<b>1,338,893</b>	<b>1,479,445</b>	<b>1,319,560</b>
<b>Liabilities</b>					
<b>Current liabilities</b>					
Trade and other payables	17	30,860	27,877	29,350	26,364
Borrowings	18	1,709	1,470	1,511	1,338
Provisions	19	49,828	49,914	34,928	35,247
Other liabilities	20	258,505	224,028	41,977	15,861
Contract liabilities	20	57,293	46,148	57,293	46,148
<b>Total current liabilities</b>		<b>398,195</b>	<b>349,437</b>	<b>165,059</b>	<b>124,958</b>
<b>Non-current liabilities</b>					
Borrowings	18	127,015	34,407	126,980	34,407
Provisions	19	17,996	17,583	17,927	17,533
Other liabilities	20	12,320	12,949	12,320	12,949
Deferred tax liability		122	161	-	-
<b>Total non-current liabilities</b>		<b>157,453</b>	<b>65,100</b>	<b>157,227</b>	<b>64,889</b>
<b>Total liabilities</b>		<b>555,648</b>	<b>414,537</b>	<b>322,286</b>	<b>189,847</b>
<b>Net assets</b>		<b>935,844</b>	<b>924,356</b>	<b>1,157,159</b>	<b>1,129,713</b>
<b>Equity</b>					
Reserves	21	432,801	384,129	432,784	384,570
Retained earnings	21	503,043	540,227	724,375	745,143
<b>Total equity</b>		<b>935,844</b>	<b>924,356</b>	<b>1,157,159</b>	<b>1,129,713</b>

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

## Murdoch University

## Statement of Changes in Equity

for the year ended 31 December 2022

	Reserves \$'000	Retained Earnings \$'000	Total \$'000
<b>Consolidated</b>			
<b>Balance at 1 January 2021</b>	419,453	443,807	863,260
Net result	-	14,637	14,637
Revaluation of land, buildings, infrastructure and service concession assets	14,362	-	14,362
Gain on financial assets at fair value through OCI	32,393	-	32,393
Loss on foreign exchange	(296)	-	(296)
<b>Total comprehensive income</b>	<b>46,459</b>	<b>14,637</b>	<b>61,096</b>
Transfer from Reserve to Retained earnings due to realisation of Financial assets at fair value through OCI <sup>#1</sup>	(81,783)	81,783	-
<b>Balance at 31 December 2021</b>	<b>384,129</b>	<b>540,227</b>	<b>924,356</b>
<b>1 January 2022</b>	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
<b>Total comprehensive income</b>	<b>48,672</b>	<b>(37,184)</b>	<b>11,488</b>
<b>Balance at 31 December 2022</b>	<b>432,801</b>	<b>503,043</b>	<b>935,844</b>
<b>University</b>			
<b>Balance at 1 January 2021</b>	419,598	649,314	1,068,912
Net result	-	14,046	14,046
Revaluation of land, buildings, infrastructure and service concession assets	14,362	-	14,362
Gain on financial assets at fair value through OCI	32,393	-	32,393
<b>Total comprehensive income</b>	<b>46,755</b>	<b>14,046</b>	<b>60,801</b>
Transfer from Reserve to Retained earnings due to realisation of Financial assets at fair value through OCI <sup>#1</sup>	(81,783)	81,783	-
<b>Balance at 31 December 2021</b>	<b>384,570</b>	<b>745,143</b>	<b>1,129,713</b>
<b>Balance at 1 January 2021</b>	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
<b>Total comprehensive income</b>	<b>48,214</b>	<b>(20,768)</b>	<b>27,446</b>
<b>Balance at 31 December 2022</b>	<b>432,784</b>	<b>724,375</b>	<b>1,157,159</b>

<sup>#1</sup> Reflects the transfer between Reserves and Retained earnings in relation to the wind-up distribution arising from the Education Australia investment (unlisted equity instrument, fair valued through other comprehensive income).

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 2022

	Note	Consolidated		University	
		2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>					
Australian Government grants		193,485	213,455	193,485	213,455
State and Local Government grants		4,717	4,765	4,717	4,765
HECS-HELP - student payments		4,190	4,186	4,190	4,186
OS-HELP (net)		(1,359)	-	(1,359)	-
Receipts from student fees and other customers		199,642	163,624	203,959	142,322
Dividends and distributions received		4,217	4,542	5,825	4,517
Interest received		1,799	390	1,635	339
Payments to suppliers and employees		(363,697)	(356,691)	(354,810)	(348,520)
Lease payments for short term and low value assets		(4,733)	(4,374)	(4,948)	(4,004)
Interest and other costs of finance paid		(401)	(378)	(391)	(374)
Income taxes paid		(37)	(36)	-	-
<b>Net cash provided by operating activities</b>	22	<b>37,823</b>	<b>29,483</b>	<b>52,303</b>	<b>16,686</b>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>					
Proceeds from sale of property, plant and equipment		145	26	145	26
Payments for property, plant and equipment, intangibles and investment property		(112,847)	(48,078)	(112,841)	(48,051)
(Payments)/redemption of bank deposits		(23,735)	(5,878)	(27,565)	1,418
Net proceeds/(payments) for financial assets		54,353	2,309	54,351	2,309
Proceeds from loan to external party		1,000	-	1,000	-
<b>Net cash (used in)/provided by investing activities</b>		<b>(81,084)</b>	<b>(51,621)</b>	<b>(84,910)</b>	<b>(44,298)</b>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>					
Repayment of borrowings		(454)	(425)	(454)	(425)
Repayment of lease liabilities		(1,000)	(1,186)	(841)	(1,011)
Proceeds from borrowings		91,664	28,336	91,664	28,336
<b>Net cash used in financing activities</b>		<b>90,210</b>	<b>26,725</b>	<b>90,369</b>	<b>26,900</b>
Net increase/(decrease) in cash and cash equivalents held		46,949	4,587	57,762	(712)
Cash and cash equivalents at beginning of year		58,854	54,044	38,891	39,380
Effects of exchange rate changes on cash and cash equivalents		388	223	388	223
<b>Cash and cash equivalents at end of financial year</b>	11	<b>106,191</b>	<b>58,854</b>	<b>97,041</b>	<b>38,891</b>
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.

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## 1 Summary of significant accounting policies

### General Statement

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

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

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

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 9 March 2023.

### 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.

## 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 2022 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 income statement, and its share of post-acquisition movements in reserves is recognised in reserves. The cumulative post-acquisition movements are adjusted against the carrying amount of the investment. Dividends receivable from associates are recognised in the parent entity's income statement, while in the consolidated financial statements they reduce the carrying amount of the investment.

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

#### (b). Goods and Services Tax (GST)

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

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

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

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

#### (c). New accounting standards and interpretations

The following standards have been issued but are not mandatory for 31 December 2022 reporting period.

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

Standard		Application date	Implications
AASB2020 3	Amendments to AASB 9 – Fees in the '10 per cent' Test for derecognition of Financial Liabilities	1 Jan 2022	The amendments are not expected to apply to the University.
Amendments to IFRS 3	Reference to the Conceptual Framework	1 Jan 2022	The amendments are not expected to apply to the University.
Amendments to IAS 37	Onerous Contracts – Costs of Fulfilling a Contract	1 Jan 2022	The amendments are not expected to apply to the University.
Amendments to IFRS 1	First time Adoption of International Financial Reporting Standards – Subsidiary as a first time adopter	1 Jan 2022	As the University's subsidiaries already comply with IFRS, the amendments are not expected to have a material impact on the University.
Amendments to IAS 16	Property, Plant and Equipment: Proceeds before Intended Use	1 Jan 2022	The amendments are not expected to apply to the University.
IAS 41	Agriculture – Taxation in fair value measurements	1 Jan 2022	The amendments are not expected to apply to the University.

#### (d). Comparative amounts

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

## 1 Summary of significant accounting policies (continued)

### (e). Going concern

The COVID-19 pandemic continues into 2023 with the ongoing impact of COVID-19 on enrolments and retention continuing to impact revenue. Management have determined, by assessing the University's forecasted financial performance and position, including cash balances and access to debt facilities, that the uncertainties arising as a result of COVID-19 do not impact upon the University's ability to continue as a going concern.

### (f). Education Australia Limited (EAL)

In the prior year, following the 11 March 2021 IDP Education Limited (IDP) ASX Announcement of EAL windup prior to 31 December 2021, the University, as a shareholder of EAL, received two distributions from EAL:

- an in-specie distribution by EAL of a 25% shareholding in IDP in August 2021; and
- a cash dividend in September 2021 from part of the proceeds of EAL's market selldown of its remaining 15% shareholding in IDP.

The purpose of the windup of EAL was to enable each shareholder to directly control its investment in IDP and benefit from further participation in IDPs growth, should it choose, while at the same time preserving IDPs independence and broadening IDPs publicly traded shareholder base. The windup of EAL was approved by ordinary resolution of EAL shareholders at an extraordinary general meeting.

The University's management made a judgement that the two distributions by EAL in 2021 represent, in substance, a return of the EAL investment as they result from EAL's restructure and intended winding up. Where the two distributions result in the distribution of the only meaningful asset in EAL and represents substantially all the value in EAL. Therefore, the University has accounted for the value of the consideration received from the two distributions (being IDP shares, cash and the associated franking credits) as the recovery of the carrying amount of the EAL investment without impact on the Income Statement.

The timing delay in the winding up of EAL is due to common legal/administrative processes including settlement of tax liabilities. This does not represent economic benefits expected from future earnings/operations of EAL.

Management considered but rejected the alternative treatment of accounting for the two distributions as dividend income and the associated decrease in the fair value of the EAL investment in other comprehensive income (as the EAL investment had previously been elected as a Fair Value through Other Comprehensive Income investment).

In 2022, the University liquidated 100% of its shareholding in IDP.



## Murdoch University

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

## (a). Commonwealth Grants Scheme and Other Grants

	Note	Consolidated		University	
		2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
Commonwealth Grants Scheme (CGS) <sup>#1</sup>		97,920	101,938	97,920	101,938
Disability Support Program <sup>#2</sup>		147	222	147	222
Indigenous, Regional and Low-SES Attainment Fund <sup>#3</sup>		3,160	3,187	3,160	3,187
Indigenous Student Success Program <sup>#4</sup>		1,145	1,242	1,145	1,242
Promotion of Excellence in Learning and Teaching		-	(9)	-	(9)
National Priorities and Industry Linkage Pool		3,279	3,250	3,279	3,250
<b>Total Commonwealth Grants Scheme and Other Grants</b>	32(a)	<b>105,651</b>	<b>109,830</b>	<b>105,651</b>	<b>109,830</b>

## (b). Higher Education Loan Programs

HECS - HELP		57,002	60,209	57,002	60,209
FEE - HELP		7,532	9,500	7,532	9,500
SA - HELP	32(h)	1,881	2,143	1,881	2,143
<b>Total Higher Education Loan Programs</b>	32(b)	<b>66,415</b>	<b>71,852</b>	<b>66,415</b>	<b>71,852</b>

## (c). Education Research

Research Training Program		9,827	10,246	9,827	10,246
Research Support Program		7,502	16,617	7,502	16,617
<b>Total Education Research Grants</b>	32(c)	<b>17,329</b>	<b>26,863</b>	<b>17,329</b>	<b>26,863</b>

## (d). Australian Research Council

Discovery		1,669	1,294	1,669	1,294
Linkages		444	91	444	91
<b>Total ARC</b>	32(f)	<b>2,113</b>	<b>1,385</b>	<b>2,113</b>	<b>1,385</b>

## (e). Other Australian Government financial assistance

Non-capital					
Research funding		1,012	400	1,012	400
Capital					
Research funding <sup>#5</sup>		-	491	-	491
<b>Total Other Australian Government financial assistance</b>		<b>1,012</b>	<b>891</b>	<b>1,012</b>	<b>891</b>
<b>Total Australian Government financial assistance</b>		<b>192,520</b>	<b>210,821</b>	<b>192,520</b>	<b>210,821</b>

		Consolidated		University	
		2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
<b>Reconciliation</b>					
Australian Government grants	(a),(c),(d) &(e)	126,105	138,969	126,105	138,969
HELP - Australian Government payments	(b)	66,415	71,852	66,415	71,852
<b>Total Australian Government financial assistance</b>		<b>192,520</b>	<b>210,821</b>	<b>192,520</b>	<b>210,821</b>

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

<sup>#1</sup> Includes the basic CGS grant amount, Medical Student Loading, Transition Fund Loading, Allocated Places and Non-Designated Course.

<sup>#2</sup> Higher Education Disability Support Program includes Additional Support for Students with Disabilities and Australian Disability Clearinghouse on Education and Training.

<sup>#3</sup> Includes the Higher Education Participation and Partnership Program, Regional Loading and Enabling Loading.

<sup>#4</sup> Indigenous Student Success Program replaced the Indigenous Commonwealth Scholarships Program and the Indigenous Support Program as of 1 January 2017

<sup>#5</sup> Related to Federal Government support for the Australian National Phenome Centre and funding received for the construction of the Harry Butler Institute.

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Non-Capital</b>				
State Government	4,727	3,205	4,727	3,205
Local Government	345	497	345	497
<b>Total State and Local Government financial assistance</b>	<b>5,072</b>	<b>3,702</b>	<b>5,072</b>	<b>3,702</b>

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	
		2022	2021	2022	2021
		\$'000	\$'000	\$'000	\$'000
<b>Course fees and charges</b>					
Fee-paying onshore overseas students		45,345	50,144	45,345	50,144
Fee-paying offshore overseas students		25,102	22,235	5,571	3,323
Continuing education		109	251	109	251
Fee-paying domestic postgraduate students		1,525	1,691	1,525	1,691
Other domestic course fees and charges		4,904	4,012	4,904	4,012
<b>Total course fees and charges</b>		<b>76,985</b>	<b>78,333</b>	<b>57,454</b>	<b>59,421</b>
<b>Other non-course fees and charges</b>					
Student services and amenities fees from students	32(h)	1,000	1,161	1,000	1,161
Service and management fees		-	-	16,705	15,962
Other fees and charges		5,215	2,941	5,770	3,467
Recovery charges		3,817	3,508	3,747	3,319
Parking fees		1,668	1,766	1,668	1,766
Rental and lease charges		3,758	3,586	3,850	3,686
<b>Total other fees and charges</b>		<b>15,458</b>	<b>12,962</b>	<b>32,740</b>	<b>29,361</b>
<b>Total fees and charges</b>		<b>92,443</b>	<b>91,295</b>	<b>90,194</b>	<b>88,782</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Interest on bank deposits	2,102	376	1,861	323
Dividends and franking credits received	1,306	1,203	2,907	1,165
Income distributions from managed funds	974	3,307	974	3,307
Net (loss)/gain on financial assets designated at fair value through profit or loss <sup>#1</sup>	(14,598)	10,285	(14,477)	10,110
Fair value gain on investment property	15,011	7,958	15,011	7,958
<b>Net Investment revenue</b>	<b>4,795</b>	<b>23,129</b>	<b>6,276</b>	<b>22,863</b>

<sup>#1</sup> 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 financial assets designated at fair value through profit or loss are recognised immediately in the income statement.

## 6 Consultancy and contract research

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Contract research	28,561	24,326	28,561	24,326
Consultancy	462	467	462	467
<b>Total consultancy and contract research</b>	<b>29,023</b>	<b>24,793</b>	<b>29,023</b>	<b>24,793</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Other revenue</b>				
Deferred management fee	6,421	5,697	-	-
Donations and bequests	4,718	1,667	15,268	1,737
Non-government grants	18	-	18	-
Subscriptions	82	11	82	11
Common service fees and electives	2,234	2,165	-	-
Statutory refunds	-	12	-	12
Other revenue	4,190	2,860	2,842	1,489
Revenue related to service concession arrangements	629	629	629	629
Scholarships and prizes	1,100	754	1,100	754
Sponsorships income	437	778	427	770
Trading income	17,430	19,804	16,997	19,375
<b>Total other revenue</b>	<b>37,259</b>	<b>34,377</b>	<b>37,363</b>	<b>24,777</b>
<b>Other income</b>				
Bad debts recovered or written back	26	5	26	5
<b>Total other income</b>	<b>26</b>	<b>5</b>	<b>26</b>	<b>5</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Academic</b>				
Salaries	79,394	77,774	78,470	76,763
Redundancy	-	1,794	-	1,794
Contribution to superannuation and pension schemes	12,002	11,734	11,945	11,683
Payroll tax	5,186	5,278	5,186	5,278
Worker's compensation	800	781	800	781
Annual leave	199	1,908	219	1,888
Long service leave expense	3,498	3,526	3,498	3,526
<b>Total academic</b>	<b>101,079</b>	<b>102,795</b>	<b>100,118</b>	<b>101,713</b>
<b>Non-academic</b>				
Salaries	94,053	91,427	92,596	90,201
Redundancy	694	5,725	694	5,725
Contribution to superannuation and pension schemes	14,082	13,290	13,903	13,139
Payroll tax	6,195	6,058	6,143	6,009
Worker's compensation	945	906	945	906
Annual leave	423	1,523	408	1,498
Long service leave expense	3,929	2,489	3,883	2,500
<b>Total non-academic</b>	<b>120,321</b>	<b>121,418</b>	<b>118,572</b>	<b>119,978</b>
<b>Total employee related expenses</b>	<b>221,400</b>	<b>224,213</b>	<b>218,690</b>	<b>221,691</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Buildings and grounds	10,071	8,324	7,248	5,658
Other	3,356	3,711	3,339	3,700
<b>Total repairs and maintenance</b>	<b>13,427</b>	<b>12,035</b>	<b>10,587</b>	<b>9,358</b>

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.

## Murdoch University

## 10 Other expenses

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Administration expenditure	10,294	9,672	7,956	7,833
Advertising, marketing and promotions	4,571	5,929	4,261	5,480
Audit fees, bank charges, legal costs, insurance and taxes	6,313	5,314	4,578	3,631
Donations and sponsorships	1,011	798	1,043	796
Expenditure related to commercial operations	4,215	4,999	4,211	4,993
General consumables	6,209	5,520	6,137	5,447
Licence and royalty fees	10,993	10,071	10,966	10,051
Non-capitalised equipment	2,850	2,317	2,835	2,310
Occupancy costs	9,331	8,027	9,104	7,825
Operating lease payments	4,733	4,374	4,948	4,004
Other expenditure	10,295	11,832	11,135	12,913
Other research related expenditure	7,232	6,054	7,232	6,054
Other student and teaching related expenditure	13,487	6,523	13,491	6,562
Scholarships, grants and prizes	10,581	10,360	10,581	10,360
Fair value loss on resident loans	7,635	2,773	-	-
Technology and software maintenance	15,506	11,746	15,506	11,746
Telecommunications	558	462	547	453
People development, training and travel	14,895	8,213	14,811	8,182
<b>Total other expenses</b>	<b>140,709</b>	<b>114,984</b>	<b>129,342</b>	<b>108,640</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Current</b>				
Cash at bank and on hand	102,785	58,854	94,341	38,891
Bank bills and deposits	3,406	-	2,700	-
<b>Total cash and cash equivalents</b>	<b>106,191</b>	<b>58,854</b>	<b>97,041</b>	<b>38,891</b>

## (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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Unrestricted	90,119	42,810	84,429	26,299
Restricted	16,072	16,044	12,612	12,592
<b>Balance as per statement of cash flows</b>	<b>106,191</b>	<b>58,854</b>	<b>97,041</b>	<b>38,891</b>

## (b). Cash at bank and on hand

The Group cash at bank and on hand had an average floating interest rate of 1.12% as at 31 December 2022 (2021: 0.22%).

The University cash at bank and on hand had an average floating interest rate of 1.09% as at 31 December 2022 (2021: 0.27%).

## (c). Bank bills and deposits

The consolidated bank bills and deposits are bearing average fixed interest rates of 0.78% as at 31 December 2022. These deposits have an average maturity of 76 days. There were no consolidated bank bills and deposits with original maturities of three months or less as at 31 December 2021.

The University bank bills and deposits are bearing average fixed interest rates of 0.90% as at 31 December 2022. These deposits have an average maturity of 90 days. There were no consolidated bank bills and deposits with original maturities of three months or less as at 31 December 2021.

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Current</b>				
Trade receivables	14,719	18,178	17,533	28,361
Student fees receivable	1,500	2,419	1,500	2,419
Less: allowance for expected credit losses	(673)	(2,438)	(659)	(2,424)
	15,546	18,159	18,374	28,356
Loans receivable	1,000	1,127	1,000	1,127
Franking credit receivable	23,009	25,561	23,002	25,548
Other	2,121	210	2,121	193
<b>Total trade and other receivable</b>	<b>41,676</b>	<b>45,057</b>	<b>44,497</b>	<b>55,224</b>
Contract assets	5,398	6,594	5,398	6,594
<b>Total current receivables</b>	<b>47,074</b>	<b>51,651</b>	<b>49,895</b>	<b>61,818</b>
<b>Non-current</b>				
Loans receivable	1,000	2,000	1,000	2,000
Other	16	36	16	36
<b>Total non-current receivables</b>	<b>1,016</b>	<b>2,036</b>	<b>1,016</b>	<b>2,036</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
At 1 January	2,438	1,966	2,424	1,952
Provision for expected credit losses	429	673	429	673
Write-off	(1,806)	(201)	(1,806)	(201)
Debt recovery	(388)	-	(388)	-
<b>At 31 December</b>	<b>673</b>	<b>2,438</b>	<b>659</b>	<b>2,424</b>

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.

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 balance is inclusive of \$23 million (2021: \$23 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 (EAL). 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 had received immediate custody and control of the IDP shares and this was not impacted by the Shareholder Restriction Deed. On the 7 March 2023 the ATO provided a position paper stating the University is not eligible for the franking credits on the fully franked in specie dividend of IDP shares under section 207-112 of the ITAA97. The ATO position paper does not amend the Group's position and view. Our most recent legal advice is that the Group remains entitled to receive the franking credits refund for this transaction. A formal response will be submitted to the ATO.



## Murdoch University

## 13 Other financial assets

## Current

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Unrestricted</b>				
Other financial assets at fair value through profit or loss - listed securities	509	638	-	-
Other financial assets at amortised cost - bank deposits	65,726	41,991	61,565	34,000
<b>Total unrestricted current other financial assets</b>	<b>66,235</b>	<b>42,629</b>	<b>61,565</b>	<b>34,000</b>
<b>Restricted</b>				
Other financial assets at fair value through profit or loss - listed securities <sup>#1</sup>	4,721	65,999	4,102	65,388
<b>Total current other financial assets</b>	<b>70,956</b>	<b>108,628</b>	<b>65,667</b>	<b>99,388</b>

## Non-current

<b>Unrestricted</b>				
Other financial assets at fair value through profit or loss - managed funds	70,204	77,734	70,204	77,734
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	6,668	6,414	6,668	6,414
<b>Total unrestricted non-current other financial assets</b>	<b>76,872</b>	<b>84,148</b>	<b>76,972</b>	<b>84,248</b>
<b>Restricted</b>				
Other financial assets at fair value through profit or loss - managed funds	125	138	125	138
<b>Total restricted non-current other financial assets</b>	<b>125</b>	<b>138</b>	<b>125</b>	<b>138</b>
<b>Total non-current other financial assets</b>	<b>76,997</b>	<b>84,286</b>	<b>77,097</b>	<b>84,386</b>
<b>Total other financial assets</b>	<b>147,953</b>	<b>192,914</b>	<b>142,764</b>	<b>183,774</b>

<sup>#1</sup> Inclusive of 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). 50% of these shares were in escrow until 27 February 2022 and 27 August 2022 and therefore were classified as restricted as at 31 December 2021. In 2022 the University liquidated 100% of its shareholding in IDP.

## 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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Opening balance at 1 January	249,534	241,576	249,534	241,576
Fair value gain	15,011	7,958	15,011	7,958
<b>Closing balance at 31 December</b>	<b>264,545</b>	<b>249,534</b>	<b>264,545</b>	<b>249,534</b>

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.

## Murdoch University

## 14 Investment properties (continued)

## (a). Amounts recognised in the income statement for operating leases to third parties

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Rental income	3,370	3,200	3,370	3,200
Direct operating expenses	(167)	(60)	(167)	(60)
Fair value gain	3,565	901	3,565	901
<b>Total recognised in profit or loss</b>	<b>6,768</b>	<b>4,041</b>	<b>6,768</b>	<b>4,041</b>

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

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Fair value gain	11,416	6,897	11,416	6,897
<b>Total recognised in profit or loss</b>	<b>11,416</b>	<b>6,897</b>	<b>11,416</b>	<b>6,897</b>

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

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Fair value gain	30	160	30	160
<b>Total recognised in profit or loss</b>	<b>30</b>	<b>160</b>	<b>30</b>	<b>160</b>

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

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>The future minimum lease payments under non-cancellable leases are as follows:</b>	-	-	-	-
Within one year	1,712	1,573	1,712	1,573
	<b>1,712</b>	<b>1,573</b>	<b>1,712</b>	<b>1,573</b>

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 income statement as part of the other income.

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

15 Property, plant and equipment

University	Land \$'000	Buildings \$'000	Infrastructure \$'000	Construction in progress \$'000	Plant and equipment* \$'000	Artworks \$'000	Library Books \$'000	Leasehold Improvement \$'000	Service concession assets \$'000	Right of use assets** \$'000	Total \$'000
<b>At 1 January 2021</b>											
- Cost	-	911	254	22,521	141,079	565	1,471	8,472	-	6,659	181,932
- Independent Valuation	222,709	293,409	34,710	-	-	7,278	-	-	51,566	-	609,672
Accumulated depreciation and impairment	-	-	(362)	-	(74,865)	-	(453)	(1,828)	-	(1,655)	(79,163)
<b>Net book amount</b>	<b>222,709</b>	<b>294,320</b>	<b>34,602</b>	<b>22,521</b>	<b>66,214</b>	<b>7,843</b>	<b>1,018</b>	<b>6,644</b>	<b>51,566</b>	<b>5,004</b>	<b>712,441</b>
<b>Year ended 31 December 2021</b>											
Opening net book amount	222,709	294,320	34,602	22,521	66,214	7,843	1,018	6,664	51,566	5,004	712,441
Revaluation increment	4,445	6,348	1,523	-	-	793	-	-	1,253	-	14,362
Additions	-	24	159	48,257	1,462	220	156	11	-	534	50,823
Disposals	-	-	-	-	(109)	(7)	-	-	-	-	(116)
Transfers in/(out)	-	962	1,284	(10,325)	8,072	-	-	7	-	-	-
Transfer to profit and loss	-	-	-	-	(95)	-	-	-	-	-	(95)
Transfer to software	-	-	-	(571)	-	-	-	-	-	-	(571)
Depreciation charge	-	(5,896)	(1,065)	-	(11,933)	-	(416)	(680)	(888)	(1,089)	(21,967)
<b>Closing net book amount</b>	<b>227,154</b>	<b>295,758</b>	<b>36,503</b>	<b>59,882</b>	<b>63,611</b>	<b>8,849</b>	<b>758</b>	<b>5,982</b>	<b>51,931</b>	<b>4,449</b>	<b>754,877</b>
<b>At 31 December 2021</b>											
- Cost	-	17	532	59,882	147,529	133	1,174	8,490	-	7,193	224,950
- Independent Valuation	227,154	295,741	35,974	-	-	8,716	-	-	51,931	-	619,516
Accumulated depreciation and impairment	-	-	(3)	-	(83,918)	-	(416)	(2,508)	-	(2,744)	(89,589)
<b>Net book amount</b>	<b>227,154</b>	<b>295,758</b>	<b>36,503</b>	<b>59,882</b>	<b>63,611</b>	<b>8,849</b>	<b>758</b>	<b>5,982</b>	<b>51,931</b>	<b>4,449</b>	<b>754,877</b>
<b>Year ended 31 December 2022</b>											
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 or loss	-	-	-	(2,795)	-	-	-	-	-	(56)	(2,851)
Transfer to software	-	-	-	(13)	-	-	-	-	-	-	(13)
Depreciation charge	-	(5,929)	(748)	-	(11,864)	-	(389)	(719)	(893)	(831)	(21,373)
<b>Closing net book amount</b>	<b>227,215</b>	<b>330,621</b>	<b>43,081</b>	<b>146,284</b>	<b>71,771</b>	<b>9,083</b>	<b>463</b>	<b>5,934</b>	<b>55,456</b>	<b>5,917</b>	<b>895,825</b>
<b>At 31 December 2022</b>											
- 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)
<b>Net book amount</b>	<b>227,215</b>	<b>330,621</b>	<b>43,081</b>	<b>146,284</b>	<b>71,771</b>	<b>9,083</b>	<b>463</b>	<b>5,934</b>	<b>55,456</b>	<b>5,917</b>	<b>895,825</b>

	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
<b>Consolidated</b>											
<b>At 1 January 2021</b>											
- Cost	-	911	254	22,520	141,282	565	1,471	8,761	-	6,992	182,756
- Independent Valuation	222,709	293,409	34,710	-	-	7,278	-	-	51,566	-	609,672
Accumulated depreciation and impairment	-	-	(362)	-	(75,023)	-	(453)	(2,107)	-	(1,693)	(79,638)
<b>Net book amount</b>	<b>222,709</b>	<b>294,320</b>	<b>34,602</b>	<b>22,520</b>	<b>66,259</b>	<b>7,843</b>	<b>1,018</b>	<b>6,654</b>	<b>51,566</b>	<b>5,299</b>	<b>712,790</b>
<b>Year ended 31 December 2021</b>											
Opening net book amount	222,709	294,320	34,602	22,520	66,259	7,843	1,018	6,654	51,566	5,299	712,790
Revaluation increment	4,445	6,348	1,523	-	-	793	-	-	1,253	-	14,362
Additions	-	24	159	48,258	1,489	220	156	23	-	534	50,863
Disposals	-	-	-	-	(109)	(7)	-	-	-	-	(116)
Transfers in/(out)	-	962	1,284	(10,325)	8,072	-	-	7	-	-	-
Transfer to profit and loss	-	-	-	-	(95)	-	-	-	-	-	(95)
Transfer to software	-	-	-	(571)	-	-	-	-	-	-	(571)
Foreign exchange differences	-	-	-	-	2	-	-	(11)	-	8	(1)
Depreciation charge	-	(5,896)	(1,065)	-	(11,952)	-	(416)	(690)	(888)	(1,264)	(22,171)
<b>Closing net book amount</b>	<b>227,154</b>	<b>295,758</b>	<b>36,503</b>	<b>59,882</b>	<b>63,666</b>	<b>8,849</b>	<b>758</b>	<b>5,983</b>	<b>51,931</b>	<b>4,577</b>	<b>755,061</b>
<b>At 31 December 2021</b>											
- Cost	-	17	532	59,882	147,754	133	1,174	8,791	-	7,534	225,817
- Independent Valuation	227,154	295,741	35,974	-	-	8,716	-	-	51,931	-	619,516
Accumulated depreciation and impairment	-	-	(3)	-	(84,088)	-	(416)	(2,808)	-	(2,957)	(90,272)
<b>Net book amount</b>	<b>227,154</b>	<b>295,758</b>	<b>36,503</b>	<b>59,882</b>	<b>63,666</b>	<b>8,849</b>	<b>758</b>	<b>5,983</b>	<b>51,931</b>	<b>4,577</b>	<b>755,061</b>
<b>Year ended 31 December 2022</b>											
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 or 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)
<b>Closing net book amount</b>	<b>227,215</b>	<b>330,621</b>	<b>43,081</b>	<b>146,284</b>	<b>71,813</b>	<b>9,083</b>	<b>463</b>	<b>5,935</b>	<b>55,456</b>	<b>6,145</b>	<b>896,096</b>
<b>At 31 December 2022</b>											
- 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)
<b>Net book amount</b>	<b>227,215</b>	<b>330,621</b>	<b>43,081</b>	<b>146,284</b>	<b>71,813</b>	<b>9,083</b>	<b>463</b>	<b>5,935</b>	<b>55,456</b>	<b>6,145</b>	<b>896,096</b>

## 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 income statement during the financial period in which they are incurred (refer to note 9).

Construction in progress is stated at cost.

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

### Depreciation

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

Depreciable assets:

Computer equipment	25%
Other equipment	12.5%
Buildings and infrastructure	2%
Plant	5%
Motor vehicles	16.67%
Furniture and fittings	5% to 20%
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 income statement.

## Murdoch University

## 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	
	2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
<b>Buildings</b>				
At 1 January	4,150	4,722	4,100	4,528
Additions	1,941	421	1,682	421
Disposal	(232)	-	(232)	-
Depreciation charge	(687)	(1,001)	(547)	(849)
Adjustments	(50)	-	(50)	-
Foreign exchange differences	3	8	-	-
<b>At 31 December</b>	<b>5,125</b>	<b>4,150</b>	<b>4,953</b>	<b>4,100</b>
<b>Motor Vehicles</b>				
At 1 January	50	93	50	93
Additions	191	51	191	51
Depreciation charge	(89)	(94)	(89)	(94)
Disposal	(25)	-	(25)	-
<b>At 31 December</b>	<b>127</b>	<b>50</b>	<b>127</b>	<b>50</b>
<b>Computer Equipment</b>				
At 1 January	116	127	116	127
Additions	375	62	375	62
Disposal	(2)	-	(2)	-
Depreciation charge	(84)	(73)	(84)	(73)
Adjustments	(6)	-	(6)	-
<b>At 31 December</b>	<b>399</b>	<b>116</b>	<b>399</b>	<b>116</b>
<b>Other Equipment</b>				
At 1 January	261	357	183	256
Additions	366	-	366	-
Depreciation charge	(133)	(96)	(111)	(73)
<b>At 31 December</b>	<b>494</b>	<b>261</b>	<b>438</b>	<b>183</b>
<b>Total right-of-use assets</b>	<b>6,145</b>	<b>4,577</b>	<b>5,917</b>	<b>4,449</b>

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

The Group assesses whether:

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

In contracts where the Group is a lessee, it recognises a right-of-use asset and a lease liability at the commencement date of the lease, unless the short-term or low-value exemption is applied.

**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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Land</b>				
Opening balance	7,306	7,165	7,306	7,165
Independent valuation	-	141	-	141
<b>Total service concession land</b>	<b>7,306</b>	<b>7,306</b>	<b>7,306</b>	<b>7,306</b>
<b>Buildings</b>				
Opening balance	44,625	44,401	44,625	44,401
Independent valuation	4,418	1,112	4,418	1,112
Accumulated depreciation and impairment	(893)	(888)	(893)	(888)
<b>Total service concession buildings</b>	<b>48,150</b>	<b>44,625</b>	<b>48,150</b>	<b>44,625</b>
<b>Total service concession assets</b>	<b>55,456</b>	<b>51,931</b>	<b>55,456</b>	<b>51,931</b>

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.



## Murdoch University

## 16 Intangible assets

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Electronic library materials	15,946	15,653	15,946	15,653
Software and software licences	744	1,143	744	1,143
<b>Total intangible assets</b>	<b>16,690</b>	<b>16,796</b>	<b>16,690</b>	<b>16,796</b>

Consolidated and University	Electronic Library Materials	Software and Software Licences	Total
	\$'000	\$'000	\$'000
<b>At 1 January 2021</b>			
Cost	27,509	3,458	30,967
Accumulated amortisation and impairment	(12,548)	(2,419)	(14,967)
<b>Net book amount</b>	<b>14,961</b>	<b>1,039</b>	<b>16,000</b>
<b>Year ended 31 December 2021</b>			
Opening net book amount	14,961	1,039	16,000
Additions	3,427	9	3,436
Transfer from Construction in Progress	-	571	571
Amortisation Charges	(2,735)	(476)	(3,211)
Closing net book amount	<b>15,653</b>	<b>1,143</b>	<b>16,796</b>
<b>At 31 December 2021</b>			
Cost	29,058	4,038	33,096
Accumulated amortisation and impairment	(13,405)	(2,895)	(16,300)
<b>Net book amount</b>	<b>15,653</b>	<b>1,143</b>	<b>16,796</b>
<b>Year ended 31 December 2022</b>			
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)
<b>Closing net book amount</b>	<b>15,946</b>	<b>744</b>	<b>16,690</b>
Cost	<b>29,543</b>	<b>4,051</b>	<b>33,594</b>
Accumulated amortisation and impairment	<b>(13,597)</b>	<b>(3,307)</b>	<b>(16,904)</b>
<b>Net book amount</b>	<b>15,946</b>	<b>744</b>	<b>16,690</b>

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	
		2022	2021	2022	2021
		\$'000	\$'000	\$'000	\$'000
<b>Current</b>					
Trade payables		853	7,058	412	6,542
Current tax liability		23	35	-	-
Accruals and other payables		29,067	19,238	28,021	18,276
OS-HELP liability to Australian Government	32(g)	917	1,546	917	1,546
<b>Total current trade and other payables</b>		<b>30,860</b>	<b>27,877</b>	<b>29,350</b>	<b>26,364</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Current</b>				
<b>Secured</b>				
Lease liabilities	1,224	1,016	1,026	884
Western Australian Treasury Corporation <sup>#1</sup>	485	454	485	454
<b>Total current secured borrowings</b>	<b>1,709</b>	<b>1,470</b>	<b>1,511</b>	<b>1,338</b>
<b>Total current borrowings</b>	<b>1,709</b>	<b>1,470</b>	<b>1,511</b>	<b>1,338</b>
<b>Non-current</b>				
<b>Secured</b>				
Lease liabilities	5,039	3,610	5,004	3,610
Western Australian Treasury Corporation - secured <sup>#1</sup>	1,976	2,461	1,976	2,461
Commonwealth Bank of Australia	120,000	28,336	120,000	28,336
<b>Total non-current secured borrowings</b>	<b>127,015</b>	<b>34,407</b>	<b>126,980</b>	<b>34,407</b>
<b>Total non-current borrowings</b>	<b>127,015</b>	<b>34,407</b>	<b>126,980</b>	<b>34,407</b>
<b>Total borrowings</b>	<b>128,724</b>	<b>35,877</b>	<b>128,491</b>	<b>35,745</b>

<sup>#1</sup> Loan from Western Australian Treasury Corporation is as follows:

Peel Campus loan 1: \$2.461 million (2021: \$2.915 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.

### 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.

## Murdoch University

## 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 a lease term, 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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Facilities</b>				
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	120,000	120,000
	<b>221,000</b>	<b>221,000</b>	<b>221,000</b>	<b>221,000</b>
<b>Facilities utilised at reporting date</b>				
Western Australian Treasury Corporation loan facility	2,461	2,915	2,461	2,915
Commonwealth Bank of Australia	120,000	28,336	120,000	28,336
	<b>122,461</b>	<b>31,251</b>	<b>122,461</b>	<b>31,251</b>
<b>Facilities not utilised at reporting date</b>				
Asset finance (Finance Leases)	1,000	1,000	1,000	1,000
Western Australian Treasury Corporation loan facility	97,539	97,085	97,539	97,085
Commonwealth Bank of Australia	-	91,664	-	91,661
	<b>98,539</b>	<b>189,749</b>	<b>98,539</b>	<b>189,746</b>

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. The use, amount and timing of drawdowns is subject to the conditions of the facility. This CBA facility is unsecured with a financial covenant of requiring the University to retain a minimum net worth (total equity) of no less than \$700 million at all times and is managed in accordance with the University's Debt Management Policy.

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

	2021		2022			2022 Carrying amount
	Carrying amount	Cash flows	Non-cash changes			
			Acquisitions	Transfer	Other adjustments	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Consolidated</b>						
Long-term borrowings	30,797	91,664	-	(485)	-	121,976
Short-term borrowings	454	(454)	-	485	-	485
Lease liabilities	4,626	(1,020)	2,671	-	(14)	6,263
<b>Total liabilities from financing activities</b>	<b>35,877</b>	<b>90,190</b>	<b>2,671</b>	<b>-</b>	<b>(14)</b>	<b>128,724</b>

## 18 Borrowings (continued)

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

University	2021		Non-cash changes			2022
	Carrying amount	Cash flows	Acquisitions	Transfer	Other adjustments	Carrying amount
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Long-term borrowings	30,797	91,664	-	(485)	-	121,976
Short-term borrowings	454	(454)	-	485	-	485
Lease liabilities	4,494	(860)	2,410	-	(14)	6,030
<b>Total liabilities from financing activities</b>	<b>35,745</b>	<b>90,350</b>	<b>2,410</b>	<b>-</b>	<b>(14)</b>	<b>128,491</b>

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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Current provisions expected to be settled within 12 months</b>				
Employee benefits:				
Annual leave	10,073	10,414	9,987	10,328
Long service leave	1,816	1,546	1,809	1,542
Employment on-costs	1,205	1,007	1,204	1,007
Other provisions:				
Management fees - St Ives Retirement Village	1,309	1,018	-	-
Other provisions	3,771	3,507	3,749	3,486
	<b>18,174</b>	<b>17,492</b>	<b>16,749</b>	<b>16,363</b>
<b>Current provisions expected to be settled after more than 12 months</b>				
Annual leave	3,501	4,327	3,467	4,293
Long service leave	11,812	11,702	11,766	11,668
Employment on-costs	2,957	2,930	2,946	2,923
Other provisions:				
Management fees - St Ives Retirement Village	13,384	13,463	-	-
	<b>31,654</b>	<b>32,422</b>	<b>18,179</b>	<b>18,884</b>
<b>Total current provisions</b>	<b>49,828</b>	<b>49,914</b>	<b>34,928</b>	<b>35,247</b>
<b>Non-current</b>				
Employee benefits:				
Long service leave	14,475	14,073	14,419	14,033
Employment on-costs	3,286	3,195	3,273	3,185
Other provisions	235	315	235	315
<b>Total non-current provisions</b>	<b>17,996</b>	<b>17,583</b>	<b>17,927</b>	<b>17,533</b>
<b>Total provisions</b>	<b>67,824</b>	<b>67,497</b>	<b>52,855</b>	<b>52,780</b>

## 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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Employment on-costs provision</b>				
Balance at beginning of year	7,132	7,529	7,115	7,529
Additional provision	1,441	3,021	1,426	3,004
Amounts used	(1,125)	(3,418)	(1,118)	(3,418)
<b>Carrying amount at end of period</b>	<b>7,448</b>	<b>7,132</b>	<b>7,423</b>	<b>7,115</b>
<b>Management fees</b>				
Balance at beginning of year	14,481	14,524	-	-
Additional provision	1,593	1,543	-	-
Amounts used	(1,381)	(1,586)	-	-
<b>Carrying amount at end of period</b>	<b>14,693</b>	<b>14,481</b>	<b>-</b>	<b>-</b>
<b>Other</b>				
Balance at beginning of year	3,822	1,216	3,802	1,196
Additional provisions	1,300	2,947	1,298	2,927
Amounts used	(746)	(110)	(746)	(90)
Unused amount reversed	(370)	(231)	(370)	(231)
<b>Carrying amount at end of period</b>	<b>4,006</b>	<b>3,822</b>	<b>3,984</b>	<b>3,802</b>

## 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	
	2022 \$'000	2021 \$'000	2022 \$'000	2021 \$'000
<b>Current</b>				
Income received in advance	58,678	30,520	39,038	11,190
Australian government unspent financial assistance	2,310	4,042	2,310	4,042
GORTO liability	629	629	629	629
Resident loans*	196,888	188,837	-	-
<b>Total current other liabilities</b>	<b>258,505</b>	<b>224,028</b>	<b>41,977</b>	<b>15,861</b>
Contract liabilities	57,293	46,148	57,293	46,148
<b>Total current contract and other liabilities</b>	<b>315,798</b>	<b>270,176</b>	<b>99,270</b>	<b>62,009</b>
* Resident loans obligation	261,890	252,760	-	-
Less: Deferred Management Fees	(65,002)	(63,923)	-	-
	<b>196,888</b>	<b>188,837</b>	-	-
<b>Non-current</b>				
GORTO liability	12,320	12,949	12,320	12,949
<b>Total non-current other liabilities</b>	<b>12,320</b>	<b>12,949</b>	<b>12,320</b>	<b>12,949</b>

**Contract liabilities**

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

**Resident loans**

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

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

21 Equity

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Reserves</b>				
Land, buildings, infrastructure and service concession assets	431,677	383,717	431,677	383,717
Equity instruments designated at fair value through OCI	1,107	853	1,107	853
Foreign exchange translation reserve	17	(441)	-	-
<b>Total reserves</b>	<b>432,801</b>	<b>384,129</b>	<b>432,784</b>	<b>384,570</b>

**Movements**

<b>Reserves</b>				
Balance 1 January	384,129	419,453	384,570	419,598
Transfer from Reserve to Retained earnings due to realisation of Financial assets at fair value through OCI <sup>#1</sup>	-	(81,783)	-	(81,783)
Land, buildings, infrastructure and service concession assets	47,960	14,362	47,960	14,362
Equity instruments designated at fair value through OCI	254	32,393	254	32,393
Foreign exchange translation reserve	458	(296)	-	-
<b>Balance 31 December</b>	<b>432,801</b>	<b>384,129</b>	<b>432,784</b>	<b>384,570</b>

**Retained earnings**

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Retained earnings</b>				
Balance 1 January	540,227	443,807	745,143	649,314
Net result for the period	(37,198)	14,637	(20,768)	14,046
Gain on foreign exchange <sup>#2</sup>	14	-	-	-
Transfer from Reserve to Retained earnings due to realisation of Financial assets at fair value through OCI <sup>#1</sup>	-	81,783	-	81,783
<b>Retained earnings 31 December</b>	<b>503,043</b>	<b>540,227</b>	<b>724,375</b>	<b>745,143</b>

<sup>#1</sup> Reflects the transfer between Reserves and Retained earnings in relation to the wind-up distribution arising from the Education Australia investment (unlisted equity instrument, fair valued through other comprehensive income).

<sup>#2</sup> Reflects amendment to opening retained earnings due to foreign currency translation relating to Murdoch Singapore Pte Ltd.

**Land, buildings, infrastructure and service concession assets**

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

**Hedging reserve cash flow hedges**

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

**Equity instruments designated at fair value through OCI**

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

**Foreign exchange translation reserve**

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



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

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
Net result after income tax	(37,198)	14,637	(20,768)	14,046
<b>Adjustments for:</b>				
Depreciation and amortisation	24,802	25,382	24,622	25,178
Gain on disposal of property, plant and equipment	1,610	89	1,610	89
Net gains on other financial assets	14,597	(10,285)	14,478	(10,111)
Fair value loss on investment property	(15,011)	(7,958)	(15,011)	(7,958)
Share of net results of associates accounted for using the equity method	-	4	-	4
Amortisation of GORTO liability	(629)	(629)	(629)	(629)
Donations	-	(99)	-	(99)
Net exchange differences	(388)	(223)	(388)	(223)
<b>Changes in assets and liabilities:</b>				
Decrease/(Increase) in receivables	6,890	(5,100)	11,479	(11,524)
Decrease/(Increase) in inventories	416	(353)	415	(353)
Increase in other assets	(295)	(879)	(250)	(881)
(Increase)/Decrease in deferred tax assets	(51)	22	-	-
Decrease in payables	(1,908)	(2,848)	(2,390)	(3,002)
Increase/(Decrease) in provisions	405	(6,450)	155	(6,374)
Increase in resident loans	8,051	3,287	-	-
Increase in other liabilities	36,532	20,886	38,980	18,523
<b>Net cash provided by operating activities</b>	<b>37,823</b>	<b>29,483</b>	<b>52,303</b>	<b>16,686</b>

**23 Remuneration of auditors**

During the year, the following fees were paid or payable for services provided by the auditor of the University and Group:

	Consolidated		University	
	2022	2021	2022	2021
	\$	\$	\$	\$
<b>Audit of Financial Statements</b>				
Fees paid to Office of the Auditor General	325,200	310,500	290,300	271,800
Fees paid to BDO Corporate Services Pte Ltd Singapore	31,318	26,664	-	-
	356,518	337,164	290,300	271,800
<b>Other services</b>				
Fees paid to Office of the Auditor General	25,428	13,928	25,428	13,928
<b>Total paid for audit</b>	<b>381,946</b>	<b>351,092</b>	<b>315,728</b>	<b>285,728</b>

The indicative fee relating to the audit for 2022 financial statements is \$279k.

## 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 2022 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	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Capital expenditure contracted for at the reporting date but not recognised as liabilities is as follows</b>				
Within one year <sup>#1</sup>	18,583	101,453	18,583	101,453
<b>Total PPE commitments</b>	<b>18,583</b>	<b>101,453</b>	<b>18,583</b>	<b>101,453</b>

<sup>#1</sup> 2021 and 2022 is inclusive of commitments in relation to the construction of Boola Katitjin.

### (b). Other expenditure commitments

	Consolidated		University	
	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000
<b>Commitments relating to other expenditure are as follows:</b>				
Within one year	8,432	7,657	8,432	7,657
Later than one year but not later than five years	12,246	15,514	12,246	15,514
<b>Total other expenditure commitments</b>	<b>20,678</b>	<b>23,171</b>	<b>20,678</b>	<b>23,171</b>

## Murdoch University

## 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	
	2022	2021	2022	2021
\$0 - \$10,000	6	5	-	-
\$10,001 - \$20,000	3	3	-	-
\$20,001 - \$30,000	1	3	1	-
\$30,001 - \$40,000	2	1	1	-
\$40,001 - \$50,000	1	1	-	-
\$60,000 - \$70,000	-	-	1	-
\$80,001 - \$90,000	1	1	1	-
\$110,001 - \$120,000	-	-	1	-
\$130,001 - \$140,000	-	1	-	-
\$150,001 - \$160,000	-	-	1	-
\$170,001 - \$180,000	1	-	-	-
\$180,001 - \$190,000	-	1	-	-
\$220,001 - \$230,000	1	-	-	1
\$230,001 - \$240,000	1	-	-	-
\$240,001 - \$250,000	-	1	-	-
\$250,001 - \$260,000	-	-	2	-
\$290,001 - \$300,000	-	1	-	-
\$300,001 - \$310,000	1	-	1	-
\$320,001 - \$330,000	-	-	1	1
\$330,001 - \$340,000	-	-	-	1
\$340,001 - \$350,000	-	-	1	-
\$360,001 - \$370,000	-	1	-	-
\$370,001 - \$380,000	-	-	1	-
\$390,001 - \$400,000	-	-	1	-
\$410,001 - \$400,000	-	-	-	1
\$470,001 - \$480,000	-	-	-	1
\$580,001 - \$590,000	-	-	-	1
\$750,001 - \$760,000	1	-	-	-
\$910,001 - \$920,000	-	1	-	-
\$990,001 - \$1,000,000	-	-	-	1
	<b>19</b>	<b>20</b>	<b>13</b>	<b>7</b>

	Senate members		Senior officers	
	2022	2021	2022	2021
Short-term employee benefits	1,764	1,552	2,372	2,533
Post-employment benefits	147	261	282	270
Other long-term benefits	74	462	82	302
Termination benefits	-	127	414	283
<b>Total key management personnel compensation</b>	<b>1,985</b>	<b>2,402</b>	<b>3,150</b>	<b>3,388</b>

## 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 2022													
Consolidated													
Carrying amount \$000's	Interest rate risk				Foreign exchange risk				Equity price risk				
	-0.5%		+0.5%		-10%		+10%		-10%		+10%		
	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	
Financial assets													
Cash and Cash Equivalents - at bank	106,191	(531)	(531)	531	531	(419)	(419)	419	419	-	-	-	-
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
Total increase/(decrease)		(860)	(860)	860	860	(458)	(458)	458	458	(8,223)	(8,223)	8,223	8,223

31 December 2021													
Consolidated													
Carrying amount \$000's	Interest rate risk				Foreign exchange risk				Equity price risk				
	-0.5%		+0.5%		-10%		+10%		-10%		+10%		
	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	Result \$'000	Equity \$'000	
Financial assets													
Cash and Cash Equivalents - at bank	58,854	(294)	(294)	294	294	(589)	(589)	589	589	-	-	-	-
Amount receivable in foreign currency	724	-	-	-	-	(72)	(72)	72	72	-	-	-	-
Other financial assets													
Bank deposits	41,992	(210)	(210)	210	210	-	-	-	-	-	-	-	-
Listed securities	66,637	-	-	-	-	-	-	-	-	(6,664)	(6,664)	6,664	6,664
Unlisted securities	6,414	-	-	-	-	-	-	-	-	(641)	(641)	641	641
Managed funds	77,872	-	-	-	-	-	-	-	-	(7,787)	(7,787)	7,787	7,787
Total increase/(decrease)		(504)	(504)	504	504	(661)	(661)	661	661	(15,092)	(15,092)	15,092	15,092

## Murdoch University

## 28 Financial Risk Management (continued)

## (a). Market risk (continued)

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	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assets													
Cash and Cash Equivalents - at bank	97,041	(485)	(485)	485	485	(419)	(419)	419	419	-	-	-	-
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
Total increase/(decrease)		(793)	(793)	793	793	(458)	(458)	458	458	(8,110)	(8,110)	8,110	8,110

31 December 2021													
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	
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
Financial assets													
Cash and Cash Equivalents - at bank	38,891	(194)	(194)	194	194	(389)	(389)	389	389	-	-	-	-
Amount receivable in foreign currency	724	-	-	-	-	(72)	(72)	72	72	-	-	-	-
Other financial assets													
Bank deposits	34,000	(170)	(170)	170	170	-	-	-	-	-	-	-	-
Listed securities	65,388	-	-	-	-	-	-	-	-	(6,539)	(6,539)	6,539	6,539
Unlisted securities	6,414	-	-	-	-	-	-	-	-	(641)	(641)	641	641
Managed funds	77,872	-	-	-	-	-	-	-	-	(7,787)	(7,787)	7,787	7,787
Total increase/(decrease)		(364)	(364)	364	364	(461)	(461)	461	461	(14,967)	(14,967)	14,967	14,967

## (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	
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021
	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000	\$'000
<b>Consolidated</b>										
<b>Financial Assets:</b>										
Cash at bank	102,785	58,854	102,785	58,843	102,785	58,843	-	-	-	-
Term deposits	3,406	-	3,406	-	3,406	-	-	-	-	-
Receivables	48,090	53,687	48,090	53,687	47,074	51,851	1,016	2,036	-	-
<b>Total Financial Assets</b>	<b>154,281</b>	<b>112,541</b>	<b>154,281</b>	<b>112,530</b>	<b>153,265</b>	<b>110,694</b>	<b>1,016</b>	<b>2,036</b>	<b>-</b>	<b>-</b>
<b>Financial Liabilities:</b>										
Borrowings	128,724	38,877	136,416	38,681	6,872	2,448	127,792	34,447	1,752	1,786
Payables	30,860	27,877	30,860	27,877	30,860	27,877	-	-	-	-
Resident loan	196,888	188,837	196,888	188,837	196,888	188,837	-	-	-	-
<b>Total Financial Liabilities</b>	<b>356,472</b>	<b>255,591</b>	<b>364,164</b>	<b>255,395</b>	<b>234,620</b>	<b>219,162</b>	<b>127,792</b>	<b>34,447</b>	<b>1,752</b>	<b>1,786</b>
<b>University</b>										
<b>Financial Assets:</b>										
Cash at bank	94,341	38,891	94,341	38,891	94,341	38,891	-	-	-	-
Term deposits	2,700	-	2,700	-	2,700	-	-	-	-	-
Receivables	50,911	63,854	50,911	63,854	49,895	61,818	1,016	2,036	-	-
<b>Total Financial Assets</b>	<b>147,952</b>	<b>102,745</b>	<b>147,952</b>	<b>102,745</b>	<b>146,936</b>	<b>100,709</b>	<b>1,016</b>	<b>2,036</b>	<b>-</b>	<b>-</b>
<b>Financial Liabilities:</b>										
Borrowings	128,491	35,745	136,190	38,681	6,724	2,448	127,715	34,447	1,752	1,786
Payables	29,350	26,364	29,350	26,364	29,350	26,364	-	-	-	-
<b>Total Financial Liabilities</b>	<b>157,841</b>	<b>62,109</b>	<b>165,540</b>	<b>65,045</b>	<b>36,074</b>	<b>28,812</b>	<b>127,715</b>	<b>34,447</b>	<b>1,752</b>	<b>1,786</b>

## 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 2022 and 2021.

2022 Consolidated	Note	Carrying amount \$'000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<b>Financial assets</b>						
Cash and cash equivalents	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	-	-
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,668	6,668	-	-	6,668
<b>Total financial assets</b>		<b>269,690</b>	<b>269,690</b>	<b>75,559</b>	<b>-</b>	<b>6,668</b>
<b>Non-financial assets</b>						
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	-
<b>Total non-financial assets</b>		<b>930,001</b>	<b>930,001</b>	<b>-</b>	<b>508,149</b>	<b>421,852</b>
<b>Financial liabilities</b>						
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
<b>Total liabilities</b>		<b>356,472</b>	<b>356,472</b>	<b>-</b>	<b>-</b>	<b>196,888</b>

29 Fair value measurement (continued)

Fair value hierarchy (continued)

2021 Consolidated	Note	Carrying amount \$'000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<b>Financial assets</b>						
Cash and cash equivalents	11	58,854	58,854	-	-	-
Trade receivables	12	18,159	18,159	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	41,991	41,991	-	-	-
Other financial assets at fair value through profit or loss						
Listed securities <sup>#1</sup>	13	66,637	66,637	66,637	-	-
Managed funds	13	77,872	77,872	77,872	-	-
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,414	6,414	-	-	6,414
<b>Total financial assets</b>		<b>269,927</b>	<b>269,927</b>	<b>144,509</b>	<b>-</b>	<b>6,414</b>
<b>Non-financial assets</b>						
Investment properties	14	249,534	249,534	-	249,534	-
Land	15	227,154	227,154	-	227,154	-
Buildings	15	295,758	295,758	-	-	295,758
Infrastructure	15	36,503	36,503	-	-	36,503
Service concession assets	15	51,931	51,931	-	7,306	44,625
Artworks	15	8,849	8,849	-	8,849	-
<b>Total non-financial assets</b>		<b>869,729</b>	<b>869,729</b>	<b>-</b>	<b>492,843</b>	<b>376,886</b>
<b>Financial liabilities</b>						
Payables	17	27,877	27,877	-	-	-
Borrowings	18	31,251	31,707	-	-	-
Lease liabilities	18	4,626	4,626	-	-	-
Resident loans	20	188,837	188,837	-	-	188,837
<b>Total liabilities</b>		<b>252,591</b>	<b>253,047</b>	<b>-</b>	<b>-</b>	<b>188,837</b>

<sup>#1</sup> Inclusive of 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).



## Murdoch University

## 29 Fair value measurement (continued)

## Fair value hierarchy (continued)

2022 University	Note	Carrying amount \$000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<b>Financial assets</b>						
Cash and cash equivalents	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	-	-	-
Other 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
<b>Total financial assets</b>		<b>258,179</b>	<b>258,179</b>	<b>74,431</b>	<b>-</b>	<b>6,768</b>
<b>Non-financial assets</b>						
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	-
<b>Total non-financial assets</b>		<b>930,001</b>	<b>930,001</b>	<b>-</b>	<b>508,149</b>	<b>421,852</b>
<b>Financial liabilities</b>						
Payables	17	29,350	29,350	-	-	-
Borrowings	18	122,461	122,461	-	-	-
Lease liabilities	18	6,030	6,030	-	-	-
<b>Total liabilities</b>		<b>157,841</b>	<b>157,841</b>	<b>-</b>	<b>-</b>	<b>-</b>

29 Fair value measurement (continued)

Fair value hierarchy (continued)

2021 University	Note	Carrying amount \$'000's	Fair value \$'000	Level 1 \$'000	Level 2 \$'000	Level 3 \$'000
<b>Financial assets</b>						
Cash and cash equivalents	11	38,891	38,891	-	-	-
Trade receivables	12	28,356	28,356	-	-	-
Other financial assets at amortised cost						
Bank deposits	13	34,000	34,000	-	-	-
Other financial assets at fair value through profit or loss						
Listed securities	13	65,388	65,388	65,388	-	-
Managed funds	13	77,872	77,872	77,872	-	-
Shares in subsidiaries	13	100	100	-	-	100
Investment in equity instruments designated at fair value through other comprehensive income						
Unlisted securities	13	6,414	6,414	-	-	6,414
<b>Total financial assets</b>		<b>251,021</b>	<b>251,021</b>	<b>143,260</b>	<b>-</b>	<b>6,514</b>
<b>Non-financial assets</b>						
Investment properties	14	249,534	249,534	-	249,534	-
Land	15	227,154	227,154	-	227,154	-
Buildings	15	295,758	295,758	-	-	295,758
Infrastructure	15	36,503	36,503	-	-	36,503
Service concession assets	15	51,931	51,931	-	7,306	44,625
Artworks	15	8,849	8,849	-	8,849	-
<b>Total non-financial assets</b>		<b>869,729</b>	<b>869,729</b>	<b>-</b>	<b>492,843</b>	<b>376,886</b>
<b>Financial liabilities</b>						
Payables	17	26,364	26,364	-	-	-
Borrowings	18	31,251	31,251	-	-	-
Lease liabilities	18	4,494	4,494	-	-	-
<b>Total liabilities</b>		<b>62,109</b>	<b>62,109</b>	<b>-</b>	<b>-</b>	<b>-</b>

#1 Inclusive of 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).

**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 2022 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 2022 and 2021.

Consolidated	Buildings	Infrastructure	Service concession assets	Unlisted securities	Resident loan	Total
	\$'000	\$'000	\$'000	\$'000	\$000's	\$'000
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 increment recognised in profit and loss	-	-	-	-	(7,635)	(7,635)
	<b>330,621</b>	<b>43,081</b>	<b>48,150</b>	<b>6,668</b>	<b>(196,888)</b>	<b>231,632</b>

2021						
Fair value at start of period	294,320	34,602	44,260	55,805	(185,550)	243,437
Acquisition	986	1,443	-	-	-	2,429
Settlements	-	-	-	(81,783)	(514)	(82,297)
Revaluation increment recognised through other comprehensive income	6,348	1,523	1,253	32,393	-	41,517
Depreciation expense	(5,896)	(1,065)	(888)	-	-	(7,849)
Revaluation increment recognised in profit and loss	-	-	-	-	(2,773)	(2,773)
	<b>295,758</b>	<b>36,503</b>	<b>44,625</b>	<b>6,415</b>	<b>(188,837)</b>	<b>194,464</b>

University	Buildings	Infrastructure	Service concession assets	Unlisted securities	Total
	\$'000	\$'000	\$'000	\$'000	\$'000
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)
	<b>330,621</b>	<b>43,081</b>	<b>48,150</b>	<b>6,668</b>	<b>428,520</b>

2021					
Fair value at start of period	294,320	34,602	44,260	55,805	428,987
Acquisition	986	1,443	-	-	2,429
Settlements	-	-	-	(81,783)	(81,783)
Revaluation increment recognised through other comprehensive income	6,348	1,523	1,253	32,393	41,517
Depreciation expense	(5,896)	(1,065)	(888)	-	(7,849)
	<b>295,758</b>	<b>36,503</b>	<b>44,625</b>	<b>6,415</b>	<b>383,301</b>

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 2022 \$000's	Fair value at 31 December 2021 \$000's	Valuation technique	Unobservable inputs	Range of inputs (probability weighted average)	Relationship of unobservable inputs to fair value
Investment in unlisted securities	1,072	740	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	5,596	5,674	Adjusted net asset approach	100% of the equity interest in the underlying unlisted securities	Not applicable	Increase in equity will result in higher fair value

**30 Related Parties**

**(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 %	
		2022	2021
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	-

**(c). Key management personnel**

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	
	2022	2021
	\$'000	\$'000
<b>Wholly owned entity</b>		
Donations, sponsorships and bequests	10,550	70
Other fees and charges	16,705	16,511
Dividend received	1,650	-
Rental and lease charges	198	196
Other expenditure	(84)	(108)
Recovery of salaries	(265)	(1,014)

**(e). Outstanding balances**

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

	University	
	2022	2021
	\$'000	\$'000
<b>Wholly owned entity</b>		
Inter-entity receivable	3,648	10,650
Inter-entity (payable)	-	(202)

### 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 2022, the assets of the DBD in aggregate were estimated to be \$5 million above vested benefits, after allowing for various reserves. The Vested Benefit Index based on funding assumptions was 121.0%. 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 2022, the assets of the DBD in aggregate were estimated to be \$8 million above accrued benefits, after allowing for various reserves. The Accrued Benefit Index based on best estimate assumptions was 135.7%. 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 2022. The financial assumptions used were:

	Vested Benefits	Accrued Benefits
Gross of tax investment return - DBD pensions	6.4% p.a.	7.4% p.a.
Gross of tax investment return - commercial rate indexed pensions	3.1% p.a.	3.1% p.a.
Net of tax investment return - non pensioner members	5.6% p.a.	6.5% p.a.
Consumer Price Index		
- For the next 2 years	4.0% p.a.	4.0% p.a.
- Beyond 2 years	2.5% p.a.	2.5% p.a.
Inflationary increases		
- For the next 2 years	2.75% p.a.	2.75% p.a.
- Beyond 2 years	3.25% p.a.	3.25% p.a.

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

(a) Education - CGS and other Education grants

	Commonwealth Grants Scheme <sup>#1</sup>		Indigenous Student Success Program <sup>#4</sup>		Access and Participation Pool		Disability Performance Funding <sup>#2</sup>		Indigenous, Regional and Low-SES Attainment Fund		Promotion of Excellence in Learning and Teaching		National Priorities and Industry Linkage Fund		Other		Total		
	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021	2022	2021		2022	2021
Parent Entity (University) Only	97,920	101,938	1,145	1,242	-	-	147	222	3,160	3,187	-	(9)	3,279	3,250	-	567	105,651	110,397	
Financial assistance received in CASH during the reporting period (total cash received from the Australian Government for the program)	97,920	101,938	1,145	1,242	-	-	147	222	3,160	3,187	-	(9)	3,279	3,250	-	567	105,651	109,830	
Revenue for the period	-	-	-	-	-	-	318	2	-	-	-	-	-	-	-	-	-	318	2
Adjustment <sup>#3</sup>	-	-	(102)	(223)	(14)	(14)	-	-	-	-	45	54	3,167	-	-	-	3,096	(185)	
Surplus/(deficit) from the previous year	-	-	-	-	-	-	-	-	-	-	45	45	6,446	3,250	-	-	109,065	109,649	
Total revenue including accrued revenue	97,920	101,938	1,043	1,019	(14)	(14)	465	224	3,160	3,187	45	45	(917)	(83)	(4)	123	(103,552)	(106,430)	
Less expenses including accrued expenses	(97,920)	(101,938)	(1,123)	(1,121)	-	-	(465)	(224)	(3,123)	(3,187)	-	-	-	-	-	4	(123)	(123)	
Transfer from Balance Sheet	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	
Surplus/(deficit) for reporting period	-	-	(80)	(102)	(14)	(14)	-	-	37	-	45	45	5,529	3,167	-	-	5,517	3,096	

2(a) 2(b)

<sup>#1</sup> Includes the basic CGS grant amount, CGS – Regional Loading, CGS – Medical Student Loading, Allocated Places, Non-Designated Courses and CGS – Special Advances from Future Years.  
<sup>#2</sup> Disability Performance Funding includes Additional Support for Students with Disabilities and Australian Disability Clearinghouse on Education & Training.  
<sup>#3</sup> Funded by the University.  
<sup>#4</sup> 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
	2022	2021	2022	2021	2022	2021	
Parent Entity (University) Only	56,971	61,332	7,834	9,813	1,916	2,205	66,721
Cash Payable/(Receivable) at the beginning of the year	57,002	60,209	7,532	9,500	1,881	2,143	73,350
Financial assistance received in cash during the reporting period	(31)	1,123	302	313	35	62	71,852
Revenue earned	-	-	-	-	-	-	-
Cash available for the period	-	-	-	-	-	-	-
Cash Payable/(Receivable) at the end of the year	-	-	-	-	-	-	-



### 32 Acquittal of Australian Government Financial Assistance (continued)

#### (c) Department of Education and Training Research

	Research Training Program		Research Support Program		Total	
	2022	2021	2022	2021	2022	2021
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)	9,827	10,246	7,502	16,617	17,329	26,863
Revenue for the period	9,827	10,246	7,502	16,617	17,329	26,863
Surplus/(deficit) from the previous year	(1,206)	1,245	-	-	(1,206)	1,245
Total revenue including accrued revenue	8,621	11,491	7,502	16,617	16,123	28,108
Less expenses including accrued expenses	(9,827)	(12,697)	(7,502)	(16,617)	(17,329)	(29,314)
Surplus/(deficit) for reporting period	(1,206)	(1,206)	-	-	(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	5,983	419
Research Training Program Stipends	2,988	437
Total for all types of support	8,971	856

#### (e) Other Capital Funding

	Linkage Infrastructure, Equipment and Facilities Grant		Other Capital Funding		Total	
	2022	2021	2022	2021	2022	2021
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)	-	-	8,000	8,000	8,000	8,000
Net accrual adjustments	-	(5)	(8,496)	(7,504)	(8,496)	(7,509)
Revenue for the period	-	(5)	(496)	496	(496)	491
Surplus/(deficit) from the previous year	-	-	496	-	496	-
Total revenue including accrued revenue	-	(5)	-	496	-	491
Less expenses including accrued expenses	-	-	-	-	-	-
Surplus/(deficit) for reporting period	-	(5)	-	496	-	491

#### (f) Australian Research Council Grants

	Discovery		Linkages		Total	
	2022	2021	2022	2021	2022	2021
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)	1,769	1,383	444	82	2,213	1,465
Net accrual adjustments	(100)	(89)	-	9	(100)	(80)
Revenue for the period	1,669	1,294	444	91	2,113	1,385
Surplus/(deficit) from the previous year	3,067	2,682	2,143	2,470	5,210	5,152
Total revenue including accrued revenue	4,736	3,976	2,587	2,561	7,323	6,537
Less expenses including accrued expenses	(1,409)	(909)	-	(418)	(1,409)	(1,327)
Surplus/(deficit) for reporting period	3,327	3,067	2,587	2,143	5,914	5,210

**32 Acquittal of Australian Government Financial Assistance (continued)**

**(g). OS-HELP**

	<b>2022</b>	<b>2021</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Parent Entity (University) Only</b>		
Cash (returned)/received during the reporting period	(401)	-
Cash spent during the reporting period	(228)	-
Net cash received	(629)	-
Cash surplus/(deficit) from the previous period	1,546	1,546
Cash surplus/(deficit) for the reporting period	17 917	1,546

**(h). Student Services and Amenities Fee**

	<b>2022</b>	<b>2021</b>
	<b>\$'000</b>	<b>\$'000</b>
<b>Parent Entity (University) Only</b>		
Unspent/(overspent) revenue from previous period	(198)	-
SA-HELP revenue earned	2(b) 1,881	2,143
Student Services and Amenities Fees direct from students	4 1,000	1,161
Total revenue expendable in period	2,683	3,304
Student services expenses during period	(3,076)	(3,502)
Unspent/(overspent) student services revenue	(393)	(198)

**33 US Department of Education financial responsibility supplemental schedule**

For the year ended 31 December 2022, the US Department of Education require the financial information used to compute the 'composite score' be included in the higher education providers financial statements, which was previously lodged separately. The below information has been disclosed for the current year only, being 31 December 2022 as the required information for the comparative year has been separately submitted.

Location in Financial Statement & Related Notes	Note	Financial Element	2022 \$'000
<b>Primary Reserve Ratio: Expendable Net Assets</b>			
Calculated (Exclude Note 11a restricted cash)	A	Net assets without donor restrictions	1,144,547
Statement of Financial Position		Net assets with donor restrictions	1,157,159
Note 30: Related Parties		Secured and Unsecured related party receivable	3,648
Note 30: Related Parties		Unsecured related party receivable	3,648
Note 15: PPE		Property, plant and equipment, net (includes Construction in progress)	895,825
Calculated (Exclude CIP)	E	Property, plant and equipment – pre-implementation	749,541
Note 15: PPE		Construction in progress	146,284
Note 15: PPE		Lease right-of-use asset, net	5,917
Note 16: Intangible assets		Intangible assets	16,690
Note 19: Provisions		Total provisions	52,855
Note 19: Provisions	C	Post-employment and pension liabilities	48,871
Note 18: Borrowings		Long-term debt - for long term purposes	128,491
Note 18: Borrowings		Lease right-of-use asset liability	6,030
Statement of Financial Position		Net assets with donor restrictions: restricted in perpetuity	1,157,159
<b>Primary Reserve: Expenses and Losses</b>			
Income Statement		Total expenses without donor restrictions –taken directly from Statement of Activities	385,432
Statement of Comprehensive Income	D	Non-Operating and Net Investment (loss)	48,214
<b>Equity Ratio: Modified Net Assets</b>			
Calculated (Excluded Note 11a restricted cash)	A	Net assets without donor restrictions	1,144,547
Statement of Financial Position		Net assets with donor restrictions	1,157,159
Note 16: Intangible Assets		Intangible assets	16,690
Note 30: Related Parties		Secured and Unsecured related party receivable	3,648
Note 30: Related Parties		Unsecured related party receivables	3,648
<b>Equity Ratio: Modified Assets</b>			
Statement of Financial Position		Total assets	1,479,254
Note 16: Intangible assets		Intangible assets	16,690
Note 30: Related Parties		Secured and Unsecured related party receivable	3,648
Note 30: Related parties		Unsecured related party receivables	3,648
<b>Net Income Ratio</b>			
Statement of Financial Position	A - B	Change in Net assets without donor restrictions	27,426
Income statement less (Net assets released from restrictions)		Total Revenues and Gains	364,664
<b>Notes to US Department of Education financial responsibility supplementary schedule</b>			
<b>A - Net assets without donor restrictions 2022</b>			
Statement of Financial Position		2022 Net Assets	1,157,159
Note 11a restricted cash		less: Donor Restrictions	(12,612)
Calculated (Exclude Note 11a restricted cash)		Net assets without donor restrictions 2022	1,144,547
<b>B - Net assets without donor restrictions 2021</b>			
Statement of Financial Position		2021 Net Assets	1,129,713
Note 11a restricted cash		less: Donor Restrictions	(12,592)
Calculated (Exclude Note 11a restricted cash)		Net assets without donor restrictions 2021	1,117,121
<b>C - Post-employment and pension liabilities</b>			
Note 19: Provisions		Total provisions	52,855
Note 19: Provisions		Less: Current other provisions	(3,749)
Note 19: Provisions		Less: Non-current other provisions	(235)
Note 19: Provisions		Post-employment and pension liabilities	48,871
<b>D - Non-Operating and Net Investment (loss)</b>			
Statement of Comprehensive Income		Gains on revaluation of land, buildings, infrastructure and service concession assets, net of tax	47,960
Statement of Comprehensive Income		Gain on equity instruments designated at fair value through OCI	254
Statement of Comprehensive Income		Statement of Comprehensive Income	48,214
<b>E - Property, plant and equipment – pre-implementation</b>			
Note 15: PPE		Property, plant and equipment, net (includes Construction in progress)	895,825
Note 15: PPE		Less: Construction in progress	(146,284)
Calculated (Exclude CIP)		Property, plant and equipment – pre-implementation	749,541

End of Audited Financial statements

# Key Performance Indicators 2022



## Murdoch University seeks to provide an outstanding educational experience for every student that prepares them for their future careers. Strategies that provide effective student support to help students succeed in higher education have built both traditional and non-traditional domestic cohorts.

The aim of *Murdoch University's Strategic Plan and Future Horizon 2017-2027* was to be a creative force for current and future generations.

The Key Performance Indicators assess important measurable outcomes in Education and Students, Research, and Operations. 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. The Murdoch University Senate noted and endorsed management-defined interim targets for these indicators based on 2020 and 2025 formal targets.

The COVID pandemic affected the operations of the University in 2022, particularly in the first half of the year, through reduced international travel driving a decrease in international student enrolments, reduced or restrained research activity, and increased teaching costs. These factors directly affected some indicators and, in some cases, have a compounding effect because of the reduced pipeline of enrolled students as a result of pandemic impacts felt in 2020 and 2021.

As detailed earlier in this report, during 2022 the Vice Chancellor guided the development of a new Strategy for the University – *Strategy 2023-2030: Building a Brighter Future, Together. Ngala Kwop Biddi*. The broad directions of the Strategy are reflected in the following KPIs, however, specific performance measures directly derived from the Strategy will be developed in 2023 which may result in a modified KPI set for 2023 and beyond.

### Education and Students

Murdoch University seeks to provide an outstanding educational experience for every student that prepares them for their future careers. Strategies that provide effective student support to help students succeed in higher education have built both traditional and non-traditional domestic cohorts.

The key indicators relating to Education and Students are:

- Undergraduate course satisfaction as measured by the Social Research Centre for Quality Indicators for Learning and Teaching (QILT).
- Retention Rate for commencing domestic bachelor students.
- Number of commencing Domestic Undergraduate Students from low SES background.
- Number of commencing Domestic Students from regional or remote areas.
- Number of commencing Domestic Students that identify themselves as being of Aboriginal and Torres Strait Islander heritage.
- Commencing International onshore student load.

### Research

Murdoch University's research is focused on three inter-related core interdisciplinary themes and associated institutes – food security (Food Futures Institute); health futures and translational medicine (Health Futures Institute) and environmental and biological sciences (Harry Butler Institute). More broadly, research is translational in nature and substance, supported by local and global communities and industry-based partnerships, as well as national and international collaborators.

The key indicators relating to Research are:

- Total Higher Education Research Data Collection (HERDC) income received.
- Engagement Income (HERDC Categories 2-4: Industry and other Research and Development (R&D) income; Other public sector R&D income; Cooperative Research Centre R&D income).

## Operations

The residual impact of the COVID pandemic on the Australian economy continues to affect the financial position of the higher education sector. Universities' operations have needed to be resilient to a significant reduction in income as well as legislative and regulatory change. Efficient and effective management of constrained resources has been necessary to allow institutions to invest in their core activities and maintain national and international competitiveness.

The key indicator relating to Operations, measured at the consolidated level, is:

- Operating Margin, expressed as a percentage.

## Education and Students Outcomes

### Effectiveness Indicators

#### Undergraduate Course Satisfaction

The University participates in the annual national Graduate Outcomes Survey (GOS), part of the Quality Indicators of Learning and Teaching (QILT) suite of surveys. In this survey, graduates who completed their course in the previous year are asked to express their agreement or disagreement with a statement regarding their overall satisfaction with their course. The undergraduate student response to this item is used by the University as a performance indicator. This indicator monitors the students' impression of their study experience.

Data is collected in November, February and May following the completion of the graduate's qualification. The results from the 2022 survey are derived from Murdoch University's data provided by QILT. In 2022, the number of graduates surveyed who provided valid CEQ responses was 703, with an overall Graduate Outcomes Survey response rate of 40.6%. Individual collection period response rates were 42.2% for November 2021, 42.7% for February 2022, and 39.3% in May 2022. The 95% margin for error for 2022 is  $77.5 \pm 3.1\%$ .

The 2022 GOS surveyed graduates who completed their studies in 2021. This is the second cohort of graduates to be surveyed that have experienced studies during the emerging COVID pandemic. Student satisfaction saw a sector-wide decrease in satisfaction levels among students who have been impacted by the COVID pandemic as seen by the decline experienced in the 2021 results.

### Undergraduate Course Satisfaction measured by Social Research Centre

2025 Target	> National Average
2022 Target	77.4%
<b>2022 Result</b>	<b>77.5%</b>
2021 Result	76.2%
2020 Result	83.8%

## Commencing student retention rate

Retention of students is influenced by a wide range of factors, including personal factors beyond the University's control such as financial imperatives, carer responsibilities and timing of offerings. Of the factors capable of being influenced by the University, the core determinant of student retention is whether the program of study provided is meeting each student's aspirations.

The retention rate indicates the percentage of commencing, domestic students who continue their bachelor's level course studies in the higher education sector from the listed academic year to the next, excluding those who graduate. The 2020 retention rate reflects those domestic students who commenced their studies in 2020 and were retained in the sector into 2021. This is the most recent year for which validated data is available through the Higher Education Statistics Collection of the Department of Education as the adjusted retention rate—the measure used by the Department to determine our performance-based funding. The final retained value from 2021 into 2022 is unknown at the time of this report, because students are yet to complete unit enrolments, which may extend to the end of 2022.

Strategies implemented over the last few years that affected the 2020 retention rate include delivering an engaging orientation experience each semester to connect students to their course and their peers, ensuring student support services are accessible and sustainable, and offering enriching 'campus life' opportunities.

Murdoch saw a drop in retention of 2020 commencing domestic bachelor students continuing their studies in 2021 reflecting a number of factors, primarily influenced by the COVID pandemic. These include sector-wide dissatisfaction with the rapid shift to online education as a result of the pandemic; and Western Australian specific effects, including low

unemployment leading to students choosing employment over continuing studies and State Government incentives for students to transfer to TAFE.

### Commencing student retention rate (Domestic Students)

2025 Target	> National Average
2020 Target	87.1% (> National Average)
<b>2020 Result</b>	<b>80.1%</b>
2019 Result	83.9%
2018 Result	84.0%

## Participation of non-traditional cohorts

Murdoch's student population includes proportionally higher cohorts of students from non-traditional backgrounds compared to the sector average. This is the result of a suite of linked pathways to entry that have been developed to facilitate inclusive entry for the broadest range of applicants and support their enrolment at university.

Low socio-economic status (SES) is determined by the position of a student's permanent home residence in a socio-economic ranking compiled by the Australian Bureau of Statistics using demographic and social data collected in the population census. The lowest quartile is classified as low SES. The number of commencing domestic undergraduate students from a low SES background is calculated using Australian Bureau of Statistics 2016 census data on socio-economic status by postcode.

The number of commencing domestic students from regional or remote areas is calculated based on students' postcode of permanent home residence mapped to regional/remote categories using the Australian Statistical Geography Standard (ASGS) Volume 5 – Remoteness Structure.

The number of commencing Indigenous students is measured as those domestic students commencing a course in that year that self-identify as being of Aboriginal or Torres Strait Islander descent.

Numbers of students have been used, rather than percentages, to ensure growth in these cohorts is recognised, given expansion in the commencing cohort is varied and affected by factors outside the control of the University, particularly the impact of Government policy measures.

The introduction of the Tertiary Collection of Student Information (TCSI) resulted in under-reporting of commencing students in 2021, which is currently under investigation. Accordingly, results have been recalculated based on internal data for all three measures for 2019 and 2020 to enable time series comparison.

### Number of domestic students from non-traditional cohorts

	Commencing students		
	Commencing Undergraduate students	Regional or Remote <sup>2</sup>	Indigenous Students
2025 Target	>1,085	>959	>224
2021 Target	>775	>683	>164
<b>2021 Result</b>	<b>810</b>	<b>548</b>	<b>126</b>
2020 Result <sup>3</sup>	843	670	141
2019 Result <sup>4</sup>	917	666	134

1. Low SES is based on the students' permanent home residence. Students are classified as being Low SES if their permanent address is in an area in the bottom 25% of the 2016 SEIFA Education and Occupation Index for 15 to 64-year-olds, based on postcode.

2. Regional and remote categories are derived from 2016 ASGS classifications.

3. Previously reported Government data for 2020 showed 836 Low SES, 663 Regional or Remote and 144 Indigenous students.

4. Previously reported Government data for 2019 showed 866 Low SES, 805 Regional or Remote and 134 Indigenous students.

## Commencing International onshore student load

Murdoch University aspires to be a global institution which seeks to empower people everywhere through education. This global outlook was beginning to be realised prior to the COVID pandemic, with sustainable growth in onshore international students, and new and renewed educational partnerships.

The indicator is measured by the equivalent full time student load (EFTSL) of international fee-paying students who commenced their course of study in the year at an Australian campus.

Restrictions on international arrivals due to COVID reduced the number of international students able to get to and remain in Australia for their studies. As a result, the University set a low target for International Onshore Commencements due to the ongoing uncertainty around the opening of borders. The development of online delivery within the flexible regulatory approach implemented by the Commonwealth allowed some international student commencements in 2022.

### International Onshore Student Commencements (EFTSL)

2025 Target	2,500
2022 Target	401
<b>2022 Result</b>	<b>715</b>
2021 Result	385
2020 Result	822

## Research Outcomes

### Effectiveness Indicators

#### Total research income

Research activities at Murdoch are shaped toward consolidation and critical mass in key research areas to positively contribute at the local, national and global level. Our research is translational in nature and substance, with inspiration coming from our local community and industry-based partnerships, as well as from national and international collaborators with whom we tackle some of the major challenges of our time.

Research income is one indicator of performance measuring the growth in research income across all category types. The measure used is total income reported by the University in the Higher Education Research Data Collection (HERDC)

across Categories 1–4. Data for 2021 is reported as this is the most recent audited data available from the Department of Education.

### Total research income (HERDC Categories 1–4)

2025 Target	\$60,000,000
2021 Target	> \$34,000,000
<b>2021 Result</b>	<b>\$34,162,915</b>
2020 Result	\$35,518,982
2019 Result	\$39,277,394

## Engagement income

Strengthening research engagement with external partners remains an institutional priority. Murdoch University has strategically developed local and international collaborations that build research income and support mechanisms in a manner that makes the University resilient to external funding policy changes and adaptable to national and global needs.

The Research Institutes ensure that strong partnerships are built, and critical mass developed to strengthen research reputation and profile. They provide a strong platform for increasing the number and scope of our strategic research partnerships with local, national and international industry partners, other universities and research institutes.

The Higher Education Research Data Collection (HERDC) Categories 2 to 4 cover Industry and Other Research and Development (R&D) income, Other public sector R&D income, and Cooperative Research Centre R&D income. Each of these requires external engagement to generate reportable research income, in some cases requiring co-investment that is leveraged to obtain Commonwealth Government funding. This indicator measures income derived from industry engagement by aggregating research income across the HERDC Categories 2–4. Data for 2021 is reported as this is the most recent audited data available from the Department of Education.

### Total Engagement Income in Categories 2–4 (HERDC)

2025 Target	\$33,000,000
2021 Target	> \$19,400,000
<b>2021 Result</b>	<b>\$23,155,366</b>
2020 Result	\$18,737,847
2019 Result	\$16,604,960



## Operational Outcomes

### Efficiency Indicator

#### Consolidated Operating Margin

The Senate has sought to ensure the University effectively manages its operations to maintain its educational and research excellence in a framework that delivers financial sustainability.

The Operating Margin is a measure of the consolidated surplus which supports the University's capital and strategic investment requirements. It is calculated as the consolidated surplus or deficit as a percentage of total consolidated income.

#### Consolidated Operating Margin

2025 Target	>5%
2022 Target	-6.3%
<b>2022 Result</b>	<b>-10.2%</b>
2021 Result	3.7%
2020 Result	-1.8%





# Other Disclosures

## People, Culture and Values at Murdoch University

### Workday

December 2022 saw the implementation of a new Human Capital Management system called Workday. This was an 18-month project, bringing together the University's people and finance data in one place to better plan, analyse and execute against our goals.

The implementation of Workday will over time see key capabilities across both People and Culture and Finance significantly transformed. It will also give Leaders and Managers access to more complete data from across the University in real time. Leadership can use this information to make more informed decisions and take advantage of new opportunities and/or respond quickly to new or emerging challenges.

Transitioning to Workday and replacing the existing legacy systems also addresses the risks associated with relying on ageing legacy technology that increasingly cannot be sustained and is costly. This will position Murdoch to take advantage of the Higher Education focused, industry best practice business processes delivered out of the box by the Workday platform.

The following was delivered as part of the Workday implementation:

- Safety incident and hazard reporting
- Payroll Administration
- Recruitment
- Absence Management
- Compensation
- Organisation management

### Organisational Restructure

In 2022, the University delivered several significant organisational and departmental restructures and realignments. This included a change to the College Structure, from two colleges to five colleges and implementation of Head of College and Head of School positions.

The College Structure was based on extensive staff feedback, where a need was identified to create a College and School structure that was effective, efficient and had widespread support and one which re-empowered academic leadership and management at the School level and delegated decision-making, approvals, workload allocation and budget management to the lowest appropriate level with the guiding principle of 'empowerment with oversight'.

### Senior Recruitment

In 2022, the University completed or initiated recruitment of several key senior executive and leadership positions, including the following:

- Deputy Vice Chancellor Global Engagement
- Deputy Vice Chancellor Education
- Deputy Vice Chancellor Research and Innovation
- Director Information Technology Services
- Director Advancement
- Chief People Officer
- Chief Experience Officer
- Pro Vice Chancellor, First Nations
- Pro Vice Chancellor, Equity, Diversity and Inclusion
- Pro Vice Chancellor, Sustainability
- Head of College (five)
- Head of School (nine)

## Remediation

In 2022, the payroll remediation program continued to focus on compliance and ensuring our current and former employees were receiving the correct pay and conditions.

As part of this review, the University has commenced remediation payments to a group of current and former casual professional employees, and it is expected these payments will be completed by mid-2023.

## COVID Management

During 2022, we saw a significant impact on the University's people and students, with the opening of WA borders and community spread of COVID. In the first half of the year, staff worked from home where possible. It also resulted in a high level of coordination and support, in terms of staffing, reporting, rapidly changing safety protocols and increased infection rates along with the compliance with government mandates.

Following this was a return to campus planning, the staged removal of government mandates, and the implementation of hybrid working practices and increased flexibility in our ways of working. This was supported through the COVID Management Advisory Group, which was disbanded in late 2022 as the University moved to 'living with COVID'.

## Safety and Wellbeing

The University delivered the following key wellbeing outcomes in 2022:

- Established a psychosocial safety working group, creating a **psychosocial safety risk register** and delivering the first of several workshops to create awareness of the need to proactively mitigate against psychosocial harm.
- Increased awareness and usage of our Employee Assistance Program support services for staff and their immediate family members. This included the launch of the **Wellbeing Gateway App** with the ability to chat with a psychologist, and increased usage of the Wellbeing Hub which provides access to personalised health assessments, online resources, expert advice, and management tools.
- Delivered the results of the second of two **Employee Experience & Engagement Surveys**. Working with leaders to understand employee sentiment and create actions to increase engagement and wellbeing.

- Launched the **Wellbeing and Equity Contact Officer Network**. The Network is comprised of academic and professional staff who provide a confidential, informal, initial point of contact, assistance and referral for staff wishing to discuss wellbeing and/or equity-related matters.
- Continued development of our Staff Wellbeing Collective which connects key stakeholders who work to create and promote wellbeing initiatives and foster a culture of wellbeing across the University. The Staff Wellbeing Collective instigated and played a central role in the **NAIDOC Collaborative Mural Project** which created engagement and built relationships with stakeholders across the university and resulted in a permanent mural – Koomba Yaakiny (big standing).
- Delivered the **First Nations Social and Emotional Wellbeing Framework**, in close consultation with Aboriginal and Torres Strait Islander staff, which will be used as a framework to inform the next iteration of the Staff Wellbeing Strategy and Action Plan.
- Supported the achievement of Silver **Federation Internationale Universitaire du Sport (FISU) Healthy Campus** certification which was achieved with University stakeholders Murdoch Active and Access, Wellbeing & Equity.
- Delivery of a range of development support opportunities for wellbeing including Mental Health First Aid training; Incidental Counsellor development; Bystander Intervention training; Domestic Violence support training; and a range of in-person and online wellbeing offerings.
- A program of works around the **Safety Gap Analysis** was undertaken to align the University with the *Work Health and Safety Act 2020* and supporting *Work Health and Safety (General) Regulations 2022*. With work ongoing aligning the current Health and Safety Management System to meet the revised requirements. Our Health and Safety performance indicators assist in monitoring the effectiveness and safety culture of Murdoch University. These performance indicators are reported to executive committees:
  - 2022 Reported incidents **199**
  - 2022 Reported observations **77**
  - 2022 Reported Incident rate (100 FTE) **0.47**
  - 2022 Days lost due to reported injuries and illness **571**

## Workforce Equity, Diversity and Inclusion

The launch of Murdoch University's Strategy 2023–2030 is set to provide a strong focus in providing a thriving, welcoming, diverse, and inclusive community through its strategic themes of First Nations, Equity, Diversity & Inclusion and Sustainability.

Murdoch University remains committed to becoming the employer of choice for First Nations peoples through ongoing implementation of Reconciliation Action Plan (RAP) and First Nations Employment Strategy. Key outcomes in 2022 include:

- Increased representation and improved retention of First Nations peoples in our workforce across the year.
- Improved identification of roles and higher application of Section 50(d) of the *Equal Opportunity Act* as part of workforce planning initiatives.
- Increased visibility and representation of First Nations peoples through permanent raising of Torres Strait Islander flag next to the Aboriginal flag and Koomba Yaakiny (big standing) mural representing the power, strength and resilience of First Nations peoples.
- High completion rate in Aboriginal Cultural Awareness Training through the *Aboriginal Cultural Awareness and Workplace Inclusion e-Learning* package and *Beyond Black and White* development course which aims to increase understanding of discrimination and unconscious bias faced by many in the First Nations community.
- Launch of dedicated *Aboriginal Cultural Awareness and Workplace Inclusion e-Learning* package for students.

Throughout 2022, we continued to deliver activities identified under our **Athena SWAN Action Plan** while we prepare for our SAGE Athena Swan Silver accreditation. Athena SWAN is an internationally recognised framework designed to put gender equity and diversity in higher education under the microscope. We have delivered:

- A detailed review in relation to Flexible Work Arrangements to better understand the employee experience and develop insights about how we might improve this.
- An in-depth review of current academic promotions policy, procedures, and framework with the aim to identify barriers and approaches to eliminate these for female-identifying academic staff.

We continued to support people with disability to reach their full potential. In 2022, we delivered:

- Launch of the **Disability Access and Inclusion Plan 2022–2025** that ensures we remain accountable and deliver University structures, policies and practices that foster inclusion and encourage and celebrate diversity.
- An in-depth review of recruitment practices, policies, procedures and related training to promote better understanding of employing staff with diverse backgrounds, including disability.

Throughout 2022, we continued to promote a welcoming and supportive environment celebrating all identities and experiences of LGBTIQ+ community. To enable us to do so, we delivered:

- Creation of a dedicated Pride and Respect Officer role central to ensuring members of LGBTIQ+ community feel safe, supported and celebrated.
- Championing innovative, inclusive and equitable recruitment approach.
- Subscription to become a member of ACON's *Pride in Diversity* program. Pride in Diversity is the national employer support program for LGBTQ workplace inclusion.

## People, Values and Culture

- Delivered **Rebuild the Collective** – a program of feedback and consultation designed to identify areas for improvement and cultural renewal.
- Launched updated **Bullying, Harassment and Discrimination Policy and Procedure** along with the **Grievance Policy and Procedure**, and implementation of an online portal for staff to raise issues.
- Implementation of a Leadership Key Performance Indicator for University leaders (which included the completion of core diversity training in the *2022 ULG Inclusion Awareness Series* in addition to other people development requirements).
- Launched new tailored **casual compliance training** which was specifically designed to meet the needs of our casual workforce and ensure that all staff understand their obligations and expectations of working at Murdoch.
- Delivered a refresh of the **Staff Awards** approach which included new Research and Innovation Excellence Award categories to highlight and reward staff achievement.

- Guiding principles were refreshed at the end of 2022 to ensure they aligned with the University's new Strategy.

Headcount	Continuous and Fixed Term	Casual
Academic	596	594
Professional	988	642
<b>Total</b>	<b>1,584</b>	<b>1,236</b>

## Significant Factors Affecting the University

### Economic Fundamentals and Competition

Economic conditions in Western Australia through 2023 are expected to remain relatively robust. The domestic economy is expected to grow by around 4% in 2022-23, and Gross State Product (which includes international trade) is forecast to grow by 3.75% in 2021-22 – the fastest rate of growth since 2013-14. Given this economic activity and minimal inward migration over the last few years, unemployment is projected to remain very low, averaging 3.75% in 2022-23.

Low rates of unemployment put 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.

Continuing upward pressure on wages in the commercial sector will flow on to government agencies and higher education.

The so-called "Costello baby boom" resulted in an increase in Year 12 students in 2022 and 2023, and hence school leavers eligible for university entry in 2023 and 2024. However, fewer students are now staying on to complete Year 12, most likely due to the current apprenticeship push by the State Government, while students at the end of Year 12 are choosing TAFE and employment over university study, exacerbating pressures on salary costs and staffing levels.

### Job Ready Graduates Legislation

Under the Commonwealth's Job Ready Graduates (JRG) program, universities will retain their base funding through the Commonwealth Grants Scheme, with a Transition fund designed to offset certain funding reductions caused by JRG in such a way that revenue is maintained over 2021 to 2023. Effectively, universities who are 'under-enrolled' will receive their Maximum Basic Grant Amount (MBGA), regardless of their enrolled student load. From 2024, providers will be funded only for enrolled students up to their MBGA.

### Australian Universities Accord

The Commonwealth Government has committed to the development of an Australian Universities Accord that aims to build a lasting and transformative vision for Australia's higher education sector. The Accord will develop recommendations and performance targets that seek to "improve the quality, accessibility, affordability and sustainability of higher education, in order to achieve long term security and prosperity for the sector and the nation".

A Panel, chaired by Professor Mary O'Kane, will conduct a 12-month review of the sector, and a Discussion Paper to be released in early 2023 with a final report delivered in December 2023. The Panel will also consider the impact of the JRG program and it is unclear how this will impact the risks posed by the expiry of the CGS "funding cap" (transition funding) from 2024.

The Minister identified the following key areas for review by the Accord Panel:

1. Meeting Australia's knowledge and skills needs, now and in the future;
2. Access and opportunity;
3. Investment and affordability;
4. Governance, accountability and community;
5. The connection between the vocational education and training and higher education systems;
6. Quality and sustainability; and
7. Delivering new knowledge, innovation and capability.

# Governance Disclosures

## Impact of legislation

The University is subject to the Building and Construction Industry (Security of Payment) Act 2021. Stage 1 came into force on 1 August 2022, and Stage 2 came into force on 1 February 2023.

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.

## Complaints handling

Murdoch University strives for excellence in its dealings with staff, students and the broader community. However, on occasion, it may receive negative feedback or people express dissatisfaction or displeasure with an experience and lodge a complaint. The feedback provided through the complaints process informs the University's continuous improvement programs.

The University is committed to ensuring that all complaints are handled effectively and efficiently in a process that is supported by our Complaints Management Policy and is accessible, impartial, confidential, equitable and sensitive. Complaints are managed with respect for all parties involved and procedural fairness.

Processes are in place such that members of staff, students or the public can lodge a complaint with the University. Further information is available on the University's website <http://our.murdoch.edu.au/University-Secretarys-Office/Governance-Services/Complaints/>

## Freedom of Information

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

The four requests that were ongoing in 2021 were all closed in 2022 with one application proceeding to internal review.

## 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 2022 financial year in that respect was \$3,497,394 and is outlined below:

<b>Advertising Agencies</b>	<b>\$556,168</b>
Wunderman Thompson	
Significant Other Creative Agency	
Gettin Hectic Australia	
<b>Media Advertising</b>	<b>\$2,862,226</b>
Dentsu X Australia	
Equilibrium Interactive	
Bench Media	
Initiative Media	
Ideas@Perth Inc	
<b>Market Research</b>	<b>\$79,000</b>
Kantar Public Australia	





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