

Annual Report

2019 in review



The Darwin Waterfront precinct, the location of Charles Darwin University's Waterfront campus.





**The Hon. Selena Uibo MLA
Northern Territory Minister for Education**

Dear Minister

I have the honour to present to you for tabling in the Northern Territory Parliament, the Annual Report of the Council of Charles Darwin University for the year ended 31 December 2019, furnished in accordance with the reporting provisions of the *Charles Darwin University Act 2003*.

The Hon Paul Henderson AO

Chancellor

30 June 2020



Charles D UNIVERSITY

The Charles Darwin University (CDU) Annual Report 2019 is produced in two volumes. Volume 1, “2019 in review”, contains statutory reports. Volume 2, “2019 financial statements”, contains the financial statements of CDU and its related entities.

CDU Annual Reports and Financial Statements can be found at
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Cover: Research Institute for the Environment and Livelihoods PhD candidate Simon Votto investigates bird behaviour in Outback Australia. Image: Patrick Nelson.

Contents

The year in review	5
2019 Key Statistics	11
The Organisation	21
Our vision, values and priorities	
Our structure	
Corporate governance	
Council members	
Principal Officers	
Awards and Achievements	29
Our outstanding staff and students	
Review of activities	33
Transformative skills and learning	
Leadership in Indigenous tertiary education	
Critically engaged in our region	
A truly international university	
A successful research-intensive university	
Summary of financial information	65
Honorary awards roll	73
Glossary	75
Our campuses and centres	76



College of Engineering, IT and Environment
Associate Professor Mamoun Alazab has
worked in cybersecurity for some of the biggest
information technology firms and helped
governments and corporations build resilience
against cyberattacks.

The year in review

A large volume of national policy reviews, reaccreditation reviews, and a challenging Northern Territory economy placed significant demands on Charles Darwin University (CDU) in 2019. The year also was characterised by renewal as the University continued to introduce change to ensure a sustainable future.

The Australian Government budget provided little relief for the Higher Education sector, with no redress for the two-year funding cap imposed on domestic undergraduate load in 2017. Currently, unfunded student commitments are costing CDU about \$6M. From 2020, universities will be permitted to grow their Commonwealth Grant Scheme funding in line with the national 18 to 64-year-old population growth if requirements of the Performance-Based Funding scheme for universities are met.

Strategic Plan

Sustainable future: The Vice-Chancellor convened a half-day strategic planning workshop in February with executive and senior staff to refocus attention on the strategic plan, *Connect Discover Grow*, and actions to enable CDU to meet its targets for growth and improvement. The session raised useful ideas that the Executive Leadership Group is considering.

The Senior Executive continued to work with the University Council to address key changes to position the University for a more sustainable future.

The Vice-Chancellor's mid-year address to staff outlined a proposal to bring together VET and Higher Education (HE) within the six Colleges. This proposal occurred in the context of the need for national reform of the VET training framework, and a national push after reviews of the Australian Qualifications Framework system and other reviews to better integrate post-secondary education. CDU's proposed changes place it at the forefront of such reform. This change also supports the improvements required internally around financial sustainability.

Since the Vice-Chancellor's address, each College has worked through proposals for major change, with all areas of the University – including the VET Faculty – following a program of similar reviews.

VET

Australian VET Review: The University responded to the Australian VET Review initiated by the Department of Prime Minister and Cabinet. CDU's response highlighted the value of VET education in regional and remote communities, and the importance of public provision of VET in supporting broad access to and engagement with tertiary education in the Northern Territory (NT). Key challenges noted in the submission focused on:

- ▶ Expectations placed on public providers and a misalignment in funding received
- ▶ Effects of a competitive market that is unaligned to industry or community needs
- ▶ Insufficient funding to support contemporary industry practice and skills demand
- ▶ Resource investment to iterative, low-impact policy change
- ▶ VET trainer employment barriers
- ▶ Challenges associated with regional and remote delivery.

Reregistration: The Australian Skills Quality Authority (ASQA) reregistered CDU for a further seven years without qualifications and renewed the University's registration on the Commonwealth Register of Institutions and Courses for Overseas Students (CRICOS).

VET educators: The NT Skilled Occupation Priority List identified a critical shortage of skilled VET Educators in the NT. CDU VET, funded by the NT Department of Trade, Business and Innovation, and in collaboration with the Australian Council for Private Education and Training NT, and the Industry Skills Advisory Council NT, took the lead to run the NT VET Workforce Development Project. The project promotes VET trainer collaboration and knowledge- and practice-sharing, raising industry quality across the NT.

Financial sustainability: Consultants EY reviewed the current financial situation of the VET operations and options for the future at the request of CDU and the NT Government (NTG). The analysis demonstrated that VET was not operating on a sustainable model. Contributing factors included changes to government funding, costs of providing services in the NT, and CDU's staffing profile and employment conditions. Work is under way to reduce expenditure, increase revenue and improve the VET business model. Discussions are well advanced with the NT Government to address core funding, profile changes and a new funding model.

Higher Education (HE)

CRICOS registration: The Tertiary Education Quality and Standards Agency (TEQSA) notified the University in March of its decision to renew CDU's CRICOS registration until 2025, in line with our Australian Skills Quality Authority (ASQA) registration.

Virtual environment: The College of Health and Human Sciences began construction of the Health Immersive Virtual Environment, which promotes online and virtual learning for on-campus and external students. The facility, which will be launched in 2020, will deliver an outstanding quality learning experience for Health and Social Work students. New courses at the College were designed in response to Health workforce needs, in collaboration with NT Health, not-for-profits and other relevant organisations.

This work reflects the innovation that is shaping the work taking place in all Colleges.

New courses: Work was completed on new courses to be launched in 2020, which offer majors in Indigenous Governance and Policy, and Contemporary Indigenous Australia. The courses include core units in Indigenous Australia, Cultural Knowledges, Northern Exposure and Northern Perspectives that are co-designed with Indigenous lecturers and partners. CDU also has developed Indigenous research and knowledges micro-credentials to support Indigenous people engaged in research to build their capacity, recognition and link to the undergraduate and postgraduate degrees in Indigenous research.

Research

Improved performance: The 2018 Excellence in Research for Australia (ERA18) analysis showed improved performance by CDU, increasing depth in areas of strength (Environmental Sciences, Biological Sciences and Medical and Health Sciences) and some new emerging strengths (Agricultural and Veterinary Sciences, and Information and Computing Sciences). CDU's submission comprised

data from 495 researchers and included 3463 research outputs and research income of \$133M.

Engagement and impact: As a companion exercise to ERA18, the Australian Research Council announced the Engagement and Impact 2018 results. The results indicated that 100% of CDU's research assessed by government has medium-to-high positive impact for the wider community. It also shows 100% of CDU's research assessed by government has medium and high engagement with end users. Only one other university in Australia achieved this result.

Campuses

Darwin CBD campus: The Northern Australia Infrastructure Facility agreed to a conditional loan of \$150M to CDU for the Darwin City Deal's Education and Community Precinct. The loan is in addition to \$97M committed by the Australian Government through the City Deals program to develop a city campus. It is a key project of the Darwin City Deal.

In partnership with the City of Darwin and the NTG, a draft masterplan was developed for the campus site on the corner of Cavanagh Street and Garramilla Boulevard. The campus will be designed to be attractive to international and domestic students, and open and welcoming to business, industry and the broader community. The precinct is expected to be completed by the start of the 2024 academic year.

Campus planning: Master-planning began for the Casuarina, Palmerston and Darwin Waterfront campuses, which will continue through the first half of 2020, as part of plans for the strategic use and focus of the Top End campuses.

People and operations

Chancellor installed: The Hon. Paul Henderson AO was installed as Chancellor of the University on 20 March. Mr Henderson is a former Chief Minister of the NT and replaces Mr Neil Balnaves AO, who retired from the position in December 2018.

Senior appointment: Professor Bogdan Dlugogorski began in the role of Deputy Vice-Chancellor and Vice-President, Research and Innovation in May. Professor Dlugogorski is an engineering scientist and was formerly Dean of the School of Engineering and Information Technology at Murdoch University in Perth, where he led a strategic renewal of the School.

Workforce planning: Following the 2018 shift in the academic structure from two large faculties to six Colleges, the newly appointed Deans reviewed their academic portfolios aligning staffing and capabilities to position for future growth. The Strategic Workforce Planning program finalised changes for most of the Colleges in 2019.

Several operational areas undertook change to align capability with future needs of the University and this process will continue in 2020.

VET and HE: Workshops were conducted across all campuses to discuss the proposed VET and HE alliance within the College structure. Feedback from the workshops was shared with staff and is shaping the University's next steps. Discussions with the NT Government and other external stakeholders began in August.



The total number of students studying at Charles Darwin University rose by 2.6% in 2019 compared with 2018.

Payroll: Single Touch Payroll system was introduced, which meets a legislative change to the way employers report tax and superannuation information to the Australian Tax Office. It was implemented at CDU in April and allows employees to access current year-to-date tax and super information in myGov.

Travel: A new Online Travel Management System was implemented to create a more efficient and streamlined workflow for bookings and risk management. The system provides a central database to record and manage all travel activities for staff and students.

Information and technology: A renewed Information and Communications Technology (ICT) strategy was developed, with an emphasis on the ongoing sustainability of ICT services and infrastructure. The strategy articulates principles and practices to help the University achieve digital transformation that, in turn, will create the conditions for a more data-driven experience for students and staff. Significant automation of repeatable processes and efficiency gains are expected over the coming two years.

Safety and Security: SafeZone, a leading safety app, was launched to staff and students to support safe and secure campuses. SafeZone allows the user to contact CDU's Security Response Team from anywhere on any University site. It also allows the security team to alert staff and students to a threat.

Rankings and awards

Highest graduate salaries: The Good Universities Guide 2019 – 2020 reported that CDU graduates achieved the highest graduate starting salaries of \$65,200 (equal first place). CDU also ranked second of all universities in Australia in the number of its graduates who secure full-time work.

Some 83% of CDU graduates were in full-time work after graduation, the guide reported.

Awards: CDU won the StudyNT International Education and Training Export Award at the NT Chief Minister's Export and Industry Awards in September. Jurse Joseph Salandanan, who is studying a Bachelor of Design, won the StudyNT International Student award. Erika Mae Lu, a recent graduate of the Bachelor of Business, won the International Business Council Business Student award.

The University was named Training Provider of the Year at the Chief Minister's Training Awards. Staff and students also received honours at the event.

CDU-NTG Partnership Agreement

The CDU-NTG Partnership Agreement is an important relationship for the University and continues to deliver positive outcomes for the NT. The Partnership Agreement works through collaborative committees, identifying opportunities to work closely together in areas such as education, health, business and innovation, and social policy.

Indigenous Leadership

Graduation milestone: The University graduated its 1000th Indigenous HE student during the October graduation ceremonies, held on 18 October in Darwin. Indigenous students comprised more than 10% of the 1181 graduates at the ceremony. CDU now has 1025 HE and 12,103 VET Indigenous graduates.

Garma: CDU conducted the Education Forum at the annual Garma Festival. Provost Professor Sue Carthew led a strong CDU delegation to the Festival in August and gave the official welcome at the Education Forum. Staff from the

Northern Institute ran a series of Yolgnu language workshops and CDU researcher and Yolgnu elder Dr Kathy (Gotha) Guthadjaka AM shared her research.

Indigenous education: The College of Education appointed Gary Fry as Assistant Dean, Indigenous Education. A teacher and school principal across the NT since 1990, Gary has also worked at the Batchelor Institute. His research goals include addressing Indigenous educational inequality in the NT and developing relevant policy approaches.

International

While the number of international students undertaking VET courses rose, international students enrolled in HE courses declined slightly as a result of CDU ceasing to take new enrolments at its Melbourne centre.

India and Nepal held the top two places on the country of origin list for international enrolments. Growth in applications from the sub-continent has been evident largely because of the India market moving down an assessment level from level 3 to level 2, resulting in an increase in applications Australia-wide.

International College: The CDU International College, which launched in October, is an important component of the University's plan to grow international student numbers. It is located at the Waterfront campus and operated by UP Education in partnership with CDU. UP Education has provided preparatory education throughout Australia and New Zealand for more than 20 years. Course offerings at the College are designed to equip international students with the skills, knowledge and confidence to enter and successfully complete undergraduate and postgraduate courses at CDU. Offerings include an International Foundation

Studies Program, First Year Diplomas, International Masters Preparation Program, International Masters Qualifying Program and an Accelerated International Masters Qualifying Program. The first intake of students will be Semester 1 2020.

Defence engagement

Capability: CDU continues to engage with the Department of Defence, including delivering seminars on the University's capability and Defence-related products in the areas of cyber security, human performance and disaster management. Discussions took place with the Soldier Recovery Centre at Robertson Barracks in Darwin to provide VET-related training to support those soldiers suffering a variety of medical ailments.

US Marines: The University hosted a visit by Lieutenant Colonel Jeremy Brady and Captain William Oliver, of the US Marines, to discuss opportunities for VET training for US marine maintenance and technical staff. The visit included discussion about SPEE3D and Advanced Manufacturing Alliance (AMA) capability to meet Defence needs.

Advanced Manufacturing Alliance:

Two designs by the AMA passed Milspec (military specification), which means they would be able to be commissioned by the Australian military. Working closely with the Australian Navy, a fully customised Camlock fitting and a replica Camlock fitting was 3D printed by the AMA and has been field-tested on board HMAS Broome.

Defence Innovation Partnership:

In collaboration with NTG/ Defence NT, CDU hosted South Australia's Defence Innovation Partnership, during which CDU academics presented their research and discussed how CDU could grow its Defence-related research.

RNA

The University continued to implement the Respect Now Always (RNA) campaign, which will be assessed through a second national survey to be conducted in 2020 by the Social Research Centre and leading sexual assault researcher Dr Anastasia Powell using international best practice to design and pilot a suitable survey instrument.

Sustainability

The University launched Sustainability@CDU in July to provide a framework for action on sustainability across CDU learning, teaching, research and operations. The centrepiece is the CDU Sustainability Plan, which outlines the actions and performance indicators the University will work toward over the next five years. The initiative champions the three pillars of sustainability – environment, society and economy – and the United Nations Sustainable Development Goals.

The Hon Paul Henderson AO
Chancellor

Professor Simon Maddocks
Vice-Chancellor and President



Three traditional poles representing a Tiwi story of Creation are a highlight of the Blue 2 building on Casuarina campus. The Pukumani poles symbolise CDU's ongoing commitment to Indigenous education.

Snapshot Statistics

2019 Key Statistics

	Category	2018	2019	% Change 2018–2019
Student numbers	Total Number of Students¹	20,124	20,649	2.6%
	Total Course Enrolments	26,850	27,190	1.3%
	Total Equivalent Full-time Student Load (EFTSL)	9,513	10,046	5.6%
	Higher Education Student Headcount	11,470	12,070	5.2%
	Higher Education Course Enrolments	11,753	12,343	5.0%
	Higher Education EFTSL	6,242	6,683	7.1%
	Vocational Education and Training Student Headcount	8,785	8,707	-0.9%
	Vocational Education and Training Course Enrolments	15,097	14,847	-1.7%
	Vocational Education and Training EFTSL	3,271	3,363	2.8%
Student Equity & Diversity	HIGHER EDUCATION			
	% Aboriginal and Torres Strait Islander	6.8%	6.8%	-0.1%
	% Low Socioeconomic Status	15.3%	13.0%	-14.8%
	% Remote or Very Remote	8.9%	8.6%	-2.9%
	% Female	69.1%	69.6%	0.7%
	% Non-English Speaking Background	25.7%	24.6%	-4.5%
	% International	17.5%	15.9%	-9.1%
	% Mature Age (25 years and older)	73.7%	74.7%	1.3%
	% Disabled	5.4%	6.5%	18.7%
	VOCATIONAL EDUCATION AND TRAINING			
	% Aboriginal and Torres Strait Islander	28.1%	26.8%	-4.6%
	% Low Socioeconomic Status	18.8%	18.0%	-4.1%
	% Remote or Very Remote	22.6%	24.2%	7.3%
	% Female	39.7%	38.2%	-3.8%
	% Non-English Speaking Background	26.1%	24.2%	-7.3%
	% International	1.6%	1.9%	20.0%
	% Mature Age (25 years and older)	58.2%	60.7%	4.2%
	% Disabled	5.3%	5.2%	-1.7%

¹ Students with an enrolment in both Higher Education and Vocational Education in the reporting year are counted as one unique student at an institutional level. At the sector level (HE or VET) they will count once in each sector. Therefore the total number of Higher Education plus the total number of Vocational Education & Training students will not equal the total number of unique students at the institution.

	Category	2018	2019	% Change 2018–2019
Research	Research income (\$'000), all categories ²	\$64,199	\$67,445	5.1%
	Higher Degree by Research EFTSL	230.3	222.0	-3.6%
	Higher Degree by Research completions (all)	33	47	42.4%
Staff (Full Time Equivalent)	Total	1366	1307	-4.3%
	Academic	580	537	-7.5%
	General	786	770	-2.0%
Financial	Total revenue (consolidated), \$'000	\$301,049	\$321,080	6.7%
	Total expenses (consolidated), \$'000	\$320,184	\$326,784	2.1%
	Total equity, \$'000	\$574,515	\$551,675	-4.0%

2019 Higher Education Student Statistics

	2018	2019	% Change 2018–2019	% Change over 5 years
Student Headcount	11,470	12,070	5.2%	3.3%
Course Enrolments	11,753	12,343	5.0%	3.5%
Equivalent Full-time Student Load (EFTSL)	6,242	6,683	7.1%	9.2%
Commencing Student Headcount	4,652	4,859	4.4%	-11.3%
Commencing Course Enrolments	4,796	5,015	4.6%	-10.6%
Commencing EFTSL	2,391	2,579	7.9%	-8.8%
(All elements below represented as Course Enrolments)				
FUNDING SOURCE				
Commonwealth Supported	9,337	10,030	7.4%	4.2%
Domestic Fee Paying (coursework)	107	105	-1.9%	-43.4%
Domestic Higher Degree by Research	259	251	-3.1%	9.1%
International	2,051	1,958	-4.6%	4.1%
COURSE LEVEL				
Enabling	1,288	1,347	4.6%	-5.7%
Undergraduate	8,269	8,721	5.5%	14.8%
Postgraduate Coursework	1,833	1,929	5.2%	-23.3%
Higher Degree by Research	309	307	-0.6%	5.1%
Non-Award	54	39	-27.8%	-58.1%
PART-TIME				
Full-time	6,009	6,254	4.1%	6.7%
Part-time	5,744	6,089	6.0%	0.4%
% Part-time	49%	49%		

² 2018 research income figures differ from those published in the 2018 Annual Report. Published figures for the 2018 year, in the AR 2018 were provided pre submission finalisation and pre-audit and were an estimate as at 30 April 2019. Figures supplied for AR2019 for the 2018 year are now finalised figures post audit and submission. 2019 research income figures are supplied pre submission and pre-audit for the 2019 year, and are estimates as at 1st April 2020.

	2018	2019	% Change 2018–2019	% Change over 5 years
ATTENDANCE MODE				
External / Online	6,543	6,933	6.0%	-6.2%
Mixed Mode	2,517	2,647	5.2%	47.8%
Internal	2,693	2,763	2.6%	0.8%
<i>% External / Online</i>	<i>56%</i>	<i>56%</i>		
COURSE LOCATION				
Online ³	7,555	8,018	6.1%	1.1%
Casuarina	3,000	3,393	13.1%	8.9%
Darwin Waterfront	559	647	15.7%	16075.0%
Melbourne	337	84	-75.1%	-83.8%
Batchelor Institute	86	81	-5.8%	-30.2%
Sydney	166	81	-51.2%	-60.9%
Alice Springs	50	39	-22.0%	11.4%
Other				
FIELD OF STUDY (BROAD FOE)				
Health	3,908	4,137	5.9%	61.7%
Society and Culture	2,102	2,338	11.2%	9.3%
Education	1,561	1,784	14.3%	-22.7%
Mixed Field Programs	1,273	1,335	4.9%	-6.5%
Management and Commerce	1,289	1,062	-17.6%	-31.5%
Engineering and Related Technologies	557	561	0.7%	2.0%
Information Technology	315	383	21.6%	55.7%
Agriculture, Environmental and Related Studies	236	257	8.9%	22.4%
Natural and Physical Sciences	222	206	-7.2%	-62.1%
Creative Arts	107	117	9.3%	6.4%
Non Award Course	125	110	-12.0%	-52.2%
Architecture and Building	58	53	-8.6%	1.9%
% STUDENT DIVERSITY AND EQUITY				
% ATSI	6.8%	6.8%		
% Low SES	15.3%	13.0%		
% Remote / Very Remote	8.9%	8.6%		
% Female	69.1%	69.6%		
% Non-English Speaking Background	25.7%	24.6%		
% International	17.5%	15.9%		
% >25years of Age	73.7%	74.7%		
% Disabled	5.4%	6.5%		
STUDENT HOME LOCATION				
Interstate	5,366	5,867	9.3%	-2.3%
Northern Territory	4,251	4,459	4.9%	12.8%
Overseas	2,116	2,005	-5.2%	2.2%
Unknown	20	12	-40.0%	100.0%

³ Course Attendance Mode is External or Course Location Is External.

	2018	2019	% Change 2018–2019	% Change over 5 years
INTERNATIONAL				
Total	2,051	1,958	-4.5%	4.1%
Commencing	695	725	4.3%	-34.6%
% of Total Enrolments International	17.45%	15.86%		
TOP 10 COUNTRIES OF ORIGIN % OF TOTAL INTERNATIONAL COURSE ENROLMENTS				
% INDIA	25.8%	21.1%		
% NEPAL	24.1%	21.0%		
% CHINA (EXCLUDES SARS AND TAIWAN)	9.3%	13.7%		
% BANGLADESH	7.1%	7.1%		
% VIETNAM	3.9%	5.8%		
% PHILIPPINES	5.6%	4.6%		
% PAKISTAN	3.0%	3.3%		
% SRI LANKA	1.9%	2.7%		
% INDONESIA	1.6%	2.1%		
% TAIWAN	1.3%	1.9%		
Total Number of Countries of Origin for International Students	64	69		
GRADUATE OUTCOMES⁴				
% Graduates in Employment 4 months after graduation	83.39%	80.69%	-3.2%	
% Graduates in Further Study 4 months after graduation	20.34%	19.47%	-4.3%	
Graduate Satisfaction ⁵	77.25%	77.54%	0.4%	

2019 Vocational Education & Training Student Statistics

	2018	2019	% Change 2018–2019	% Change over 5 years
Student Headcount	8,785	8,707	-0.9%	-27.3%
Course Enrolments	15,097	14,847	-1.7%	-6.3%
Actual Hours Curriculum (AHC) ⁶	2,355,178	2,422,124	2.8%	-13.3%
Equivalent Full-time Student Load (EFTSL) ⁷	3,271	3,363	2.8%	-13.3%
Commencing Student Headcount	6,547	6,304	-3.7%	-37.0%
Commencing Course Enrolments	11,270	10,647	-5.5%	-19.3%
Commencing AHC	1,660,825	1,660,603	0.0%	-26.7%
Commencing EFTSL	2,307	2,306	0.0%	-26.7%

4 2017 Graduate Outcomes are taken from the *Graduate Outcomes Survey (GOS)* administered under the Commonwealth Government's Quality Indicators of Learning and Teaching (QILT).

5 Graduate satisfaction taken from the Overall Satisfaction Index in the GOS / AGS surveys, figure represents the percentage of graduates who indicated a score of 4 or 5 out of a maximum score of 5 with regard to overall satisfaction with their student experience at CDU.

6 Includes only Funded AHC. Exclude AHC from Credit Transfers.

7 1 EFTSL = 720 AHC.

	2018	2019	% Change 2018–2019	% Change over 5 years
(All elements below represented as Course Enrolments)				
STUDENT TYPE				
Apprentice / Trainee	3,244	3364	3.7%	37.6%
VET in Schools	1,771	1626	-8.2%	10.6%
International	239	282	18.0%	6.8%
Other	9,843	9575	-2.7%	-17.9%
COURSE LEVEL				
Certificate I - III	7,191	6338	-11.9%	-35.1%
Certificate IV	1,099	1202	9.4%	-31.4%
Diploma	413	370	-10.4%	-7.5%
Advance Diploma	0	0		
Graduate Certificate	0	0		
Graduate Diploma	8	1	-87.5%	-90.0%
Non-Award	2,087	2703	29.5%	22.0%
PART-TIME				
Full-time	696	798	14.7%	-12.2%
Part-time	14,401	14,049	-2.4%	-5.9%
% Part-time ⁸	95%	95%		
ATTENDANCE MODE				
External / Online	0	0		-100.0%
Mixed Mode	7,958	7,452	-6.4%	-9.4%
Internal	7,139	7,395	3.6%	-2.9%
TOP 10 UNIT DELIVERY LOCATIONS (SUM TOTAL AHC DELIVERED AT LOCATION EXCLUDING CREDIT TRANSFERS)				
Casuarina Campus	996,132	1,123,409	12.8%	-17.5%
Alice Springs Campus	307,232	309,854	0.9%	-10.6%
Palmerston Campus	308,590	285,502	-7.5%	-19.7%
CDU Waterfront Darwin	125,744	109,505	-12.9%	
External Studies	49,030	51,393	4.8%	2456.9%
Yulara	36,917	38,756	5.0%	5.7%
Katherine Campus (Rural College)	45,105	31,162	-30.9%	-52.1%
Katherine (Town Centre)	26,816	27,134	1.2%	-32.9%
Nhulunbuy (Gove)	14,371	25,168	75.1%	-23.4%
Casuarina Senior College	34,814	15,800	-54.6%	-11.5%
Total Number of Delivery Locations	123	120	-2.4%	-19.5%
AHC delivered in Remote / Very Remote Locations	402,290	424,718	5.6%	-9.6%
% of Total AHC delivered in Remote / Very Remote Locations	17.1%	17.5%		

⁸ Part-time if funded AHC in the student course enrolment is greater than 540 AHC.

	2018	2019	% Change 2018–2019	% Change over 5 years
FIELD OF STUDY				
Mixed Field Programmes	4,903	4731	-3.5%	73.4%
Engineering and Related Technologies	2,995	2895	-3.3%	-24.4%
Management and Commerce	1,612	1656	2.7%	-17.8%
Agriculture, Environmental and Related Studies	1,633	1230	-24.7%	-33.3%
Health	541	1014	87.4%	529.8%
Food, Hospitality and Personal Services	1,064	980	-7.9%	-34.7%
Society and Culture	911	943	3.5%	-46.6%
Architecture and Building	715	774	8.3%	-14.3%
Creative Arts	335	277	-17.3%	-38.2%
Education	213	224	5.2%	-34.5%
Information Technology	175	123	-29.7%	-59.7%
Natural and Physical Sciences	0	0		
INDUSTRY GROUP				
General Education and Training	4,921	4734	-3.8%	244.3%
Primary Industry	1,637	1338	-18.3%	-35.6%
Engineering and Mining	1,020	1297	27.2%	-28.0%
Community Services, Health and Education	990	1175	18.7%	-25.3%
Business and Clerical	958	956	-0.2%	-39.3%
Building and Construction	1,017	949	-6.7%	-3.4%
Tourism, Hospitality and Cookery	918	813	-11.4%	-43.8%
Utilities	744	672	-9.7%	-25.6%
Automotive	636	634	-0.3%	-8.2%
Transport and Storage	502	617	22.9%	-19.1%
Arts, Entertainment, Sports and Recreation	619	611	-1.3%	-38.3%
Finance, Banking and Insurance	153	113	-26.1%	-61.4%
Food Processing	208	235	13.0%	32.0%
Sales and Personal Service	461	433	-6.1%	-6.5%
Exceptions - Cookery	137	147	7.3%	-36.4%
Computing	175	123	-29.7%	-72.0%
Process Manufacturing	1	0	-100.0%	-100.0%
Textiles, Clothing, Footwear and Furnishings				
Science, Technical and Other				
% STUDENT DIVERSITY AND EQUITY				
% ATSI	28.1%	26.8%		
% Low SES	18.8%	18.0%		
% Remote / Very Remote ⁹	22.6%	24.2%		
% Female	39.7%	38.2%		
% Non-English Speaking Background	26.1%	24.2%		
% International	1.6%	1.9%		
% >25years of Age	58.2%	60.7%		
% Disability	5.3%	5.2%		

⁹ Based on the delivery location of the training.

	2018	2019	% Change 2018–2019	% Change over 5 years
STUDENT HOME LOCATION				
Northern Territory	12,511	12,919	3.3%	-1.0%
Interstate	182	241	32.4%	-70.5%
Overseas	250	287	14.8%	3.2%
Unknown	2,154	1,400	-35.0%	-17.3%
INTERNATIONAL				
Total	239	282	18.0%	-9.5%
Commencing	177	232	31.1%	-25.9%
% of Total Enrolments International	1.58%	1.90%		
TOP 10 COUNTRIES OF ORIGIN IN 2019 % OF TOTAL INTERNATIONAL COURSE ENROLMENTS				
Timor-Leste	18.0%	29.4%		
Indonesia	15.5%	13.1%		
Taiwan	13.4%	10.6%		
Philippines	8.8%	7.8%		
China (excludes SARs and Taiwan)	4.6%	7.1%		
France	2.1%	3.5%		
Vietnam	2.9%	2.8%		
South Africa	0.0%	2.1%		
Korea, Republic of (South)	2.5%	1.8%		
Sri Lanka	1.3%	1.8%		
Total Number of Countries of Origin for International Students	38	41		
GRADUATE OUTCOMES¹⁰				
% Graduates in Employment 4 months after graduation	85.10%	86.80%		
Graduate Satisfaction ¹¹	91.00%	89.70%		

¹⁰ Graduate outcomes taken from the Student Outcomes Survey (SOS) conducted for the first time in 2016.

¹¹ Graduate satisfaction reflects the overall satisfaction index from the SOS 2019. The rate shows the percentage of students that gave CDU an overall satisfaction score of either 4 or 5 out of a maximum score of 5 in 2019.

2019 Higher Degree by Research

Category	2017 ¹²	2018 ¹²	% Change 2017–2018	2018 ¹²	2019 ¹²	% Change 2018–2019
	(Final)	(Pre 2018 submission and audit, estimated as at April 1st 2019)		(Final)	(Pre 2018 submission and audit, estimated as at April 1st 2020)	
Total Research Income¹²	\$63,364	\$61,938	-2.3%	\$64,199	\$67,445	5.1%
HERDC Research income (\$'000)						
Total HERDC Research Income	\$47,167	\$43,674	-7.4%	\$47,032	\$49,202	4.6%
Category 1, National competitive grants	\$21,466	\$18,083	-15.8%	\$18,522	\$24,009	29.6%
Category 2, Other public sector research funding	\$16,406	\$17,240	5.1%	\$19,461	\$18,157	-6.7%
Category 3, Industry and other funding	\$7,512	\$6,491	-13.6%	\$7,224	\$6,014	-16.8%
Category 4, CRC income	\$1,783	\$1,860	4.3%	\$1,825	\$1,023	-44.0%
Research Block Grants (\$'000)	\$16,197	\$18,264	12.8%	\$17,167	\$18,243	6.3%
Higher Degree by Research completions						
Total	35	33	-5.7%	33	47	42.4%
PhD	27	26	-3.7%	26	39	50.0%
Masters	8	7	-12.5%	7	8	14.3%
Higher Degree by Research load, EFTSL						
Total	226.8	230.3	1.5%	230.3	222.0	-3.6%
PhD	196.0	203.5	3.8%	203.5	194.0	-4.7%
Masters	30.8	26.8	-13.0%	26.8	28.0	4.7%
Weighted publications						
Total	310.5	242.1	-22.0%	242.1	330.4	36.4%
Books	3.1	4.0	29.7%	4.0	2.2	-45.8%
Book chapters	36.0	19.6	-45.6%	19.6	19.2	-2.1%
Journal articles	262.7	202.1	-23.1%	202.1	280.9	39.0%
Conference proceedings	8.7	16.5	88.6%	16.5	28.1	70.7%

¹² 2017 research income figures differ from those published in the 2017 Annual Report. Published figures for the 2017 year, in the AR 2017 were provided pre submission finalisation and pre-audit and were an estimate as at 30 April 2018. Figures supplied for AR2018 for the 2017 year are now finalised figures post audit and submission. 2018 research income figures are supplied pre submission and pre-audit for the 2018 year, and are estimates as at 1st April 2019.

2019 Staff Profile

Category		2018	2019	2018 Females	2019 Females	2018 Female %	2019 Female %
HE & VET academic staff (FTE)¹³	Total Academic FTE	580	537	297	276	51%	51%
	Level E	46	44	8	10	18%	23%
	Level D	30	34	13	15	44%	45%
	Level C	93	82	47	45	50%	55%
	Level B	188	176	120	111	64%	63%
	Level A	223	200	109	95	49%	48%
General staff (FTE)¹³	Total General FTE	786	770	542	534	69%	69%
	HEW 10 and above	77	83	42	44	55%	53%
	HEW 9	74	62	50	42	68%	68%
	HEW 8	88	101	66	78	75%	77%
	HEW 7	120	129	85	94	70%	73%
	HEW 6	138	123	92	84	67%	69%
	HEW 5	152	159	102	106	67%	67%
	HEW 4	99	82	77	63	78%	77%
	HEW 3	24	21	17	13	70%	62%
	HEW 2	11	6	9	5	80%	83%
	HEW 1	2	4	2	3	75%	77%

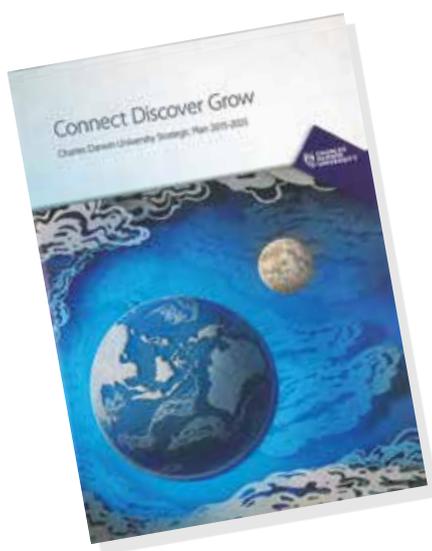
¹³ Figures reported in the 2019 and 2018 Annual Report reflect staff Full-time Equivalent (FTE) counts. Previous annual reports have reported staff headcounts.



Environmental researcher Kimberley Day co-authored a study, titled "Development and validation of an environmental DNA test for the endangered Gouldian finch" published in *Endangered Species Research*.

The Organisation

Our vision, values and priorities



Connect Discover Grow

Charles Darwin University Strategic Plan 2015 – 2025

Our collective beliefs

At CDU we believe a new world university is one built on social justice, sustainability, creativity and collective effort. It is a place where everyone can follow their passion to make things better.

Our plan for quality and growth

The University aspires to become a truly international dual sector university. From our base in the Northern Territory and as the Australian university closest to Asia, we will continue to expand and enhance our significant contribution to the important issues of our region through education and knowledge.

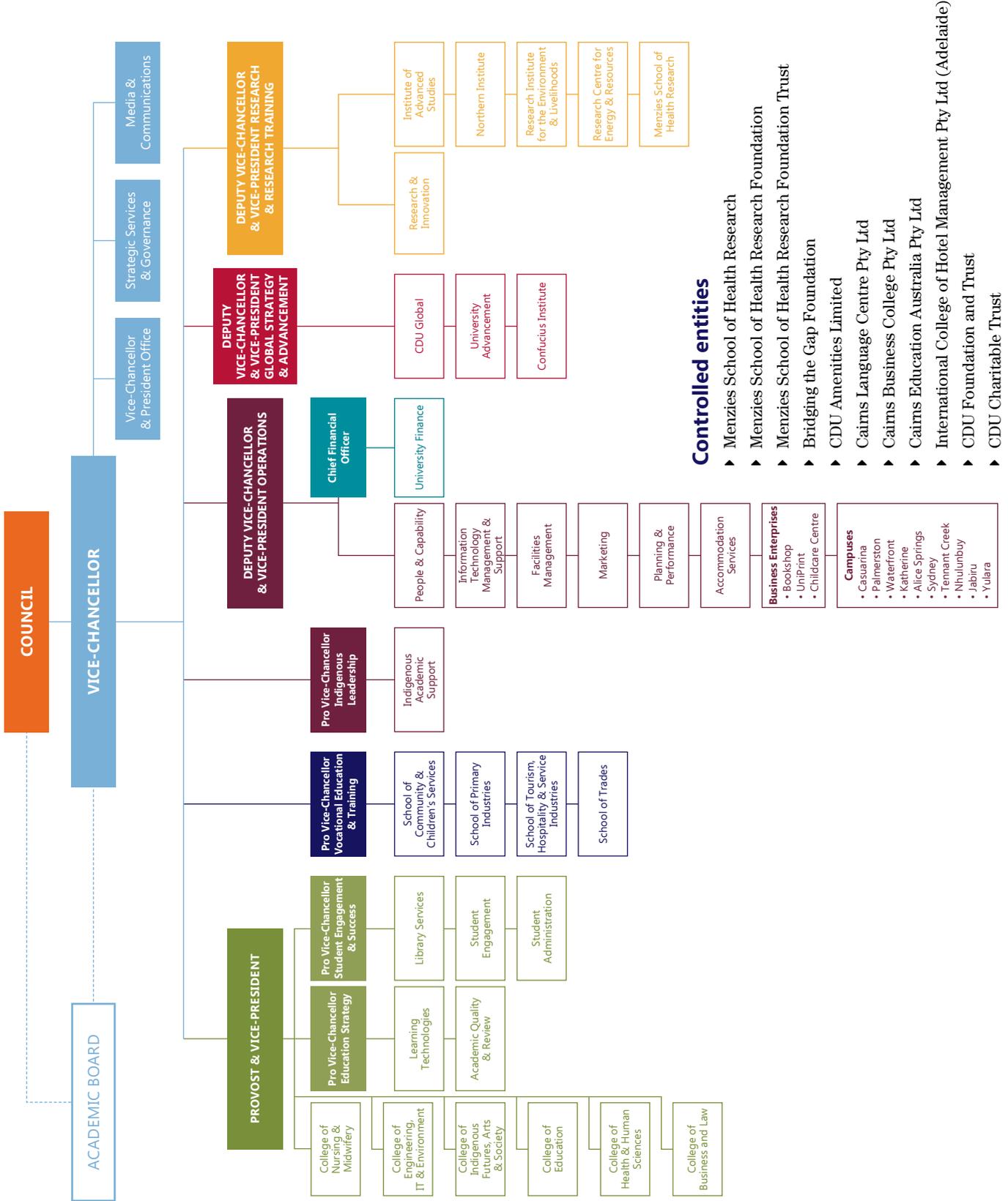
CDU is ideally placed to prepare graduates for success in an increasingly complex, diverse and connected world and aims to provide transformative skills and learning with a major focus on quality, access and growth.

CDU also will continue to develop its world-class and emerging research strengths in areas critical to the sustainable and prosperous development of Northern Australia and the region, particularly in Indigenous and tropical health, environmental science, public policy, engineering, information technology and Indigenous knowledges, through engagement with governments, industry, institutions and stakeholders.

With a strong and distinctive commitment to Indigenous knowledges, achievement and wellbeing, we will develop our capacity in Indigenous leadership to become globally recognised for success in Indigenous peoples' accomplishment.

To access *Connect Discover Grow* in full, visit W: cdu.edu.au/sites/default/files/strategic-plan.pdf

Our structure



Corporate governance

University Governance and Executive Management

Charles Darwin University Council is the governing body of the institution. Led by the Chancellor, Council governs the affairs of the University under the *Charles Darwin University Act 2003*.

Seven standing committees assist Council in carrying out its responsibilities:

- ▶ **Executive Committee** acts on behalf of Council as required on matters between regular meetings of Council that cannot be deferred until the next scheduled meeting.
- ▶ **Academic Board** is the principal academic body assisting the Council and Vice-Chancellor in all matters relating to learning, teaching and assessment, and the assurance and enhancement of the academic quality and standards of all programs and awards.
- ▶ **Finance and Infrastructure Development Committee** is responsible for assessing and advising Council on the University's financial position and performance, its assets and liabilities, and its strategies relating to income, budget allocations and capital expenditure.
- ▶ **Audit and Risk Committee** assists the Council in exercising governance, due care, diligence and skill in relation to discharging the following broad duties: financial reporting, internal controls and risk management, external audit, internal audit, and controlled and associated entities.
- ▶ **Tender Committee** is responsible for reviewing tenders, expressions of interest, certificates of exemption or other means of procurement in excess of the University's \$10,000 procurement threshold.

- ▶ **Nominations, Honorary Awards and Legislation Committee** oversees nominations for Council membership, provides advice in relation to honorary awards, and reviews all proposed legislation.
- ▶ **Remuneration Committee** assists Council in the determination of the remuneration package and performance of the Vice-Chancellor. It also provides advice to the Vice-Chancellor on the remuneration package of Executive level staff.
The Council delegates the implementation of University strategic direction and the management of day-to-day operations to the Vice-Chancellor, supported in this role by an executive team.

The affairs of the University are to be conducted by the Council

Council assumes stewardship of the University through a set of responsibilities set out in Section 8 of the *Charles Darwin University Act*. Council works to:

- ▶ Monitor the performance of the Vice-Chancellor
- ▶ Approve the mission and strategic direction of the University
- ▶ Approve the budget and business plan of the University
- ▶ Oversee the management of the University, including approving significant commercial activities
- ▶ Regularly review delegations under the Act
- ▶ Monitor systems of accountability implemented by the University
- ▶ Review management practices and performance of the University
- ▶ Oversee risk management across the University.

The composition of the Council must be appropriate to the duties and responsibilities

The University Council is based on a board-of-trustees model, with members appointed or elected acting solely in the interests of the University and not as delegates or representatives of a particular constituency.

The structure, composition and size of Council are determined by the *Charles Darwin University Act*. Direction in the Act ensures Council is able to discharge its responsibilities and duties adequately via the following membership:

- ▶ Chancellor (appointed by the Council)
- ▶ Vice-Chancellor
- ▶ Chair of the Academic Board
- ▶ Eight members appointed by the Administrator of the Northern Territory, representing a broad range of community interests and including financial and commercial expertise
- ▶ One person elected by and from the full-time HE academic staff
- ▶ One person elected by and from the full-time VET academic staff
- ▶ One person elected by and from the undergraduate students, and
- ▶ One person elected by and from the postgraduate students.

Education program for new Council members

The University has a professional development program for Council, with the objectives:

- ▶ To ensure new members of Council receive an induction program and appropriate core documentation and information (induction)
- ▶ To ensure members are informed about their duties generally, including the legislative and operational context of the University (provision of requisite background information)
- ▶ To assist members of Council to develop and maintain a skill set that fits the governance and strategic needs of the University (improvement in planning and governance), and
- ▶ To enhance organisational performance by improving the (minimum) skill set of all members, as well as instilling and enhancing specialist skills in those members who will lead committees and/or Council activities.

Activities include a formal induction program, opportunities to attend various conferences, events and local functions planned around the rotation of Council meetings between the University campuses.

Written Code of Conduct

The University has a written Code of Conduct based on five ethical principles:

- ▶ **Fairness:** We value fairness, characterised by openness and impartiality in the conduct of our study and work, in decision-making, and in supporting and attracting staff and students
- ▶ **Respect:** We value respectful and polite conduct. We demonstrate consideration and regard for the rights, privacy and feelings of others, and for the differences across cultural backgrounds, beliefs and abilities

- ▶ **Integrity and Professionalism:** We value integrity and professionalism in our activities and across academic, teaching and management functions. Professionalism is characterised by competency, skill, quality service delivery, and the expectation that staff will conduct their duties in a responsible and conscientious manner
- ▶ **Accountability:** We value accountability and take responsibility for our actions within the scope of our work, study and community engagement
- ▶ **Equality of opportunity:** We value equality of opportunity and celebrate diversity.

Enterprise risk management and internal audit

The University internally manages the coordination of activities related to the organisational risk via the new Risk Management Framework. The University undertakes internal audit activities through in-sourced and out-sourced means. The Audit and Risk Committee formally endorses an annual internal audit plan, monitors activities and reports to Council.

Satisfactory health and safety measures in place

The University takes a proactive risk management approach to workplace health and safety issues to meet the requirements of occupational health and safety policy and legislation. A dedicated health and safety team has day-to-day responsibility for activities in this area, working with the University Health and Safety Committee. The Council reviews health and safety measures as part of the regular risk management and internal audit activities.

Voluntary Code of Best Practice for Governance of Australian Universities

The Voluntary Code of Best Practice for the Governance of Australian Universities, developed by the University Chancellors' Council and approved by the Commonwealth Ministerial Council for Tertiary Education and Employment, sets out the criteria thought necessary to demonstrate best practice. The Council adopted the revised Code of Best Practice in 2018. The Council considers that it is compliant with the Code.

Records Management

The University is working in compliance with Part 9 of the *Information Act*.

Freedom of Information

The University is committed to protecting the privacy of staff, students and other stakeholders. Its privacy statement contains the policy for managing personal information collected. This is part of the procedures in place to protect the privacy of personal information in accordance with the information privacy principles set out in the *Information Act* (Northern Territory). The University received three access requests in 2019.

Students and decision-making

Students under the *Charles Darwin University Act* are either undergraduates or postgraduates. Students at all levels are provided with multiple opportunities to participate in corporate and academic governance through committees including the University Council, Academic Board, Academic Board sub-committees, the Human Research Ethics Committee and the Colleges' and Schools' course advisory committees.

Council members



1. **The Hon Paul Henderson AO**
Chancellor

2. **Mr Richard Ryan AO**
Deputy Chancellor

3. **Professor Simon Maddocks**
Vice-Chancellor and President

4. **Mr Ken Davies**

5. **Mr Alan Morris AO**

6. **Ms Jodie Ryan**

7. **Professor Judith Whitworth AC**

8. **Mr Benjamin Poveda Alfonso**
(membership ended October meeting)
(UG student)

9. **Mr Ray Simpson (staff)**

10. **Dr Aggie Wegner (CAB)**

11. **Mr Mayank Sharma (PG student)**

12. **Ms Leena Kesava Panicker**
(resigned effective the October
meeting)

The University has three vacancies in the ranks of the Administrator-appointed category at the time of compiling this report.

Meetings of Committees

	Council Meetings		Finance and Infrastructure Development		Audit and Risk		Nominations Honorary Awards and Legislation	
	A	B	A	B	A	B	A	B
The Hon Paul Henderson AO	6	5	5	4	3	1	2	2
Prof Simon Maddocks	7	7	6	6	3	3	2	2
Dr Aggie Wegner	7	4	-	-	-	-	2	1
Ken Davies	7	7	-	-	-	-	-	-
Alan Morris	7	7	6	5	3	3	-	-
Jodie Ryan	7	5	-	-	-	-	-	-
Richard Ryan AO	7	7	6	5	3	2	2	2
Prof Judith Whitworth AC	7	4	-	-	-	-	-	-
Manyank Sharma	7	3	-	-	-	-	-	-
Benjamin Poveda-Alfonso	3	3	-	-	-	-	-	-
Ray Simpson	7	6	-	-	-	-	-	-
Leena Kesava Panicker	5	5	-	-	-	-	-	-

Legend

A = Number able to attend

B = Number attended

Principal Officers



1



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1. **Professor Simon Maddocks**
Vice-Chancellor and President
2. **Professor Sue Carthew**
Provost and Vice-President
3. **Professor Bogdan Dlugogorski**
Deputy Vice-Chancellor and Vice-President, Research and Innovation (from May)
4. **Ms Meredith Parry**
Deputy Vice-Chancellor and Vice-President, Operations
5. **Mr Andrew Everett**
Deputy Vice-Chancellor and Vice-President, Global Strategy and Advancement
6. **Mr Ashar Ehsan**
Acting Pro Vice-Chancellor, Vocational Education and Training
7. **Ms Anne Coulter**
Chief Financial Officer
8. **Pro Vice-Chancellor, Indigenous Leadership**
(vacant)
9. **Professor Robert Fitzgerald**
Pro Vice-Chancellor, Education Strategy
10. **Professor Philip Seltsikas**
Pro Vice-Chancellor, Student Engagement and Success



Dr Teresa Wozniak is an epidemiologist and Research Fellow at the Menzies School of Health Research, a 2019 Science and Technology Australia "Superstar of STEM", founder of the Women in Tropical Health Network, and mountain-biker.

Our outstanding staff and students

Charles Darwin University (CDU) won the prestigious Training Provider of the Year award for the third consecutive year at the 64th NT Training Awards. CDU and Menzies staff and students also won individual awards:

VET Teacher / Trainer of the Year:

Patricia Sweeney-Fawcett

Austin Asche Apprentice of the Year:

Rory Milner

Vocational Student of the Year:

Jacqui Culgan

Trainee of the Year:

Jack Short

Aboriginal and Torres Strait Islander Student of the Year:

Raelene Collins (Menzies).



From left: Acting Pro Vice-Chancellor VET Ashar Ehsan, Workforce Development Coordinator Patricia Sweeney-Fawcett and Vice-Chancellor Professor Simon Maddocks.

Australian Training Awards

The University was one of three finalists in the Large Training Provider of the Year category at the Australian Training Awards in November. This is the second time in three years that CDU has been a finalist. VET apprentice Rory Milner was recognised as Australia's Apprentice of the Year at the awards, an outstanding achievement given the number of apprentices and providers around the nation. Rory is studying a Certificate III in Carpentry at CDU.

Order of Australia

Professor Anne Chang AM, Head of Menzies School of Health Research Child Health Division, was awarded a Member of the Order of Australia in the Australia Day Honours.

Scholarships

Professor James Smith, previously CDU's National Centre for Student Equity in Higher Education Equity Fellow and now with Menzies School of Health Research, was awarded a Fulbright Scholarship to further his research on reducing health inequities among young black men in the USA.

Shanae Kuo, a student, was awarded the Order of Australia Association Foundation 2020 Scholarship, valued at more than \$40,000 over two years.

RIEL PhD candidate awards

Ellen Ryan-Coulton was selected as a Fellow on the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) for the IPBES thematic assessment of invasive alien species and their control.

Amy Kirke was selected as one of the five mentees for the 2019 L'Oréal-UNESCO program for Women in STEM.

Alea Rose won the Australian Water Association 2019 Student award.

Dr Kamala Thriemer, of Menzies, was awarded a CSL Centenary Fellowship to develop and optimise treatment programs against *Plasmodium vivax* malaria in Asia and Africa. The Fellowship will allow Dr Thriemer to generate country-specific roadmaps to guide public health programs.

Dr Jaqui Hughes, of Menzies, was named the Australian Indigenous Doctors' Association Indigenous Doctor of the Year.

Dr Sarah Auburn, of Menzies, received the Georgina Sweet Award for Women in Quantitative Biomedical Science in recognition of her ground-breaking research on the malaria parasite *Plasmodium vivax* genomic epidemiology.

Technology award

The Information Technology Management and Support office won the 2019 NT Digital Excellence Award for Innovation in Service Management, Territory wide.



From left: Smart Skip team members Professor Rolf Gerritsen, Dr Sami Azam, Dr Deepika Mathur and Dr Bharani Shanmugam. Members absent: Danny Sneddon and Rohan Badenhop.

Smart Skips project wins national award

The Smart Skips project developed by CDU was hailed for excellence at the Regional Development Conference where it won the Innovation Award.

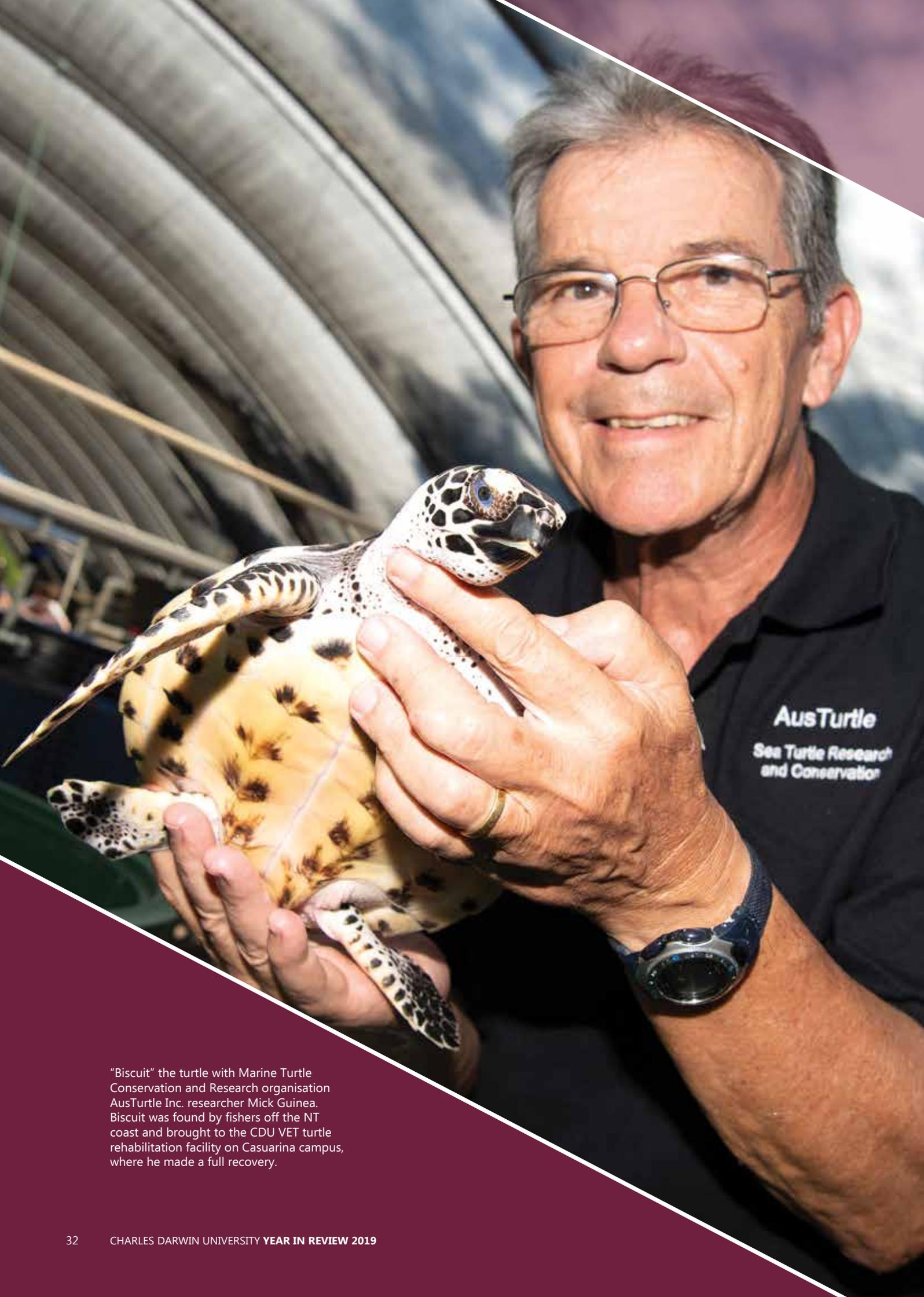
The project was led by Dr Deepika Mathur, a research fellow with the Northern Institute, and was a collaboration between the University's higher education and VET sectors and local government.

A smart skip is a commercial waste bin fitted with electronic sensors that transmit data about the volume and weight of the contents to a building supervisor and the skip operator.

The aim of the project is to improve efficiencies within the construction industry.

Studies show that on-site sorting is one of the most efficient ways of sorting construction and demolition waste. If waste is sent to a management facility already sorted there is a higher chance the material can be reused or recycled.

The project was funded by the Australian Government's Smart Cities and Suburbs Program to improve the liveability, productivity and sustainability of cities and towns across Australia.



"Biscuit" the turtle with Marine Turtle Conservation and Research organisation AusTurtle Inc. researcher Mick Guinea. Biscuit was found by fishers off the NT coast and brought to the CDU VET turtle rehabilitation facility on Casuarina campus, where he made a full recovery.

Transformative skills and learning

The Education Strategy portfolio led a micro-credential taskforce to examine how new forms of digital credentials could be used to certify attainment of smaller and more specific elements of learning at Charles Darwin University (CDU).

Processes were drafted to be considered by the University's Executive Leadership Group to support streamlined procedures for developing new curriculum and providing Colleges with more flexibility around changes to existing courses and units.

Academic staff support

Support was provided to academic staff around curriculum design and accreditation in a period of change both at unit and course levels.

Graduate Certificate: The Higher Education and Teaching Development team taught into the Graduate Certificate of University Teaching and Learning and contributed to a review of the course.

This course provides academic staff with theoretical and practical skills in teaching and learning.

Strategic Pillar Plan: Staff provided feedback on the Learning and Teaching Strategic Pillar Plan 2019-2025. The plan balances CDU's strategic institutional targets, as defined in the strategic plan, *Connect Discover Grow*, with the imperative to respond quickly to end-user perspectives and needs on education and training. This approach will be managed through a collaborative codesign approach to bring ongoing transformation of educational practice.

Improved quality

Annual course monitoring dashboards and a platform to guide reflections on the data provided in the dashboards were developed to support regular monitoring of courses. The early detection of internal and external trends that impact on a course can be identified so that early interventions to enhance a course can be made.

Assessment: The new Academic Calibration Project Coordinator began in January. Academic Calibration is an external peer review process that is undertaken in collaboration with other Innovative Research Universities. The process aims to provide a comparable review and constructive feedback on the grading of assessment tasks and the relationships between assessment and learning outcomes.



Dr Farha Sattar is finding new ways to engage young STEM students.

STEM educator takes the buzz to Top End schools

Lecturer in Education (Mathematics) Dr Farha Sattar received approval from the NT Government Department of Education to introduce her education research program into six primary and secondary schools.

Dr Sattar focused on Years 7 and 10 students with a project that used drones to introduce and inculcate concepts related to STEM (Science, Technology, Engineering and Mathematics).

Using drone technology allows young people to conceptualise subjects such as maths and physics.

Dr Sattar also delivered professional development seminars to teachers to understand the needs around teaching STEM subjects.

Once her research is completed, the data will feed into a national public policy discussion about the importance of introducing STEM education at an early age in State and Territory curriculums.

The research project began with a \$48,000 CDU Institute of Advanced Studies Rainmaker Readiness Grant.

Improved learning experience

Redeveloped curriculum design and development processes will be finalised in 2020 leading to improved learning experiences for students.

The Student Experience Programme (SDX) is a program of operational and systems transformation designed to achieve the University's goals. As part of this work, Education Strategy has developed specifications for an integrated, VET and Higher Education (HE) curriculum management system.

Education Strategy's HE team continued to focus on teaching quality: developing resources for curriculum renewal and enhancements of learning (e.g. Guide for Unit/Course descriptions, Glossary of Terms for Assessment and Learning Outcomes Framework). This work included solutions and strategic approaches for the use of technology to enhance teaching and learning based on the needs of those who teach and students' needs for learning, and workshops and activities designed to promote the effectiveness and efficiency of teaching and assessments.

Student retention

Responding to the challenges of student retention, the University Retention Strategy was developed and launched. This whole-of-university strategic response is anchored on three distinct pillars: set students up to succeed from the start - grow student communities; and realise students' career goals. The retention strategy promulgates 26 initiatives that are framed around delivering on the three pillars. These initiatives put student needs at the centre of planning and transformation of the student lifecycle.

HE and VET

CDU increased its adoption of cloud hosting and software as service models for the education technologies ecosystem to support student online learning.

This has meant increased uptime, zero downtime for upgrades and minimal disruption to teaching. All enterprise education technology systems were shifted to the cloud.

Learnline: Upgrades were made to the Learning Management System (Learnline) in response to opportunities provided by a change in hosting models, feedback from students and to remain in touch with technology trends. Upgrades and changes introduced students to “Learn Ultra”, a refreshed and contemporary user experience with a greater emphasis on simpler workflows, consistency and quick access to what needs to be done.

CDU introduced Blackboard Ally to build a more inclusive learning environment and improve usability and accessibility. Ally automatically checks teaching materials for accessibility issues and applies advanced machine learning algorithms to provide access to alternatives. It also provides feedback and guidance to those creating learning materials to improve the accessibility of their content and build towards sustainable change.

Online tutoring: Academic online tutoring and support services delivered via Learnline allow students to chat live with an online tutor for academic support across a range of subjects and/or submit written work for feedback.

Student service

Work began on establishing a Student Contact Centre to centralise all inbound student enquiries and provide a streamlined approach and one-stop-shop for students. This is the precursor to establishing a Student Hub model of centralised Shared Service Centres, with the aim to provide the best possible service to students at the lowest and most efficient cost to CDU.

Australian first

CDU delivered its first cross-discipline apprenticeship – rather than issuing individual, sequential apprenticeships in distinct trades – reflecting the immediate and complex needs of Shell’s floating liquefied natural gas facility, Prelude, which is the largest ocean-going vessel in the world.

The University’s collaboration with Shell, the NT Government (NTG) and Group Training NT began in 2015, when it delivered its first trained apprentices to Prelude under the “Prelude to the Future” program.

In 2019, Shell identified that while the CDU-trained apprentices were highly effective and valuable, the traditional apprenticeship model did not reflect the work-readiness requirements the company had for operating and maintaining the vessel’s generators.

Students gain a Certificate III in Automotive Diesel Engine Technology (Diesel Fitter) and a Certificate III in Electrical Fitting, producing nationally qualified Diesel and Electrical Fitters with the aim of being work-ready in a power generation specialist/technician role.

This is the first time in Australia that the two qualifications have run together, and of the 14 students who began in 2019, 12 completed their first year.



The HIVE team checks out the latest virtual reality teaching aids.

A HIVE of virtual learning

College of Health and Human Sciences (CHHS) students are using the latest virtual and augmented reality technologies in their Health education studies.

The Health Immersive Virtual Education (HIVE) project is using new VR/AR teaching tools that allow students to explore highly complex subjects in a virtual environment, engaging all their senses.

HIVE will take health education to a level beyond textbooks and traditional audio-visual resources.

In Semester 1, the College began trialling immersive realities in anatomy and physiology units. Students explored inside the human body – selecting organs such as the heart or brain, sick or healthy – and could see what the differences were.

In 2020, the HIVE will incorporate all subject areas within the CHHS, including newly developed courses such as speech pathology, occupational therapy and nutrition.



Ywrite project facilitator Dr Adelle Sefton-Rowston.

Writing project inspires hope

An arts program that teaches prison inmates how to express themselves through creative writing has helped to improve their self-image and sense of hope.

The Ywrite project, delivered through workshops in Darwin, sought to teach low-risk women prisoners how to express themselves through creative forms of prison prose, graffiti art and story-telling.

The project was facilitated by Communications Lecturer Adelle Sefton-Rowston, who guided the women in workshops

to explore who they were, what was important to them and to develop an artistic relationship to the world as a “free person”.

Dr Sefton-Rowston collaborated with local Indigenous artist Shilo McNamee and YWCA staff to workshop this year’s NAIDOC theme – voice, treaty, truth – through poetry and street art to inspire the design and content of a mural at the Darwin Correctional Centre.

New Law degree structure attracts record numbers

More than 250 students enrolled in the first-year Law program that now focuses exclusively on Law-related study units. The reduction in duration of the degree came after the CDU Academic Board and the Northern Territory Legal Practitioners Admissions Board agreed to waive Law students’ requirement to complete common core units and non-law electives.

The course now focuses solely on the law and comprises the core “Priestly 11” (prescribed areas of knowledge) subjects and law electives. While the duration of the program has shortened, its high quality and core legal content remains unchanged.

The three-year degree will continue to serve as the academic foundation for admission to legal practice in the Northern Territory.

New courses

A report commissioned by CDU Global has informed the redevelopment of a variety of courses to better meet the needs of international students. A VET-specific report was prepared to inform the development of training packages and VET courses for the diverse international VET market.

The Colleges reviewed their course offerings with stakeholders and focused on NT and international markets. New courses were approved to begin in 2020 and included:

- ▶ Master of Arts (Specialisation)
- ▶ Bachelor of Arts (Specialisation)
- ▶ Diploma of Arts (Specialisation)
- ▶ Graduate Certificate in Arts (Specialisation).

These included specialisations Global Humanities in a Digital Age; Creative and Digital Arts; Architectural Design; Society and Culture; Languages and Linguistics; Communications, Literature and Digital Media; Contemporary Indigenous Australia; Indigenous Governance and Policy; Music-Making and Production and Performance.

Examples of other courses developed to begin in 2020 were:

- ▶ Master of Speech Pathology
- ▶ Master of Nutrition
- ▶ Master of Occupational Therapy
- ▶ Graduate Certificate in Safe Communities (Child Protection) in partnership with Territory Families.

The College of Health and Human Sciences began constructing the Health Immersive Virtual Environment, which promotes online and virtual learning for internal and online students. The facility, to be launched in 2020, will be a game-changer in quality learning experiences for

students in Health and Social Work. It was designed in response to Health workforce needs and in collaboration with the NT Health Department, not-for-profits and other stakeholders.

Improved VET online delivery

The VET Learnline team continued to develop VET programs online with 221 Learnline sites released to students. The initiatives were designed to improve accessibility, including developing new online units and engaging interactive activities in the areas of horticulture, electrotechnology, automotive and tourism.

A holistic approach to improving teaching and learning practices and the student experience via work-based learning saw several projects undertaken by Education Strategy co-design teams.

These included:

- ▶ AHCPMG201 – Treat Weeds online learning environment development (Learnline)
- ▶ UEENEEG108A – Trouble-shoot and repair faults in low voltage electrical apparatus and circuits Pressbook for the Electrotechnology team
- ▶ CPC40912 Certificate IV in Plumbing and Services Learnline site to facilitate digital resources and Blackboard Collaborate classes between Casuarina and Alice Springs campuses
- ▶ TLI31216 Certificate III in Driving Operations scoping and approval for heavy vehicle driver training and licence assessment with in-cab video-recording and assessment.



From left: INPEX Corporation CEO Takayuki Ueda, Chancellor the Hon. Paul Henderson AO, researcher Dr Khanh Vin Nguyen, INPEX Australia President Director Hitoshi Okawa and Provost Professor Sue Carthew during a tour of the North Australian Centre for Oil and Gas.

INPEX supports students

INPEX announced funding for six students to support their studies in courses relating to the oil and gas industry.

Through a five-year partnership, the students will each receive \$5000 a year for three years of their course.

The scholarships will support Territory students and enable them to pursue their studies at CDU and build careers in the NT.

INPEX Corporation Representative Director, President and CEO Takayuki Ueda said INPEX was committed to supporting education and employment opportunities for young people.

The \$90,000 commitment to scholarships builds on the \$3 million investment made by INPEX-operated Ichthys LNG to support the establishment of the North Australian Centre for Oil and Gas on Casuarina campus.



Minister for Indigenous Australians, the Hon. Ken Wyatt AM MP delivered the 19th Annual Vincent Lingiari Memorial Lecture, titled "Looking Forward, Looking Back", on Casuarina campus in August.

Leadership in Indigenous tertiary education

The Molly Wardaguga Research Centre was established to conduct innovative and transformative research for the best start in life across the first 2000 days (conception to age five). Research by this centre is underpinned by a social justice framework that actively addresses inequity and discrimination. Its focus is on redesigning, optimising and evaluating health services, investing in the health and research workforce, and strengthening family capacity and engagement with communities and systems.

Aboriginal economic development

The College of Indigenous Futures, Arts and Society and Northern Institute academics took part in the 9th Aboriginal Economic Development Forum, hosted by the Northern Territory Government (NTG) in Darwin during November. Building on previous forums, the emphasis was on sharing knowledge, experiences and connecting and strengthening relationships between Aboriginal entrepreneurs, the private sector, industry, government and non-government organisations. The forum is one of Australia's largest Aboriginal economic development events.

Support for Indigenous students

A wide range of funding was received to support Indigenous students, including:

- ▶ From the Alicia Johnson Memorial Fund to provide ongoing mentoring to Indigenous Law students to increase completion rates
- ▶ A new agreement was reached with Newmont Goldcorp Australia to extend its support for five years, at \$50,000 a year, to support at least 31 students. Those supported under these scholarships are female students, Indigenous students and the Warlpiri people of Central Australian language group

- ▶ The CSIRO Indigenous Scholarship supports five Indigenous students studying Science, Technology, Engineering and Mathematics (STEM) for three years at \$15,000 for each student
- ▶ Two annual PhD scholarships were awarded to Indigenous researchers at the Molly Wardaguga Research Centre. The scholarships were funded through the Nancy Kingsland and Alison Jackson Endowment Fund
- ▶ Following the success of the Indigenous Pre-Law and mentoring program, which runs as a four-week intensive in January/February each year to provide Indigenous students with a pathway into the Bachelor of Laws program, a similar Pre-Accounting program was developed to support Indigenous engagement and success in Accounting and will start in 2020.

Fresh face for Akaltye Centre

The Akaltye Centre on Alice Springs campus received a \$280,000 upgrade. The centre, which opened as the Indigenous Student Services in 1991, offers support services in a culturally safe environment.

The office is in regular contact with hundreds of students across the Northern Territory and further afield.

The word "Akaltye" is a local Arrernte word meaning to learn or gain knowledge.



PhD candidate Cathy Bow and Kunwinjku speaker Seraine Namundja created multimedia resources for the new course.

Preserving the Kunwinjku language

CDU and the Australian National University (ANU) launched the first university-level course teaching Kunwinjku, an endangered Aboriginal language spoken by the Bininj people of West Arnhem Land.

The course is coordinated by CDU-ANU PhD candidate Cathy Bow in collaboration with the Bininj Kunwok Regional Language Centre.

According to 2016 Census data only 1711 people speak Kunwinjku at home.

The new course was an important way of sharing the Indigenous culture of West Arnhem Land where many non-Indigenous people worked but few could speak the first language of the local people.

Ms Bow worked closely with a language committee of native Kunwinjku speakers, including Seraine Namundja, who were involved in designing the curriculum and resources.

STEM Innovator-in-Residence

The Northern Institute appointed an Aboriginal STEM Innovator-in-Residence as part of a series of NT grants focused on improving pathways for Aboriginal people to STEM and commercialisation of their businesses. Julie-ann Lambourne, a Torres Strait Island leader of Mabulag and Darnley descent was – before joining CDU – the founding member and CEO of enVizion, an Indigenous-owned and operated organisation at the cutting edge of digital technologies. She will provide expert advice to Aboriginal businesses undertaking innovation in the NT including

identifying opportunities, increasing profitability and commercialising research and development ideas.

Business network

The Northern Institute hosted the NT Indigenous Business Network Members Showcase in November to promote partnerships between Aboriginal businesses and CDU operations and academics. The Northern Institute promoted its capacity and introduced the Innovator-in-Residence at the event, which was attended by more than 40 people.

Indigenous cadet

As part of efforts to increase Indigenous student engagement and Indigenous staff at the University, an Indigenous cadet, Nova Garnier, was appointed and will undertake the first block of her cadetship in the office of the Pro Vice-Chancellor, Student Engagement and Success.

Garma Festival

After a number of years rebuilding engagement with the annual Garma Festival, CDU was asked to conduct the Education Forum. A strong delegation of CDU staff attended the Festival in August. The University reaffirmed its commitment to taking a lead role in creating opportunities and engaging in discussion about education in the region. CDU operated a stand at the Garma Expo as a basis for engaging with local and visiting participants about education and training opportunities. Staff from the Northern Institute conducted a series of Yolgnu language workshops and CDU researcher and Yolgnu Elder Dr Kathy (Gotha) Guthadjaka AM, promoted her research.

Charles Perkins Oration

Principal Research Fellow at the Northern Institute, Associate Professor Linda (Payi) Ford, who is an NT Rak Mak Mak Marranunggu woman, was invited to give the Dr Charles Perkins AO Memorial Oration at the University of Sydney in October. This prestigious Oration, named for the first Aboriginal man in Australia to graduate from university and one of the country's most influential figures of the late 20th Century, selects orators for their outstanding contributions to their community, country and society.

Dr Ford's oration focused on the ancient traditional oral and sign languages and the importance of sign language in Indigenous culture.

Youth education

CDU partnered with the National Indigenous Youth Education Coalition to hold the Darwin workshop on *Education of Our Own Design* in September. This workshop was led by Aboriginal and Torres Strait Islander (ATSI) young people and aimed to hear about ATSI educational experiences, learn about the history of education and to share and reimagine the future of ATSI self-determined education.



Dr Tracy Woodroffe said NT teachers must demonstrate an understanding of Indigenous culture.

Call for Indigenous knowledge in teacher training

Lecturer in Indigenous Knowledges at the College of Indigenous Futures, Arts and Society, Dr Tracy Woodroffe identified the need for teachers to receive specific pre-service training in Indigenous knowledge.

Dr Woodroffe's research explored the importance of pre-service Indigenous cultural teacher education in the urban context by talking to both new and more experienced teachers.

Some 30% of the Territory's population is Indigenous, meaning a large proportion of students have a different knowledge system, but the education system largely taught in the same way as in suburban Sydney or Melbourne.

Dr Woodroffe's research showed that those teaching Indigenous learners needed to know about the different ways of seeing things, and viewing the world, that Indigenous people have.



Dr Edmonds-Wathen's research was published in a special edition of the British journal *Research in Mathematics Education on Language*.

Probing maths teaching in Indigenous languages

Education Lecturer Dr Cris Edmonds-Wathen is looking at how linguistics techniques can help inform maths teaching in various Indigenous languages.

In some languages it was difficult to find the words and structures for maths functions because school maths had not been taught in them before, making maths teaching in these languages challenging.

A good deal of maths language has been developed from mercantile culture, so cultures that are not traditionally mercantile will not have some of the words that are needed in school maths.

Dr Edmonds-Wathen ran a small-scale trial with early primary students at the school at Waruwi on South Goulburn Island. The school had been bilingual until 2001 when it changed to teaching in English only.

Public lectures

Nugget Coombs Memorial Lecture:

CDU co-hosted the Nugget Coombs Memorial Lecture, in collaboration with the Australian National University (ANU). This lecture series, which began in 2010, is named in honour of Dr Herbert Cole (better known as “Nugget”) Coombs, who died in 1997 and was best known for his roles as Governor of the Reserve Bank, Chancellor of ANU and his significant contribution to enhancing the rights of Australia's Indigenous peoples. The 2019 lecture was delivered by Linda Burney MP, Shadow Minister for Indigenous Australians. The ANU Council met in the CDU Chancellery Council Room immediately before the lecture.

Vincent Lingiari Memorial Lecture:

The Minister for Indigenous Australians, the Hon. Ken Wyatt AM, delivered the 19th Annual Vincent Lingiari Memorial Lecture at CDU's Casuarina campus on 15 August. The lecture, proudly hosted each year by CDU, commemorates the anniversary of the “Wave Hill Walk-Off” in 1966 when Gurindji people withdrew their labour in protest over poor pay and conditions, and is part of the Gurindji Freedom Day Festival events.

Mr Wyatt was appointed this year as the Minister for Indigenous Australians, making him the first Aboriginal person to hold the federal ministry, and the first Aboriginal person to sit in Cabinet. He has been supportive of a range of University and Menzies School of Health Research activities. His lecture, *Looking Forward, Looking Back*, reflected on advancements in Indigenous affairs and how he wanted to take a measured approach to addressing the issue of recognition of First Nations people in the Australian Constitution to make sure the right approach was adopted.

Study tour pilot

The College of Indigenous Futures, Arts and Society developed and ran a pilot for a series of study tours for domestic and international markets to promote engagement with Indigenous knowledges and cultures, in partnership with remote communities. The pilot was offered to ANU biology students, who undertook a two-week, credit-bearing intensive in Kakadu National Park. Following the success of the pilot, ANU has doubled the number of student bursaries to access the program in 2020 when it will be rolled out more broadly to other domestic and international participants.



Associate Professors Anne Lowell and Lāwurrpa Maypilama and their colleagues have received recognition for their “Growing up children in two worlds” website.

Major award for Yolgnu research project

A research project and one of its leading Indigenous researchers received national recognition from the Lowitja Institute, Australia’s national institute for Aboriginal and Torres Strait Islander health research.

Northern Institute Associate Professor Lāwurrpa Maypilama, a senior Yolgnu researcher, received the Institute’s Aboriginal and Torres Strait Islander Health CRC Award, recognising the depth of her research over her career and for contributions to the Aboriginal and Torres Strait Islander research community.

Dr Maypilama is working on a video-based research project, “Growing up children in two worlds”, which shares Yolgnu cultural strengths and priorities in early childhood with the world.

The project was also recognised by the Lowitja Institute, with the Institute’s Tarrn Doon Nonin Aboriginal and Torres Strait Islander Health Research Ethics Project Award. Tarrn doon nonin is the Woiwurrung language term for “trust”.



Co-Directors of the Molly Wardaguga Research Centre, Associate Professor Yvette Roe and Professor Sue Kildea.

New research centre launched

The Molly Wardaguga Research Centre, which was launched in May, was named in honour of an Aboriginal Elder and Senior Aboriginal health worker from Arnhem Land, who was a strong advocate for returning health services to Aboriginal control and Aboriginal communities.

The new research group will have broad reach, using research to work with communities and stakeholders to redesign maternal and infant health services for the best start in life for mothers and babies in the NT and across Australia.

Building on more than 25 years of research, the centre will target the first 2000 days, from conception to age five, and work side-by-side with communities to co-design services to give communities greater control.



Northern Institute Principal Research Fellow and Rak Mak Mak Marranunggu woman Associate Professor Linda (Payi) Ford presented the Dr Charles Perkins AO Memorial Oration – which focused the International Year of Indigenous Languages, and the 2019 NAIDOC Week theme of Voice, Treaty, Truth – at the University of Sydney.

Critically engaged in our region

Charles Darwin University (CDU) and INPEX jointly announced a \$90,000 commitment from INPEX to fund six scholarships to support Northern Territory (NT) based students in their studies in courses relating to the oil and gas industry. The announcement was made at CDU and included a tour of the North Australian Centre for Oil and Gas. Representatives from INPEX included President and CEO Takayuki Ueda and Australia President Director Hitoshi Okawa.

Regional engagement

Tindal RAAF Base: The Director of Regional Engagement and Development worked with Lendlease on opportunities for VET in the Katherine region to build skills, capabilities and a local workforce to support the construction phase of the new Air Combat Capability Facility Project at the Tindal RAAF Base.

Timor-Leste training: A ceremony was held in May in Dili, Timor-Leste to celebrate the completion of training for 14 students from the Stage 1 Foundational Skills Training, which is part of the Timor-Leste Graduate Internship Program. The project is a collaboration with ConocoPhillips Australia valued at \$500,000 and aims to support young Timor-Leste nationals to gain skills and knowledge to enter the oil and gas workforce. It is the second program of this kind that VET has conducted.

Territory Families: CDU signed a unique collaborative agreement with NT Territory Families to transform employment opportunities for social services graduates and to increase the number of qualified full-time frontline child protection workers in the NT, through CDU graduates. The agreement included five student scholarships and will enable Territory Families to offer 25 permanent, full-time graduate positions for CDU Social Work and Psychology graduates each year.

Innovation: CDU entered a new partnership with CSIRO, the University of Queensland and the Australian National University related to responses to the challenges and ethical considerations presented by innovation in science and technology. CSIRO's Responsible Innovation Initiative is a five-year, \$5.75 million investment, aligned closely to the organisation's Future Science Platforms, that has been created to drive innovation in science and technology, along with the ability to reinvent and create new industries for Australia.

During the next five years, these collaborations will appoint five jointly funded Postdoctoral Fellows to examine emerging science and applications associated with synthetic biology, precision health, hydrogen, artificial intelligence, Indigenous futures and other areas of innovation as they arise. CDU's collaboration is an investment in Indigenous-partnered approaches to innovation and change related to Northern Australia's future.

Destination Australia: The University was successful in its Destination Australia funding application in which the Australian Government Department of Education, Skills and Employment awarded \$1,947,000 (over four years) to deliver 43 scholarships at Casuarina (29), Waterfront (6), Palmerston (4) and Alice Springs (4) campuses. Of the

43 scholarships, 26 were for domestic students and 17 for international students. The scholarship qualification types range from Certificate IV to PhD. The program aims to attract and support international and domestic students to study in regional Australia, to grow and develop regional Australian tertiary education providers and offer students a high-quality learning experience.

Exchanges: CDU welcomed inbound Semester 1 exchange students from Karlstad University, Sweden; Nagoya University of Foreign Studies, Japan; Hanze University of Technology, Netherlands; Northern Arizona University, USA; Anhui University, China; Bergen University Norway, Norwegian University of Life Science, Norway; and Cergy Pontoise, France.

New agreements with international partner universities were concluded to support student and staff exchange, research collaboration and potential joint degree initiatives with: University of Tilburg, The Netherlands; University of Tübingen, Germany; and University of Birmingham, UK.

VET Workforce Development Project

Vocational Education Teacher is a high-priority occupation on the NT Skilled Occupation Priority list, and is critical to servicing the large demand for vocational education in the NT. CDU, in partnership with the Northern Territory Government (NTG), undertook the VET Workforce Development project in 2018 and 2019 that involved:

- ▶ Improving the development and capabilities of the existing VET workforce across the NT, including the development of a community of practice and sharing professional development resources and opportunities with other NT-based professional bodies and Registered Training Organisations
 - ▶ Scoping three CRICOS registered Training and Assessment (TAE) qualifications to encourage new participation in NT education industry:
 - > TAE40116 Certificate IV Training and Assessment
 - > TAE50116 Diploma of Vocational Education and Training
 - > TAE50216 Diploma of Training Design and Development.
- Delivery of the three TAE qualifications will begin in 2020.

Community celebrations

Honouring Charles Darwin: Two events were held on 12 February to mark the 210th anniversary of CDU's namesake. The first was the Darwin Day celebration across campuses, which included a lecture by Paul Kirkbright, Deputy Provost of the University Centre Shrewsbury, Charles Darwin's birthplace. Mr Kirkbright presented the University with a gift from Shrewsbury School, which Darwin attended, of copies of excerpts of 13-year-old Darwin's school atlas, complete with his doodles. Darwin Day also featured a video of CDU's first student field intensive in 2018 to the Galapagos Islands, where Charles Darwin formed his early ideas about the theory of evolution.

The second event was the third annual Charles Darwin Black Tie Dinner, which was attended by 190 community members. The keynote speech was presented by Melbourne businesswoman, philanthropist and football identity, Susan Alberti AC. Proceeds from the event help to support CDU student scholarships.

Online bushfire simulation for rural area

CDU and Bushfires NT have developed an innovative way of making rural landholders more fire-conscious.

The team developed an online simulation that allows landholders to visualise the impact of fuel load, firebreaks and weather on the spread of fire.

Researcher with CDU's Research Institute for the Environment and Livelihoods, Rohan Fisher developed a 3D bushfire simulation tool designed to illustrate bushfire behaviour and the impact of various fire management and bushfire mitigation actions.

He has worked extensively with land managers across the Territory to help them better understand the characteristics of bushfires.

The team paid attention to illustrating the impact gamba grass can have on bushfire spread and behaviour, particularly the way gamba grass increases the ability of fires to jump fire breaks on windy days.

Art and culture

MECA collection: An exhibition of bark paintings and sculptures collected at Milingimbi in Arnhem Land in the 1970s was held in March. *Reinvigorating the MECA Collection* is a long-running documentation and conservation project in collaboration with CDU Yolngu Studies and the communities of Milingimbi and Ramingining, which follows the Milingimbi Makarrata in 2016 and the Makarrata Resolution to which CDU is a signatory.

Art of Bali: The CDU Art Gallery and Art Collection hosted the *Taksu: The Art of Bali* exhibition in October. For the first time in many years, visitors to the gallery had the opportunity to see the rich diversity of Balinese art in an exhibition, which profiled gifts to CDU by two of Australia's most prominent collectors of Balinese art, Michael Abbott AO QC and the late Christopher Hill.

Darwin Symphony Orchestra: An Evening with Kang Wang was held in the University Theatre in December in collaboration with the Darwin Symphony Orchestra. An alumnus of CDU, Kang Wang is one of the world's most sought-after young opera stars and has performed at New York's The Metropolitan Opera and Welsh National Opera.

Alumni

Alumni networking events were held in Adelaide, Melbourne and Sydney in June, in conjunction with the International College of Hotel Management. The NTG sponsored the events to promote its "Boundless Possible" campaign.

- ▶ CDU connected with 17,519 alumni in 2019, up from 7875 in 2018
- ▶ The number of connected alumni on the CDU Alumni LinkedIn page rose from 530 to 2365.



Kat Tuite shared her thesis topic and won the CDU Three-Minute Thesis competition.

Research probes how to keep tigers happy

PhD candidate Eileen "Kat" Tuite is investigating the techniques zookeepers use to enrich the lives of animals in their care.

Kat's research has involved 36 interviews with zookeepers from 15 accredited zoos around the world.

To date there has been little research undertaken into environmental enrichment practices in zoos globally from the perspective of zookeepers.

Kat's research is focused on tigers and the environmental enrichment approaches at various zoos.

Early results have identified that one of the key aspects of enrichment was the use of natural and unnatural sources of enrichment, which has become a hot topic among zookeepers and zoos.

Inspiring Year 10 students

High school students from across the Northern Territory and South Australia attended a three-day orientation in April as part of Charles Darwin University's ASPIRE program.

A total of 17 Year 10 students visited Casuarina campus for the event that introduced them to the possibilities open to them if they chose to pursue higher education.

The ASPIRE program is funded by the Australian Government's Higher Education Participation and Partnerships Program.

Study to improve Northern supply chains

CDU is part of a research team working to improve the efficiency of Northern Australia's agricultural supply chains and freight networks.

The new Cooperative Research Centre for Developing Northern Australia project looked to reframe the way goods are moved around the North and to Asian customers.

The "Reframing Northern Australia Supply Chains Study" is being undertaken by CDU's Northern Institute and James Cook University and will take a broad look at supply chains across Northern Australia, with the view to develop more efficient, effective, smart and agile models. The project will identify key policy and budgetary directions to support effective supply chains, identify potential partnerships for collaborative planning and implementation of supply chain initiatives and value-add to supply chain thinking and analysis.

Efficient supply chains are fundamental to the improvement of competitiveness, prosperity, productivity and sustainability of Northern Australia.

The final report is expected by mid-2020.

Major donations

The University continued to attract donations from individuals, industry, business and government, including:

- ▶ A Power and Water Corporation (PWC) Scholarship, in memory of former PWC employee Trevor Horman, was established to support two students in Engineering for up to four years. The scholarships were valued at \$20,000 each
- ▶ The Order of Australia Association Foundation pledged to support a student with a \$40,000 Scholarship over the next two years
- ▶ The Sabrina J. Di Lembo Memorial Scholarship, in memory of a CDU Law student, was awarded for the first time in April. It provides financial support to a Territorian, who understands the importance of promoting mental health and is keen to spread awareness about the effects of anxiety and depression
- ▶ A Territory Families Work Integrated Learning Scholarship was established, to support five new students a year, for five years. The total amount pledged was \$1.3 million
- ▶ Vocus Communications extended its support to \$20,000 to support four new students
- ▶ NT Department of Education renewed its support for the 2019 scholarships round, supporting six new students to a total value of \$90,000
- ▶ NEC IT Solutions Australia Pty Ltd pledged \$10,000 to fund a Regional Information Technology Scholarship and \$10,000 to fund an IT scholarship
- ▶ ConocoPhillips Australia renewed its \$75,000 pledge to the Emerging Needs fund.

Confucius Institute

In line with the Hanban / CDU agreement, the Confucius Institute (CI) continued to provide Chinese language courses over four levels for adults. The non-award courses were free-of-charge to CDU staff and students. Some 150 students enrolled in CI short courses that were open to the wider community. CI continued to provide Chinese language teachers in its affiliated Confucius classroom at Woodroffe Primary School and another six off-campus primary school teaching points with about 2000 students attending Chinese classes.

The CI held Chinese Proficiency Tests (HSK) in September and October and, with the Chinese Language Teachers' Association of the Northern Territory, held four workshops on Chinese language teaching and two workshops on teaching materials, and pedagogy of teaching.

Guest presentations: Vice-President of Hainan University Professor Fu Guohua delivered two lectures in Darwin on "81 theories of Management in Tao Te Ching / Taoism" and "Stratified Management". About 150 people attended the two events.

Cultural exchange: Some 40 cultural activities were held, including 11 "Chinese Corners"; 10 teaching salons; two guest lectures; Mid-Autumn Festival celebration; Chinese National Day celebration with CDU Chinese Students Association and Australia China Friendship Society; Chinese Embassy reception to celebrate the 70th anniversary of the People's Republic of China; Discover CDU day; and Confucius Institute Day. To mark Confucius Institute Day, CI teachers conducted cultural exchange activities on Bathurst Island where they learned about Australian Indigenous history and culture. This laid a foundation for future cultural exchanges.

Seven CDU students attended intensive Chinese courses at Anhui Normal University in Wuhu, Anhui Province of the People's Republic of China as part of an In-Country program organised by CDU.

Indonesia-Australia Pastoral Program

The Northern Territory Cattlemen's Association (NTCA) Indonesia-Australia Pastoral Program was initiated in 2012 between the NTCA, the Indonesian Society for Animal Science, and associated Indonesian universities. The program provides practical, hands-on learning to Indonesian students by engaging in the NT in a 10-week intensive pastoral training program, including on-station work placements. The program develops relationships between the Indonesian and North Australian beef cattle industries. This year's program, which was attended by 20 students, including the highest participation of female students to date, was held in Alice Springs.

Sponsorships

Darwin Symphony Orchestra: The University continued several strategically significant local sponsorships and engagement activities, including as Principal Sponsor of the Darwin Symphony Orchestra, an important cultural and creative community icon in the NT.

Darwin Festival: CDU continued its sponsorship of the Darwin Festival, an 18-day celebration of music, theatre, visual art, dance and cabaret that attracts interstate and international artists and visitors.

Garma Festival: CDU sponsored and sent a contingent of staff to the Garma Festival. Hosted and coordinated by the Yothu Yindi Foundation (YYF), Garma attracts political and business leaders from across the globe. YYF is committed to improving the state of Indigenous disadvantage by engaging business, political, academic and other leaders of society to shape global, regional and industry agendas.

Community awards and events: The University supported community events and organisations including the NT Young Achiever Awards, the NT Training Awards, the Centre for Youth and Community Music, the Nightcliff Seabreeze Festival and the NT Disability Services and Inclusion Awards.



The Hon. Paul Henderson AO.

New Chancellor inducted

The Council of Charles Darwin University appointed a former Chief Minister of the Northern Territory to the position of Chancellor.

The Hon. Paul Henderson AO began his three-year term as Chancellor after his induction in March.

Mr Henderson, who is CDU's fourth Chancellor, replaced Mr Neil Balnaves AO, who retired from the position in December 2018.

Mr Henderson was Chief Minister of the Northern Territory for almost five years and was a member of the NT Legislative Assembly for 13 years during which time his portfolios included Education and Training.

During his time as Chief Minister, Mr Henderson delivered the \$34 billion Ichthys LNG project for Darwin, which was the second largest investment in Australia's history.



Outstanding Professor Sam Banks is a project leader for teams examining wildlife genetics and migratory patterns, particularly in Northern Australia. In 2019 he led a team in Timor-Leste, sampling DNA as part of a project aimed at determining crocodile movement patterns.

A truly international university

Strong growth in international student commencements and enrolments at Charles Darwin University's (CDU) Northern Territory campuses was offset by declining enrolments at both the Sydney and Melbourne campuses with the latter entering teach-out mode in early 2019.

Some 717 new international students commenced in Higher Education (HE) programs in the Northern Territory (NT), which represented a 28% increase on total international student commencements in 2018. This was well ahead of the Australia-wide growth rate in commencements of 8%. When combined with the Sydney campus, CDU recorded an overall growth in enrolments of 9% in HE with a total of 1874 students enrolled.

Source countries

Students were attracted from 76 countries across all campuses. Newly established partnerships with top-ranked universities, senior executive presence at international education conferences, international research partnership and collaboration, increased presence at student recruitment expos, and participation in Territory and Australian government events internationally contributed to an increase in the number of source countries for international students.

Strong growth in enrolments was recorded from China, Vietnam, Sri Lanka, Indonesia, Taiwan ROC, and Malaysia. India and Nepal remained the top two nationalities, with China moving into third place.

CDU Global staff visited the following countries for recruitment activities: India, Nepal, Indonesia, Sri Lanka, Philippines, Vietnam, Thailand, Singapore, China, Hong Kong, Sweden (study abroad) and Germany (study abroad).

New agreements

The University signed new agreements with international institutions:

Country	Institution	Type of agreement
Germany	University of Tübingen	Memorandum of Understanding (MoU) and Student Exchange Agreement (SEA)
Japan	Kyoto University	SEA
Malaysia	De La Salle University	MoU
Netherlands	Tilburg University	MoU and SEA
Sweden	Umea University	MoU and SEA
Thailand	King Mongkut's Institute of Technology Ladkrabang (KMUTL)	Letter of Intent
UK	University of Birmingham	MoU and SEA
UK	University of Leeds	MoU and SEA

Funding support

CDU launched a comprehensive international student scholarship program to attract talented students. This was complemented by the StudyNT International Student Scholarship program, a co-funded project partnership between the University and StudyNT. CDU awarded 117 scholarships to international students including seven StudyNT / CDU International Student Scholarships.

CISA conference: CDU, in collaboration with StudyNT, co-funded three international students to attend the annual Council of International Students Australia (CISA) Conference in Perth and represent the interests of students in the NT. CISA is the national peak student representative organisation for international students studying at the postgraduate, undergraduate, private college, TAFE, ELICOS and foundation level.

Student wellbeing

CDU collaborated with the Northern Territory Government (NTG) via StudyNT to deliver two international student wellbeing programs. CDU was awarded a total of \$8500 to pilot these programs, with the most successful programs extended into the 2020 international student wellbeing program.

Health cover: The University executed an agreement with Allianz for the provision of Overseas Student Health Cover to international students. Allianz is a market leader in the provision of comprehensive health insurance services for international students and collaborates closely with CDU to develop and implement a range of student programs including health and wellbeing webinars and workshops, stress and mental health management strategies, and health and nutrition information sessions.

Two-way mobility

Realignment of exchange programs:

The University deepened relationships with existing key exchange partners across Asia, Europe and the USA through a review and realignment of exchange programs with partners' mutual research and teaching strengths. This has guaranteed the delivery of exchange programs that better support student academic progression and provides students with the opportunity to build an international network and global mindset in line with their career aspirations through their study.

This realignment has resulted in more than 85 students taking part in a learning abroad experience including semester-long exchanges, in-country language study tours, international practicums and placements across Indonesia, China, Sweden, United States of America, Hong Kong (SAR), Cambodia, Greece, Philippines, United Kingdom, Norway and Canada.



Hong Kong exchange students spent two days with the NT St John Ambulance Service.

HK nursing students in Top End

Four Hong Kong students gained unique insight to nursing in the Top End during a four-week exchange between CDU's College of Nursing and Midwifery and The Hong Kong Polytechnic University (HKPU).

The purpose of the exchange program was to maximise contact between NT and Hong Kong students and enhance their global outlook and cultural sensitivity.

The students visited Darwin Private Hospital, Royal Darwin Hospital, Palmerston Regional Hospital, Juninga Centre, St John Ambulance Service, CareFlight and CDU's Simulation Labs.

After visiting the Juninga Centre and spending two days with St John Ambulance Service, the students said they believed that health care workers and researchers needed to combine health messages with Indigenous cultures and language so that Western medicine could be better understood among Indigenous communities. They said the Juninga Centre, which has been adapted to Indigenous culture, was a great example of culturally appropriate care.

The College student exchange agreement with HKPU facilitates long-term collaboration in teaching and learning within the Nursing discipline.

Partner universities: CDU welcomed more than 30 exchange students from partner universities across the Americas, Europe and Asia. Efforts were focused on enhancing international student integration into the University and the NT, through welcome events and networking activities.

New partnerships: The University developed new mobility partnerships with some of the best ranked universities in the world, including University of Leeds, University of Liverpool, University of Birmingham, University of Tübingen, University of Tilburg and Kyoto University.

In conjunction with these partners, CDU explored opportunities to further develop innovative program delivery modes, including virtual mobility and work-integrated learning, to create global learning opportunities that are inclusive and flexible to suit a larger cohort of the CDU student population.

New Colombo Plan: CDU received New Colombo Plan Short-Term Mobility funding totalling \$262,950 to send 74 students to programs in the Asia Pacific.

Two students received the prestigious New Colombo Plan Scholarships to fund

a 12-month study and internship program in Philippines and Hong Kong. Scholarships were presented to Sidney Goram-Aitken (Bachelor of Laws and travelling to Malaysia for the program) and Zarah Ramoso (Bachelor of Laws and travelling to Indonesia).



Building bridges: Central University of Punjab Vice-Chancellor Professor R.K. Kohli welcomes NT farmer Greg Owens (right) and CDU Research Fellow Dr Kamaljit Sangha (centre).

NT farmers share sustainability knowledge in India

A \$66,000 Department of Foreign Affairs and Trade grant, funded through the Australia-India Council, has helped deliver the first stage in a CDU-led sustainable farming knowledge exchange between NT agriculturalists and farmers in the Punjab.

In December Research Institute for the Environment and Livelihoods research fellow Dr Kamaljit Sangha led a group of eight NT farmers on a tour of the sub-continent's Punjab agricultural region, which also included a workshop at one of the region's higher education institutes.

The 10-day research trip took in a wide range of sustainable organic practices developed by the region's "zero-input" farmers.

Zero-input farming techniques in the Punjab region grew out of a mounting dissatisfaction among a relatively small group of farmers after the 1960s Green Revolution, which has led to widespread mechanised agriculture for the past few decades to meet India's food demand for wheat and rice.

The Punjabi farmers' organic farming practices increased soil organic matter and improved water use efficiency.

IRU Leaders Forum

CDU hosted the Innovative Research Universities (IRU) annual Senior Leaders Forum in Darwin in July. The forum, which included 70 IRU member universities' executive staff, focused on international education challenges and opportunities. A welcome reception was held on the Speaker's Green at Parliament House, where the NT Assistant Minister for Education and the Chancellor welcomed participants.

International marketing

Work was undertaken to enhance digital marketing activities internationally including redeveloping the International website, launching social media campaigns, launching conversion webinars, and refreshing CDU's WeChat and Weibo accounts. The University developed a suite of new publications to promote inbound short-term and semester-long Study Abroad and Exchange programs.

Change

A change management process to restructure what was the Office of International Services into CDU Global was completed early in the year. CDU Global is now a contemporary international office providing leadership in all forms of the University's international engagement. The Challenging Global Conventions: Strategic Plan – CDU Global 2015 – 2025 was released.

SSVF: The University's Streamlined Student Visa Framework (SSVF) evidentiary level experienced significant improvement.

Fees: International student tuition fees were reviewed in line with sector benchmarks.

CDU International College:

A Third-Party partnership was established with UP Education to create the CDU International Pathways College to be based at the Waterfront campus in Darwin. This partnership will drive international student numbers through the identification of new markets. It will deliver a suite of pathway programs including foundation, diploma and masters qualifying courses. The creation of the Learning and Teaching Committee in collaboration with UP Education will ensure the continuous development of curricula to meet market demands and support the growth and diversification of CDU's student body.

Collaboration

Building capacity: A scoping study was completed of five universities in Eastern Indonesia where CDU could assist in building the capacity of universities in the region to improve teaching and research output. Outcomes are expected to include staff from universities in Indonesia enrolling at CDU to undertake PhDs.

South America: Discussions were undertaken in Chile, Peru, and Colombia to identify opportunities for collaborative research, particularly in areas of first peoples, and disaster management.



Dr Clint Cameron is gathering evidence to support the benefits of mangrove habitat regeneration.

Restoring mangroves 'makes good business sense'

Compelling new evidence has emerged that supports the idea of using carbon forest markets to finance the restoration of abandoned fish ponds back to mangrove habitats.

Environmental researcher Dr Clint Cameron from CDU's Research Institute for the Environment and Livelihoods undertook extensive field work at sites in Tiwoho (North Sulawesi) and Tanakeke Island (South Sulawesi) Indonesia for his PhD thesis.

The research found that reducing baseline greenhouse gas (GHGs) emissions from dry fish ponds and then removing carbon from the atmosphere as mangroves regrew at Tiwoho was three times more effective in mitigating GHGs than other ecosystems such as tropical rainforests, particularly when Ecological Mangrove Rehabilitation techniques were applied.

The findings strengthened the business case for market-based interventions.

The evidence indicated that investment in mangrove rehabilitation could deliver three times the GHG emissions mitigation returns compared with other habitats. Framing results in economic terms might appeal to corporations seeking to offset carbon emissions and meet the environmental and social expectations of shareholders.

While Indonesia still retained the most important and extensive mangrove estate in the world, about half had been destroyed principally through conversion to aqua ponds, which cover an estimated 1.2 million hectares.



Dr Stefanie Oberprieler has discovered hundreds of insects in Northern Australia that are new to science, prompting her call for insects to be included in wildlife surveys undertaken for conservation planning.

A successful research-intensive university

This was a year of leadership change in Charles Darwin University's (CDU) research portfolio. Professor Bogdan Dlugogorski joined the University as the Deputy Vice-Chancellor and Vice-President, Research and Innovation, and Dr Steve Rogers was appointed as the Director of Research. Increased emphasis is expected to be placed on collaboration and collegiality in coming years and the University's research leadership will explore opportunities and schemes to foster cross-disciplinary collaboration within the University and with external stakeholders.

The Outstanding Future Researcher Program was launched to recruit outstanding early- and mid-career researchers to areas of established or emerging research strengths, which were competitively identified as Indigenous Education Futures, Nursing and Midwifery, Northern Water Futures, Ecological Economics, Bioinformatics (Infectious Diseases), Child Development and Wellbeing, and Disaster Risk Reduction.

Excellence in research

The Australian Research Council's (ARC) Excellence in Research Australia 2018 (ERA 2018) results confirmed that more than 80% of CDU's research is rated at or above world standards. Its companion exercise, the Engagement and Impact 2018 (EI 2018) indicated that 100% of CDU's research assessed by government has medium-to-high positive impact for the wider community. It also shows 100% of CDU's research assessed by government has medium and high engagement with end users. Only one other university in Australia achieved this result.

Research rated world-class

The Excellence in Research Assessment (ERA) of nine fields of research conducted by CDU found they were performing at world standard or above.

The ERA evaluation is conducted by the Australian Research Council and compares Australia's university research efforts against international benchmarks, creating incentives to improve the quality of research and identify emerging research areas and opportunities for further development.

CDU's work in the areas of Medical and Health Sciences, Clinical Sciences, Environmental Science and Management, and Ecology were identified as performing well above world standard.

The University's work in Environmental Sciences, Ecological Applications, Biological Sciences, Zoology, Agricultural and Veterinary Sciences, Medical Microbiology, Paediatrics and Reproductive Medicine, Public Health and Health Services and Information and Computing Sciences were performing above world standard.

Its research effort in Policy and Administration was identified at world standard.

Grant applications

CDU almost doubled its number of grant applications in 2019 compared to the previous year with enhanced support mechanisms put in place by the research portfolio. More than 290 (\$42.6M) grant applications were submitted compared with 154 (\$37.9M) in 2018, with the success rate of grants increasing from 51% to 61%. Total value of successful research grants nearly tripled in value, increasing from \$5.4M in 2018 to \$14.3M in 2019.

The Research and Innovation portfolio's flagship Rainmaker scheme was renewed after successes in 2017 and 2018. This includes eligibility-based start-up funds along with broader support for pilot data collection and large-scale bid development to attract competitive external funding along with application support and leverage funding.

Research governance

The University's research governance framework consisted of the following committees that worked towards fostering better research collaboration and a spirit of research excellence, collegiality and enterprise:

- ▶ Board of Graduate Studies, chaired by the Dean of Graduate Studies, oversees the quality assurance of all matters relating to postgraduate award courses and research training
- ▶ Enterprise and Research Group, chaired by the Deputy Vice-Chancellor and Vice-President, Research and Innovation, which is set to design strategy, activity and policy for University-wide enterprise and research including the harmonisation of enterprise and research quality across the Colleges, Menzies School of Health Research (Menzies) and Vocational Education and Training (VET)
- ▶ Animal and Human Ethics Committees.



Native rice project leaders Dr Sean Bellairs and Dr Penny Wurm.

Native rice on the menu for CDU researchers

CDU was successful in its bid – as part of a consortium with five other universities – for \$35 million in national funding to develop Darwin and other regional centres as major agri-food hubs.

The Australian Government agreed to fund the Future Food Systems Cooperative Research Centre (CRC), which was expected to include a \$1.8 million project for CDU to develop commercially viable native rice as an agri-business.

CDU Research Institute for the Environment and Livelihoods (RIEL) researchers Dr Sean Bellairs and Dr Penny Wurm said the expected value of the CDU native rice project would be more than \$200,000 in funding a year for the next decade.

The Darwin area could potentially be a major producer of a range of native rice. RIEL will undertake further research on how to protect the rice while propagating it in the wetlands.

The project aimed to produce the rice on land near Fogg Dam owned by Pudukul Aboriginal Cultural Tours, a long-term partner with CDU researchers.

Research support

The University created a full-time position, Director of Research and Innovation, as a demonstration of its commitment to supporting research excellence. Support and engagement continued throughout the CDU research community, with regular meetings involving College staff, intensive one-on-one support of College Deans and/or their nominated delegates to nurture and provide support for research excellence in all areas. Improvements were made to the regular research activity reporting framework informing strategic decision-making.

OASIC

The Open Access Support for Increased Citations (OASIC) scheme was launched to assist CDU researchers with the payment of open-access fees for research articles published in Q1 journals to increase citation records, which may impact the University's ranking, especially in *Times Higher Education*. The scheme was initiated to send a powerful signal that research at CDU is about achieving excellent quality outcomes.

Partnerships

Darwin City Deal: Research portfolio staff continued to work with University researchers and senior management to develop ways to leverage research opportunities arising from the Darwin City Deal and the City of Darwin's "Switching on Darwin" (#SmartDarwin) initiatives. These alliances include joint research projects, Higher Degree by Research (HDR) student internships and scholarships.

NTG Partnership Agreement:

There was continued engagement and exploration of opportunities in alignment with the CDU-Northern Territory Government (NTG) partnership agreement, in which new ways of working with NTG departments and agencies were scoped to share costs and planning for sustainable long-term collaboration.

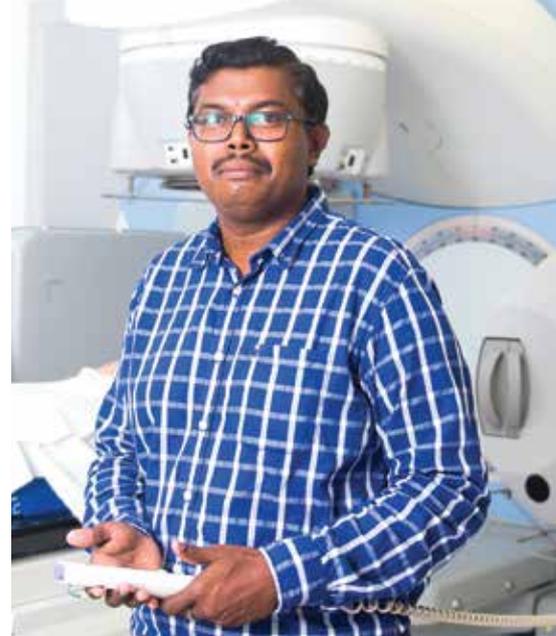
Fourth research institute: Scoping and discussions on the establishment of a fourth research institute were progressed with the appointment of the Director for the proposed Energy and Resources Institute (ERI) which broadly covers all aspects of energy and resources including engineering, scientific, economic, environmental, social, community, legal, policy and digital considerations. The scope of ERI will cover:

- ▶ Fossil-based and renewable energy
- ▶ Mineral resources
- ▶ Digitisation of energy and resources (overlap with Research Institute for Digital Enterprise)
- ▶ Energy materials
- ▶ Process safety, including fire and explosion safety
- ▶ Corrosion engineering in the energy and resources sector
- ▶ Environment protection and social mandate to operate.

Engagement

Innovative CDU research was showcased through events and activities in 2019, including:

- ▶ **CDU Innov8** was held as part of October Business Month's Innovation Week and involved researchers presenting on topics ranging from work on "smart solutions" to construction waste management, and advances in DNA technology
- ▶ **Three Minute Thesis** showcased the wide range of research themes pursued by PhD candidates. Winner Eileen Tuite, whose topic was "Letting the BIG cat out of the bag", represented CDU at the Asia-Pacific semi-final in Brisbane in October
- ▶ **Visualise Your Thesis** competition showcased research and developed digital communication skills of participants as they created audio-visual presentations. CDU was represented at the national competition by Faisal Badar with "Synthesis of Digital Education at Home for Underprivileged Children in Pakistan"
- ▶ **HDR Futures Conference** involved 80 HDR students explaining their research to an audience of academics and industry partners
- ▶ **The Fresh Science** program's Melbourne session included Rebecca Rogers and Cara Penton, who represented CDU. This national competition helps early-career researchers to find and share their stories of discovery
- ▶ **The Australian Pure User Group Conference**, hosted by the Research and Innovation portfolio, welcomed more than 50 onsite participants with other colleagues attending online, representing more than 10 institutions including those from New Zealand, Indonesia, Go8 universities and representatives of Elsevier's Pure team from Europe and Singapore



Senior Clinical Researcher Dr Rama Jayaraj.

Scientist forges ahead with cancer research

A senior clinical scientist continued research that aims to advance understanding of genetic biomarkers and their predictive qualities in cancer treatment.

The College of Health and Human Sciences' Dr Rama Jayaraj found that specific micro ribonucleic acid (miRNA) molecules provided valuable information in the early detection of cancer, forecasting an outcome and the likely effects of therapy.

The molecular oncology research team has developed a database of effective and potential miRNA biomarkers to assist in the diagnosis, prognosis and theragnosis (the combination of diagnosis and therapeutics) of cancer cases.

Dr Jayaraj also co-authored two articles in the *Molecular Diagnosis & Therapy* journal this year.

The first article reviewed the prognostic significance of miRNAs in melanoma patients, and the second discussed the potential of particular miRNAs to serve as indicators of the efficacy of chemotherapy among colorectal patients.

Making a real-world difference

Two independent assessments of the impact of CDU research and teaching found it was making a major contribution to the economy, society, environment and culture.

The Australian Research Council's (ARC) Engagement and Impact Assessment of university research in Australia and the Times Higher Education (THE) University Impact Rankings both sought to capture universities' impact on society.

Under the ARC's assessment, all CDU's assessed research case-studies were rated as having medium-to-high positive impact for the wider community and medium-to-high engagement with end-users.

Only one other university in Australia achieved such a result.

Research in the areas of Environmental Sciences, Biological Sciences, Medical and Health Sciences, Education and Studies in Human Society were assessed.

CDU works closely with stakeholders to ensure its research has real-world impact and gives policy-makers, industry and the wider community the facts and evidence to inform decisions and debate.

The two CDU case studies that achieved high impact were the Menzies School of Health Research's work with the Asian Pacific Malaria Elimination Network, and the development of better land management systems for Northern Australia by CDU Environmental Sciences researchers.

- ▶ **The Australasian RISC Centre** is a research and consultancy team of top minds from CDU, industry, government and the community working to develop evidence-based strategies for building more resilient communities. Findings by this team will be used to design tailored intervention strategies, which could be used by various industries including the Australian Defence Forces. RISC is uniquely placed to focus on the everyday lives of individuals and communities that may be affected by disasters such as tsunamis, cyclones, storm surge, infectious diseases and pandemics or poverty and disadvantage
- ▶ **Research Institute for the Environment and Livelihoods** (RIEL) researchers presented their examination of savannah ecosystems in Northern Australia at the 15th Annual Savanna Science Networking Meeting at Skukuza in Kruger National Park, South Africa in March. Presentations included impacts of feral cats on North Australian mammals; how fire mediates competitive interactions in savanna trees; resilience to fire and resilience to grazing in savanna ant communities; and long-range terrestrial laser scanning for scale vegetation monitoring
- ▶ **Menzies School of Health Research** Director Professor Alan Cass travelled to Dili to sign an MoU with the Timorese Ministries of Agriculture and Health for the Fleming Fund country grant project for One Health Antimicrobial Resistance
- ▶ **RIEL** scientists Professor John Woinarski, Dr Carla Eisenberg and Dr Peter Kyne were among the world's leading experts on biodiversity conservation gathered in Abu Dhabi (United Arab Emirates) in October, attending the International Union for Conservation of Nature Species Survival Commission Leaders Forum
- ▶ **Menzies** scientist Dr Kamala Ley-Thriemer was awarded a CSL Centenary Fellowship to develop and optimise treatment programs against vivax malaria in South-east Asia and the Horn of Africa. The Fellowship will allow Dr Ley-Thriemer to generate country-specific roadmaps to guide public health programs
- ▶ **Northern Institute** Research Fellow Dr Deepika Mathur, in collaboration with partners in India, won a grant from the Australia-India Council to conduct collaborative workshops in India and Australia on construction waste reduction.

Research ethics

Various measures were adopted to strengthen research integrity, ethics and governance including the appointment of research integrity advisors, a Research Integrity Module, Defence export controls and autonomous sanction training provided by the Australian Government Export Controls Office, Animal Ethics Committee external review, and Targeted Human Research Ethics Workshops undertaken with Colleges.

The Research Integrity and Ethics team engaged with the Animal Welfare Authority and regulators about changes to Animal Welfare Legislation and associated compliance requirements.

The Animal Ethics Independent review panel visited Casuarina campus, attended an Animal Ethics Committee (AEC) meeting, toured several sites in Darwin and Katherine as part of an independent review of the animal ethics-related processes. The external panel members noted the unique environment in which the CDU AEC operates (being the only AEC located within the Northern Territory), bringing with it both opportunities as well as challenges.

Evaluating social accountability

In addition to being chosen as a Fellow of the Australian Evaluation Society, Dr Gillian Westthorp from the Northern Institute was invited to deliver keynote speeches at Machakos University International Conference in Kenya and the third international meeting of the World Health Organisation Community of Practice on Measuring Social Accountability and Health, held in Geneva. She was also invited to deliver a series of webinars in Indonesia by the World Bank Platform on Social Accountability and to advise on the evaluation framework for its Prevention of Stunting Strategy.

Selection of key research grants:

- ▶ \$564,000 for the Blue Forests Indonesia Project to improve mangrove, fisheries, livelihoods and community health in two landscapes in Indonesia, funded in partnership by Blue Forests, Makassar, Indonesia and Blue Ventures, a UK-based non-profit, non-governmental organisation
- ▶ \$160,000 for a baseline pilot study led by Professor Jenny Davis of the College of Engineering, IT and Environment (CEITE) on the stygofauna and microbial assemblages of the subterranean groundwater-dependent ecosystems of the Beetaloo sub-Basin and Roper River system – a critical knowledge gap identified by the Final Report of the Scientific Inquiry into Hydraulic Fracturing in the Northern Territory. Funded by the Commonwealth Scientific and Industrial Research Organisation
- ▶ \$1.8M Demographic Research Grant from the Northern Territory Department of Treasury and Finance, led by Dr Andrew Taylor, College of Indigenous Futures, Arts and Society (CIFAS)



David Murtagh and Marianne St Clair say telehealth services are a game-changer for regional and remote communities.

Telehealth a game-changer in the bush

Research by CDU and an Arnhem Land community health service has identified huge benefits from the recent implementation of high-quality internet and telehealth in the Laynhapuy Homelands.

The research was published in the *Medical Journal of Australia* and was a collaboration between CDU and Laynhapuy Aboriginal Community Controlled Health Services (LHS). Other project partners were Aboriginal Medical Services Alliance NT, LHS, local ICT company eMerge, Telstra Health and the Broadband for the Bush Alliance.

The Regional Economic Infrastructure Fund provided about \$400,000 to establish high-quality satellite internet services in three very remote communities, implement telehealth and demonstrate its benefits.

These communities are about 750 km east of Darwin and 200 km south of Nhulunbuy, the nearest major regional centre. Each is home to about 100 people and serviced by unsealed roads that are often impassable in the wet season.

Northern Institute research fellow Marianne St Clair found the reliable internet connection and telehealth video-conferencing systems in the communities proved to be a game-changer in remote Aboriginal health service delivery.

Before the implementation of video-conferencing for telehealth these communities relied on the phone to contact their GP and had to travel to Nhulunbuy or Darwin to see specialists.

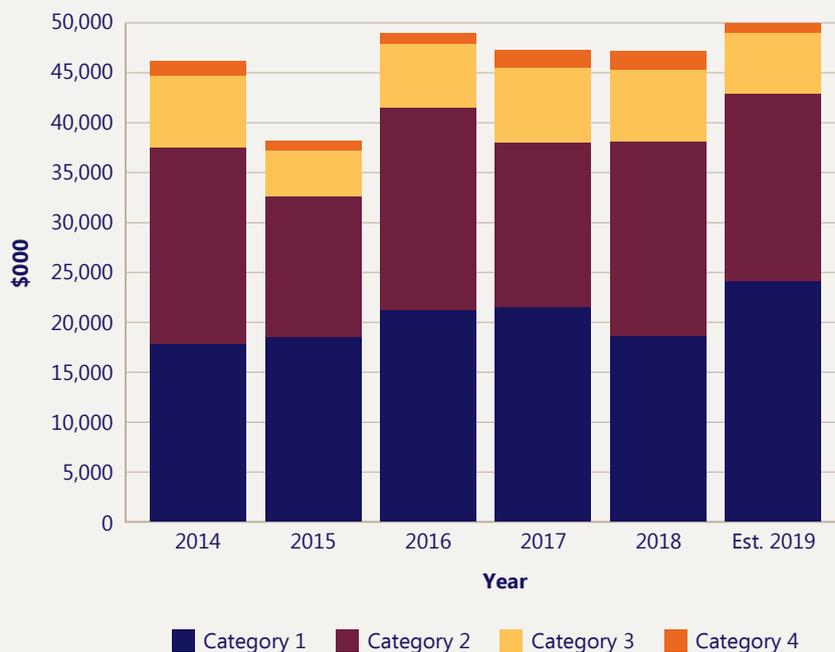
The research found telehealth allowed more accurate decisions to be made about medical evacuations and acute care retrievals as the clinician can “virtually” examine the patient. Implementation of telehealth has provided access to a wider range of specialist services. Technology also had the capacity to build skills at the community health level.

The paper was jointly authored by Northern Institute research fellow David Murtagh.

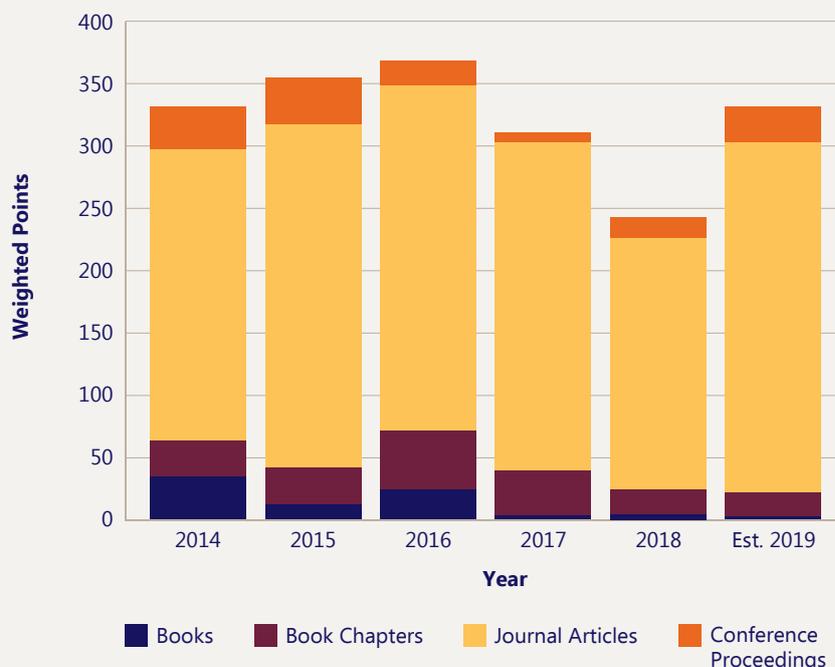
- ▶ \$100,000 for Local Decision-Making Monitoring and Evaluation Framework for the NT Department of the Chief Minister by Professor Ruth Wallace of CIFAS
 - ▶ \$398,000 for CSIRO-CDU Collaboration on Responsible Innovation led by Professor Ruth Wallace of CIFAS
 - ▶ CDU won several grants and awards from Department of Trade, Business and Innovation, including:
 - > \$176,000 for Creative Careers in Central Australia – Phase 2 led by Dr Judith Lovell of CIFAS to develop a traineeship program in Alice Springs for delivery of VET Certificate II Creative Industries or Aboriginal Visual Arts Package
 - > \$212,000 led by Professor Ruth Wallace of CIFAS for various projects including CDU Innovator in Residence (Aboriginal STEM), Female and Aboriginal participation in STEM and Student Mobility Bursaries
 - > \$160,000 for Dr Rebecca Murray of CEITE for various projects including CDU Innovator in Residence, Makerfactory, 3D Metal Printing. Professor Suresh Thennadil of CEITE was also nominated as a CDU Innovator in Residence
 - ▶ \$164,545 from Baker and McKenzie Law for Development Initiative Pty Ltd for project Exporting Traditional Fire Management Technology to Botswana – Cameron Yates, Research Institute for the Environment and Livelihoods
 - ▶ Minister for Defence Industry, the Hon. Melissa Price MP announced that the Australian Government will invest \$1.5M in the two-year Supersonic Deposition 3D printer pilot by CDU's Advanced Manufacturing Alliance (AMA)
 - ▶ Two designs by the AMA passed Milspec (military specification)
 - ▶ Working closely with the Australian Navy, a fully custom Camlock fitting and a replica Camlock fitting was 3D printed by the AMA and field-tested on-board HMAS Broome
 - ▶ \$160,000 from Australian Institute for Disaster Resilience for project Emergency Management Training of Indigenous Rangers – Associate Professor Akhilesh Surjan of CIFAS
 - ▶ \$450,000 from Fisheries Research and Development Corporation for project Drivers of productivity and recruitment in a coastal reef fishery – Associate Professor David Crook, Research Institute for Environment and Livelihoods
 - ▶ \$100,000 from Powerlink Queensland for project Investigation into early corrosion of heavy members in electricity transmission towers – Associate Professor Kannoorpatti Krishnan of CEITE
 - ▶ \$877,076 from the National Health and Medical Research Council (NHMRC) for project Building on our Strengths (BOOST): Developing and Evaluating Birthing on Country Primary Maternity Units – Professor Sue Kildea, College of Nursing and Midwifery (CNM)
 - ▶ \$100,000 from the Australian Tax Office for project National Tax Clinic Trial – Professor Indra Abeysekera, Asia Pacific College of Business and Law
 - ▶ \$217,000 for the Evaluation of the Family Wellbeing Services project delivered by the Institute of Urban Indigenous Health and member organisations. The evaluation will be led by Professor Sue Kildea of CNM
 - ▶ A CDU team led by Dr Sean Bellairs won a contract to continue the collaborative research project with Energy Resources Australia (ERA) on seed biology research into seed quality and the use of resulting findings to relate seed biology data to establishment success
 - ▶ A Menzies School of Health Research (Menzies) team led by Professor Gail Garvey was successful in a Queensland Government tender to develop a Queensland Aboriginal and Torres Strait Islander Cancer Plan
 - ▶ Professor Tricia Nagel of Menzies won a project with the Northern Territory Primary Health Network on Positive Mental Health and Suicide Prevention Social Media Campaign
 - ▶ Josie Povey of Menzies received an Innovation Research Grant from Suicide Prevention Australia for the AIMhi-Y feasibility study, which will determine the viability of a larger scale clinical trial testing the effectiveness of the AIMhi-Y app in improving wellbeing for youths aged 12-18 years attending multiple regional headspace centres
 - ▶ Associate Professor Heidi Smith-Vaughan, Mark Mayo, Dr Kalinda Griffith and Dr Robyn Marsh of Menzies received the biennial Ramaciotti Biomedical Research Award, valued at \$1M for their proposal to develop the Ramaciotti Centre in Regional and Remote Capacity Building in Biomedical Science, which aims to create pathways for Aboriginal and Torres Strait Islander youth and developing a biomedical workforce for regional / remote Australia.
- Menzies was awarded more than \$15M in NHMRC grants, with 44% of Menzies' applications being successful, compared with a national average success rate of 13%:**
- ▶ \$1,978,152 Investigator Grant – Leadership 2, Professor Gail Garvey, Wellbeing and Preventable Chronic Diseases Division (WPCD), Reducing the Cancer Burden for Indigenous Australians
 - ▶ \$1,229,725 Investigator Grant – Emerging Leadership 2, Associate Professor Jaqui Hughes, WPCD, Yes, We Will, Implementing Indigenous-led Aboriginal and Torres Strait Islander Kidney Health in Northern and Central Australia

- ▶ \$2,500,000 Centre of Research Excellence – Professor Anne Chang, Child Health Division (CHD), Centre of Research Excellence in preventing and managing bronchiectasis, especially in Aboriginal and Torres Strait Islander Children
- ▶ \$1,599,228 Clinical Trial and Cohort Study – Dr Kamala Thriemer, Global and Tropical Health Division, Effectiveness of novel approaches to radical cure of vivax malaria
- ▶ \$2,212,847 Clinical Trial and Cohort Study – Professor Peter Morris, CH, Deadly Ears at Discharge, A hospital-based randomised controlled trial of an additional ear and hearing assessment to inform discharge planning by a trained Aboriginal Ear Health Worker in Aboriginal children with chronic ear infection
- ▶ \$3,942,069 Clinical Trial and Cohort Study – Associate Professor Jaqui Hughes, WPCD, Progression of Chronic Kidney Disease in Aboriginal and Torres Strait Islander Adults: the eGFR3 Cohort Study
- ▶ \$873,165 Ideas Grant – Dr Robyn Marsh, CH, Novel diagnostic tools for management of chronic wet cough in children
- ▶ \$653,377 Ideas Grant – Dr Matt Grigg, GTH, Parasite and human genetic risk factors for emerging *Plasmodium knowlesi* (Pk) malaria.

HERDC Research income 2014–2019



Research outputs 2014–2019





Summary of financial information

Financial Performance

The University's net result from continuing operations was \$8.8M in deficit in 2019. This reflects a reduced level of deficit compared with the previous year (\$21M). Revenue increased by 5% from last year due to an increase in Higher Education student enrolments and additional assistance from the Northern Territory Government. Expenditure remained relatively unchanged and is a result of the tightening of the expenditure budget. The University will continue to invest in growth strategies in 2020 as well as structural changes to bring down costs and ensuring longer-term sustainability.

Financial Position

The University's net assets at the end of 2019 overall remained relatively stable compared with last year. Material movements in assets relate to the value of share investments held by CDU classified as "other financial assets". Total liabilities increased by \$5M due to the implementation of the new leasing standard, which saw a liability and asset recognised for the right of use assets, this was a new accounting standard implemented in 2019 so there is no comparative balance.

The 2019 operating activities generated a net cash surplus of \$15M for the year as a result of improved revenue and a reduction in payments to suppliers and employees. This was offset by necessary minor capital works throughout the University as well as cash support provided to the Cairns Language Centre Pty Ltd and the repayment of a loan for capital development from the Northern Territory Government during the year.

Future Direction

The University is committed to transforming the way it operates under tough economic conditions. It will continue with structural changes that began in 2019, maintaining the focus on excellent student experience, streamlining business processes, and reducing costs. The growth in international students is expected to continue in 2020 with increasing efforts towards growing VET International and non-government revenue.

Strategic investments are being made in Research to improve CDU's international reputation. The investment is designed to boost strategically the enrolments and future timely completion of PhD candidates at CDU, as well as to grow excellence and quality of the research outputs published by the students.

Since the announcement of the Darwin City Deal in November 2018, CDU has been working on planning and securing the finances required to develop the City campus. The City campus is a \$250M multi-year project with multiple stakeholders, and once delivered will ensure that the University has a modern and world-class education facility that will attract both domestic and international students to study with CDU. The project also will deliver economic benefits and inject vitality into the Darwin CBD.

CHARLES DARWIN UNIVERSITY AND ITS CONTROLLED ENTITIES

Income statement

For the year ended 31 December 2019

	Group		Parent Entity	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
Income from continuing operations				
Australian Government financial assistance				
Australian Government grants:	109,099	106,548	88,294	87,536
HELP - Australian Government payments	28,998	24,710	28,998	24,710
NT Government financial assistance	76,171	65,662	66,879	59,336
HECS - HELP student payments	7,075	5,153	7,074	5,153
Fees and charges	54,827	52,734	46,172	44,992
Consultancy and contracts	22,117	20,419	14,252	15,097
Other revenue	19,813	21,158	16,927	18,349
Investment revenue	3,099	4,525	2,377	3,417
Gains on disposal of assets	101	96	96	30
Share of (loss) or profit on investments accounted for using the equity method	(220)	44	(220)	44
Total income from continuing operations	321,080	301,049	270,849	258,664
Expenses from continuing operations				
Employee-related expenses	196,589	191,828	162,732	161,317
Depreciation and amortisation	17,727	17,903	16,259	14,710
Repairs and maintenance	6,098	7,319	6,982	6,966
Impairment of assets	956	712	2,611	4,304
Other expenses	105,414	102,422	91,027	92,748
Total expenses from continuing operations	326,784	320,184	279,611	280,045
Net result before income tax	(5,704)	(19,135)	(8,762)	(21,381)
Income tax expense	-	(12)	-	-
Net result after income tax for the period	(5,704)	(19,147)	(8,762)	(21,381)
Net result from continuing operations	(5,704)	(19,147)	(8,762)	(21,381)

The above Income Statement should be read in conjunction with the 2019 Financial Statements.

CHARLES DARWIN UNIVERSITY AND ITS CONTROLLED ENTITIES

Statement of comprehensive income

For the year ended 31 December 2019

	Group		Parent Entity	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
Net result after income tax for the period	(5,704)	(19,147)	(8,762)	(21,381)
<u>Items that will not be reclassified to profit or loss</u>				
Gain on value of available for sale financial assets	16,996	7,056	16,951	7,089
Other	(21)	-	-	-
Decrease on revaluation on property, plant & equipment	(4,346)	-	(4,346)	-
Total other comprehensive income	12,629	7,056	12,605	7,089
Total comprehensive income	6,925	(12,091)	3,843	(14,292)
Total comprehensive income/ (loss) from continuing operations	6,925	(12,091)	3,843	(14,292)

The above Statement of Comprehensive Income should be read in conjunction with the 2019 Financial Statements.

CHARLES DARWIN UNIVERSITY AND ITS CONTROLLED ENTITIES

Statement of financial position

For the year ended 31 December 2019

	Group		Parent Entity	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
ASSETS				
Current assets				
Cash and cash equivalents	92,527	83,097	72,027	71,513
Receivables	7,930	7,633	3,092	3,525
Inventories	480	604	480	604
Other financial assets	5,141	8,491	5,147	8,538
Assets classified as held for sale	80	407	80	407
Other assets	7,350	6,261	6,846	6,028
Total current assets	113,508	106,493	87,672	90,615
Non-current assets				
Biological assets	859	1,238	859	1,238
Investment property	210	305	-	-
Investments accounted for using the equity method	984	1,205	984	1,205
Other financial assets	40,165	23,190	39,869	22,918
Property, plant and equipment	465,823	471,575	463,188	470,347
Intangible assets	492	27,330	-	128
Total non-current assets	508,533	524,843	504,900	495,836
Total assets	622,041	631,336	592,572	586,451
LIABILITIES				
Current liabilities				
Trade and other payables	11,910	8,682	9,810	7,183
Lease liability	2,365	-	1,692	-
Borrowings	400	1,400	-	1,000
Provisions	26,386	27,724	21,003	22,745
Other liabilities	18,190	12,803	41,598	41,984
Total current liabilities	59,251	50,609	74,103	72,912
Non-current liabilities				
Provisions	5,950	6,212	5,581	5,760
Lease liability	5,165	-	4,384	-
Total non-current liabilities	11,115	6,212	9,965	5,760
Total liabilities	70,366	56,821	84,068	78,672
Net assets	551,675	574,515	508,504	507,779
Equity				
Reserves	262,499	249,472	253,208	240,867
Restricted funds	22,063	23,581	22,063	23,581
Retained earnings	267,113	301,462	233,233	243,331
Total equity	551,675	574,515	508,504	507,779

The above Statement of Position should be read in conjunction with the 2019 Financial Statements.

CHARLES DARWIN UNIVERSITY AND ITS CONTROLLED ENTITIES

Statement of changes in equity

For the year ended 31 December 2019

	Restricted Funds \$'000	Reserves \$'000	Retained Earnings \$'000	Total \$'000
Group				
Balance at 1 January 2018	21,483	242,459	322,713	586,655
Net result	-	-	(19,147)	(19,147)
Other comprehensive income	-	7,056	-	7,056
Total comprehensive income / (loss)	-	7,056	(19,147)	(12,091)
Transfers (to)/from restricted reserves	2,098	-	(2,098)	-
Transfers (to)/from revaluation reserves	-	(43)	(6)	(49)
Balance at 31 December 2018	23,581	249,472	301,462	574,515
Balance at 1 January 2019	23,581	249,472	301,462	574,515
Retrospective changes	-	-	(29,765)	(29,765)
Balance as restated	23,581	249,472	271,697	544,750
Net result	-	-	(5,704)	(5,704)
Other comprehensive income	-	12,629	-	12,629
Total comprehensive income / (loss)	-	12,629	(5,704)	6,925
Transfers (to)/from restricted reserves	(1,518)	-	1,518	-
Transfers (to)/from revaluation reserves	-	398	(398)	-
Balance at 31 December 2019	22,063	262,499	267,113	551,675
Parent				
Balance at 1 January 2018	21,483	234,634	265,954	522,071
Net result	-	-	(21,381)	(21,381)
Other comprehensive income	-	7,089	-	7,089
Total comprehensive income / (loss)	-	7,089	(21,381)	(14,292)
Transfers (to)/from restricted reserves	2,098	-	(2,098)	-
Transfers (to)/from revaluation reserves	-	(856)	856	-
Balance at 31 December 2018	23,581	240,867	243,331	507,779
Balance at 1 January 2019	23,581	240,867	243,331	507,779
Retrospective changes	-	-	(3,118)	(3,118)
Balance as restated	23,581	240,867	240,213	504,661
Net result	-	-	(8,762)	(8,762)
Other comprehensive income	-	12,605	-	12,605
Total comprehensive income / (loss)	-	12,605	(8,762)	3,843
Transfers (to)/from restricted reserves	(1,518)	-	1,518	-
Transfers (to)/from revaluation reserves	-	(263)	263	-
Balance at 31 December 2019	22,063	253,208	233,233	508,504

The above Statement of Changes in Equity should be read in conjunction with the 2019 Financial Statements.

CHARLES DARWIN UNIVERSITY AND ITS CONTROLLED ENTITIES

Statement of cash flows

For the year ended 31 December 2019

	Group		Parent Entity	
	2019 \$'000	2018 \$'000	2019 \$'000	2018 \$'000
Cash flows from operating activities				
Australian Government grants	136,307	130,491	115,502	111,135
OS-HELP (net)	(52)	169	(52)	169
NT Government grants	75,246	65,662	65,954	59,336
HECS-HELP student payments	7,074	5,153	7,767	5,153
Receipts from student fees and other customers	98,402	90,689	78,269	75,759
Interest received	1,751	2,327	1,201	1,279
Dividend received	2,733	805	2,714	802
Proceeds from sale of biological assets	358	264	358	264
Payments to suppliers and employees	(299,826)	(296,943)	(253,852)	(257,121)
Lease interest payments	(154)	-	(147)	-
Low value / short term lease payments	(3,214)	-	(2,521)	-
Net cash from / (used in) operating activities	18,625	(1,383)	15,193	(3,224)
Cash flows from investing activities				
Proceeds from sale of property, plant and equipment	575	278	570	212
Payments for property, plant and equipment	(6,591)	(7,214)	(5,847)	(6,816)
Payments for biological assets	(22)	(199)	(22)	(199)
Net cash used in investing activities	(6,038)	(7,135)	(5,299)	(6,803)
Cash flows from financing activities				
Repayment of lease liabilities	(2,158)	-	(1,542)	-
Repayment of borrowings	(1,000)	(1,000)	(1,000)	(1,000)
Other financing outflows	-	-	(6,838)	(4,767)
Net cash used in financing activities	(3,158)	(1,000)	(9,380)	(5,767)
Net increase / (decrease) in cash and cash equivalents	9,430	(9,518)	514	(15,794)
Cash and cash equivalents at the beginning of the financial year	83,097	92,615	71,513	87,307
Cash and cash equivalents at the end of the financial year	92,527	83,097	72,027	71,513

The above Statement of Cash Flows should be read in conjunction with the 2019 Financial Statements.





Honorary awards roll

Doctor of Arts

Mr Gawirrin Gumana HonDArts (2007)
Mrs Judith Ann Weepers HonDArts (2007)

Doctor of Economics

Mr Jose Sun-Say Yu HonDEc (1999)
Dr Neil Conn AO HonDEc (2001)
Dr Susilo Bambang Yudhoyono AC HonDEc (2017)

Doctor of Education

Mr Dato Seri Samy Vellu HonEdD (1998)
Mrs Nancy Giese AO OBE HonEdD (2004) (Deceased)
Emeritus Professor Ron McKay HonEdD (2006) (Deceased)
Ms Raymattja Marika HonEdD (2007) (Deceased)
Mr Peter Plummer HonEdD (2009)
Ms Waymamba Yinamara Gaykamangu HonEdD (2014)
Mr Kevin Davis AM HonEdD (2015)
Ms Kathy Guthadjaka HonEdD (2018)

Doctor of Laws

The Hon Austin Asche AC QC HonLLD (1994)
The Hon Brian Martin AO MBE HonLLD (2007)
The Hon Dean Mildren RFD QC HonLLD (2013)

Doctor of Letters

Dr Harold Garner HonDLitt (1997) (Deceased)
Dr George Chaloupka HonDLitt (1998) (Deceased)
Ms Miriam Rose Ungunmerr-Baumann HonDLitt (2002)
The Hon Mr Ted Egan AO HonDLitt (2002)
Mrs Patricia Miller AO HonDLitt (2006)
Mr RG (Dick) Kimber AM HonDLitt (2006)
Mr John Ah Kit HonDLitt (2009)
Mr Thomas Calma HonDLitt (2010)
The Hon Daryl Manzie HonDLitt (2010)
Professor Ian Chubb AC HonDLitt (2011)
Professor Judith Whitworth AC HonDLitt (2011)
Mr Kay Rala Xanana Gusmao HonDLitt (2012)
Mr Jack Thompson HonDLitt (2012)
Ms Elaine L awurrpa Maypilama HonDLitt (2013)
The Hon Tom Harris HonDLitt (2015)
The Hon Christopher Burns HonDLitt (2016)

Doctor of Science

Emeritus Professor James Thomson AM HonDSc (1992) (Deceased)
Fr Frank Flynn AC HonDSc (1993) (Deceased)
Dr John Hargrave AO MBE HonDSc (1995)
Emeritus Professor Malcolm Nairn AM HonDSc (1999)
Professor John Mathews HonDSc (2000)
Dr Len Notaras AM HonDSc (2008)
Dr Alan Walker HonDSc (Posthumously awarded, 2008)
Dr Sadhana Mahajani HonDSc (2010)
Professor Jonathan Carapetis HonDSc (2013)
Professor Grahame Webb HonDSc (2013)
Professor John Wakerman HonDSc (2013)
Mr Jiro Okada HonDSc (2014)
Professor Ross Baillie HonDSc (2017)
Dr Dean Patterson HonDSc (2018)

Doctor of the University

General Peter Cosgrove AC MC HonDUni (2001)
The Hon Paul Everingham AO HonDUni (2003)
Dr Valerie Asche HonDUni (2007) (Deceased)
Emeritus Professor Helen Garnett PSM HonDUni (2016)
The Hon Sally Thomas AC HonDUni (2018)

Companion of the University

Mr Keith Pennell OAM (2001)
Mr Paul Sitzler OAM (2003) (Deceased)
Mrs Minna Sitzler AM (2003)
Mr Michael Martin OAM (2011)
Ms Angelica Poulos (2011)
Mr Ian Kew (2011)
Mr Earl James AM (2012)
Mrs Wendy James OAM (2012)
Professor David Parry (2012)
Ms Elizabeth Martin OAM (2012)
Ms Diana Jarvis (2013)
Ms Terry Underwood AM (2013)
Mr Allan Garraway (2013)
Ms Veronica Dobson AM (2013)
Mr Neil Ross (2015)
Mr Richard Giles (2015)
Mr Rex Wild QC (2016)
Mrs Annette Burke (2016)
Mr Franck Gohier (2017)
Mrs Deborah Fracaro (2019)

Award of Emeritus Professor

Emeritus Professor Alan Powell
Emeritus Professor Ron McKay
(Deceased)
Emeritus Professor Malcolm Nairn AM
Emeritus Professor James Thomson AM
(Deceased)
Emeritus Professor David Carment AM
(2008)
Emeritus Professor Mary Ann Bin-Sallik
(2008)
Emeritus Professor Helen Garnett PSM
(2009)
Emeritus Professor Charles Webb (2012)
Emeritus Professor Barney Glover (2015)

Award of Emeritus Chancellor

The Hon Austin Asche AC QC HonLLD
(2010)
Mrs Nancy Giese AO OBE HonEdD (2010)
(Deceased)
The Hon Sally Thomas A, HonDUni (2018)

Glossary

AEC

Animal Ethics Committee

AMA

Advanced Manufacturing Alliance

ANU

Australian National University

ARC

Australian Research Council

ASQA

Australian Skills Quality Authority

ATSI

Aboriginal and Torres Strait Islander

CEITE

College of Engineering, IT and Environment

CHHS

College of Health and Human Services

CI

Confucius Institute

CIFAS

College of Indigenous Futures, Arts and Society

CNM

College of Nursing and Midwifery

CRICOS

Commonwealth Register of Institutions and Courses for Overseas Students

ERA

Excellence in Research for Australia

ERI

Energy and Resources Institute

HDR

Higher Degree by Research

HE

Higher Education

ICT

Information and Communications Technology

IPBES

Intergovernmental Platform on Biodiversity and Ecosystem Services

IRU

Innovative Research Universities

NHMRC

National Health and Medical Research Council

NTCA

Northern Territory Cattlemen's Association

NTG

Northern Territory Government

OASIC

Open Access Support for Increased Citations

PWC

Power and Water Corporation

RIEL

Research Institute for the Environment and Livelihoods

RNA

Respect Now Always

SSVF

Simplified Student Visa Framework

STEM

Science, Technology, Engineering and Mathematics

TAE

Training and Assessment

TEQSA

Tertiary Education Quality and Standards Agency

VET

Vocational Education and Training

YYF

Yothu Yindi Foundation

Our campuses and centres

Charles Darwin University's campuses and centres:

Casuarina (main campus):
Ellengowan Drive, Darwin NT 0909

Alice Springs:
Grevillea Drive, Alice Springs NT 0870

Palmerston:
University Avenue, Palmerston NT 0830

CDU Sydney:
815 George Street, Haymarket,
Sydney NSW 2000

CDU Waterfront:
21 Kitchener Drive, Darwin NT 0800

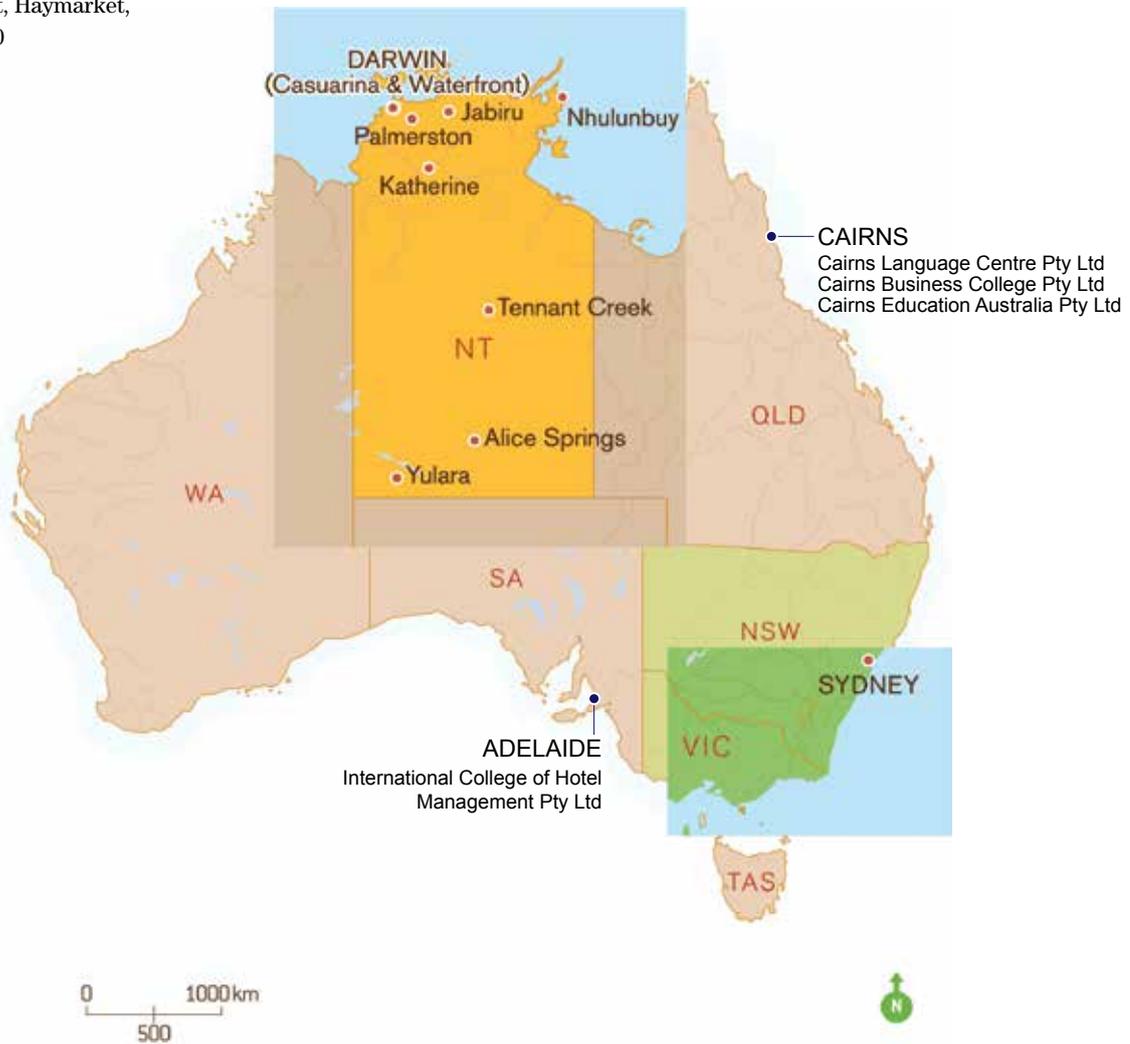
Katherine:
19 Second Street, Katherine NT 0850

Nhulunbuy:
PO Box 1479, Nhulunbuy NT 0881

Jabiru:
PO Box 121, Jabiru NT 0886

Tennant Creek:
PO Box 1425, Tennant Creek NT 0861

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