

Annual Report and Audited Financial Statements of the University of Pretoria

Reports and consolidated financial statements for the year ended 31 December 2021, prepared in accordance with section 41, read with section 69 of the Higher Education Act, 1997 (Act No 101 of 1997, as amended), and the regulations for annual reporting by higher education institutions published as Government Notice No R 464 in Gazette No 37726 of 9 June 2014

June 2022



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Destination 2026 and beyond

One of the key highlights of 2021 for the University of Pretoria (UP) was the development of our 2022 – 2026 strategic plan, 'Destination 2026 and beyond'. The plan is the third and final phase of implementing our 15-year vision, UP 2025. It comes at a time where the fundamental societal challenges faced when UP 2025 was developed persist, while new challenges and opportunities which could not have been envisaged, have subsequently arisen. In this volatile and disrupted space, the new plan is a synthesis of conversations, experiences, ideas and creativity from the University community. It describes a re-imagined UP with pathways to its realisation.

UP has a strong foundation that serves as a springboard to managing the dilemma of surviving and thriving in adversity and complexity, and contributing meaningfully to the public good. Student numbers have grown significantly and access by previously excluded groups has improved progressively, with the percentage of black undergraduate contact students increasing from 45.2% in 2012 to 61.5% in 2021. Similarly, for the same period, the proportion of black postgraduate students increased from 53.1% to 66.04%, respectively. The percentage of black first-time entering undergraduate students increased from 44.8% in 2012 to 63.1% in 2021, and enrolments in Science, Engineering and Technology (SET) study fields for black students increased from 48.1% to 59.0%, respectively. Successful Full Time Equivalent (FTE) undergraduate students compared to total FTE contact students increased from 81.7% in 2012 to 86.9% in 2021, representing an increase of 5.2 percentage points in the student success rate. The undergraduate module pass rate improved by 7.6 percentage points, increasing from 78.7% in 2012 to 86.3% in 2021, and the proportion of academic staff with PhDs has increased by 15 percentage points over the past decade to the current level of 70.4%.

At the same time, barriers, constraints and areas of weakness need to be addressed for us to reach our full institutional potential. These challenges include achievement gaps based on gender, race and socio-economic background and high student to academic staff ratios. By building on our existing strengths and areas of excellence, and identifying new opportunities, we strengthen our contribution toward securing the future of our country, our continent and indeed the world.

A re-imagined UP will be a resilient and future-ready institution, adept at navigating uncertainty, turning threats into opportunities and introducing innovations and disruptive ideas or technologies that will benefit the University and society at large. Continued transformation of our University community, with enhanced sustainability, enables expression of purpose through our core functions of teaching, learning, research and engagement. The work we do serves to position UP, expand our footprint of collaboration and influence, and have tangible impacts to meet society's changing needs.

The process of re-imagining is by its very nature, creative and exciting as we envision our role and contribution to a future that we all believe in. Yet at the same time, we are mindful of the hard work required to achieve the desired transformation. It represents a radical change effort. In this transformation journey we are charting new territory, and its ultimate success will be determined by our ability to learn and share knowledge with each other, collectively seeking an iterative and ongoing cycle of renewal and resilience.

The key levers underpinning the implementation of the new plan are:

- Strengthening an integrated approach (tearing down silos);
- Relentlessly driving a transdisciplinary agenda; and
- Establishing a culture of innovation and entrepreneurship across all University functions.

Leveraging these areas, and breaking down the silos that inhibit our progress, enables us to address the diverse dimensions of institutional transformation better, moving us closer to our aspiration of sustainable outcomes and impacts.

This Annual Report presents the University's important achievements in 2021. It demonstrates our excellence in teaching and learning and research, our contribution to society, and our role nationally and internationally. The report complies with the requirements of the Regulations for Reporting by Public Higher Education Institutions (Notice No R 464 published in Government Gazette (GG) No. 37726 on 9 June 2014). The report is presented in three parts, namely:

Part A: Reports of Council and Council Committees and the Vice-Chancellor (including the statements by the Council on governance, sustainability and transformation)

Part B: University of Pretoria Performance Report for 2021

Part C: Financial Review.

PART A

1. THE UNIVERSITY COUNCIL: FUNCTIONING AND COMPOSITION IN 2021

Council is responsible for governance, policy-making and compliance at the University and, in particular, establishing guidelines relating to strategic governance, financial governance, staff matters, fostering a positive academic atmosphere, disciplinary matters regarding staff and students, and the admission and language policies of the University in concurrence with Senate.

The University Council comprises 30 members appointed in terms of the Statute of the University as approved by the Minister of Higher Education, Science and Innovation and published in Government Gazette No. 42127 of 21 December 2018. Eighteen of the 30 members, representing 60% of the composition, are external members, being neither UP employees nor students. The terms of office of Council members are determined by the Statute of the University.

In terms of the Statute of the University, Council elects a Chairperson from the ranks of Council members who are not employees or students of the University, who shall hold the office for a renewable term of two years. Ms Futhi Mtoba and Mr Kuseni Dlamini were elected to serve as Chairperson and Deputy Chairperson, respectively, in June 2018 for a period of two years. At its meeting of 24 June 2020, Council decided to extend the terms of the Chairperson and Deputy Chairperson to the end of November 2020. At the November 2020 meeting of Council, the terms of the Chairperson and Deputy Chairperson of Council were again extended to the end of March 2021. At its meeting of 17 March 2021, Council elected Mr Kuseni Dlamini and Mr Ben Kruger to serve as Chairperson and Deputy Chairperson, respectively, for a period of two years.

It is the role of the Chairperson of Council to lead Council members in fulfilling their functions. The Vice-Chancellor and Principal is responsible for the management and administration of the University. The Statute of the University regulates which matters must be referred to Council for decision-making in terms of the Higher Education Act, No. 101 of 1997 (as amended).

Council held three ordinary meetings and a special meeting in 2021. Two of the ordinary meetings were held virtually and one in person. The special meeting was held virtually. In addition, Council held a one-day virtual workshop, which was facilitated by Prof Chris Brink, emeritus Vice-Chancellor of the University of Newcastle and author of the book *The Soul of a University: When Excellence is not enough*. The workshop built on the discussions of the 2020 workshop on the vision of a re-imagined University. The Vice-Chancellor and Principal, Prof Kupe, highlighted that the ambitious vision of a re-imagined University required a balanced approach that focuses on both managing costs prudently and increasing income. He noted five strategies that the University was engaged in to transform its approach and practices with regard to all resources, including engendering buy-in/ownership of the re-imagining vision, increasing awareness of the funding and financing of higher education, deepening ownership of the financial sustainability plan, efficient, effective and sustainable use of all resources, and building capacities and cultures for generating alternative

income streams. Each member of the Executive was afforded an opportunity to present a vision for the re-imagined University from the perspective of their respective portfolios.

The agendas, minutes and attendance registers of 2021 Council meetings are available to the Department of Higher Education and Training (DHET), upon request, from the Office of the Registrar. Consistent with the prior year, induction sessions were held for the newly appointed Council members, namely Adv A Chowan, Dr RJ van Eyden, Mr DJ Fourie, Dr HH Köster, Ms P Langeni, Ms MMT Ramano, Ms CM Read and the student representatives on Council, namely Ms L Ndlovu (SRC President) and Ms R Abdool-Sattar (SRC Deputy President). Information regarding the composition of Council, on which committees the members serve and their length of service is provided in Table 1.1 below. Information on the members' directorships (i.e. Register of Interests) is available to the DHET, upon request, from the Office of the Registrar.¹

Table 1.1. Composition of Council, 2021

Council member	Committees on which he/she serves	Year of commencement of first term
Members appointed by the Minister: (Statute par 15(1)(g); Act s 27(4)(c))		
Mr KD Dlamini (Deputy Chairperson until 31 March 2021) (Chairperson from 1 April 2021)	Standing Committee HR Committee Investment Committee	2012
Ms N Lesela	Institutional Forum (Chairperson) Standing Committee	2012
Mr M Madi	Audit, IT and Risk Committee	2020
Ms V Qinga (term expired on 30 June 2021 – re-appointed for a further term from 1 July 2021)	Standing Committee	2013
Mr TS Tsengiwe	HR Committee	2020
Members elected by the Convocation: (Statute par 15(1)(e), par 48(2))		
Mr DM Behr (term ended on 30 June 2021)	Audit, IT and Risk Committee	2013
Mr AD Botha	Investment Committee	1994

¹ In terms of the Promotion of Access to Information Act (Act 2 of 2000), the University reports on an annual basis to the South African Human Rights Commission on the number and outcome of requests for information lodged with the University during the particular reporting period.

(term ended on 30 June 2021)		
Ms KP Diale (term ended on 30 June 2021)	HR Committee	2017
Mr AJ Pienaar (term ended on 30 June 2021)	Audit, IT and Risk Committee	2012
Dr HH Köster (President of the Convocation) (appointed from 1 July 2021)		2021
Mr DJ Fourie (appointed from 1 July 2021)	Audit, IT and Risk Committee	2021
Ms CM Read (appointed from 1 July 2021)	Audit, IT and Risk Committee	2021
Dr RJ van Eyden (appointed from 1 July 2021)	Investment Committee	2021
Members elected by Senate: (Statute par 15(1)(c))		
Prof AJ Antonites		2020
Prof BTJ Maharaj	Standing Committee	2018
Prof I Pikirayi	Institutional Forum	2011
Members elected by the Donors: (Statute par 15(1)(j))		
Mr BJ Kruger (Deputy Chairperson from 1 April 2021)	Standing Committee (Chairperson) Audit, IT and Risk Committee	2020
Mr JHP van der Merwe	Investment Committee (Chairperson)	2018
Members appointed by Council based on expertise/experience: (Statute par 15(1)(d))		
Ms ED Magugumela (term ended on 31 March 2021)	HR Committee	2008
Ms NT Mtoba (Chairperson) (term ended 31 March 2021)	Standing Committee HR Committee Investment Committee	2005
Adv A Chowan (appointed from 1 July 2021)	HR Committee	2021

Ms P Langeni (appointed from 1 July 2021)	Investment Committee	2021
Ms MMT Ramano (appointed from 1 July 2021)	Audit, IT and Risk Committee (Chairperson)	2021
Mr FD Swart	HR Committee Investment Committee	2019
Mr AE Swiegers	Audit, IT and Risk Committee	2020
Ms S Taylor	HR Committee (Chairperson)	2019
Members appointed by the Tshwane local authority: (Statute par 15(1)(h))		
Mr PA Nel ²		2019
Student members appointed by the elected SRC on an annual basis: (Statute par 15(1)(f), par 17(3))		
Ms L Ndlovu		
Ms R Abdool-Sattar		
Employee member (academic) elected by academic employees: (Statute par 15(1)(j))		
Prof V Reddy		2018
Employee member (non-academic) elected by non-academic employees: (Statute par 15(1)(k))		
Ms LJ Mnguni		2018
Ex officio members (Statute par 15(1)(a) and (b))		
Prof T Kupe (Vice-Chancellor and Principal)		
Prof NTF Duncan (Vice-Principal)		
Prof NT Mosia (Vice-Principal)		
Prof A Ströh (Vice-Principal) Prof BTJ Maharaj (appointed as Acting Vice-Principal from 25 October 2021)		

² Mr PA Nel sadly passed away in April 2022

During 2021, the office bearers of Council were the following:

- Chairperson: Ms NT Mtoba (until 31 March 2021)
- Chairperson: Mr KD Dlamini (from 1 April 2021)
- Deputy Chairperson: Mr KD Dlamini (until 31 March 2021)
- Deputy Chairperson: Mr BJ Kruger (from 1 April 2021)
- Secretary: Prof CMA Nicholson

Table 1.2 below reflects a summary of attendance by members at Council meetings in 2021.

Table 1.2. Summary of attendance of Council meetings by members, 2021

Meeting	Present (of 30 members)	Absent with apology	Vacant seats
17 March 2021	27	1	2
24 June 2021	23	4	3
2 September 2021	26	3	1
2 September 2021 (Strategic Council Workshop)	26	3	1
25 November 2021	25	4	1

2. REPORTS AND STATEMENTS OF COUNCIL AND COMMITTEES OF COUNCIL

2.1 Report by the Chairperson of Council

This report by the Chairperson of Council centres on Council's statutory role of governing the University as required by the Higher Education Act 101 of 1997 (as amended) and the Statute of the University of Pretoria. Accordingly, the report focuses on governance structures and processes, financial oversight and significant matters considered by Council during the course of 2021. This report should be read in conjunction with the Council statements, which follow in Sections 2.2 – 2.8 and contain full details of the Council Committees and their activities.

2.1.1 Connected and collaborative

UP has Africa at its heart and aspires to become an African Global University that is locally responsive, but continental in scope and globally engaged in making a significant contribution to transforming the world. Two years of living through a pandemic has strengthened this resolve and highlighted key considerations on how we move forward.

No country is an island nor are solutions to complicated problems embedded in silos. Real-life problems – like the current pandemic and future ones – require us to think, teach, learn and create knowledge across geographic and disciplinary boundaries. It is the approach that best assures humanity and the environment a better and more sustainable future.

Digital transformation is no longer a nice-to-have. It is a must-have to gain greater access to knowledge, broaden our influence to reach larger numbers of people, and deepen connections with communities whether they are on our doorstep or across the seas.

As boundaries dissolve and our planet's needs grow, we have to make today matter to co-create impactful, transformative knowledge for a better, more inclusive and sustainable world. The University's action-orientated culture and advanced technological capability have seen us embrace new possibilities, speed up change, and reaffirm our societal relevance.

International collaboration enables universities to make significant research and innovation leaps by sharing and building on each other's areas of expertise. It also elevates all of our teaching and learning, and research facilities to a new level. In 2021, UP continued to develop partnerships with prominent institutions and networks across the world, thanks in part to a robust IT infrastructure and fast-tracked digital expertise that enabled us to teach and collaborate across the continents with the use of online platforms and video calling in real-time.

The University collaborates with over 3 000 institutions across the globe and has some 230 international institution-wide partnerships across 70 countries and six continents. This affirms our leadership and commitment to build capacity in Africa and to accelerate and scale impact for achieving the African Union's Agenda 2063, as well as the Sustainable Development Goals (SDGs) of the United Nations. These relationships will be further expanded with the appointment of a Senate

Committee for Internationalisation and Global Engagement Strategy to guide and support future collaborations.

Building on its reputation as a future-focused university, UP has, for example, partnered with Advance.io, an information technology company, to develop an information hub, a cloud-based national scientific repository with associated tools and models to support the digitalisation of the agriculture and forestry industry. The platform connects research and practitioner communities across South Africa, and eventually further in Africa. It will enable the harnessing of the power that lies at the intersection of biotech, sensor tech and big data analytics, and includes database warehousing, biosecurity management and surveillance systems, predictive tools, photo imagery analysis, and machine learning.

2.1.2 A university of choice

The University remains a preferred partner for many prominent global organisations. We are often the first or only South African, or African, institution to be invited to collaborate on, or spearhead, projects. Some examples include UP being the only African University in the University Social Responsibility Network, and hosting Africa's first Nobel Prize Dialogue.

We are particularly proud that the University's Department of Speech-Language Pathology and Audiology has been formally designated as a WHO Collaborating Centre for the prevention of deafness and hearing loss. This is the first WHO Collaborating Centre in Africa, and a big step towards improving hearing healthcare on the continent.

UP was also invited to join the prestigious Worldwide Universities Network, a global higher education network of 22 leading research universities that stretches across six continents. This honour makes UP one of only two member-universities from South Africa (the other being the University of Cape Town) and only the fourth on the African continent, with the University of Ghana (Legon) and Makerere University (Uganda), which happen to be amongst UP's research partners and collaborators.

UP's strong partnerships with industry and government are reflected in the number of Research Chairs at UP, underscoring the emphasis placed on the impact and relevance of research programmes at UP. The University has 51 research chairs, with 19 being funded by the Department of Science and Innovation DSI-NRF South African Research Chairs Initiative (SARChI).

2.1.3 Ethical leadership and corporate citizenship

Council acts as the custodian of governance and oversight in the institution through the activities of a number of Council committees (further details on the committees of Council are provided in Section 2.3). Council statements on governance in general and on matters of specific importance for good governance, sustainability and integrated reporting appear in Sections 2.2 – 2.8 and contain details and relevant information on Council's governance structures and processes, and the enabling and supportive institutional policies, practices and procedures.

Council has the ultimate responsibility to ensure that the University's ethical values and principles are effectively implemented through the introduction and implementation of appropriate, approved ethical codes for Council members, staff and students. The Code of Conduct for Members of Council was reviewed, amended and approved by Council in 2017 and was again reviewed in 2021 and approved by Council at its meeting of 24 June 2021.

The Code identifies the underlying values and sets out the standards guiding the conduct of Council members. It contains extensive provisions regulating possible conflicts of interest, including an annual declaration of interests by all members of Council. To ensure transparency and avoid potential conflicts of interest, a Register of Interests is circulated at the start of every Council meeting. The ethical codes for staff and students and related policies and practices are dealt with in Section 2.8.

Council assesses its performance in carrying out its responsibilities annually in accordance with a formally approved process. The assessment includes an evaluation by Council members of the functioning of Council in terms of its responsibilities, meetings of Council, membership of Council, the relationship between Council and the Vice-Chancellor and Principal as the chief executive and accounting officer of the University, the performance of Council in general, and the performance of the permanent Committees of Council. The Standing Committee of Council (which is the executive committee of the Council) considers the outcome of the assessment and makes recommendations to Council in this regard. The results of the assessment in 2021 of the 2020 performance again reflected that Council and its committees were perceived as performing at a level of good to excellent. The full report and the assessment forms are available to Council members at the Office of the Registrar.

An annual report on Council performance, approved by Council, is also submitted to the DHET on an annual basis.

2.1.4 Compliance with laws, codes, rules and standards

The University upholds the core values of integrity, fairness, accountability and transparency in all its interactions with students, alumni, business partners, the government, employees or other stakeholders. As such, the University regards compliance with legal, regulatory, ethical and internal policies and DHET's policies applicable to the University as a business imperative and, accordingly, views non-compliance in a serious light.

The University Council is accountable for ensuring that the University complies with relevant legal, regulatory, ethical and internal policy obligations applicable to the University, and that compliance risks are appropriately managed. It has delegated the oversight thereof to the Audit, IT and Risk Management Committee of Council (the Committee's report is presented in Section 6).

The University has a number of policies aimed at ensuring institutional compliance, including the Whistle-blowers Policy, Anti-Fraud Policy and Response Plan, as well as the Institutional Compliance Policy, which are updated on a regular basis. In addition, the UP Ethics Hotline, established in 2011, continues to be administered by an independent consulting firm.

Upon receipt of complaints from whistle-blowers, preliminary inquiries are held and, where warranted, full investigations are conducted. Where instances of irregular, unlawful, unethical conduct, contraventions of legislation, non-compliance with the University's Code of Conduct or other policies are found, the University takes disciplinary steps and/or initiates civil or criminal legal processes, as considered appropriate.

In total, 70 whistle-blowing and fraud cases were reported from 1 January 2021 to 31 December 2021. All reported cases were dealt with in accordance with the Whistle-blowing and Anti-Fraud Policy of the University.

In summary, out of the cases reported during 2021, allegations were found to be unsubstantiated in 25% of the cases and confirmed/partially confirmed in 37% of the cases. In 10% of the cases, the allegations could not be investigated due to insufficient information provided by the whistle-blowers, while 7% of the cases were not related to UP or were withdrawn. The investigation of the remainder of the cases (21%) is still in progress.

Of the 70 reported cases, 46% related to alleged misconduct by staff and students, 23% related to alleged fraud, 16% related to alleged contravention of UP policies, 7% related to alleged IP infringements and cybersecurity risks, while 4% related to alleged conflicts of interest. The remaining 4% of the reported cases related to miscellaneous issues.

2.1.5 Funding and financial oversight

A comprehensive planning, budgeting and policy framework, supported by operational procedures, regulations and financial directives, is in place. This ensures that the University's financial position is managed effectively within the broader national framework of subsidy allocation and student enrolment growth. In addition, Council has established formal policies and frameworks for the design and implementation of the system of internal financial controls and regular reviews of the internal financial controls are conducted. Council is satisfied that the University's internal financial controls are effective.

While the COVID-19 pandemic continued to disrupt the world in 2021, the South African higher education sector continued to deal with the challenge of declining state funding, increasing regulation of tuition fees, and rising student debt. As one of the largest contact university nationally, these challenges had significant implications for UP's functioning and its long-term sustainability. Taking a proactive approach to managing the risks, the University delayed non-essential capital projects and employed strict processes for the appointment of staff. These austerity measures were accompanied by targets relating to third-stream income and external funding.

Despite these initiatives, the 2021 budget was placed under further strain due to a reduction in the state subsidy and earmarked grants, in order to partially fund the growing NSFAS budget shortfall. This resulted in the University having to increase its reliance on using investment returns and once-off reserves.

On a positive note, fundraising exceeded the 2021 target by R44 million, resulting in a total of R174 million. In addition to funding secured by means of formal research activities and fundraising

efforts, Enterprises University of Pretoria Pty Limited (Enterprises UP) played a significant role in generating alternative sources of funding. The company develops, implements and manages the business activities of the University, such as continuing education, consulting and contract research. Driven by the motto “Shifting knowledge to insight”, the company successfully expanded its footprint in South Africa and globally, resulting in a total turnover of R232,4 million in 2021.

Overall, the University maintained its good track record of financial stability in 2021 despite the significant challenges wrought by the COVID-19 pandemic. Although many factors influence operational and financial sustainability, two important ratios are monitored carefully at UP, namely the solvency and liquidity ratios. As at 31 December 2021, both these ratios were sufficiently healthy to conclude that UP is in an operationally sustainable position. Further detail and comprehensive financial information are contained in Part C (Financial Review).

2.1.6 Remuneration of Council members

In 2010, Council approved the principles governing the remuneration of Council members based on a recommendation by the Human Resources Committee of Council. In addition to airfare and accommodation costs, a fixed honorarium per meeting attended is paid to external members of Council. The amount of the honoraria is adjusted annually by the year-on-year CPI inflation rate as at the end of December of the previous year, and the total annual amount payable to an individual member is based on the number of meetings of Council and Council Committees attended, but is capped at a fixed maximum, which is also adjusted annually by the year-on-year CPI inflation rate. The honorarium payable to Council members per meeting in 2021 is shown in Table 2.1.

Table 2.1. Honorarium payable to Council members per meeting, 2021

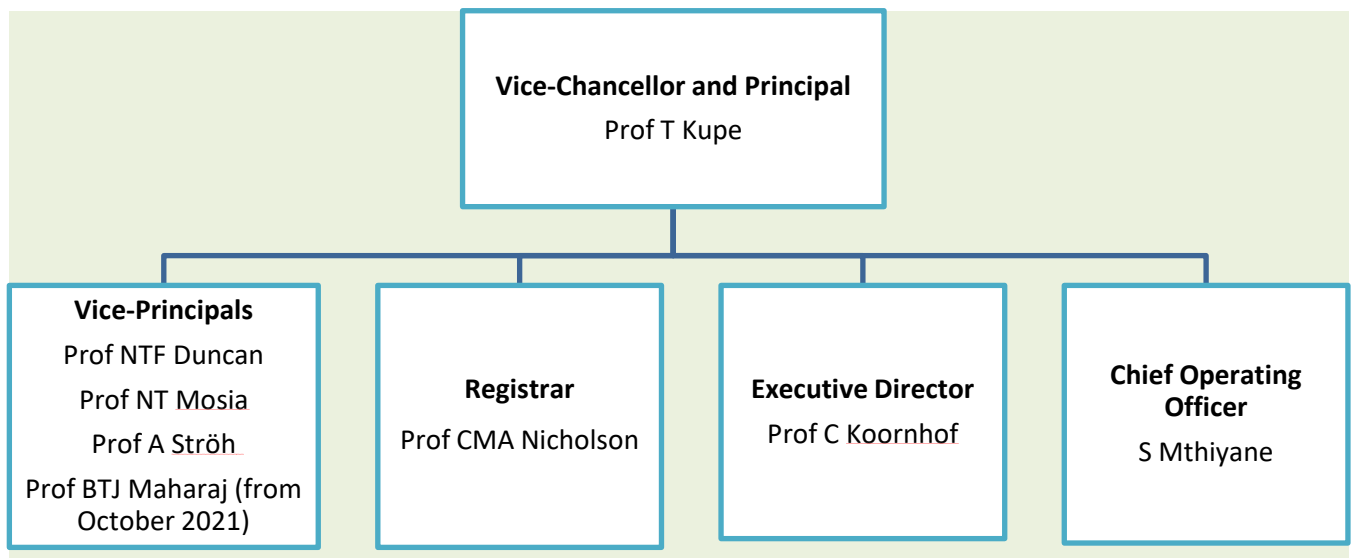
	Honorarium payable per meeting	2021 cap on total honoraria payable
Chairperson of Council	R6 278.00 (also receives an annual cell-phone allowance of R6 329.00)	R111 996.00
Chairperson of Council Committees	R6 278.00	
Member of Council or Council Committee	R4 362.00	

2.1.7 Significant matters considered by Council

2.1.7.1 Executive appointments

Prof Anton Ströh was appointed as Vice-Principal: Research, Innovation and Postgraduate Education for the period 1 April 2021 to 31 December 2024. Prof BTJ Maharaj was appointed as Acting Vice-Principal: Research, Innovation and Postgraduate Education with effect from 25 October 2021. The University Executive was composed as shown below.

Figure 2.1. Composition of UP Executive, 2021



2.1.7.2 Notable achievements and developments

At each meeting, the Council and the Standing Committee of Council consider detailed reports from the Vice-Chancellor and Principal highlighting developments in the higher education sector, and providing an overview of notable achievements of the University, its staff and students, and of challenges to be addressed. This report includes examples to illustrate recognition of achievements and developments in 2021, with further information provided in Sections 3.3 and 3.4, and in the Vice-Chancellor and Principal’s report in Section 7.

Selected academic and other achievements

- The Vice-Chancellor and Principal, Prof Tawana Kupe, was awarded an honorary doctorate (doctor honoris causa) by the University of Montpellier, France, for his work in building academic partnerships across the African continent and the globe and for his leadership in the transformation of higher education at a global level;
- The Event Horizon Telescope team, which in 2019 revealed the first image of a black hole, has since revealed a new view of the massive object in the middle of the M87 galaxy as seen in polarised light. More than 300 researchers at institutions across the world, including some from UP, were involved. This exciting discovery revealed new evidence to help us understand how magnetic fields behave around black holes;
- The University’s Faculty of Veterinary Science at Onderstepoort once again demonstrated why it remains the best in the country and in Africa, with a number of milestone procedures performed in 2021. These included the first successful CT scan performed on a live adult rhino; ground-breaking surgery on a filly suffering from an upper-airway restriction; a partial knee replacement on a cat to save its right leg from being amputated, and specialised heart surgery on two dogs.

Other high-profile achievements and awards are presented in Section 3.4 and the Vice-Chancellor's report in Section 7.

Student achievements and impact

Students' achievements are reflected in the numerous awards received during the year, some of which are listed here (see also the Vice-Chancellor's report, Section 7):

- Dr Hendrik Swanepoel, a master's student in Veterinary Science, won the 2021 Prize for Global Research of the Province of Antwerp for his thesis on viral diseases in African ungulates. This prominent award recognises the best master's dissertations across selected fields and the researcher's contribution to global science for health worldwide;
- Dr Ezette du Rand, a postdoctoral research fellow in the Department of Zoology and Entomology, won the Postdoctoral category in the L'Oréal-UNESCO Women in Science South African National Young Talents Programme 2021. Dr Du Rand's research focuses on honeybees, more specifically on the tiny molecules in the male bee's seminal fluid (prostate fluid that helps transport sperm); and
- Agil Katumanyane, a PhD student in the Forestry and Agricultural Biotechnology Institute (FABI), received the Women in Science award for Sub-Saharan Africa Young Talents. Her work focuses on the potential for the biological control of white grubs in South Africa, using locally isolated entomopathogenic nematodes (EPNs) – a group of nematodes also known as roundworms that cause the death of insects.

UP provides a broad range of opportunities and support to undergraduate and postgraduate students to provide an environment that supports the successful completion of their studies, and access to facilities and activities that will enable them to identify and develop their talents outside the classroom environment and become well-rounded, engaged, and productive members of society (also refer to sections 3.3 and 3.4, and in the Vice-Chancellor's report in Section 7).

Advancement, partnerships and engagement

Contributing to the development and wellbeing of people and societies is a critical element of UP's public mission and a commitment that permeates its engagement at several levels. The examples listed here illustrate the importance of partnerships (see further details in Section 7.4 in the Vice-Chancellor's report):

- UP and the University of Leeds signed an institutional agreement to further formalise our growing partnership, which includes collaboration on the Food Systems Research Networks (FSNET) Sustainable Food Systems Initiative and collaborations already established in the Faculty of Humanities and the Faculty of Engineering, Built Environment and Information Technology and the ARUA Centre of Excellence research project worth £2 million;
- The University secured funding for bursaries from several organisations, including the Mastercard Foundation (R18 million), the Albert Wessels Trust (R2,6 million), the South African Reserve Bank (R2 million), HWSETA (R7,7 million), and BANKSETA (R4,2 million); and

- The former Deputy Chief Justice (DCJ), Judge Dikgang Moseneke donated R800 000 towards bursaries for law students. He was the largest individual donor in 2021. Judge Moseneke also donated his personal collection of books and journals to the OR Tambo Law Library.

Working with industry

Strong links with industry is one of UP's key strengths. The University has a track record of successful collaboration with industry across various domains, amongst them, research chairs, industrial placement opportunities for our students, infrastructure development, and continuing professional development. Examples (see also Section 3.4.4.3 of the Senate Report) of some of the notable partnerships in 2021 include:

- The Exxaro Chair in Extended Reality (XR) Technology, which will offer a framework on how the XR technology can be used to address mining industry challenges and on identifying the best available technologies for the solutions;
- The Murray & Roberts Chair in Industry Leadership 4.0, which will provide specialised skills and capacity building essential to the Fourth Industrial Revolution through defined leadership strategies, particularly as they relate to the mining and minerals-related industries; and
- ABSA committed to continue supporting chairs in data science, actuarial science and banking law to the value of R5,2 million, as well as funding bursaries for agricultural students to the value of R720 000.

2.1.7.3 Campus development, facilities and major capital works

The University is committed to providing staff and students with an environment that is conducive to social cohesion and achieving success in the core functions and activities of the institution. To this end, the Campus Spatial Development Plan was developed during 2019 and submitted to Council for approval in November 2019. The plan serves as the blueprint for the development and maintenance of infrastructure to support the future growth of UP.

All capital investments in infrastructure were approved in accordance with the Higher Education Act. Approvals were in accordance with the standing financial delegations at either the level of the University Council, the Standing Committee of Council, or the Executive. The tender committee for large tenders is chaired by the member of the Executive responsible for infrastructure and further consists of members of the Facilities Advisory Committee. Almost all infrastructure contracts are managed by internal project managers employed in the Department of Facilities Management. A few large projects are managed by external project managers. The standard Joint Building Contracts Committee (JBCC) contract is used for all major building projects.

Some of the highlights in 2021 include:

- Refurbishment of the Akanyang Building on the Hatfield Campus;
- Upgrading of the Mamelodi Campus Library;
- Installation of the MRI facility at the Onderstepoort Campus;

- Completion of the ICU facility at the Onderstepoort Campus;
- Refurbishment of the EMS Leadership Centre on the Hatfield Campus; and
- Upgrading of the electrical laboratory at the School of Engineering on the Hatfield Campus.

2.1.8 Assessment of progress

Table 2.2 presents the University's performance in 2021 using Council-approved indicators. The University met and exceeded the targets of all but two performance indicators, namely, master's headcount enrolments – which was below the target by 214 but showing improvement from 2020 to 2021 - and percentage registration in Science, Engineering and Technology (SET) (contact students) – which was below target by 4.14 percentage points. A detailed analysis of the University's performance in 2021 is contained in Part B of the report.

Table 2.2. UP performance assessment

PERFORMANCE INDICATORS		2018	2019	2020	2021	Target 2021	Target realisation
1	% Academic staff with doctoral degrees (excluding joint appointments)	67.06	67.68	68.8	70.4	67.8	↑
2	% Black staff (Department of Labour EE definitions)	63.9	65.0	66.6	67.6	66.0	↑
3	Total weighted research outputs per academic FTE staff*	2.66	2.46	2.29	2.52	2.5	↑
4	First-time entering undergraduate headcount enrolments*	9 077	8 989	8 335	9 348	7 824	↑
5	Total undergraduate headcount enrolments*	35 410	35 746	35 820	37 233	36 443	↑
6	Master's headcount enrolments*	6 116	6 239	6 248	6 318	6 532	→
7	Doctoral headcount enrolments*	2 307	2 375	2 411	2 537	2 527	↑
8	Number of graduates in scarce skills areas (excluding distance education)*	5 642	5 242	5 169	5 545	5 350	↑
9	% of black contact students to total contact students*	57.47	59.45	60.58	62.57	60.7	↑
10	% registrations in SET (contact students)*	53.26	52.85	51.72	49.96	54.1	↓
11	% successful FTE students to total FTE enrolments*	83.42	83.74	86.73	85.83	84.7	↑
12	FTE contact students per FTE teaching staff member*	25.44	24.59	23.62	24.20	26.4	↑

*HEMIS

Key



Target Achieved



Target not achieved



Target not achieved but there was improvement from 2020 to 2021 or the 2020 performance was very close to the target

Total weighted research outputs: The indicator includes all journal publication outputs, the research component of master's graduate outputs and doctoral graduates. It does not include books, book chapters and conference proceedings.

2.1.9 Concluding comment

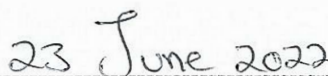
The University Council is satisfied that UP was managed in accordance with the goals and strategies outlined in the 2021 Implementation Plan, the UP 2025 Strategic Plan, the requirements for good governance as set out in the King IV Report on Corporate Governance for South Africa, and all laws, rules and codes applicable to the University.

We thank our former chairperson, Ntombifuthi “Futhi” Mtoba, for her years of service during which she brought her values of educational excellence and community engagement to the UP Council and the greater UP community. She stepped down from the Council after serving four consecutive terms as a member. Under her guidance, the University flourished into a research-intensive university that has taken its place as one of the top higher education institutions in Africa. The seven new Council members who were appointed to office, effective 1 July 2021, have solid foundations on which to build future growth. We welcome Advocate Adila Chowan, Mr Duan Fourie, Dr Hinner Köster, Ms Phumzile Langeni, Ms Tryphosa Ramano, Ms Carol Read and Dr Robert van Eyden.

The Council extends its gratitude to the Vice-Chancellor and Principal and his leadership team who kept a firm hand on the tiller in steering the University through another turbulent year. Amidst great disruption and accelerated change, the University could demonstrate definite progress in pursuit of its strategic goals.



Mr KD Dlamini
Chairperson of Council



Date

2.2 Council's Statement on Governance

Council is the governing body of the University of Pretoria as provided for by the Statute of the University of Pretoria and approved by the Minister of Higher Education, Science and Innovation and published in Government Gazette No. 42127 of 21 December 2018. Council governs the University subject to the provisions of the Higher Education Act, 101 of 1997 (as amended) and the Statute. Council is responsible for governance, policy-making and monitoring, and for formulating guidelines relating to strategic and financial governance (including performance evaluation and risk assessment). In addition, it is responsible for providing guidelines for staff matters, fostering a positive academic atmosphere, addressing disciplinary matters regarding staff and students as well as the admission and language policies of the University.

The University is committed to quality, relevance, diversity and sustainability in its academic mission, and pursues the values of discipline, transparency, independence, accountability, responsibility, fairness and social responsibility, as advocated in the King reports. Accordingly, after considering the differences between the business sector and higher education, Council took cognisance of, and applied where appropriate, the Code of Corporate Practices and Conduct and the Code of Ethical Behaviour and Practice, as outlined in the King Reports in the period under review. In supporting these codes, Council recognises the need to conduct the business of the University with integrity and in accordance with generally accepted practices. The monitoring of the University's compliance with the Code forms part of the mandate of the Audit, IT and Risk Committee of Council. As explained in the Chairperson's report, Council has established a process in terms of which it can assess its performance annually as the governing body of the University. A similar process has been established for the self-assessment of Council Committees.

The Standing Committee of Council, the Audit, IT and Risk Committee of Council, the Human Resources Committee of Council, and the Investment Committee of Council were established in terms of Section 29 of the Higher Education Act. A full review of the Charter of the Audit, IT and Risk Committee and the Investment Committee was done in 2021, with amendments approved by Council in June 2021. The consultation process on proposed amendments to the Statute was concluded in 2021 with Council approving the proposed amendments at its meeting of 25 November 2021, for submission to the Minister. Given the proposed changes to the Statute, the Charters of the Standing Committee of Council and the Human Resources Committee of Council will be reviewed once the amendments to the Statute have been approved by the Minister.

The minutes of meetings of the Standing Committee of Council and the Audit, IT and Risk Committee, and reports on the activities of the Human Resources Committee and the Investment Committee were tabled at Council meetings.

Council may delegate the authority, but not its responsibilities, to manage the institution effectively to the Vice-Chancellor and Principal. In accordance with the Statute, Council delegates to the Vice-Chancellor and Principal all the powers necessary to perform his duties. The Principal may, in turn, delegate duties to other employees or committees, except where such further delegation is expressly excluded. Council delegations were reviewed and approved by Council during 2021.

2.3 Council Committees

In accordance with Section 29 of the Higher Education Act, Council has established four committees. All of these committees are formally constituted with charters and are comprised mainly or exclusively of Council members who are neither employees nor students of the University. In addition, Council has a Joint Committee that meets on an *ad hoc* basis to consider and formulate recommendations to Council on the appointment of the Vice-Chancellor and Principal and Vice-Principals. On 24 June 2021, Council reconstituted all its committees and elected chairpersons for each committee for a period of two years.

Council Committees are chaired by individuals with appropriate skills and experience. Council was informed of the activities of all Council Committees at each of its ordinary meetings. All significant matters on the agendas of these Committees affecting the University served before Council.

In view of a number of developments impacting on the functioning of governing bodies and hence also on the assessment of their performance, such as the publication of the King IV Report, guidelines for remuneration committees published by the Institute of Directors in South Africa, and the amendments to the reporting regulations for public higher education institutions, the process, documentation and forms related to the assessment of Council and the various Council Committees were reviewed in 2014 to ensure continued compliance with the applicable regulatory framework and best practice. The assessment forms were amended in 2018 to include aspects of the Guidelines for Good Governance Practice and Governance Indicators for Councils of South African Public Higher Education Institutions and the accompanying Governance Indicators Scorecard published by the Department of Higher Education and Training (DHET). The responses in the annual Council performance assessment forms were used to populate the Scorecard and the Scorecard was approved by Council in June 2021 for submission to the DHET. The results of the 2021 assessment indicated that Council and its Committees were perceived as performing at a level of good to excellent. In line with the Guidelines for Good Governance Practice, an external review of Council will be undertaken in 2022.

More information on Council Committees is provided below.

2.3.1 The Standing Committee of Council

The Standing Committee of Council is constituted in terms of paragraph 20(1) of Chapter 5 of the Statute of the University of Pretoria. The Standing Committee of Council serves as the Executive Committee of Council and considers proposals and objectives for the University to be approved by Council for implementation by the University management on, *inter alia*:

- Strategic governance;
- Financial control, in consultation with the Audit, IT and Risk Committee of Council;
- Fostering a positive academic atmosphere; and
- Social and ethics matters pertaining to the University as a whole, in consultation with the Human Resources Committee of Council.

The Standing Committee of Council also operates as the Council Membership Committee by considering nominations for vacancies on Council and making recommendations in this regard to Council. The Committee comprises seven members, namely the Chairperson and Deputy Chairperson of Council (*ex officio*), the Vice-Chancellor and Principal (*ex officio*), two members of Council who are permanent employees of the University and members of Senate, and two additional Council members who are appointed from amongst the external members of Council.

The Committee had three virtual meetings in 2021.

Table 2.3. Attendance: Standing Committee of Council (SCC)

Meeting	Committee members present (of 7 members)	Absent with apology	Vacant seats
15 February 2021	5	2	0
3 June 2021	4	3	0
3 November 2021	7	0	0

2.3.2 The Human Resources Committee of Council

The Human Resources Committee of Council is constituted in terms of paragraph 23(1) of Chapter 5 of the Statute of the University of Pretoria. Council has delegated to the Human Resources Committee, which also operates as the Remuneration Committee of Council, the power to finalise, *inter alia*, the following matters on its behalf:

- Approving regulations and policies for the appointment of academic and non-academic employees of the University;
- Appointing certain employees of the University in terms of the regulations and policies of the University, except as otherwise provided for;
- Determining the general conditions of service, annual salary adjustments, disciplinary provisions and benefits of employees as well as approving codes of conduct and regulations applicable to employees;
- Ensuring that the appointment of employees, conditions of service and all other activities pertaining to employees conform to all relevant legislative provisions;
- Approving the remuneration of the Vice-Chancellor and Principal, the Executive management and other senior employees; and
- Monitoring the implementation of the University's Employment Equity (EE) Plan.

In terms of the Charter of the Committee, the Committee should consist of at least five members, all of whom are external Council members, including the Chairperson of Council and the Chairperson of the Standing Committee of Council. The Vice-Chancellor and Principal attends the meetings by standing invitation.

The Committee held three virtual meetings during 2021. The Chairperson of the Committee reports to Council on the activities of the Committee on a regular basis.

Table 2.4. Attendance: Human Resources Committee of Council (HRCC)

Meeting	Committee members present (of 5 members and 6 members after the reconstitution of the Committee)	Absent with apology	Vacant seats
16 February 2021	5	0	0
14 June 2021	4	1	0
25 October 2021	6	0	0

2.3.3 The Joint Committee of Council

The Joint Committee of Council, which consists of all members of the Standing Committee of Council and all members of the Human Resources Committee of Council who are not members of the Standing Committee of Council, deals with the appointment of the Vice-Chancellor and Principal and Vice-Principals. The Committee is chaired by the Chairperson of the Standing Committee of Council and meets on an *ad hoc* basis.

As there were no vacancies in terms of the positions of Vice-Chancellor and Principal or Vice-Principals during 2021, no meetings of the Joint Committee were held.

2.3.4 The Audit, Information Technology and Risk Management Committee of Council

Please refer to the separate report of the Committee, which appears in Section 6.

2.3.5 The Investment Committee of Council

The Investment Committee of Council is constituted in terms of paragraph 23(1) of Chapter 5 of the Statute of the University of Pretoria.

The Investment Committee of Council is charged with overseeing the investment matters of the University. The Committee convenes biannually during May/June and October/November to consider the performance of the University's investment portfolio for the preceding six-month period, ending 31 March and 30 September, respectively. The Committee comprises external Council members, the Vice-Chancellor and Principal (*ex officio*), members of the Executive nominated by the Vice-Chancellor and Principal, the Executive Director: Finance, the Director: Finance, and at least one knowledgeable full-time permanent employee of the University from the academic staff appointed by the Vice-Chancellor and Principal. The Committee held two ordinary virtual meetings during 2021 and reports on the activities of the Committee were tabled at Council meetings for noting.

Table 2.5. Attendance: Investment Committee of Council

Meeting	Committee members present (of 10 members and 12 members after the reconstitution of the Committee)	Absent with apology	Vacant seats
12 May 2021	10	0	0
8 November 2021	9	3	0

2.4 Statement on Sustainability

During 2021, the COVID-19 pandemic continued to disrupt the world, the country and the University in a way that was a true test of resilience. As with other establishments across different sectors, UP was affected directly by the pandemic. In higher education, country-wide lockdowns, requirements for social distancing, and constraints applied to gatherings caused fundamental disruptions to established modes of teaching, learning, and research. At the same time, the sector continued to deal with the issues of weak national economic growth, an unstable currency, declining state funding, increasing regulation of tuition fees, and rising student debt. This presented significant implications to the University's functioning and its long-term sustainability. The entire University ecosystem of people, processes and infrastructure was impacted, and thus required a holistic and systems-thinking approach to designing appropriate interventions.

The University of Pretoria's focus on sustainability aims to meet current strategic imperatives – increasing access, ensuring excellence, improving impact, expanding internationalisation and promoting transformation – through innovative interventions, while ensuring that the University continues to thrive.

The University's sustainability goal is underpinned by the following outcomes:

- Financial sustainability in terms of solvency, liquidity and cash flow;
- An ecologically and economically sustainable infrastructure;
- A UP precinct that creates an enabling environment for staff and students to excel;
- A diverse and talented cohort of students, academic and professional staff; and
- Integration of sustainability principles in all University operations.

The outcomes listed above demonstrate the University's integrated and holistic approach to sustainability.

In 2021, we published our first SDG Progress Report (reporting on UP's 2020 contribution towards achieving the United Nations' Sustainable Development Goals). The SDG Progress Report for 2021 is expected within the next few months. The 2020 report shows the progress made with integrating sustainability into all aspects of the University, and the various gains that we have made in this regard. The report is an important part of UP's quest to strengthen collaboration and partnerships internationally, and particularly in Africa, to achieve the SDG goals through our research and educational programmes.

The COVID-19 pandemic was arguably a catalyst for universities to reinvent themselves. Collectively, UP was able to leverage its skilled people, action-orientated culture and advanced technological capability to rapidly implement measures to reduce the likelihood of disease spread, to support teams and individuals, to shift into a virtual mode of teaching and learning, and to contribute knowledge and expertise to national efforts to manage the pandemic beyond the University's boundaries.

2.4.1 Ensuring continued financial sustainability

The higher education sector remains in a strained state as it confronts the repercussions of the COVID-19 pandemic and the resultant financial implications. The sustainability of many universities has been under pressure over the past decade, due to resource constraints in the face of ever-increasing costs. The onset of the pandemic exacerbated the sustainability challenges confronting universities, particularly due to the deteriorating macro-fiscal outlook.

The University has continued with a proactive approach to managing these risks. During 2021 the University delayed non-essential capital projects and employed strict processes for the appointment of professional and service staff. These austerity measures and the following key actions were implemented to direct the financial sustainability programme:

- Implementing a zero-based budget for certain operational expenses with a view to eliminating all non-essential expenses;
- Allocation of resources for strategic staff appointments and strategic projects;
- Stronger alignment of the budgeting process with the Strategic Plan of the University;
- Establishing financial sustainability targets across the institution relating to third-stream income, optimum student/staff ratios and targeted annual savings; and
- Greater attention on obtaining external funding with a focus on Chairs and grants.

Despite these initiatives, the 2021 budget was placed under further strain due to a reduction in the state subsidy and earmarked grants in order to partially fund the growing NSFAS budget shortfall. This resulted in the University having to increase its reliance on the utilisation of investment returns and once-off reserves during the 2021 financial year.

2.4.1.1 Strategic funding

Notwithstanding the various initiatives geared toward financial sustainability, the University's approach also reflects the need for investment in key initiatives and on the strategic approach to the allocation of the limited financial resources. In this regard the following initiatives were undertaken:

- A re-alignment project relating to postgraduate and international student processes, structures and systems;
- Strategic apportionments to increase the number of academic staff in order to improve the student – academic staff ratio.
- Enhancement of data storage and access meeting the requirements of the Protection of Personal Information Act (POPIA) and the Promotion of Access to Information Act (PAIA); and

→ 4IR-aligned facilities, laboratories and high-performance computing requirements.

The University will continue to ensure responsible financial management of the institution, through regular monitoring of costs to budgeted amounts, prudent utilisation of financial resources, the identification and management of risks and the enhancement and diversification of sources of revenue. These factors are critical to support its academic and strategic objectives.

2.4.1.2 Generation of funding streams from continuing education and contract research

In addition to funding secured by means of formal research activities and fundraising efforts, Enterprises University of Pretoria Pty Limited (Enterprises UP) also plays a significant role in the generation of alternative sources of funding. The company is responsible for the development, implementation and management of the business activities of the University, such as continuing education, consulting and contract research. Enterprises UP is a strategic partner to many institutions in both the public and private sectors in the crafting and execution of research and training solutions to enable their clients to meet their organisational goals. Driven by the motto “Shifting knowledge to insight”, the company successfully expanded its footprint in South Africa and internationally, resulting in a total turnover of R232,4 million in 2021.

2.4.2 UP as an anchor institution

Developing the University’s role as an anchor institution is an important expression of our commitment to strengthening our social responsiveness and impact on society. UP has the capacity, through its economic power and its intellectual and other resources, to have a long-term positive impact on the communities in which our campuses are located.

By collaborating with government, industry and community stakeholders, the University leverages its resources to significantly improve the welfare of local communities and society as a whole. Furthermore, these communities act as “living laboratories” where UP students and researchers have the opportunity to develop and apply new knowledge in real world settings, benefitting both the University and the community. In 2021, examples around the Hatfield Campus included the ongoing digital twinning project spearheaded by the University’s Department of Architecture and the participation of different groups of students in the Moja Gabedi³ and Reliable House community engagement projects⁴.

In 2021, the University continued its collaboration with other role players in the Hatfield Campus Village through our participation as the major contributor in the Hatfield City Improvement District (CID). First established in 2004, the CID provides urban management services in addition to those rendered by the Municipality, to improve the environmental quality of the Hatfield area. In 2021, for example, more than 53 000 bags of refuse were removed, 221 potholes repaired and 1 500 illegal advertisements removed. Street trees were trimmed and flower beds maintained.

³ See https://www.up.ac.za/news/post_2949083-ups-moja-gabedi-from-rubble-to-a-meaningful-garden

⁴ See https://www.up.ac.za/usr/news/post_2949100-reliable-house-up-community-lends-skills-to-create-safe-space-for-help-and-harm-reduction-

During 2021, the University continued to support the Hatfield CID's efforts at improving the safety of the Hatfield area. Under the auspices of the CID, the University, the Tshwane Metropolitan Police Department (TMPD), the South African Police Service (SAPS) and private security contractors work together to eliminate crime in the area. Through a donation of bicycles by the University, the TMPD bicycle unit was reinstated in 2021. Towards the end of the year, surveillance of the area was taken up a notch by the configuration of automated number plate recognition (APNR) software on 14 CCTV cameras in Hatfield, bringing the total number of cameras in the area to 74.

The precinct plan for the Hatfield Metropolitan Node that was completed by the University in collaboration with the Hatfield CID in 2021, is the first of its kind for the city and sets the standard for other precincts in the municipality. The public participation process has been concluded and final approval by the Tshwane City Council is being awaited.

Another first for the Hatfield CID is its envisaged reconfiguration in accordance with the Internal Municipal Service District (IMSD) by-law that was promulgated in 2021, a step that the University believes will further strengthen the long-term sustainability of the Hatfield Campus Village.

2.4.2.1 Contribution to the local economy

The economic impact of the University of Pretoria in Tshwane, Gauteng and South Africa, as measured by a 2018 study⁵ commissioned by the University, is significant. The study in question found that, based on data relevant at the time, the value chain contributed significantly to the local, regional and national economy, *inter alia*, in the following ways:

- Its employment constituted 0.5% of total employment in Tshwane, while the University, its suppliers and their suppliers added R7.6 billion (or 7%) to Tshwane's GDP;
- UP made a significant contribution to the national economy through its capital expenditure, the payment of taxes, employment of staff, the use of suppliers and subsequent employment creation, as well as the consumption expenditure of students and staff, leading to an ultimate contribution of R39 billion to the South African economy. In addition, it is a well-known fact that UP is the second largest rate payer in Pretoria;
- UP graduates represented 13.7% of the highly skilled workforce in Gauteng and 7.7 % of the highly skilled workforce in South Africa; and
- UP contributed, cumulatively, 10% of all graduates in South Africa and 23.8% of Gauteng-based and 33.9% of Tshwane-based graduates. Currently, it is estimated that UP contributes about 12.5% of graduates nationally, thus making a significant contribution to the skills base of South Africa.

2.4.3 Fostering stakeholder relationships

As part of its strategy of engagement, the University continued to establish and maintain relationships with all its stakeholders in 2021. These stakeholders include, amongst others, students, staff, government, parents, alumni, communities, business and industry, donors and international

⁵ Quantec Research (Pty) Ltd (2018) The contribution of the University of Pretoria to the South African Economy. Unpublished report.

organisations and foreign missions. To support the implementation of the University's anchor strategy, relationship-building with all three spheres of government and government entities, foreign missions in South Africa as well as with regional, continental and international governmental organisations continued via various channels, including the Office of the Vice-Chancellor and Principal, the Department of Institutional Advancement, the International Cooperation Division, and the Office of the Chief Operating Officer (COO). There are a number of structures that ensure participation by these stakeholders in the institution generally, and in its governance structures.

Despite the constraints imposed by the COVID-19 pandemic in 2020 and 2021, stakeholder engagement continued from community to international levels. Community engagement focused on outreach and supporting national responses to the pandemic. For example, the UP Community-Orientated Primary Care (COPC) Research Unit in the Department of Family Medicine conducted various outreach initiatives, including COVID-19 screening in rural communities. Additionally, the Faculty of Health Sciences undertook initiatives to support homeless people in the Tshwane area, including both screening and testing for COVID-19.

The COVID-19 pandemic and the lockdown regulations that continued into 2021, resulted in the suspension of many planned activities. Nonetheless, relations with the foreign missions in South Africa were pursued with the aim of developing collaborative links with higher education and other institutions in the countries that they represent which, in turn, support the internationalisation agenda of the University.

With some 230 international institution-wide partnerships, the University affirmed its leadership and commitment to building capacity in Africa and to accelerating and scaling impact for achieving the African Union's Agenda 2063, as well as the SDGs. A considerable number of engagements were undertaken using online platforms to host debates, high-level conferences, webinars, and the signing of institutional agreements arising from interactions in prior years.

2.4.3.1 Government and community relations

Strengthening of relations with the local community, including businesses, the faith community, schools, non-governmental organisations, and the arts, cultural and sports communities are a particular focus of the University's anchor strategy. The University's continued involvement as a major role-player in the Hatfield CID serves as an example of this. Unfortunately, the COVID-19 pandemic and the continuing lockdown regulations, resulted in the suspension of many planned community-related activities.

Since 2021, an electronic newsletter under the name "Community Matters" that highlights activities and developments at UP, has been published and distributed three times a year to government, diplomatic missions, donor organisations and employers. The newsletter replaced the previous bi-annual publication, *GRASP*.

2.4.3.2 Donors and alumni

UP has more than 300 000 alumni in 118 countries. Most of our alumni live in South Africa (of whom approximately 55% live in Gauteng). Outside Africa, our largest international presence in terms of alumni is in the UK, Australia and the USA.

The University's Charitable Trust in the United Kingdom was launched in 2021. UP now has two foreign charitable foundations, the first one being in the United States. The planning for the University's first giving campaign gained momentum in 2021, with the anticipated launch scheduled for July 2022. The funds will be used primarily for student support and strategic projects identified by the Vice-Chancellor.

An estimated R500 million was allocated to about 8 000 students in 2021 in the form of University-managed and external bursaries. Between 2019 and 2021, about 244 staff donors contributed to various projects on campus, amounting to more than R1 million rand. In addition, UP's Department of Institutional Advancement has a division that focuses its efforts on securing bursaries from external donors to supplement University loans and bursaries to students. These grants vary in amount and duration, and donors usually set the criteria for eligibility.

In August 2021, the Alumni Relations Office launched the LeadUP Podcast series, a spin-off of our successful LeadUP webinar series that was launched in 2020, to enable UP to connect with alumni across the world, and raise and maintain UP's profile during the initial stages of the COVID-19 pandemic. The LeadUP Podcast seeks to be a platform of engagement for alumni, staff and students, while also inspiring listeners to be a force for positive change.

2.4.3.3 JuniorTukkie

The Department of Enrolment and Student Administration (DESA) engages with the prospective student community and, in particular, with over 700 schools nationally as well as with some selected SADC schools, to recruit students to the University. These relationships are strengthened through partnerships with various companies through their corporate social investment programmes. In 2021, one such partnership, through the leadership of the Vice-Chancellor and Principal, led to the development of the JuniorTukkie Online platform in collaboration with UNICEF. This platform has already been accessed by over 60 000 learners, to help them to improve their academic and life skills at school level. Through partnerships with organisations such as UNICEF, Investec, Dimension Data and others, as well as with the various schools, we will continue to make a positive impact on the lives of our students and communities. Through the JuniorTukkie APP, we also engage regularly with over 5 000 prospective students.

2.4.3.4 Students

A well-established class representative system is in place to ensure continuous engagement with students regarding all academic matters. In addition, structures such as the Student Representative Council (SRC) and its substructures, the Constitutional Tribunal, the Residence Sub-Council, Residence Advisory Board and residence house committees, student faculty and day houses, organisations and registered clubs and societies provide platforms for consultation and engagement

on all matters outside the classroom environment. Through these structures, as well as formal communication and escalation protocols for academic and non-academic complaints, students have an opportunity to raise their concerns with various levels of Management.

The University Management has a long-standing practice of regular meetings with the SRC and affiliated student structures to identify and discuss key issues and provide correct information to improve the information flow and trust across all levels of governance. The Vice-Chancellor and Principal and Vice-Principal: Student Life meet with the SRC from time to time to discuss salient issues pertaining to the broader student body. Students also have representation on Council, Senate and the Institutional Forum of the University.

Since 2020, the SRC has been represented on the Workplace Safety Committee, a newly established structure which oversees the University's response to the COVID-19 pandemic and develops, implements, monitors, evaluates and revises the response to ensure that UP maintains a healthy and safe environment for our community, including staff, students, contractors, suppliers, and members of the public.

Further details on engagement of students are provided in the Statement on Worker and Student Participation (Section 2.7.1). During 2021, the majority of these interactions took place via online platforms.

2.4.3.5 Staff

The University of Pretoria Bargaining Forum (UPBF) continued to engage on various staff matters of mutual interest. To strengthen the relations between University Management and organised labour in 2021, retreats were organised with the intention of addressing relationship fundamentals that will facilitate progress on imperative staff matters going forward. These retreats included a facilitated session on Relationship by Objectives (RBO) as part of the relationship building pillars that would support meaningful engagements with unions. Further details on engagement with staff are provided in the Statement on Worker and Student Participation (Section 2.7.1).

2.4.4 Sustainable infrastructure

UP's infrastructure includes more than 730 buildings, some dating back to the early 1900s. More than a third of the buildings are classified as heritage buildings and are subject to the provisions of the National Heritage Resources Act 25 of 1999. The University has a conservation management plan to ensure the sustainability of the buildings. Over time, more buildings will become subject to the Act, and, thus, the updating of the plan will be a continuous project.

The planning, design and construction of sustainable infrastructure are key elements of the University's approach to sustainability. For all newly designed buildings and refurbishment projects, the approach has been to focus on energy efficient designs with regard to power and water usage, waste handling as well as ventilation and air conditioning. The University has entered into a Power Purchase Agreement (PPA) to supplement its electricity supply by installing photovoltaic (PV) panels on existing and new buildings. This project commenced in 2018 and was expanded in 2021. As shown

in Table 2.6, the electricity generated by PV panels has increased from 84 096 kWh in 2017 to 1 366 767 kWh in 2021.

Table 2.6. Electricity generated by PV panels, 2017 to 2021

Year	Electricity generated by PV (kWh)
2017	84 096
2018	472 756
2019	462 620
2020	628 497
2021	1 366 767

The University's energy-saving initiatives, which support both our financial and environmental sustainability goals, are bearing fruit. Electricity consumption has consistently declined from 2017 to 2021 (see Table 2.7 below).

Table 2.7. Electricity consumption, 2017 to 2021

Year	Electricity consumption (kWh)
2017	99 287 212
2018	96 933 858
2019	92 870 402
2020	72 567 615
2021	85 000 143

2.4.5 Effective conservation strategies

The impact of the national lockdown in 2020 on water and electricity consumption, as well as recycling, was significant. The electricity consumption in 2021 was 14.62% more than the 2020 consumption, while water usage in 2021 was 36.65% less than the usage in 2020 (see Table 2.8). One of the key priorities that continued in 2021 was to correct the municipal accounts by aligning the sanitation rate with the zoning of the land. The total rebate from the City of Tshwane (CoT) was R20 106 363.

Table 2.8. Annual water consumption, 2017 to 2021

Year	Water consumption (kℓ)
2017	1 056 340.73
2018	982 637.60
2019	982 469.97
2020	756 409
2021	479 130

Under normal operational conditions, UP is a major generator of general waste (recyclable waste, food waste and garden waste). The removal and disposal of general waste is regulated through the National Environmental Management Waste Act 59 of 2008. During 2021, a total of 87 358kg of waste was recycled and an amount of R 102 235 was received in rebates. This was a 9.8% increase in recycling compared to the same period in 2020. This increase was directly attributable to the easing of the COVID-19-related lockdown restrictions, which allowed more activities at the University.

The upgrading of the compost and mulch production facility on the Hillcrest Campus has substantially decreased the need for, and costs of, transporting garden refuse to landfill sites. Compost and mulch showed a decrease in production over 2021 compared to 2020 (see Table 2.9). The use of mulch in plant beds on the University campuses and properties will result in a decreased need for irrigation water, the prevention of weed infestation and the creation of healthier soils.

Table 2.9. Mulch and compost production, 2018 to 2021

Year	Cubic metres (m ³)
2018	1 926
2019	2 405
2020	3 702
2021	1 111

2.4.6 Investing in the sustainability of our ICT infrastructure

The COVID-19 pandemic resulted in serious challenges to the University’s business continuity strategy and plan. The University’s information and communication technology (ICT) infrastructure played a pivotal role in supporting the continuation of services to both staff and students. The University has strengthened its IT infrastructure to support remote work, as well as online teaching and learning. This included, amongst others, the provision of laptops and connectivity to students in need, as well as the provision of data allowances to enable staff to work from home.

UP became the first higher education institution in Africa to implement the Blackboard Ally (Bb Ally) software to make its digital courses more accessible to all students. This software enables students with learning disabilities, as well as second-language students, to improve their academic performance, which fosters an inclusive learning environment. As such, the use of Bb Ally aligns with the University’s policies regarding equality and its commitment to embracing diversity. Bb Ally is a revolutionary solution that integrates seamlessly into clickUP, making digital course content accessible to a greater variety of students.

An increasing number of students are making use of their personal computing devices for academic work or to access the Internet and other UP systems through the Wi-Fi network. This has led to a dedicated Student IT Hub being established to provide technical support to students. Student Computing, through the Student Hub, switched successfully to a remote service model and provided invaluable support during online tests and examinations.

The University upgraded its IT servers and data storage facilities in order to ensure the continuous provision of services. This included establishing a second data centre to address the risk associated with recovery of institutional data in the event of damage to the current single data centre. Software migration to the new platform was completed by the end of 2021.

The cybersecurity infrastructure was also upgraded to increase cyber security protection. The free or zero-rated portal called UP Connect continued to be utilised by those students who did not have

internet access but had to access university resources. The Learning Management Systems were also upgraded and scaled up to accommodate the demands of the hyflex teaching model.

2.4.7 Research and sustainable development

At the heart of UP's research strategy is the commitment to pursue "research that matters", i.e. research that addresses complex societal challenges and, in particular, the challenges that are faced by developing regions in the world. Such issues include the environment, climate change, food security, poverty alleviation, health, education, and evidence-based policies for development, amongst others. The role of research in developing sustainable solutions is set out in greater detail in Section 3.4.

2.4.8 Investing in student access and success

The University seeks to provide an environment where students can succeed and flourish, with access to the support and facilities they require (section 3.3 provides a detailed description of the University's student success initiatives). Given the ever-increasing resource constraints, a priority for 2021 was to optimise the use of available resources and increase the income generated to support the University's academic project. In order to ensure sustainability, the focus fell on efficient strategies that would ensure a steady flow of talented, diverse students.

The annual *#ChooseUP* information event for conditionally admitted students and their parents and guardians was held virtually on Saturday, 4 September 2021. The event provided an opportunity for prospective students and their parents and guardians to engage with the Vice-Chancellor and Principal and deans, and attend information sessions on various programmes, academic and curriculum advising sessions, registration and orientation information sessions, as well as sessions provided by professional service departments. More than 10 000 participants attended the event.

The University's undergraduate recruitment strategy emphasises the importance of responsible study and career choices and the employability of students, through a variety of events. In 2021 these events included fewer physical activities at feeder schools due to COVID-19, but more virtual information sessions and career exhibitions, virtual events with chat functionalities and the dissemination of online information material. Virtual events included the Grade 11 Top Achiever Event, Grade 11 Empowerment Week, Grade 12 Preparation Conference, UP School Leaders Conference, and the virtual Summer and Winter schools in Mathematics and Physical Sciences for Grade 11 and 12 learners.

The success of these virtual activities was noted by, amongst others, UNICEF, and led to a generous sponsorship from the organisation. The sponsorship enabled the University to develop a JuniorTukkie-UNICEF Online Platform and, in this way, expand the JuniorTukkie Online Academy to include virtual enrichment videos for Grade 10-12 learners in Life Sciences, Accounting, English, Mathematics and Physical Sciences and for Grade 8 and 9 learners in Mathematics and Natural Sciences. Videos to develop life skills were also developed and posted on the portal for the benefit of learners in all grades. An equally important development was the partnership with StudyPortals

and Unibuddy, two international virtual platforms, to promote UP and increase the number of international students.

2.4.9 Ensuring graduate employability and entrepreneurship

Graduate employability and entrepreneurship are critical priorities for UP, especially given the rising levels of youth unemployment and the evolving world of work. To this end, the University has intensified efforts to enhance the workplace readiness of our graduates and encourage more students to take up entrepreneurship as their career path after completing their studies. Two key initiatives have been implemented in this regard, namely the Ready-for-Work and the Entrepreneurship programmes.

UP applied the core principles of the Entrepreneurial university ecosystem in effectively cultivating, firstly, an entrepreneurial mindset (inclusive of entrepreneurial orientation and intent), and secondly, enabling entrepreneurial action via our support systems on our various campuses.

2.4.9.1 Ready-for-Work programme

The Ready-for-Work programme seeks to build workplace readiness amongst UP students by providing them with key employability skills. The University upgraded and extended its online soft-skills training courses, which are accessible to all UP students via ClickUP. These courses now consist of four core packages comprising five to seven modules each. These four courses focus on career planning, job preparation, workplace skills, and personal development. All the modules in the first four packages are free, self-paced, and are presented online. After the assessment, students receive certificates that they may use to enhance their Curricula Vitae. The pandemic had an impact on our enrolment for the Ready-for-Work programme and these numbers remained stable (2 699 in 2020 and 2 700 in 2021).

The module content was reviewed in 2019, and the improved Ready-for-Work programme was launched to students in March 2020. A new module on the 'gig' economy, an emerging self-employment trend, was introduced in 2019. The term 'gig' refers to a work situation in which temporary positions are common and freelance professionals enter into contracts with organisations for short periods of time. Freelancers, independent contractors, project-based workers, and temporary or part-time hires are all part of the 'gig' economy. The 'gig' economy is becoming more important in an increasingly digital world that allows people to work from anywhere and at any time.

Recognition of excellence is evident in the following awards received from the South African Graduate Employers Association (SAGEA) and Universum:

- SAGEA awards: Best Work Readiness Programme 2021;
- Universum Student Experience Certificates of recognition for outstanding reputation, outstanding institutional offering and outstanding employability 2021; and
- Mace: Bronze for Career Services at UP video 2021.

The University also launched an initiative to assist students to find employment. TuksCareers is an online platform that affords UP students and alumni the opportunity to interact with potential employers and provides access to work readiness skills development. Students and alumni can view and follow potential employers who are registered on the TuksCareers database, get notifications of upcoming events hosted by Career Services and potential employers, and search for and view job opportunities.

Enhanced employer involvement in UP activities and the virtual career fairs for law, accounting, actuarial science and engineering, as well as a general career fair that is hosted annually, were well attended. Workshops focusing on creating a résumé and cover letters, as well as preparation for interviews, were also offered.

2.4.9.2 New initiatives and service offerings

Support offered to unemployed graduates included the following:

- Assistance with CV writing, LinkedIn profiles, job searches, and interview preparation;
- Career development webinars;
- 889 graduates are registered on the Career Services Office database of whom 399 have completed the Ready-for-Work programme; and
- More than 500 opportunities (internships, graduate programmes and full-time employment) were offered by various companies and departments to unemployed graduates.

As from 2022, gamification will be offered as a method of enhancing students' employability through "game play". Gamification refers to the application of game-design elements and game principles in non-gaming contexts. During 2021, the Career Services Office completed the first phase of the project that is to be rolled out in February 2022.

The UP-Career Mentorship Programme aims to give final-year students an idea of the realities of the working environment for a period of six months. The pilot programme was launched in the School of Engineering in 2019 and extended to the whole Faculty of Engineering, Built Environment and Information Technology (EBIT) and the Faculty of Theology and Religion in 2020 and 2021.

The internship programme is a collaboration between the Career Office and the Department of Education Innovation. The programme offers Law internships, internships in Online Education services, Marketing internships and Career Services internships. In addition, internships from the government (via the SETAS) include internships offered in the Safety and Security Sector Education and Training Authority (SASSETA) and the Education, Training and Development Practices Sector Education and Training Authority (ETDP SETA).

2.4.9.3 Entrepreneurship programme

There are numerous opportunities at UP for developing in entrepreneurship, from formal degrees to informal online courses and projects, which include the following:

- A BCom (Business Management) qualification with entrepreneurship and innovation as the core focus; a Postgraduate Diploma in Entrepreneurship (a pragmatic postgraduate course inclusive

of community engagement and entrepreneurial development); an MPhil Entrepreneurship (enhancing the scientific body of knowledge in the broader entrepreneurship domain); an MBA in Entrepreneurship (providing a broad view to business and its role in society); and a PhD in Entrepreneurship with a core focus on international research and knowledge gaps directly aligned with recent scientific conversation and also designed to develop the entrepreneurship scholarship with high levels of academic rigour;

- An online entrepreneurship development programme engaging students in the entire entrepreneurial process on both awareness and action-orientated levels. The programme is available to all our registered students for free. Additional support to develop formal business plans for implementation is available, if required;
- Advanced entrepreneurship and business managerial short courses contributing to both potential and nascent entrepreneurs (via Enterprises UP and/or GIBS' Entrepreneurship Development Academy);
- TuksNovation, a high-tech business incubator that initially supported students in the Faculty of Engineering, Built Environment and Information Technology (EBIT) with services being expanded to all UP students; and
- The Mamelodi Business Clinic (on the UP Mamelodi Campus) that serves as an enablement and support hub for township entrepreneurs in the informal sector, and as an interdisciplinary participation hub towards world-class research.

In 2019, the University established the *Centre for Entrepreneurship (CfE)* aimed at creating a platform for enhanced economic growth and employment creation. During 2020 and 2021, the Centre undertook various activities, including:

- Designing, building and implementing the National SMME Support Portal to assist entrepreneurs in distress during COVID-19 via the alumni system. All services were offered for free and approximately 18 000 alumni have engaged with the portal since 2020;
- Presenting grant-funded programmes to support existing entrepreneurs through the GIBS Entrepreneurship Development Academy; and
- Presenting grant-funded programmes with PwC and UNICEF as partners to support existing entrepreneurs through an online youth entrepreneurship development programme across Africa.

2.4.10 Investing in student development and wellbeing

The University's strategic investment in programmes that promote the wellbeing of students, their general development and overall success as well-rounded individuals, socially responsible citizens and employable graduates, continued in 2021 through a range of mainstreamed professional services and special initiatives.

2.4.10.1 Student Health Services

The Student Health Services Unit provides basic health services to students on all campuses. Accessible student clinics are situated on each campus. These clinics are staffed by a team of professional nurses, medical doctors, dieticians, optometrists and HIV testing staff, who provide a wide range of services free of charge. These services include diagnostic and treatment services, dietary and pregnancy consultations, contraception, eye tests, HIV/Aids counselling and testing, immunisation drives and specialist referrals.

Due to the COVID-19 lockdown regulations and limited access to the University's campuses, the uptake of services was low. The monthly health and wellness awareness campaigns on topics such as TB, flu and communicable diseases, substance abuse, cancer, mental health, nutrition, sexual health, and violence and abuse continued via the UP Web and various social media platforms.

2.4.10.2 Higher Health

UP received a grant from Higher Health for the period April 2021 to 2023 to support institutionally-based health, wellness and development programmes. The key objectives of these programmes are the recruitment and capacity building of peer educators; increasing the education and knowledge, and improving the attitude and behaviour amongst students; early health and wellness profiling and risk assessment for students in respect of HIV/TB/STI, SRH and GBV, as well as mental health; the COVID-19 response and vaccination programme; and linking at-risk students to services, care, treatment and psychological support.

The University ran a number of successful Stop-the-Spread COVID-19 activities at its campuses in partnership with Higher Health and the City of Tshwane.

2.4.10.3 Student Counselling

The University's Student Counselling Unit (SCU) continued to focus on additional and alternative ways to provide professional psychological support and ensure student mental health and wellbeing throughout 2021 when the country was on COVID-19 lockdown. Free telehealth services were provided in the form of e-therapy sessions using WhatsApp video call or Zoom, within the regulations of the Health Professions Council of South Africa (HPCSA).

A significant development for the Student Counselling Unit was a chatbot acquired with funds from the Michael and Susan Dell Foundation. Launched in March 2021, SCU-B ('Scooby') is an artificial intelligence (AI) tool that stimulates conversations through voice commands and text chats for counselling purposes. This was one of the additional and alternative ways the SCU found to provide professional psychological support and ensure student mental health and wellbeing during the COVID-19 lockdown in 2021.

The partnerships with Akeso Psychiatric Clinic for mental health emergencies and with the South African Depression and Anxiety Group (SADAG) for the UP Careline providing a 24/7 emergency line and peer support continued. In addition, a psychiatrist was again appointed on a sessional basis, enabling the University to enhance its psychiatric services for students who require medication due to mental health problems.

2.4.10.4 Student housing

The need to align with the COVID-19 protocols to ensure student health and wellness, resulted in the reduction of the University's student housing capacity in 2021. This meant that only around 6 500 students were placed in University residences. All the necessary health and safety protocols and regulations were in place and additional academic support was provided in the residences. For most of the year, extramural activities were limited and, where permitted, mainly took place online. In order to expand its student housing capacity, the University increased its stock of accredited private accommodation.

The University continued to provide quarantine facilities for staff and students who tested positive for COVID-19.

2.4.10.5 Students with disabilities

Specialised academic, assistive technological, physical and psychosocial support services offered by the Disability Unit demonstrate the University's commitment to ensuring an integrated and inclusive learning experience for students with disabilities. The Unit supports students with visual, hearing, physical, learning, psychological and chronic medical disabilities and ensures that they are integrated into the academic programmes and student social life. During 2021, a total of 630 students with declared disabilities received direct support from the Disability Unit. Section 2.5.3 provides more information on the University's support to students with disabilities.

2.4.10.6 Student hunger and nutrition

Despite the COVID-19 lockdown, the University continued to provide support to students in need through the Student Nutrition and Progress Programme (SNAPP). The support took the form of meal credits, food parcels, or supermarket vouchers for basic food and toiletries. A total of approximately R860 000 was disbursed in 2021. The impact of the programme is also measured in the improvement of grades (student success), which are monitored throughout the year. In addition, a number of faculties started food pantries to support students in need, while some University residences initiated food gardens for use by students. In October 2021, Tiger Brands entered into an agreement with the University, committing to support the nutritional needs of 500 UP students for 2022.

2.4.10.7 Student development

The student development programmes offered by the Department of Student Affairs and the Department of Residence Affairs and Accommodation to a variety of student governance and student life structures, were offered mainly online in 2021. Social media platforms were optimised to create a sense of pride and belonging amongst students and student leaders.

2.4.10.8 A vibrant student life

The formal extramural student life programme was adapted in 2021 to allow for existing events to take place in new, hybrid formats. These programmes are aimed at supporting the holistic development of students. A student conference on re-imagining the future of UP was held over two evenings in October 2021, with more than 700 participants attending.

2.4.10.9 Campus stability

The University did not experience student unrest in 2021. Minor protest action early in the year petered out after constructive engagement between the University Management and the SRC. Successful student governance elections were held, contributing to ongoing campus stability.

2.5 Statement on Transformation

The University continues to prioritise transformation and remains committed to achieving the goals identified in the UP-Transformation Plan for the University, namely:

- To ensure access to a diverse student body, reflective of the demographic mix and social complexity of South Africa;
- To significantly reduce and ultimately eliminate differential student success and graduation rates based on race, gender, class and other critical variables;
- To ensure the realisation of employment equity targets as set in the University's Employment Equity Plan;
- To enhance research capacity and productivity of black and women academics; and
- To engender institutional cultures and practices that are welcoming to students and staff from diverse socio-economic and cultural backgrounds.

It remains the University's priority to ensure that the institution is transformed, diverse and welcoming to all students and staff from diverse socio-economic and cultural backgrounds. In realising this objective, the University is proactively implementing steps to ensure that transformation permeates every aspect of UP, turning the University into an intellectual home to student and staff cohorts that represent South Africa's rich diversity; providing the conditions necessary for our diverse campus communities to feel welcome, supported, included and valued, and to thrive academically and as researchers. To this end, further measures were implemented to ensure that the strategic goals indicated in the UP Transformation Plan are realised.

The key elements of transformation at UP are presented in the following sections.

2.5.1 Student access, diversity and inclusivity

The UP student demographic profile has steadily changed over past years (see Table 2.10). Where 55.2% of our contact students were black in 2017, this percentage increased to nearly 63% in 2021. Of this, the majority, 59%, are women.

Table 2.10. UP contact student enrolment by race

Race Group	2017		2018		2019		2020		2021	
	Enrolled	%	Enrolled	%	Enrolled	%	Enrolled	%	Enrolled	%
African	22 182	46.45%	23 371	48.17%	24 430	49.92%	24 864	51.04%	26 658	52.73%
Coloured	1 344	2.81%	1 405	2.90%	1 485	3.03%	1 501	3.08%	1 571	3.11%
Indian	2 830	5.93%	2 959	6.10%	3 046	6.22%	3 143	6.45%	3 405	6.73%
White	21 383	44.78%	20 767	42.81%	19 964	40.79%	19 190	39.39%	18 908	37.40%
Not Specified	14	0.03%	13	0.03%	18	0.04%	14	0.03%	17	0.03%
Total	47 753	100%	48 515	100%	48 943	100%	48 712	100%	50 559	100%

UP has for many years provided funding support to enable access to higher education by financially disadvantaged students. The University's ability to enhance its assistance significantly was, to some extent, constrained by the financial challenges brought about by the COVID-19 pandemic. The University implemented a large portfolio of bursaries consisting of the University's own funds, funds raised through donations, gifts, grants, and funding administered on behalf of third parties such as state departments, foundations and provincial governments. UP also has a strategic bursary fund to ensure that our diversity targets for undergraduate and postgraduate student numbers are met (Student financial aid is discussed in detail in Section 3.6). Key highlights include:

- In 2021 Financial Aid increased by 15% to a total of R2 157 million;
- Contributions from UP's own funds increased by 11.32% to R191 million;
- There was an increase of 22.5% to R1 562 million in managed funding from third parties, mainly due to NSFAS' centralised funding activities (including NRF & studentships); and
- There was a 4.1% decrease in funding received from external sources (municipalities, provinces, state departments, and others).

No qualifying NSFAS students were required to make upfront payments (a first payment) when registering for the 2021 academic year. The University also worked closely with NSFAS to support students who may have qualified for NSFAS, but who had not submitted their applications timeously and those who had appealed NSFAS decisions.

2.5.2 Staff transformation

The first year of implementing the University's new Employment Equity (EE) Plan, 2021-2025, saw the proportion of black staff academic grow from 28.4% to 31.1%. Overall representation of black staff (Department of Labour EE definition) remained constant at 67.6% as at 31 December 2021.

New Generation of Academics Programme (nGAP)

As at December 2021, the University had enrolled 31 nGAP candidates, which was an increase from 26 candidates in the previous year. By the end of 2021, 16 nGAP lecturers had completed their doctoral studies, marking an increase from eleven in 2020. All nGAP lecturers are from designated groups, with women making up 67.7% of the lecturers.

Programme for Academic Leadership (PAL)

In keeping with the University's commitment to academic leadership development, a cohort of 19 candidates in senior academic roles participated in PAL 2021. The distribution of the participants was as follows: deputy deans: 3; heads of departments: 5; professors: 10; and associate professors: 1.

Executive Coaching Programme

The UP Executive Coaching Programme offers coaching to all newly appointed deans and directors as well as to a selection of deputy deans (where it is indicated that the latter would benefit from immediate coaching). The aim of the programme is to maximise leadership potential. One dean and a deputy dean participated in the programme in 2021.

Management Development Programme

This programme, which was formalised in 2020, equips participants with the knowledge, personal qualities and leadership skills needed to succeed in management. It also addresses all areas of a business and prepares participants for the transition from managing a department or business unit to a more generalised and senior managerial function, involving a greater scope and scale of executive decision-making. Candidates are required to attend at least 18-21 days of lectures in monthly block sessions spread over 10 months. They are also required to submit assignments, work in syndicate groups and write exams for each study module. Twelve line managers participated in the programme in 2021.

Future Professors Programme (FPP)

The DHET implemented the Future Professors Programme during 2021. This is a national, collaborative initiative, aimed at developing the qualities of academic excellence and leadership in university scholarship in order to contribute to the development of a future South African professoriate. The DHET invites universities annually to nominate between four and five prospective fellows. Academic career development advice is provided to FPP fellows by a panel of A-rated scholars. The programme is tailored towards the individual's research and professional trajectory and the demands of their discipline. Four UP senior lecturers, all of them black women, participated in the programme in 2021.

2.5.3 Students and staff with disabilities

The UP-Disability Unit assists and supports the University in the recruitment, retention and support of students with disabilities. The Unit ensures that these students have meaningful access to teaching and learning activities and co-curricular activities, and supports their academic success and

employability. The University has several initiatives to enhance the inclusion of students with disabilities including, amongst others, the extended orientation for first-year students with disabilities, sourcing of funding for students with disabilities and the facilitation of the DHET Disability Bursary; and provision of and training in, the use of assistive technologies and devices.

Delays with the allocation of NSFAS allowances for the 2021 academic year meant that many students with disabilities had to rely on the assistive technology and devices available at the Disability Unit Computer Labs. Assistive devices loaned to undergraduate and postgraduate students with disabilities included laptops, braille keyboards, magnification devices and automatic wheelchairs. However, due to limited resources, the Disability Unit was only able to loan assistive devices to students with disabilities who were at a high risk of exclusion.

The UP Disability Unit was instrumental in developing a guideline and other interventions necessary to assist lecturers in supporting students with disabilities within an online learning environment. This was vital to ensure that the needs of students with disabilities were not overlooked in the shift from face-to-face learning to online instruction, in response to the COVID-19 pandemic.

Furthermore, in partnership with the Career Services office, the UP-Disability Unit works with private and government entities to ensure the placement of UP graduates with disabilities in either employment or internship opportunities. In 2021, the UP Disability Unit facilitated disability sensitivity sessions with private companies to ensure that graduates with disabilities who were successfully recruited, were entering an accessible and inclusive working environment.

After an eight-year journey with the Disability Unit, Zak Classens, a blind student who had graduated with a BSc (Human Genetics) and an Honours in Bio-informatics, completed a master's degree in Bio-informatics during 2021. He obtained all his degrees *cum laude*. This remarkable journey inspired a post-doctoral student in the Faculty of Natural and Agricultural Sciences to conduct the first local study of successful teaching and learning strategies for blind students in the natural sciences. The study provides a guide that scholars, educators, university managers and policymakers can use to ensure that mathematics and science subjects are accessible to blind students and that teaching strategies allow them to perform to their full potential. The study revealed that the availability and time commitment of tutors, a well-resourced and effective Disability Unit and lecturers who ensure that blind students are accommodated, are indispensable factors for the success of students with disabilities.

2.5.4 Student life

Student life at the University of Pretoria is strongly underpinned by transformation. The orientation and on-boarding programmes for new first-year students are rooted in the institutional transformation agenda, promoting inclusivity and social cohesion and a sense of belonging amongst our students. This has been particularly challenging in an environment where face-to-face interaction is constrained by COVID-19 lockdown regulations and campus closures. Many of the social activities customarily organised during the first few weeks when first-year students arrive at the University to induct them into doing things THE UP WAY, had to be conducted virtually.

Despite the COVID-19-related lockdown limitations hampering student life programmes, creative ways were found to proceed with sport, culture, leadership development, social life, community engagement, entrepreneurship training, mentoring and projects in support of student academic success, wellbeing and professional development. These initiatives were informed by and aligned with the transformation imperatives of the University, with the inclusion of topics such as cultural diversity and diversity sensitisation, gender and sexuality awareness, as well as gender-based violence education.

The hybrid approach to formalised extracurricular and co-curricular student leadership development and training, introduced in 2020, continued in 2021. Efforts were made to provide data to students in need to enable them to participate in leadership training and development programmes.

In 2021, 68% of beds in University residence accommodation were awarded to black students. In terms of student leadership demographic, 19 of the 29 residence house committee chairpersons, and 14 of the 19 members of the SRC were black.

2.5.5 Policies and related Initiatives

The University's language policy was reviewed in 2021 to align it with the Language Policy Framework for Higher Education Institutions, which was implemented in 2022. The Policy was approved by Council in September 2021. The University is currently developing a language development plan to support the policy.

The Anti-discrimination Policy, supported by a detailed Manual, approved in 2019, entered its implementation phase in 2020 and reflects the University's zero tolerance approach to all forms of discrimination and violence in all of its manifestations. The University continued to conduct activities, creating awareness around the various issues covered by the Policy despite the COVID-19 pandemic and the associated restrictions.

Due to constraints to physical activity because of COVID-19, the University had to find creative ways to continue with advocacy and awareness of anti-discrimination and social justice. The campaigns took various forms, including institution-wide virtual sessions, infographics and short video clips, myth-busters in the form of digital posters, and closed workshops and focus groups led by the Transformation Office working with faculties, departments and student societies. The campaigns also included anti-sexual harassment training sessions offered to staff and postgraduate students.

Apart from the work that the Transformation Office is doing in collaboration with other stakeholders, there are strategic interventions that were implemented in 2021 to support the transformation agenda of the University. The curriculum transformation conversations and the Institutional Culture Survey (ICS) were such interventions. Both these initiatives provided an opportunity for students and staff to have their say on how they experience the University's transformation, specifically with regard to its institutional culture in teaching and learning, research and/ or their inclusion experience. The recommendations flowing from both the curriculum transformation conversations and the Culture Survey will feed into the 2022 – 2026 Transformation Plan.

The University's Institutional Transformation Committee (ITC), an Executive sub-committee comprised of representatives from the University Executive, Transformation Committees within each faculty and professional service department, the various staff labour organisations and students, continued with its important work and identified priority focus areas for 2021. The ITC continued to work closely with the Transformation Office in designing, developing and implementing transformation initiatives across UP.

The ITC hosted a webinar focusing on Institutional Culture. This was an opportune platform to discuss critical issues before the ICS was conducted. The ITC contributed to the development of the University's religious observance protocol and strengthened the functioning of the Faculty and Departmental Transformation Committees by developing a reporting guideline. All transformation committees reviewed their terms of reference.

Overall, the University has made significant progress towards realising the goals of transformation. UP remains committed to fostering a diverse community of outstanding academic and support staff and students and, to this end, continues to raise awareness with regard to diversity and inclusivity. Not only has the University created appropriate structures to support it in realising its transformation objectives but it has resourced those structures to empower them to manage the change process.

2.6 Statement on Conflict Management

The Legal Services Division in the Office of the Registrar as well as the Department of Human Resources are responsible for conflict management at UP. The Legal Services Division is responsible for student discipline and other formal processes regarding students, and also oversees the enforcement of the Anti-discrimination Policy, which applies to both students and staff.

The Department of Human Resources is responsible for fostering positive employee engagement and employee relations. Formal conflict management processes are embedded within the institution. These processes are aimed at assisting employees to raise grievances and ensuring that the grievances are attended to speedily and resolved amicably, in order to minimise the level of conflict between parties.

UP has become a highly unionised workplace with four active union formations that are part of three national union federations. With this development, management dynamics changed drastically with the need for elevated stakeholder management initiatives and effective dispute resolution mechanisms to ensure relative stability and labour peace. Consequently, numerous team-building exercises and relationship by objective (RBOs) retreats have been undertaken to build positive relationships between union formations and organised labour on one hand, and management on the other.

Matters that escalated to the Commission for Conciliation, Mediation and Arbitration (CCMA) have been successfully defended or resolved at the conciliation level. The University did not receive an adverse finding from the CCMA in 2021. External litigation is conducted in partnership with an external legal services provider retained by the University for this purpose.

Collective bargaining at UP is characterised by constructive engagement. During engagements at the UP Bargaining Forum (UPBF), there were no areas of disagreement which resulted in instability at the University. The University intends to continue with relationship-building initiatives and advocacy to maintain the benefits of the relatively positive engagement currently experienced.

The Bill of Student Rights, as captured in the University of Pretoria Constitution for Student Governance, binds all students and student governance structures and stipulates the measures for dispute and conflict resolution between students and student structures. This Constitution also provides for a Constitutional Tribunal that has the authority to adjudicate disputes arising from the Constitution, decisions or functioning of various recognised student structures, as well as any breach of the Code of Conduct for student governance structures.

The training for Residences Sub-Council members provides for effective conflict and multi-party resolution mechanisms in all residences. House committees play a prominent role in ensuring harmony and social cohesion in residences.

In the absence of student activities on campus in 2021, there were no serious incidents of conflict between individual students or student groupings that required interventions. During the annual student governance elections, which processes were fully online in 2021, no complaints or objections were received.

In March and July 2021, a number of students participated in peaceful protests, during which the SRC President handed over memoranda of demands to the University Management. The demands mainly related to the National Student Financial Aid Scheme (NSFAS) allocations for LLB and PGCE students, the funding of historic debt, campus access, the registration of international students, and laptops and data allocations for online teaching and learning and extramural activities. Issues were resolved through constructive engagement.

2.7 Statement on Worker and Student Participation

2.7.1 Staff

Staff participation at UP is based on collective and collaborative principles and ethos. Staff participation has enhanced the level of transparency regarding human resources processes and has encouraged differences of opinions to be aired and resolved, without escalating into unnecessary conflicts. Further, staff participation has helped UP to break down traditional communication barriers and to move towards a more inclusive organisational culture. Through the change management dimension, employees are consistently communicated with to enhance greater awareness and buy-in into organisational processes such as policy reviews.

The University engaged continuously with various staff stakeholder groupings to gain a better understanding of their experiences and how UP can create an enabling environment for them to thrive and advance their career aspirations.

The University established a Talent Management Committee (TMC) which included academics from various departments. The TMC will, amongst others, assist with deepening the understanding of

talent management frameworks as critical tools to manage talent and the career needs of academic staff members at different career stages.

In accordance with the UP Remuneration Policy, the University Council determines the annual basic salary adjustments, subject to negotiations at the University of Pretoria Bargaining Forum (UPBF). The 2021 salary negotiations were concluded successfully with joint labour, comprising NEHAWU, UPWO and Solidarity.

2.7.2 Students

The Student Representative Council (SRC) and its substructures, faculty houses, class representatives, the Constitutional Tribunal, the Residence Sub-Council and student day houses, organisations, clubs and registered societies, provide solid vehicles for student engagement with various levels of the University Management.

The Vice-Principal: Student Life held formal meetings with the 19-member SRC on a quarterly basis to discuss key issues, share important information, provide guidance amid the uncertain COVID-19 challenges, and continue to build the trust relationship between student representatives and the University Management. While campus access remained limited, SRC members were given permits to enable them to address student needs from their offices on the Hatfield Campus.

In accordance with statutory provisions, students enjoy representation on Council, Senate and its subcommittees, the Institutional Forum and the Institutional Transformation Committee of the University. The structures met according to their annual schedule in 2021. In 2021 the SRC and residence House Committees played an important role in various online committees to address student issues during and flowing from the national COVID-19 lockdown regulations.

In 2021, virtual and social media platforms continued to be utilised to ensure student participation in the vibrant student life at UP. The University also succeeded in completing fully electronic student governance election processes, from the announcement of elections, nomination of candidates, campaigning, to the voting and counting process. Although the voter turnout declined slightly from the prior year, the number of candidates contesting the elections recorded a significant increase. The expanded online electoral process has laid a strong foundation for future SRC elections.

2.8 Statement on Code of Ethics

UP is both an ethical institution and workplace. The employer-employee relationship is supported by a set of policies and the Code of Conduct for employees, which sets the required ethical behaviour and professional conduct standards as expected by the University. Each new employee signs acknowledgement and acceptance of these conditions and line management have the responsibility to ensure compliance with the policies and the Code of Conduct.

The University's grievance procedure empowers employees to formally raise any concerns about behaviour, conduct or practices that may compromise the Code of Conduct. Similarly, the Disciplinary Code and Procedure ensures that there are clear standards in place for dealing with any violation of the Code of Conduct.

While formal instruments are in place to support the upholding of the Code of Conduct, the University's Alternative Dispute Resolution (ADR) mechanism that was introduced in 2014 continues to gain popularity as a non-punitive, mutually beneficial process of ensuring acquaintance with and shared responsibility for acceptable ethical behaviour and professional conduct in the workplace.

The University's *Code of Ethics for Scholarly Activity* governs the ethical practice of research and innovation, and underscores the prominence given to research and human capital development at the University. The Code is intended to inspire UP scholars to pursue an ethos that promotes ethical responsibility in the quest for knowledge that involves humans, animals and the environment as subjects of research, and in the development, conservation, and the transfer of such knowledge.

Due to the importance of sustaining research ethics and integrity in the University's research endeavours, a separate Senate Committee for Research Ethics and Integrity was established in 2016. The ambit of its responsibility includes relevant policymaking, regulating research ethics and integrity, and an appeal and review function. All researchers, including students, are subject to this code and the related policies and procedures, which are aligned to the best practice, and national and international regulations. In summary, the following are significant issues related to the governance of ethical behaviour and integrity, and ensuring adherence to the University's *Code of Ethics for Scholarly Activity*:

- Each Faculty has in place discipline-specific policies and procedures for the ethics approval of research activities;
- Ethics approvals of proposed research are conducted through the activities of an Ethics Committee in each Faculty by means of a review of applications, based on appropriate norms and standards established for each disciplinary field;
- Faculty Ethics Committees report to the Senate Committee for Research Ethics and Integrity;
- The Research Ethics Committee of the Faculty of Health Sciences complies with the guidelines of the National Research Ethics Committee (South Africa), the Federal Wide Assurance (FWA) for the Protection of Human Subjects, and the US Department of Health and Human Sciences (HHS);
- In addition, the implications of the National Health Act 61 of 2003 are that researchers from other faculties need to obtain approval from the Research Ethics Committee in the Health Sciences where research involves human subjects, a process that is supported by an on-line ethics approval system to ensure efficient management across faculties;
- The Animal Ethics Committee, managed by the Faculty of Veterinary Science, follows the guidelines of the South African Veterinary Council (SAVC); and
- Related to the *Code of Ethics for Scholarly Activity* is the *Plagiarism Prevention* policy that provides a framework for deterring, detecting and dealing with plagiarism consistently across all faculties of the University. The policy requires staff and students to act with integrity and to take responsibility for the production and presentation of academic work. This policy is currently under review. The UP policy on *Intellectual Property* is also under review and will increasingly become an important policy and regulatory mechanism with respect to data use and storage, and open source resources.

In addition, the following related policies provide for the implementation and maintenance of the Information Governance and Privacy Protection (iGaPP) programme. These are the *Information*

Governance, Information Security Management and the Records Management policies, and the Protection of Personal Information Policy.

3. REPORT OF SENATE TO COUNCIL

Senate is accountable to Council for academic, research and community engagement matters, and as such, submits biannual executive summaries to Council on matters considered at the Senate meetings. The summaries are augmented by the full agendas and minutes of the Senate meetings, which are available to Council members upon request from the Office of the Registrar. The Senate meetings in 2021 were held on 20 May 2021, 15 July 2021 and 7 October 2021.

3.1 Composition of Senate

The composition of the Senate, the appointment or election of members, the filling of vacancies and the responsibilities and duties of members are as prescribed by the Statute of the University.

The Senate is constituted as follows:

- (a) Ex officio members of the Senate, namely the –
 - (i) Chairperson of Council;
 - (ii) Deputy Chairperson of the Council;
 - (iii) Principal;
 - (iv) Vice-Principals;
 - (v) Executive Directors;
 - (vi) Deans and Deputy Deans as well as any academic staff members who have similar status and who have specifically been declared members by the Senate;
 - (vii) Heads of academic departments;
 - (viii) Academic staff who have similar status to the Heads of academic departments and who have specifically been declared members by the Senate;
 - (ix) Registrar;
 - (x) Chairpersons of schools; and
 - (xi) Chairperson of the Institutional Forum.
- (b) Members who are nominated or elected, namely –
 - (i) four members nominated by the SRC;
 - (ii) two employees, who are not already members of the Senate, elected from the ranks of the permanent academic employees; and
 - (iii) two employees, who are not already members of the Senate, elected from the ranks of the permanent non-academic employees.
- (c) The Directors of professional service departments, and any other person invited by the Chairperson, may attend the meetings of Senate on invitation.

Incidental vacancies in the category of members who are nominated or elected are to be filled as set out in subparagraph (1)(b) of the statute for the remainder of the previous incumbent's term of office.

3.2 Developments in terms of Academic Programmes and Policy

3.2.1 Academic programmes

Faculties submitted a number of academic matters to Senate for consideration. These matters include, amongst others, the revision of the structure (curricula) of programmes, the revision, discontinuation and introduction of modules in both undergraduate and postgraduate programmes, amendments to the admission, selection and assessment regulations, and the introduction of new options for existing programmes, as well the introduction of new or discontinuation of programmes. In general, the aim of the changes to programmes was to align such programmes with industry or professional body requirements, Higher Education Qualifications Sub-Framework (HEQSF) requirements, or to ensure that changes are effected in a way that will maintain a programme's HEQSF-aligned status, or to improve outcomes, throughput and articulation. In considering these matters, Senate ensures the alignment of the academic offering with the UP Strategic Plan. In the main, the changes reflect the University's response to the growing needs, demands and contexts on a national and global level through the introduction of a number of online offerings, its continued strategic focus on postgraduate studies and growing its international student cohort, as well as the optimisation of its overall academic offering. Below is a brief summary of some of the main developments considered and approved by Senate in 2021:

- Approximately 44 modules were introduced at undergraduate level and 116 at postgraduate level, with the majority of postgraduate modules arising from the introduction of online programmes;
- Approximately 40 modules were discontinued at undergraduate level and three at postgraduate level;
- The structure (curricula) of more than 63 undergraduate and postgraduate programmes was revised to a greater or lesser extent, which, *inter alia*, included the introduction or discontinuation of modules, changing or updating the content of modules, changing the prerequisites for modules, changing the structure and composition of curricula, changing module and/or programme names, changing the contact hours as well as the credits of modules or programmes, etc; and
- A number of online programmes were introduced, amongst others, the PGDip in Business Administration, MBA, PGDip in Craniofacial Orthodontics, PGDip in Health Services Management, PGDip in Primary Care Nursing, MPhil in Interreligious Relations, MPhil in Change Leadership, MPhil in Evidence-based Management, MPhil in Leading New Economies, MPhil in Corporate Strategy, MPhil in International Business, PGDip in General Management, AdvDip in General Management, PGDip in Higher Education and the Higher Certificate in Sports Sciences, which bolsters the University's efforts to attract more international students.

Programmes such as the LLM in Child Law, MAgric in Animal Production Management, MSc in Environmental Education coursework programme and the MSc in Environmental Education were discontinued, mainly as a consequence of limited uptake of the programme offerings.

In addition to curricula-specific changes to degree offerings, the following noteworthy changes to offerings in various faculties were approved by Senate:

- The addition of Afrikaans lectures and tutorials to some modules in the Faculty of Theology, which is consistent with the language plan of the Faculty;
- Offering students registered for the BTh Honours in Practical Theology and the Postgraduate Diploma in Theology the option to specialise in the field of Community Development to equip graduates to become change agents in local communities, and in support of the drive by the National Department of Social Development to contribute to the professionalisation of community development;
- A proposal by the Department of Financial Management to rename the MPhil Financial Management Sciences and the PhD Financial Management Sciences to MPhil Finance and Investment and PhD Finance and Investment respectively, to reflect both the finance and investment research topics and to align them with the PQM of the programme;
- The offering of the MSc Wildlife Health Ecology and Management (coursework) degree programme and the MSc Veterinary Industrial Pharmacology degree programme every second year due to limited staff capacity with the requisite expertise;
- Changes to the PGDip Nursing Sciences programme to, amongst others, reduce the number of fields of specialisation due to the agreement between the South African Nursing Council and the CHE that no qualification in nursing science would be accredited by the CHE if it had not been approved by the South African Nursing Council, and to change the admission requirements of the programme in line with the regulations of the South African Nursing Council;
- Changing the name of the Department of Anthropology and Archaeology to Department of Anthropology, Archaeology and Development Studies to reflect the fact that Development Studies is an integral part of the department;
- The reactivation of the MA Political Sciences coursework programme with effect from 2023;
- Renaming of the BSc and BScHons programmes in Engineering and Environmental Geology to BSc and BScHons in Engineering Geology and Hydrogeology respectively, to align them with the term used for professional registration with the SACNASP; and
- Renaming of the MSc Animal Tropical Health to MSc with specialisation in Global One Health: Diseases.

3.2.2 Other matters approved by Senate

The following matters were submitted to Senate for approval by the various faculties and Senate Committees:

- The conferment of Emeritus Professor status on academics as submitted to Senate by the various faculties;

- The amendment of the academic calendar for 2021 to, amongst others, make provision for an additional public holiday to accommodate the municipal elections;
- The introduction of a quinquennial review of faculties to complete the University's comprehensive suite of quality review mechanisms aimed at protecting and enhancing the UP academic project;
- The name change of the Centre for Veterinary Wildlife Studies to the Centre for Veterinary Wildlife Research to align the Centre with its current primary function and focus on veterinary wildlife research, and to enhance marketing opportunities and access to research funding;
- The establishment of a Senate Committee for Internationalisation and Global Engagement Strategy to oversee the internationalisation and global engagement initiatives of the University and to guide, support and monitor the effective implementation of the University's Internationalisation and Global Engagement Strategy;
- A number of faculty undergraduate and postgraduate admission regulations for the 2023 academic year;
- Changes to the University's Language Policy to align it with the Language Policy Framework for Higher Education Institutions insofar as it provided for the use of English as the primary language of communication and administration across the University and residences. The revised Language Policy provides for English, Sepedi and Afrikaans as the languages of official communication and administration on all campuses and in residences, with services being provided in other South African languages where requested, feasible and affordable, and promotes multilingualism;
- The academic calendar for 2022;
- Amendments to the Statute of the University of Pretoria;
- The revised Disciplinary Rules for Students and the introduction of a Code of Conduct for Students; and
- A number of academic, research and governance policies and regulations/rules, that fall within the ambit of the Office of the Registrar, the Department of Enrolment and Student Administration, the Office of the Vice-Principal: Academic and the Office of the Vice-Principal: Research, Innovation and Postgraduate Education, which had been reviewed and updated.

The University hosted a virtual Senate Conference with the theme "Re-imagining higher education: Frontlines, intersections and opportunities", which built on the 2020 Senate Conference: "Breaking new ground". The Senate Conference 2021 considered current and envisaged future contexts. It aimed to identify opportunities and to stimulate deep thinking for critically engaged work leading to the production of new knowledge, to finding new solutions to extant intractable problems, to moving towards new horizons, and developing new human capabilities. In this spirit, senators were encouraged to develop generative ideas reflecting future prospects that respond to the University's key navigational markers: teaching and learning (encompassing student access, inclusion, ability to learn, and well-being), research, postgraduate education, innovation, internationalisation, and social responsibility.

3.3 Teaching and Learning

Following the outbreak of the COVID-19 pandemic, the University had to suspend all contact classes from 2 May 2020 and continued with remote teaching and learning during the whole of 2021. The University decided to retain the key elements of its hybrid flipped-learning model, *Teach and Learn: The UP Way*, because this model articulates well with remote teaching and learning. The model requires extensive non-classroom-based activities by both lecturers and students. Most lecturers and students moved with confidence and reasonably seamlessly into the remote teaching and learning mode. UP’s flipped-learning methodology reinforces the following sequential phases in the instructional process:

1. A preparation phase during which students prepare before class;
2. An engagement phase during which both the lecturer and students engage during class; and
3. A consolidation phase during which students consolidate their knowledge after class.

The University’s hybrid teaching and learning model offers students the best of both worlds, online and contact. UP combines the latest technology (see Table 3.1) to support its teaching and learning methodology and develop scalable, flexible, active, and interactive learning environments. The digital strategy is embedded into flipped-learning methods to ensure that students come prepared, complete pre-class assessments, engage in class, and consolidate their knowledge after class.

Table 3.1. The technology available to support the University’s hybrid learning

PREPARE before class	ENGAGE in class	CONSOLIDATE after class
Textbook / eBooks	Bb Collaborate	Assessment platforms
Class material	Student response system	Class recordings
Open Educational Resources	AVER 340+ Cameras	Plagiarism software
Videos		Online proctoring
Courseware authoring tools		
H5P in-video assessment		
clickUP - Blackboard Learn (LMS) & Blackboard Mobile		
Watermark Course Evaluations & Surveys		

The University uses the Blackboard Learn Learning Management System (LMS) - branded as clickUP- and Blackboard Mobile to support hybrid learning.

Students are essential participants in improving teaching practices and their feedback is of great value to lecturers. Through Watermark Course Evaluations and Surveys (CES), students are able to provide feedback on the quality of teaching through a single sign-on from any device, including smartphones. The survey was adapted for the remote learning environment of 2021, and 106 288 students responded to a study of 1 913 modules. Student feedback average scores (see Table 3.2) show that students, in general, are delighted with the quality of teaching at UP. None of the items

rated below 4.1 out of 5, with the highest score given to the way lecturers prepared for lectures and communicated with students.

Table 3.2. Student evaluation of lecturers, 2021

Item	Average rating /5
Communication/announcements through clickUP was/were clear and on time	4,21
The lecturer was well prepared	4,33
The lecturer was organised	4,29
The lecturer communicated with students respectfully	4,39
Whenever I had difficulties, the lecturer provided help using a variety of communication platforms	4,13
Online learning activities were in line with the specified outcomes in the study guide provided on clickUP	4,28
The lecturer created appropriate online learning opportunities to prepare the class for assessment.	4,20
Feedback on assessment tasks posted on clickUP improved my understanding	4,03
Feedback on assessments was returned within the agreed time frames	4,10
The lecturer assessed student work fairly and was unbiased	4,27
The content and/or activities in this module challenged me intellectually	4,25
The lecturer's online teaching approach created an environment for engagement	4,18
The module promoted the development of graduate attributes	4,22
I found attending live collaborate sessions and listening to recorded collaboration sessions beneficial	4,15
This module's combination of live online and offline class activities enhanced my learning experience.	4,12

3.3.1 Prepare before class

The University uses the VitalSource Bookshelf platform to give students instant online and offline access to e-textbooks on any device. Students can also use the OpenStax app to access the free Open Educational Resources (OER).

The preparedness of students for lectures can be assessed in various ways. Formative assessments provide valuable information to lecturers indicating whether they should modify their teaching of content to improve student learning. Students can complete a Blackboard assessment before class, while lecturers can embed interactive quizzes into videos using H5P software and track students' results in the Bb Grade Centre. These features are available directly in Blackboard.

3.3.2 Engage in class (face-to-face or synchronous online)

Research shows that inquiry-based learning motivates students, stimulates critical thinking, and creates opportunities to develop more profound concepts. Inquiry-based learning, that is, teaching by questioning, not by telling, enables students to think, communicate, and justify their ideas. The latest technological developments allow us to personalise education and promote active learning, even in large classes. A student response system (Clicker app) captures the responses of individual

students in a class and automatically records the responses (marks) in the clickUP Grade Centre. The Turning Point Mobile Clicker app allows students to respond to multiple-choice type questions in any online session (e.g., Blackboard Collaborate), which students can access from anywhere. Bb Collaborate is a real-time video conferencing tool that allows the adding of files, sharing applications, and using a virtual whiteboard, as well as chats and polls to interact. Bb Collaborate continued to play a substantial role in 2021 to provide support to students and staff during the pandemic.

The University purchased 200 USB Aver CAM340+ cameras and tripods for lecturers who want to live-stream their classes in 2021. This enables lecturers to use Blackboard Collaborate to stream and record the lecture, allowing students to attend classes face-to-face or virtually.

3.3.3 Consolidate after class

Creating opportunities for students to reflect, integrate and restructure their knowledge after class is critical. This could include the chance to prepare for summative assessment, working on an assignment, watching a class recording and reflecting on it, drawing a concept map, making a summary, working on a project, or applying knowledge to solve an integrated complex problem. Therefore, making the class recordings available to students on clickUP for 'catch-up' and revision purposes is essential.

Using different assessment approaches and strategies to assess the various learning outcomes of a course of study is important. A balance of formative and summative assessments over time, collected from multiple sources, provides an authentic, reliable, and valid picture of students' learning. The 2021 assessments continued mainly online. Various tools and alternative assessment approaches were used, as explained in the guideline *Alternative and Online Assessment The UP Way 2021*. The continued lockdown during 2021 required online examinations at the University, with most students writing the examinations at a location off-campus. The e-education team assisted lecturers with their tests; two online examination support rooms and two emergency telephone numbers were made available to lecturers to help them address any challenges during the examinations.

The hybrid model at UP includes using several electronic assessment opportunities for students to enable regular assessment and feedback of formative and summative assessments. The University uses multiple systems to allow this core function, inter alia, QuestUP (Cirrus Assessment), clickUP (Blackboard), Turnitin, the assignment tools of e-publishers, CompAssess, and Numbas. Lecturers also use different options within clickUP (Blackboard) to administer a variety of assessment formats for grading online activities, managing submission and marking of assignments, and setting objective assessment items. The University uses Blackboard tests for automatically graded assessments, whereafter the students' results are tracked in the Bb Grade Centre.

The University uses Turnitin and Proctorio to discourage plagiarism and cheating. Proctorio integrates with both clickUP tests and Cirrus. It uses advanced machine learning and facial detection technology to deliver accurate and reliable exam proctoring. The software was used successfully in a few modules in 2021.

In addition to all the above-mentioned online tools, the University acquired Gradescope, a feedback and assessment tool that dramatically reduces the time and effort associated with grading exams,

homework, and other assignments. This tool helps lecturers administer and use AI to grade all online or in-class assessments. Gradescope supports the evaluation of computer science, physics, mathematics, chemistry, biology, engineering, and economics assessments.

3.3.4 Community Engagement

Engagement with society and communities flows from the University's teaching and research functions. Community engagement at UP is about civic responsibility and citizenship. Further, it links the research and teaching skills of our staff and students to the specific needs of individual communities, thus advancing the public good by impacting communities positively. In turn, student life and the attributes developed while at university are enriched through their service-learning and engagement.

By participating in community engagement initiatives, our students, inter alia, expand and deepen their social capital (social networks) amongst themselves and the communities, while also building social capital in the communities. By building reciprocal relationships with communities, our students develop a better understanding of community needs, which they align with both curricular and non-curricular community engagement activities.

A major part of community engagement at UP is curricular – that is, students earn credits towards their degrees while applying their knowledge in the service of the community. The Unit for Community Engagement in the Department of Education Innovation collaborates with a range of internal and external stakeholders, including students, lecturers, and governmental and non-governmental organisations.

Community engagement has been integrated fully into teaching, learning, and research. A culture of academic citizenship has been fostered by the introduction of community engagement as a compulsory credit-bearing component of undergraduate academic programmes offered by the University. In 2021, 355 modules had a community engagement component. The University engaged with the Talloires Network and USRN (the University Social Responsibility Network) and the South African Higher Education Community Engagement Forum (SAHECEF) to share ideas on good practices in community engagement.

Community engagement is a major contributor to curriculum transformation. Students apply their knowledge and skills to solve problems in partnership with local communities who have identified a problem in their environments. Student learning is therefore highly contextualised and, as such, develops social responsibility. Students learn how to work with underserved communities, to help them solve immediate problems, and also to transfer and develop skills in order for them to solve problems independently in future. The community engagement experience helps our students to become civic-minded citizens, apply skills gained in their studies to real-world contexts, and develop intercultural competences and consciousness.

3.3.5 Professional development and training

Continuing professional development (CPD) ensures that academics upskill and expand their capabilities continuously, and adapt to changing circumstances in their environment. The focus of

CPD at UP includes developing the teaching, curriculum development, assessment, e-learning and technological skills of our academics.

In 2021, institutional training was completed by 428 academics while 1 293 academics attended faculty-specific training. As part of the teaching and learning requirements, all new full-time and part-time academic staff must complete the UP Teaching and Learning Induction programme during the probation period (first two years). In 2021, 233 participants attended the programme.

The presentation of professional development courses was based on requests and individual just-in-time training. All e-learning training was provided online. The QuestUP courses were presented to train lecturers on the use of the newly implemented QuestUP 2.0 (Cirrus) system. Many sessions, 13 institutional, three faculty-wide and six departmental, were presented to assist lecturers with remote teaching and online assessment.

Instructional designers provided continuous guidance and support to lecturers with their clickUP modules, focusing mainly on better online teaching practice, narrated PowerPoints, Bb Collaborate for synchronous sessions, and proper educational use of clickUP assessment tools. Extensive support on the use of the Grade Centre was also provided as the clickUP Grade Centre records all marks.

3.3.6 Student success and support

The University recognises that student success requires holistic and integrated support and opportunities as students progress through their studies and continue to employment, entrepreneurial activity, or postgraduate study. The implementation of this approach at UP entails the integration and close coordination of the various functions related to student success, namely, student recruitment, enrolment and orientation, financial aid, student accommodation, teaching and learning support and development (academic integration), student affairs (life, health, leadership, psychosocial integration, welfare, and sport and recreation), and campus safety.

Within the student lifecycle approach, student wellbeing and the academic experience are critical. This includes appropriate curricula, the quality of teaching that students experience, interventions for 'at risk' students, and the quality of 'campus life'. This approach also emphasises students taking responsibility for their academic work, social life, and career development. The FLY@UP campaign ('FLY' meaning 'The Finish Line is Yours', where 'yours' implies students taking responsibility for their learning) epitomises this approach (more information on FLY@UP is provided in Section 3.3.8). The initiative intentionally aims to provide students with holistic support and actionable options to succeed in their studies and graduate in minimum time. The following online initiatives continued in 2021 to improve the quality of teaching and learning and to enhance student success:

- Faculty Student Advisors (FSAs) offer a vital anchoring function to provide a 'safety net' service, advising and referring students for the support or intervention they require. FSAs continued to support students online by using Bb Collaborate or Google Meet to meet with students virtually. Each FSA received a tablet, headphones, and data (more information on FSAs is provided in Section 3.3.8);
- Using Bb Collaborate or Google Meet, students can attend a tutorial from anywhere synchronously or log in asynchronously to work through the recorded tutorial. Tutors completed

an online course to ensure that they knew how to use clickUP tools (quizzes, discussion tool, and Blackboard Collaborate);

- The High Impact Modules (HIMs) project seeks to improve the module success rate of a selected number of modules on the HIMs list. The HIMs project focuses on modules with a pass rate of below 75% and enrolment of more than 500 students. The project aims to provide a holistic review of the modules with targeted interventions to increase the success rate; and
- UP maintains a comprehensive orientation programme to support the academic development of first-year students.

3.3.7 Student analytics: the early identification and support of students

New technologies and AI have created many new opportunities to monitor and enhance student success. AI requires large sets of reliable data to extract patterns and make predictions, ensuring the effective management and use of data. It allows the University to use predictive analytics' early alerts to prevent possible future problems, rather than looking backward and acting after a problem has become apparent.

The COVID-19 pandemic increased the value of access to real-time data to support student success. The increased demand for data required the development of dashboards and reports, which started in the first quarter of 2021. Dashboard training was presented to more than 120 Heads of Department, to improve their utilisation of the developed reports and dashboards.

In 2021, the Student Success Data Analytics Task Team (Tshebi), which was established in 2016, focused on the HIMs project, including graduation rates, progression, student readiness, academic advising, and student feedback on teaching. A business intelligence and data-analytics software solution, Pyramid Analytics, was utilised to optimise the HIMs project through simplified reporting and analysis. Pyramid Analytics was scaled to provide data to the deans, deputy deans, departmental heads, education consultants and FSAs.

3.3.8 FLY@UP programme

As stated in Section 3.3.6, the FLY@UP programme is a comprehensive institution-wide student success programme. The intention of the programme is to raise awareness amongst students that completing their degrees in the minimum period has significant advantages, including minimum tuition fees, as well as starting their postgraduate studies or earning a salary earlier than those not completing their degrees in the minimum time. FLY@UP initiatives were conducted virtually due to the constraints on face-to-face interaction caused by COVID-19.

FLY@UP and Specsavers partnered again in 2021 to provide free eye testing and glasses, with 348 students receiving new spectacles.

FSAs play a pivotal role in supporting student success and the FLY@UP programme. The primary function of FSAs is to provide co-curricular support and development, specifically, advice on module choice, study skills, time management, stress management, amongst others. This support is offered through workshops and individual appointments. FSAs also refer students with various challenges

for appropriate support. For example, students with psychological challenges are referred for counselling, while those with learning challenges that require tutoring are referred accordingly.

In 2021, the three-year DHET grant that funds the appointment of FSAs was extended to provide for the appointment of peer advisors. Peer advisors help undergraduate students by working closely with FSAs, and answering common student questions related to, amongst others, the registration and deregistration of modules, degree/module planning, preparation for appointments with professional advisors, and providing referrals to campus resources.

3.3.9 Orientation of first-year students

The orientation of first-year students is a critical success factor at UP. Annually, the Academic Orientation Programme starts off the FLY@UP campaign, and focuses on sensitising the incoming cohort of students to the importance of completing their studies in the minimum time.

The aims of the academic orientation programme include:

- Making students to feel welcome at UP;
- Helping students to adapt to the university environment;
- Preparing students for the academic year;
- Ensuring that students cope with the academic demands of being at university; and
- Ensuring that students know where to find help at UP.

The 2021 Academic Orientation Programme consisted of a pre-orientation online module, an online faculty-based Academic Orientation Week and an eight-week online extended faculty-based orientation course (UPO) that includes academic and soft skills that FSAs monitor. The pre-orientation module aimed to provide all prospective students a glimpse into what they may expect from academic life at UP. The first part of the module consisted of an introductory computer literacy component, which included an introduction to UP's LMS, and clickUP. This introductory computer course was customised based on each student's feedback. The orientation team monitored the module and sent regular nudges (a nudge is a supportive message to students using electronic media) to students who were not progressing satisfactorily.

3.3.10 Acknowledging and rewarding sustained high performance and innovation in teaching

The University awarded its annual Teaching Excellence and Community Engagement Awards in 2021 to the following winners:

- **Group Award for Teaching Excellence:** Mrs T Hill and Prof H du Preez from the Department of Taxation.
- **Individual Teaching Excellence Award:** Prof AM Schrader from the Department of Zoology and Entomology.
- **Group Award for Community Engagement:** Dr R Eccles and Dr E Kruger from the Department of Speech-Language Pathology and Audiology.

3.3.11 Student success

Table 3.3 provides student success data from 2017 to 2021. The full set of 2021 data will be available in the audited HEMIS submission later this semester. The overall module pass rate (MPP) for UP has increased from 81.60% to 86.30% between 2017 and 2021, with a peak recorded at 88.10% in 2020. The examination pass rate (EPP) has increased from 90.60% to 93.00% between 2017 and 2021, with a peak recorded at 93.60% in 2020. The drop-out percentage (DP) has decreased between 2017 to 2020, with an increase recorded in 2021 (5.70%). The examination absenteeism percentage (AP) increased slightly with only 0.1% over the same period.

Table 3.3. Average undergraduate module pass rates for contact students, 2017 – 2021

	Term	Number of modules	MPP %	EPP %	DP %	AP %
Grand Total	2017	2 148	81.60%	90.60%	8.50%	1.40%
	2018	2 083	82.50%	90.40%	7.30%	1.40%
	2019	2 137	84.60%	91.90%	6.60%	1.40%
	2020	1 972	88.10%	93.60%	4.60%	1.40%
	2021	1 975	86.30%	93.00%	5.70%	1.50%

KEY:

MPP = module pass percentage: Proportion of students who passed the examination in relation to the total number of initial registrations expressed as a percentage.

EPP = examination pass percentage: Proportion of students who passed the examination in relation to the number of students who wrote the examination, expressed as a percentage.

DP = drop-out percentage: Proportion of students who dropped out (cancellations PLUS exclusions) in relation to the total number of student registrations, expressed as a percentage.

AP = absenteeism percentage: Proportion of students who were absent from the examination in relation to the number of students admitted to the examination, expressed as a percentage.

3.3.12 Graduate outputs

The University awarded 13 593 certificates, diplomas and degrees in 2021, an increase of 712 compared to 2020 (12 881). The total number of master's graduates in 2021 was 2 046 compared to 1 801 in 2020, and that of doctoral graduates was 367 compared to 374 in 2020. In 2020, the number of distance education graduates was 409, which increased to 615 in 2021. There was an increase of 297 graduates in undergraduate contact programmes, from 7 291 in 2020 to 7 588 in 2021, while the total number of graduates in postgraduate programmes increased by 415 from 5 590 in 2020 to 6 005 in 2021.

3.4 Research

In addition to the devastation and upheaval wrought by COVID-19, it also presented universities with the opportunity to be uncharacteristically flexible and responsive. This has included the rapid uptake of technology to support innovative ways of meeting, communicating, teaching, and learning. While the blurring of the lines between traditional- and distance education has been noted for a number of years, the pandemic quickly erased these boundaries, revealing the benefits of synchronous online conferencing systems, which allow experts from anywhere in the world to join online lectures, as well as record presentations for learners to watch at a later stage. The importance of hands-on, experiential learning led to innovations such as virtual field trips and virtual laboratories, and educators were given the rare opportunity to consider new strategies for their lesson plans.

While UP and other leading universities were able to transition almost seamlessly to virtual learning, it became apparent that, in order for tertiary education institutions to remain inclusive, provision would need to be made for those students who could not access the learning management system. Over 2 400 UP students received loan laptops and hard copies of their study material, as well as telephonic tutoring.

3.4.1 Notable Achievements

UP has an excellent reputation for world-class research. The University continues to focus on becoming a leading research-intensive institution known for cutting-edge research, excellence and innovation. Below is a small selection that is illustrative of the breadth, depth and excellence of our research.

COVID-19 Delta variants transmitted from humans to animals

A team led by Prof Marietjie Venter, Head of the Zoonotic, Arbo- and Respiratory Virus Programme at the Department of Medical Virology, and Prof Katja Koepfel from the Centre for Veterinary Wildlife Research published the only study from Africa that entailed genomic One Health investigations which reveal that Delta variants of COVID-19 were transmitted from humans to animals. They found that reverse zoonotic transmission of COVID-19 from asymptomatic animal handlers at a private zoo in Gauteng posed a risk to big cats kept in captivity.

Radio Astronomy Research Group

The Radio Astronomy Research Group continues to engage in world-class international collaborations with Dr Jack Radcliffe leading a team researching 'eating habits' of black holes. The team researched issues such as the types of galaxy that central black holes start eating, how this is manifested, and the best way to detect these eating phases in galaxies. The research was published in two papers in the *International Journal of Astronomy and Astrophysics*.

Separately, a study led by Shilpa Ranchod, an MSc student in the Department of Physics, discovered a group of 20 galaxies using South Africa's MeerKAT telescope. This large galaxy group is likely the most neutral hydrogen gas-rich group ever discovered, and it is the first time this group has been identified, despite residing in a very well-studied area of the sky.

Biowaste turned into superior battery parts

An international team led by Prof Ncholu Manyala, the SARChI Chair in Carbon Technology and Materials, successfully turned plant waste into a component of high-powered devices called supercapacitors. During testing, it was found that the component, known as activated carbon, is superior to commercially-available alternatives.

3.4.1.1 Research capacity and productivity

As part of the UP 2025 Strategy the University has developed a number of institutional performance indicators to evaluate and monitor UP's progress. The indicators related to research and postgraduate education are shown in Table 3.4 below.

UP continues to have the highest proportion of academic staff that holds a doctorate (now over 70%) of all South African universities. Progress has also been realised with master's and doctoral enrolments, the number of international postdoctoral research fellows and international academic staff.

Table 3.4. Key areas of research capacity and performance

Indicators	2017	2018	2019	2020	2021
Staff with PhDs	43%	67.06%	67.68%	67.07%	70.04%
NRF-rated academic staff	433	507	528	545	592
Accredited publication units per academic FTE staff	0.7	1.11	1.00	1.10	1.75
Weighted M and D graduate output per academic FTE staff	0.68	1.56	1.97	1.71	1.33
M graduates	1 400	1 993	2 008	1 801	2 046
D graduates	200	427	399	374	367
PhD students enrolled	1 860	2 307	2 375	2 429	2 537
M students enrolled	6 559	6 116	7 088	6 293	6 318
Diversity profile: % black PG students	53%	61.50%	66.75%	65.46%	71.18%
Postdoctoral fellows	203	253	264	264	272
International postdoctoral fellows	78	164	98	161	159
International academic staff	62	180	203	211	222

Source: Department of Research and Innovation (DRI) and HEMIS

UP's research productivity, measured as research output units for which subsidy is earned, has steadily increased over recent years (Table 3.5).

Table 3.5. UP research output units per publication type, 2017—2021

Publication	2017	2018	2019	2020	2021*
Journals	1713.41	1702.53	1682.42	1750.80	2050.60
Proceedings	111.86	85.20	82.2	49.56	78.61
Books and book chapters	237.67	266.80	296.0	331.58	245.21
UNIT TOTALS:	2062,94	2054.54	2060.6	2141.20	2374.42

Source: DRI and HEMIS *provisional

The DHET Policy for Creative Outputs and Innovations was implemented in 2019 and a summary of UP's submissions from 2016 - 2020 is presented in the table below.

Table 3.6. UP creative output units per type, 2016–2020

Creative outputs	Cycle 1 (2016-2018)	Cycle 2 (2017 – 2019)	Cycle 3 (2018 – 2020) *
Design	0	0	2
Film	0	0	0
Fine / visual arts	0	13	9
Literary arts	2	1	0
Music	11.31	19.37	13
Television	0	0	1
Theatre	0	1	0
UNIT TOTALS:	13.31	34.37	25

Source: DRI; * Provisional totals until feedback received from DHET

UP had the highest number of patents recognised in its 2020 submission to DHET.

3.4.1.2 Leading researchers, impact and visibility

The University is rated amongst the top 1% globally in 13 of the 22 Essential Science Indicator (ESI) fields. In 2021, Chemistry, Molecular Biology and Genetics and Pharmacology and Toxicology were included in this elite list for the first time. UP was the only university in South Africa to feature in Economics and Business. Furthermore, UP researchers produced most documents within Economics & Business, Engineering, Microbiology and Plant and Animal Science within South Africa.

The full list of ESI research fields in which UP is ranked is listed in Table 3.7 below.

Table 3.7: UP's international standing in ESI knowledge fields

ESI Subject fields	Number of Papers					Number of Citations					Average citations per paper				
	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021	2017	2018	2019	2020	2021
Agricultural Sciences	554	580	628	686	742	3600	3995	4785	5859	6903	6.5	6.89	7.62	8.54	9.3
Biology & Biochemistry			480	520	577			6883	7644	8970			14.34	14.7	15.55
Chemistry					790					9504					12.03
Clinical Medicine	1 203	1306	1453	1622	1857	11915	13740	18374	23901	28825	9.9	10.52	12.65	14.74	15.52
Economics & Business				828	934				5302	7919				6.4	8.48
Engineering	1 060	1157	1253	1388	1526	7303	8956	11705	15610	19027	6.89	7.76	9.34	11.25	12.47
Environment /Ecology	898	999	1134	1229	1403	11131	12556	15983	18073	22598	12.4	12.57	14.09	14.71	16.11
Immunology	344	373	401	446	493	4714	5070	6021	6884	8090	13.7	13.59	15.01	15.43	16.41
Microbiology	470	508	555	628	718	5560	6290	7425	9202	11149	11.83	12.38	13.38	14.65	15.53
Molecular Biology & Genetics					391					17483					44.71
Pharmacology & Toxicology					346					4277					12.36
Plant & Animal Science	3 135	3241	3365	3510	3647	27306	30585	34944	39589	48115	8.71	9.44	10.38	11.28	13.19
Social Sciences, General	1 297	1383	1491	1611	1819	4773	5319	6322	7299	8655	3.68	3.85	4.24	4.53	4.76

Source: Department Library Services, ESI (InCites), 2020: Jan 2021

UP has two researchers ranked in the top 1% by ESI worldwide. They are:

- Prof Rangan Gupta in Economics and Business; and
- Prof Mike J Wingfield in Plant and Animal Sciences.

Researchers are selected for their exceptional influence and performance in one or more of the 22 research fields or across several fields. The methodology used assesses the number of highly cited papers and the number of citations for 2010 - 2021 by threshold per subject.

It is possible to use ESI statistics to identify the top 1% of scientists and published articles internationally, based on citations. As of January 2021, a total of 230 UP-published papers were amongst these top papers world-wide, spread over 20 of the 22 ESI subject fields. UP continues to dominate the subject category of Plant and Animal Sciences with 77 top papers.

3.4.1.3 World rankings

Institutions of higher education are ranked globally on the basis of various quantifiable factors. Research performance is measured by publications and citations. International diversity and other indicators such as academic reputation and graduate employability also contribute to the various ranking systems. As shown in Table 3.8, UP has remained stable in its rankings over the past three years.

Table 3.8. UP's world rankings

Ranking method	2017	2018	2019	2020	2021
QS	501-550	561-570	551-560	561-570	561-570
THE	601-800	601-800	601-800	601-800	601-800
ARWU	501-600	401-500	401-500	401-500	401-500
URAP		401-500	401-500	401-500	401-500

Source: Department of Institutional Planning (DIP); ARWU 2021; QS 2021

The Times Higher Education (THE) Subject Rankings for 2021 ranked UP in 11 subject fields (Table 3.9). The performance of all subjects remained stable over this period.

Table 3.9. UP's THE rankings by subject

Subject	2018	2019	2020	2021
Arts & humanities	251-301	251-301	301-400	301-400
Business & Economics		301-400	301-400	301-400
Clinical, Pre-clinical & Health	401-500	401-500	501-600	501-600
Computer Science			501-600	501-600
Education		301-400	401-500	401-500
Engineering			601-800	601-800
Law	92	76	101-125	101-125
Life Sciences	301-400	301-400	301-400	301-400
Physical Sciences		501-600	601-800	601-800
Psychology		401-500	401-500	401-500
Social Sciences		401-500	401-500	401-500

Source: THE 2022

Our School of Engineering was ranked first in South Africa and Africa by the US News and World Report Rankings (2020) on the Best Global Universities for Engineering. Similarly, The University's

Graduate Institute of Business Science (GIBS) continues to offer South Africa's top-ranked MBA programme, consistently featuring at the top of the Financial Times annual MBA survey. The QS Global MBA Rankings placed GIBS at position 52 globally in 2021.

The University featured in the 201-300 band in the THE Impact Rankings for 2021. This ranking system is based on the United Nations Sustainable Development Goals (SDGs). UP was ranked in the 101-200 band in five SDGs (SDG 6: clean water and sanitation, SDG 7: affordable and clean energy, SDG 8: decent work and economic growth, SDG 9: Industry, Innovation, and Infrastructure, and SDG 17: Partnerships for the Goals). Also, UP was ranked in the 201-300 band in four SDGs (SDG 2: Zero Hunger, SDG3: Good Health and Wellbeing, SDG 4: Quality of Education, and SDG 16: Peace, Justice and strong institutions).

The 2022 THE Impact Rankings is UP's best performance thus far in this ranking system. The University is placed amongst the top 150 institutions in the world. UP is ranked amongst the top 50 universities in the world for SDG 8 (Decent Work and Economic Growth: position 44) and SDG 15 (Life on Land: position 30). In addition, the University is ranked amongst the top 100 universities in the world for SDG 9 (Industry, Innovation and Infrastructure: position 88) and SDG 17 (Partnership for the Goals: position 86). UP's performance in the eight SDGs for which it submitted data re-affirms our commitment to sustainability and, overall, making a positive impact in society.

3.4.2 New research developments

The following represents a few highlights from the reporting period.

Diabetes Research Centre

The University launched South Africa's first exclusive Diabetes Research Centre at a public academic institution. Housed in the Faculty of Health Sciences, the Centre adopts a transdisciplinary approach and works across faculties to develop research that aims to improve the lives of people living with diabetes.

Albert Luthuli Centre for Responsible Leadership relaunched as Institute

The Albert Luthuli Centre for Responsible Leadership has repositioned itself as the Albert Luthuli Leadership Institute. The move is part of the celebration of its ten-year anniversary and to commemorate 60 years since Chief Albert Luthuli became the first African to receive the Nobel Peace Prize. Located in the Department of Business Management in the Faculty of Economic and Management Sciences, the Institute has been responsible for the development of future leaders through its activities in research, teaching and academic citizenship.

3.4.3 New and renewed research chairs

The University has 52 research chairs across seven faculties. These include 18 Department of Science and Innovation DSI-NRF South African Research Chairs Initiative (SARChI) chairs and 32 industry-funded research chairs.

New industry chair

The Department of Mining Engineering in the Faculty of Engineering, Built Environment and Information Technology (EBIT) has entered into a partnership with Exxaro Resources to establish the Exxaro Chair in Extended Reality (XR) Technology. Extended reality technology refers to all real-and-virtual-combined environments as well as human-machine interactions generated by computer technology, including augmented reality, mixed reality and virtual reality (VR). Through this partnership, the Exxaro Chair will offer a framework of how XR technology can be used to address challenges in the mining industry. This investment in technological advancement will allow for research towards a safer, economical and more environmentally sensitive form of mining.

3.4.4 Collaboration and partnerships

The University has made international cooperation and collaboration an essential part of its development over the past five years. This serves to both encourage a global perspective for research while also exposing students and researchers to international expertise and resources. Simultaneously, it enables South African and African issues to be highlighted on a global stage.

3.4.4.1 International partnerships and collaboration

UP strives to position itself as a leading research-intensive university in Africa that is recognised internationally for its quality, relevance and impact. To realise this objective, internationalisation and global engagement are key drivers for the achievement of the UP 2025 strategy.

UP currently has 223 active formal partnerships globally. In 2021, UP signed 29 agreements with its partners globally, including renewals. Of the new agreements, 19 are with European partners, five with African partners, two with Asia/Pacific partners and three with North American partners.

Strategic partnerships and programmes

In late 2020, we launched the African Global University Project (AGUP) – the University’s internationalisation and global engagement initiative intended to ensure that partnerships and collaborations play their envisioned role in achieving UP’s strategic goals. AGUP is a strategic and transformative initiative that seeks to revitalise the University’s collective partnerships approach focusing on building an institution that is internationally recognised for research excellence and high-quality engaged scholarship whilst contributing to social and economic development in South Africa, Africa and globally.

The AGUP initiative further aims to strengthen UP’s participation in Networks such as the African Research Universities Alliance (ARUA), the Australia-Africa Universities Network (AAUN), Association

of Africa Universities (AAU), Austria-Africa University Network (AfriUniNet) and many other Africa focused initiatives to influence the development of higher education in Africa and globally.

The first phase of the AGUP initiative was implemented in 2021, with 13 global and six African partners being identified. Institutional agreements have been facilitated with these partners and collaborative projects have been initiated.

In 2021, UP was nominated to serve on the board of the Southern African-Nordic Centre (SANORD) for a second term. SANORD is a forum consisting of 53 universities from southern Africa and the Nordic regions aimed at fostering cooperation between academic institutions in the respective regions. The leadership of member institutions meets annually to plan activities for the forum.

UP is an active member and the South African coordinator of the South Africa-Sweden Universities Forum (SASUF). In 2021 UP worked with Uppsala University to request an extension of the final round of the SASUF grants to allow recipients impacted by the COVID-19 pandemic to complete their projects in 2022.

International students

In 2021, 3230 international students (excluding permanent residents) were registered at UP, with about 87% of these coming from Africa. A total of 1387 permanent residents were registered in 2021.

Staff and student exchanges

- 56 short-stay mobility students from the following countries: Madagascar, China, Austria, Belgium, France, Germany, Sweden, Switzerland and Netherlands, were received in the second semester of the 2021 academic year.
- Five UP students were nominated to visit the following universities:
 - Two students: Lund University (Sweden);
 - One student: Malardalen University (Sweden);
 - One student: Leiden University (Netherlands); and
 - One student: University of Konstanz (Germany).
- As part of the Collaborative Master's in Agricultural and Applied Economics/Shared Facility for Specialisation and Electives (CMAAE/SFSE) Group, 102 students were admitted. This is a programme hosted by the Faculty of Natural and Agricultural Sciences. There are eight participating universities from the continent including UP, namely Haramaya University (Ethiopia), Egerton and Nairobi Universities (Kenya), Sokoine University of Agriculture (Tanzania), Makerere University (Uganda), Lilongwe University of Agriculture and Natural Resources (Malawi), and University of Zimbabwe (Zimbabwe).
- Exchanges were also hosted in various clinical programmes at the faculties of Health Sciences and Veterinary Science.

- UP currently has 26 institutional partners in 15 countries under the Erasmus Plus programme.

Student Exchange Agreements

In the 2021 academic year, 4 student exchange agreements were concluded with the following universities:

- Antwerp University (Belgium);
- University of Oslo (Norway);
- Tokyo University of Foreign Studies (Japan); and
- National University of Lesotho (Lesotho).

Joint doctoral degrees

The University has 20 active joint doctoral degree agreements in place, including two agreements that were signed in 2021. Ten students were registered for these degrees. The two new partner institutions are U Hasselt University (Belgium) and the University of Turku (Finland).

Special Capacity Building in Africa

The University is co-hosting a research project aimed at better understanding African food systems and identifying solutions to achieve zero hunger in Africa. The Food Systems Research Network for Africa (FSNet-Africa) fellowship officially began in 2021 and 20 early-career researchers from six African countries joined their mentors from the UK and Africa in the first week of activities.

3.4.4.2 Collaboration and co-authorship

International collaboration remains a core strategic focus for the University. While Europe and North America (see Table 3.10) remain the most active areas for collaboration, both in terms of the number of institutions collaborated with and the research output of those partnerships, UP continues to strengthen relationships with other parts of the world.

Table 3.10. The regional spread of UP's co-authored publications, 2015—2020

Region	Collaborating Institutions	Co-authored publications
Africa	447	5 331
Asia Pacific	1 075	2 066
Europe	1 617	3 771
Middle East	269	532
North America	819	2 416
South America	252	374
TOTAL	4 479	9 471

Source: SciVal, 25 Jan 2022 (Please note that the totals – worldwide is not a sum of the regional totals, because some publications were published in collaboration with researchers from more than one continent.)

Table 3.11 shows the top 20 institutions internationally with whom UP has co-authored papers between 2017 and 2021, excluding institutions in South Africa, and the cumulative citations over a five-year period.

Table 3.11. UP co-authored publications: top 20 collaborating institutions (excluding South African universities), 2017–2021

Top 20 Institutions	Country	Co-authored publications	Citations	Citation per publication
Ghent University	Belgium	267	10758	40.3
Centre national de la recherche scientifique	France	245	12534	51.2
University of Western Australia	Australia	208	5121	24.6
University of Queensland	Australia	161	7908	49.1
University of Oxford	United Kingdom	146	10517	72
Utrecht University	Netherlands	146	8374	57.4
University of Cambridge	United Kingdom	143	8688	60.8
Harvard University	United States	133	11901	89.5
Institut national de la recherche agronomique	France	122	6967	57.1
University of Sydney	Australia	118	8529	72.3
Centre de cooperation internationale en recherche agronomique pour le developpement	France	114	1767	15.5
Universite de Montpellier	France	110	7011	63.7
University of Copenhagen	Denmark	105	7246	69
University of New South Wales	Australia	100	8136	81.4
University of Melbourne	Australia	99	8913	90
University of Edinburgh	United Kingdom	98	7521	76.7
University College London	United Kingdom	96	8708	90.7
University of Washington	United States	96	9073	94.5
Vrije Universiteit Amsterdam	Netherlands	96	6541	68.1
CSIC	Spain	95	10003	105.3

Source: SciVal, (last index update, Jan 2022)

3.4.4.3 Partnerships with industry and government

Our strong partnerships with industry and government are reflected in the number of Research Chairs at UP that are funded by industry. In 2021, UP had 32 industry-funded Chairs and 18 SARChI Chairs, underscoring the emphasis placed on the impact and relevance of research programmes at UP.

Commercialisation of research

Commercialisation remains an important part of the University's strategic focus. UP showed good growth in the number of SA patents granted as reflected in Table 3.12.

Table 3.12. UP intellectual property activity, 2017-2021

	2017	2018	2019	2020	2021
New Invention Disclosures	17	17	15	10	16
Number of SA Patents Filed	13	13	14	15	6
Number of SA Patents Granted	5	6	6	2	10
Number of International Patents Filed	13	34	13	21	24
Number of International Patents Granted	6	11	15	10	11
New Trademarks	0	5	2	1	3
New Licenses Signed	2	3	3	3	2
New Start-up Businesses	1	0	0	1	0

Source: DRI

UP's Technology Transfer Office (TTO) supported many projects in 2021. Two UP projects related to COVID-19 were awarded R1 300 000 from the Technology Innovation Agency (TIA) Seed Fund Programme. An amount of R650 000 was awarded to an innovation allowing rapid paper-based protein antigen tests for COVID-19 based on nanobodies and an additional R650 000 was awarded for the development of hand sanitizer formulations and potential drug development for COVID-19 using South African medicinal plant actives.

Furthermore, UP received a second TIA disbursement of R6 935 514 for the development of a Cattle Tick vaccine.

3.4.5 Graduate development

3.4.5.1 Postgraduate students

The University launched the FlyHigher@UP programme in 2018 as part of institutional efforts to enhance recruitment of postgraduate students, shorten postgraduate degree completion periods, increase throughput rates, ensure an enjoyable student experience at UP, and enhance the quality of graduates produced by the University. The FlyHigher@UP programme provides holistic support for postgraduate students throughout their postgraduate lifecycle including academic, administrative and financial support. In 2021, a total of 871 postgraduate students underwent training in order to enhance their research skills. Of these, 526 were master's and 345 were doctoral students.

3.4.5.2 Postgraduate recruitment and enrolment

Postgraduate programmes are central to the achievement of the University's strategic goals, especially those focused on enhancing access to higher education, research activities, societal impact and the international profile of the University. Thus, enrolment (first-time registration) of postgraduate students of the highest possible quality into appropriate disciplinary fields enables UP to advance its strategic goals. Table 3.13 shows that there has been a steady increase in the total number of master's and doctoral students enrolled annually over the past five years (2017 to 2021). The 2021 academic year saw a slight decrease in postgraduate enrolment due to the pandemic.

Table 3.13. UP master's and doctoral enrolment, 2017–2021

	2017	2018	2019	2020	2021
Master's degrees	6117	6116	6239	6248	6318
Doctoral degrees	2318	2307	2375	2411	2537

Source: DIP

3.4.5.3 Overall enrolment of contact students in 2021

Overall, a total of 16 278 postgraduate students were enrolled at UP in 2021 (see Table 3.14). UP's enrolment of postgraduate students reflects a sound gender balance with 59.02% of postgraduate enrolments being female students. The majority of postgraduate students are black, constituting 71.18% of all postgraduate contact students.

Table 3.14. Undergraduate and postgraduate enrolment (contact, distance and online students), 2021

Study Level	Race				Gender		
	Black	White	Unknown	Total	Male	Female	Unknown
Undergraduate	22 916	14 312	5	37 233	15 512	21 665	56
% of total	61.55%	38.44%	0.01%	100.00%	41.66%	58.19%	0.15%
Postgraduate	11 586	4 668	24	16 278	6 665	9 607	6
% of total	71.18%	28.68%	0.15%	100.00%	40.94%	59.02%	0.04%
Occasional	236	161	4	401	182	218	1
% of total	58.85%	40.15%	1.00%	100.00%	45.39%	54.36%	0.25%
GRAND TOTAL	34 738	19 141	33	53 912	22 359	31 490	63
% of total	64.43%	35.50%	0.06%	100.00%	41.47%	58.41%	0.12%

Source: HEMIS

3.4.5.4 Financial support for postgraduate students

UP provides bursaries to academically deserving students who are in financial need in order to enable them to pursue postgraduate studies. Table 3.15 shows the numbers of honours, master's and doctoral students who received UP-funded bursaries in 2021.

Table 3.15. Number of postgraduate students provided with UP financial support in 2021

Postgraduate level	Number of students funded
Doctoral students	1037
Master's students	973
Honours students	570
Total	2580

Source: DRI (March 2022)

3.4.5.5 Postdoctoral Research Fellowships

The Postdoctoral Research Fellowships Programme at UP provides a platform for postdoctoral research fellows to conduct research under the leadership of UP researchers. As part of research teams spread across different faculties or research institutes, postdoctoral research fellows play an important role in various research activities that contribute towards making UP one of the leading research-intensive universities globally. Table 3.16 shows that the number of postdoctoral research fellows at UP has increased over the years.

Table 3.16. Sources of funding for postdoctoral fellows from 2016 to 2021

Category	2016	2017	2018	2019	2020	2021
UP-Funded Postdocs	47	47	47	26	60	85
Senior UP-Funded Postdocs	8	23	22	21	28	9
UP VC-Funded Postdocs	6	6	10	4	0	0
Claude Leon Foundation	8	11	7	4	2	3
NRF- Funded	72	60	87	91	64	56
Faculty Strategic Funds	26	24	27	30	19	3
Melon Foundation	1	3	7	4	8	7
CSIR	0	1	3	2	3	1
AESOP	1	1	1	0	0	0
South African Reserve Bank	0	0	3	4	4	4
Future Africa	0	0	0	0	14	4
Other Externally Funded	25	27	39	79	62	111
Total	194	203	253	264	264	283

Source: DRI

In line with the goal of enhancing the University's international profile, UP attracts postdoctoral research fellows from several countries across the world. Table 3.17 shows that international postdoctoral research fellows are in the majority at UP.

Table 3.17. Number of international and SA postdoctoral fellows at UP, 2017–2021

	2017	2018	2019	2020	2021
International	138	164	160	161	164
International as % of total	68%	64.80%	60.60%	61.00%	57.90%
South African	65	89	104	103	119
South Africa as % of total	32%	35.20%	39.40%	39.00%	42%
Total	203	253	264	264	283

Source: DRI

The University continues to make efforts to achieve gender balance in the postdoctoral research fellowship programme. In 2021, 48.8% of the postdoctoral research fellows at UP were female (see Table 3.18).

Table 3.18. Gender profile of UP postdoctoral fellows, 2014–2021

	2014	2015	2016	2017	2018	2019	2020	2021
Male	119	122	112	108	135	146	140	145
% of total	58.30%	54.50%	57.70%	52.20%	53.40%	55.30%	53.00%	51.20%
Female	85	90	82	95	118	118	124	138
% of total	41.70%	45.50%	42.30%	47.80%	46.60%	44.70%	47%	48.80%
Total	204	212	194	203	253	264	264	283

Source: DRI

3.4.6 Awards and recognition

There are numerous awards and accolades that academic staff and students at UP receive in recognition of their achievements, with some of these highlighted in the reports of the Chairperson of Council and the Vice-Chancellor and Principal. The focus here is on the internal research awards celebrated at UP's annual Academic Achievers Awards gala event.

3.4.6.1 Internal research awards

The Academic Achievers Awards celebrate and honour academic achievers and researchers for their scholarly contributions. There are five categories of UP awards that pertain to research and postgraduate education in particular: the Chancellor's Award (for teaching and learning, and research), the Vice-Chancellor's Book Awards, the Vice-Chancellor's Award for Excellent Supervision, Exceptional Academic Achievers Awards, Exceptional Young Researchers Awards, and the recognition of National Research Foundation (NRF) rated researchers. The Vice-Chancellor's report (Section 7.7.2.1) lists the recipients of the Chancellor's Award for Research, the Vice-Chancellor's Book Awards and the Vice-Chancellor's Award for Excellent Supervision.

Exceptional Academic Achievers Awards

These awards are made in recognition of senior academics who are highly regarded by their peers and have consistently excelled in the areas of under- and postgraduate teaching and learning, research, community service and administration.

The following awards were made for 2021:

- Prof V Reddy (Office of the Dean, Faculty of Humanities)
- Prof CWW Pirk (Department of Zoology and Entomology)
- Prof A Ganswindt (Department of Zoology and Entomology)
- Prof SJ Cornelius (Department of Private Law)
- Prof AM Skelton (Department of Private Law)

Exceptional Young Researchers

This award is given to exceptional young achievers in research, as seen against the University's strategic goals of achieving academic excellence, international competitiveness, and local relevance.

- Prof TT Hlatshwayo (Department of Physics)
- Dr N Moonsamy (Department of English)
- Prof JM Modiri (Department of Jurisprudence)
- Prof G Muller (Department of Private Law)
- Dr E Snelling (Department of Anatomy and Physiology)

3.4.6.2 External research awards

It was another exceptional year for UP researchers with our academic staff being honoured by a wide range of organisations. Some highlights include:

- Prof Charles van Onselen, Research Professor in the Faculty of Humanities, was awarded the prestigious Academy of Science of South Africa (ASSAf) Humanities Book Prize for his highly acclaimed book, *The Night Trains: Moving Mozambican Miners to and from South Africa, circa 1902-1955*;

- Prof Daniël Christiaan de Wet Swanepoel was awarded the African Academy of Sciences' (AAS) science prize for his innovative research in tele-health and mobile health, specifically in the field of audiology. He also won the 2020 Olusegan Obasanjo Prize for Scientific Breakthrough and/or Technological Innovation. He is the third South African to win this prestigious award;
- Prof Emma Hooijberg, specialist veterinary clinical pathologist in the Department of Companion Animal Clinical Studies, received the Research Award of the South African Veterinary Association (SAVA). The SAVA Research award goes to any veterinarian or veterinarians for the best scientific article or series of articles, recently published in scientific journals;
- Prof John Taylor, a Senior Research Fellow in the Department of Consumer and Food Sciences and the Institute for Food, Nutrition and Well-being was awarded the prestigious TB Osborne Medal by the Cereal and Grains Association. A major theme of Professor Taylor's research has concerned sorghum's kafirin prolamin proteins. His team has made significant innovations in utilising kafirin as a bioplastic polymer and as a functional replacement for gluten in non-wheat types of bread;
- Prof Mike Wingfield, founding Director of UP's Forestry, Agriculture and Biotechnology Institute (FABI) from 1998-2017 and advisor to the UP Executive won the Special Annual Theme Award: Plant Health at the National Science and Technology Forum (NSTF)-South 32 Awards;
- Prof Josua Meyer, Head of the Department of Mechanical and Aeronautical Engineering, and Chair of UP's School of Engineering, won the male category of the Engineering Research Capacity Development Award at the National Science and Technology Forum (NSTF)-South32 Awards;
- Prof Wanda Markotter who is the Department of Science and Innovation/NRF SARChI Chair: Infectious Diseases in Animals (Zoonoses) and director of the Centre for Viral Zoonoses in the Department of Medical Virology was a finalist in the 2019/2020 National Science and Technology Forum's (NSTF) prestigious NSTF-South32 Awards, in the TW Kambule-NSTF Researcher category;
- Prof Jan Eloff, Deputy Dean of Research and Postgraduate Studies in the Faculty of Engineering, Built Environment and Information Technology (EBIT), was a finalist in the 2021 National Science and Technology Forum's (NSTF) prestigious NSTF-South32 Awards;
- Dr Vukosi Marivate, ABSA Chair of Data Science in the Faculty of Engineering, Built Environment and Information Technology (EBIT), was a finalist in the 2021 National Science and Technology Forum's (NSTF) prestigious NSTF-South32 Awards. He was also named, as part of a research team, a joint winner of the inaugural 2021 Wikimedia Foundation Research Award of the Year for the Masakhane Natural Language Processing (NLP) research project;
- Dr Karen Botes, a lecturer in the Faculty of Engineering, Built Environment and Information Technology (EBIT), won the World Building Congress (WBC) 2022 abstract-writing competition;

- Dr Marco van Dijk, a researcher in the Faculty of Engineering, Built Environment and Information Technology (EBIT), was named the winner in the Empowering Communities category for the Knowledge Tree Awards of the Water Research Commission;
- Prof Reghard Brits from the Department of Mercantile Law was appointed on 5 July 2020 as the 2020/21 holder of the Tijdschrift voor Privaatrecht Wisselleerstoel (Journal for Private Law Exchange Chair) at Radboud University in Nijmegen, The Netherlands. The TPR Wisselleerstoel is awarded to South African legal academics and entails that a recipient holds a visiting professorship at a Dutch or Belgian University;
- Prof Patricia Forbes, incumbent of the Rand Water Chemistry Research Chair in the Department of Chemistry, was elected to the Professional Standards Board of the Royal Society of Chemistry and was made a Fellow of the South African Chemical Institute;
- Prof Clifford Mutero, an Extraordinary Professor appointed in the University's Institute of Sustainable Malaria Control, received an award for the best publication for an article published in Malaria Journal, 'Integrated vector management for Uganda: knowledge, perceptions and policy development';
- Dr Chris Oosthuizen, an alumnus of UP's Department of Zoology and Entomology and a research associate with UP's Marion Island Marine Mammal Programme, was recently awarded the Population Ecology Young Author Award;
- Dr Juergen A Richt from the Kansas State University College of Veterinary Medicine, and Extraordinary Lecturer in the Department of Veterinary Tropical Diseases (DVTD) since 2019 has been awarded the 2021 Association of American Medical Colleges (AAVMC) Excellence in Research Award;
- Prof Caren Scheepers and Dr Tracey Toefy of the Gordon Institute of Business Science (GIBS) won the award for Best African Business Case at the prestigious European Foundation for Management Development (EFMD) 2019 Case Writing Competition;
- Dr Johann Uys and Prof Ronny Webber-Youngman from the Department of Mining Engineering received the inaugural Bruce Hebblewhite award from the Society of Mine Professors (SOMP) in 2020 as recognition for their contribution to the body of knowledge in mining leadership with the best paper and presentation at the 2019 AGM in Bochum, Germany;
- Prof Elsabe Kearsley of the Faculty of Engineering, Built Environment and Information Technology (EBIT), was appointed as President of the South African Academy of Engineering (SAAE);
- Prof Mike Sathekge, Head of the Department of Nuclear Medicine in the Faculty of Health Sciences, was awarded the Presidential Award at the seventh South African Medical Research Council (SAMRC) Scientific Merit Awards; and
- The Faculty of Veterinary Science's Onderstepoort Veterinary Academic Hospital (OVAH), was selected by *Beeld* and Netwerk24 readers as their winner (platinum) in the veterinary category of the 2021 *Beeld* Reader's Choice competition.

3.4.7 Research funding

Success in securing external research grants and contracts is necessary to boost research funding and, to some degree, validates the recognition UP receives as a research-intensive university that undertakes research that has high impact and is relevant to our contexts.

External funding

The European Union (EU) remains an important source of funding for global research. UP has been an active participant in the EU's flagship research funding programme, Horizon 2020 (which ended in December 2020) and now Horizon Europe, which was launched in June 2021. These programmes focus on the establishment of international consortia of researchers cooperating globally in various fields, solving complex global problems.

Besides the Horizon Europe programme, UP is an active participant in the European Education and Culture Executive Agency (EACEA) Capacity-building in Higher Education programme. UP is also participating in various other EU programmes e.g. ERA-NET Co-fund on Food Systems and Climate (FOSC) and M-ERA.NET funding for material science and engineering, which in certain cases involves industrial partners. These projects also consist of international consortiums and are funded in most cases by the national funding bodies of the respective participating countries through funding received by the European Commission. Below are a few examples of such projects.

Dirisana+

Dirisana+ is an EU co-funded capacity building project in Higher Education aimed at improving health sciences education in Southern Africa. The aim of the project is to provide a culturally-responsive quality health and science education founded on evidence-based research. It is directed at enabling students to address the needs of the individual, the family, the community, and the population, despite numerous resource constraints in Africa.

InnoFoodAfrica

InnoFoodAfrica seeks to explore climate-smart African crops (cereal-pulse-root crop-fruit) in Ethiopia, Kenya, South Africa and Uganda. The project will develop and demonstrate optimal solutions for cultivation practices, processing and productisation towards new value chains, thus enhancing nutritionally balanced food consumption in urban Africa and creating opportunities to reach international markets.

Table 3.19 provides a breakdown of the University's external research funding from various sources.

Table 3.19. External research funding, 2017– 2021 (ZAR)

Government related:	2017	2018	2019	2020	2021
DSI, NRF, CSIR Cancer Association, Eskom, MRC, ARC, WRC, TIA and other government agencies, and research grants	324 305 292	375 030 115	397 911 360	351 909 595	303 576 159
Other funds:	288 614 066	283 205 215	319 942 625	274 803 499	311 342 027
National institutes and centres	26 422 457	24 481 304	24 123 071	18 458 224	35 518 764
Private sector research contracts	101 974 640	105 769 122	95 009 218	95 360 843	83 997 969
International grants	160 216 969	152 954 789	200 810 336	160 984 633	191 825 294
GRAND TOTAL	612 919 358	658 235 330	717 853 984	626 713 094	614 918 186

Source: Finance Department, February 2021 [excludes Enterprises @UP]

Internal funding

Internal funding allocations (see Table 3.20) to research and postgraduate education represents 3.5% of the University’s total budget. The recent increases are largely a result of increased allocations to the postgraduate bursaries and research equipment and maintenance.

Table 3.20. Internal research funding, 2017–2021

	2017	2018	2019	2020	2021
Upgrading and maintenance of research equipment	44 000 000	45 500 000	47 800 000	50 700 000	53 200 000
Patents and IP	3 600 000	3 500 000	3 500 000	3 500 000	3 720 000
Publications funds	30 000 000	29 000 000	26 807 500	28 196 400	30 749 676
UP postgraduate bursaries	38 997 724	40 260 000	44 270 000	44 000 000	72 775 000
Postgraduate incentive fund	-	7 000 000	6 500 000	6 500 000	6 500 000
Postdoctoral fellowships	9 089 230	9 530 000	9 600 000	10 000 000	10 000 000
Research fellowships	1 786 747	1 500 000	1 000 000	1 000 000	1 000 000
UP Research Development Programme	5 252 629	5 000 000	5 500 000	5 500 000	5 300 000
Creative outputs	500 000	500 000	1 500 000	1 500 000	1 500 000
Strategic Research Projects			3 000 000	3 396 438	3 415 584
TOTAL	133 226 330	134 790 000	146 477 500	147 792 838	188 160 260

Source: DRI and Finance Department, January 2021 (Figures in ZAR)

3.5 Composition and Size of the Student Body

The tables below provide an overview of the size and composition of the student body in 2021.

Table 3.21. Enrolment growth, undergraduate and postgraduate contact students, 2021

GENDER	Male	Female	Not Specified	Total	% Increase from 2020
Total Undergraduate (UG)	15 438	21 549	56	37043	4.36%
Total Postgraduate (PG)	5 827	7 285	5	13117	2.41%
Total (excluding occasional students)	21265	28834	61	50160	3.84%

Of the total enrolment of 50 160 contact students (excluding occasional students) in 2021, 26.2% were postgraduates (Table 3.21), of which 66% (8 663) were black⁶ (Table 3.22). The percentage of black contact students (undergraduate and postgraduate) was 62.60% in 2021 (Table 3.22) and, in addition, almost all the students enrolled for distance education were black. The University's 2021 total contact enrolment exceeded the set target by 1.8%.

Table 3.22. Summary of contact student numbers per race group, 2019 – 2021

RACE GROUP	2019			2020			2021		
	UG	PG	TOTAL	UG	PG	TOTAL	UG	PG	TOTAL
African	17 312	6 948	24 260	17 390	7 236	24 626	19 024	7 432	26 456
Coloured	1 080	386	1 466	1 100	391	1 491	1 161	401	1 562
Indian	2 314	720	3 034	2 405	720	3 125	2 551	830	3 381
White	15 037	4 720	19 757	14 598	4 450	19 048	14 305	4 443	18 748
Not disclosed	3	12	15	3	11	14	2	11	13
TOTAL	35 746	12 786	48 532	35 496	12 808	48 304	37 043	13 117	50 160

A breakdown of the number of distance education students in the Faculty of Education is given in Table 3.23.

Table 3.23. Distance education: Faculty of Education, 2019 – 2021

Level	2019			2020			2021		
	Male	Female	Total	Male	Female	Total	Male	Female	Total
Undergraduate	0	0	0	0	0	0	75	117	192
Postgraduate	483	1165	1648	676	1562	2238	838	2323	3161
Total	483	1165	1648	676	1562	2238	913	2440	3353

As shown in the above table, enrolments in distance education in 2021 increased by 49.82% compared to 2020. The increase in enrolments came about as a result of the following programmes – PGDip in Public Management and PGDip in Public Health.

⁶ Black includes African, Coloured and Indian students.

3.6 Access to Financial Aid

The University continues to provide funding support to enable access for financially disadvantaged students to higher education. The University has an established portfolio of bursaries (see Table 3.24 below) consisting of the University's own funds, funds raised through donations, gifts, grants, and funding administered on behalf of third parties such as state departments, foundations and provincial governments. The University also has a strategic bursary fund to ensure that its diversity targets in undergraduate and postgraduate student numbers are met. Despite the challenges due to the financial impact of COVID-19, financial aid expanded during 2021, in alignment with the University's strategy to provide access. The following are the key highlights indicated in Table 3.24:

- In 2021 Financial Aid increased by 15.5% to a total of R2,157m;
- Contributions from UP's own funds towards bursaries increased by 11.3% to R191m;
- There was an increase of 22.5% to R1,562m in managed funding from third parties, mainly due to NSFAS-centralised funding activities (excluding NRF funding and studentships);
- There was a 4.2% decrease in funding received from external sources (municipalities, provinces, state departments, and others); and
- NSFAS funding administration was centralised in 2017 and now mainly provides DHET bursary funding to financially disadvantaged students. NSFAS has yet to close the 2017 - 2021 funding cycles for the University. Accordingly, the amounts for NSFAS awards may change.

Table 3.24. Financial aid to students, 2018 to 2021

	2018	2019	2020	2021
	Rm	Rm	Rm	Rm
BURSARIES				
Awarded from own funds:				
Merit awards	46.85	48.97	48.17	65.97
Postgraduate awards	40.26	55.92	66.19	65.60
Sports bursaries	8.92	9.58	6.39	7.80
Special bursaries*	18.62	16.39	19.21	21.47
Fundi (previously Eduloan)	2.19	2.11	1.85	1.59
Personnel bursaries	23.59	23.49	24.11	23.34
Family discount	5.28	6.96	5.75	5.33
Subtotal	145.71	163.42	171.67	191.10
Awarded from funds allocated to UP:				
NSFAS bursaries	538.02	815.11	1 057.77	1321.47
NRF	64.64	51.37	59.20	51.26
General studentships**	77.33	91.98	79.39	89.45
Other managed funds	88.09	99.19	78.95	99.87
Subtotal	768.08	1 057.65	1 275.31	1 562.04
Awarded by external organisations and administered by UP:				
Municipalities	12.52	16.5	11.66	9.91
Provinces	86.72	70.71	63.54	56.38
State departments	16.23	17.83	17.67	15.98
General	269.49	307.72	301.95	296.00
Subtotal	384.96	412.76	394.82	378.26

SUBTOTAL: BURSARIES	1 298.75	1 633.83	1 841.80	2131.4
LOANS				
Awarded from own funds:				
UP NSFAS	-	-	-	-
UP loans	9.12	15.17	9.42	10.95
Awarded from funds allocated to UP:				
National Student Financial Aid Scheme	1.7	-	-	-
Awarded by external organisations and administered by UP:				
Fundi (previously Eduloan)	19.74	18.96	16.65	14.34
SUBTOTAL: LOANS	30.56	34.13	26.07	25.29
TOTAL: BURSARIES AND LOANS	1 329.31	1 667.96	1 867.87	2156.69

* Special bursaries include the Vice-Chancellor and Principal's special awards for disadvantaged students, Dux learner bursaries, Veterinary Science Bursaries, BSc four-year bursaries, UP with Science bursaries, as well as bursaries awarded from grant funds.

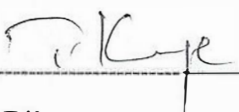
** Studentships are obtained by faculties mainly from external sources.

Qualifying NSFAS students were not required to make first payments when registering for the 2021 academic year. Similarly, NSFAS students who wanted to register for the 2021 academic year and who had met the necessary academic requirements, but had debt carried over from prior years, were permitted to register after signing an Acknowledgement of Debt (AoD). The University also worked closely with NSFAS to support students who may have qualified for NSFAS, but who had not submitted their applications timeously, as well as those who had appealed NSFAS funding decisions.

The University recognises the importance of postgraduate education in contributing to high-level skills development and specialised knowledge nationally, and to replenishing the human capital needed in the country. Students who have been admitted to postgraduate programmes and have attained the necessary academic achievement are eligible to be nominated for UP Postgraduate Bursaries. The University supports postgraduate students in applying for bursaries from external bodies (such as the NRF) and coordinates the allocation of NRF block-grants to ensure that all available funds are allocated timeously. From 2019, the University implemented a plan whereby financially-challenged postgraduate students, who qualify academically, can apply for the award of a UP grant equivalent to the first payment.

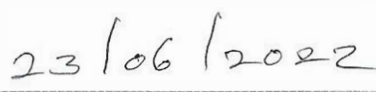
3.7 Concluding Comment

As can be seen from the foregoing report, it is clear that during 2021, the Senate of the University of Pretoria fulfilled its statutory mandate as set out in the University Statute. As the highest academic decision-making body of the University, Senate played a vital role in fostering and supporting the vision and strategic goals of the University.



Prof T Kupe

Chairperson of Senate



Date

4. REPORT OF THE INSTITUTIONAL FORUM TO COUNCIL

The Institutional Forum (IF) advises the Council and the Executive on the following matters affecting the University:

- the implementation of the Act and national policy on higher education;
- the formulation of race and gender equity policies;
- the selection of candidates for senior management positions;
- codes of conduct;
- mediation and dispute resolution procedures;
- the formulation of policy for fostering an institutional culture characterised by tolerance, respect for fundamental human rights and a positive academic climate; and
- the management of cultural diversity on the University's campuses.

The IF comprises two representatives of the Executive of the University appointed by the Principal, two representatives of Council elected by Council, two representatives of Senate elected by Senate, a maximum of five representatives elected from the ranks of the trade unions and staff associations recognised as such by the University as set out in paragraph 40(3) of the Statute, one member appointed by the President of the Convocation, one disabled person (either a member of staff or a student) appointed by Council, not more than ten student representatives in accordance with an appointment procedure of the SRC set out in the Institutional Rules, and a maximum of three employee or student members, appointed by Council after consultation with the Institutional Forum either on the basis of their expertise and experience or in order to represent a specific interest group or groups on campus not already represented in the IF.

The IF held four virtual meetings in 2021. The following focus areas that had been identified for 2021, were included as standing items on the agendas and were discussed at each meeting.

- The impact of the Covid-19 pandemic on staff and students;
- The return of students to campus; and
- Gender-based violence.

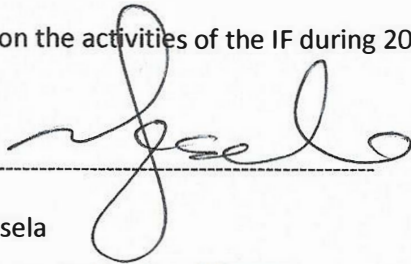
During 2021, members of the IF were given the opportunity to provide input on the proposed amendments to the Statute of the University of Pretoria, which input was conveyed to Council at its meeting in November 2021. Members also considered and gave input on the proposed changes to the Language Policy of the University, which was approved by Council in September 2021. Furthermore, the IF nominated two members to serve on the Review Committee of the UP Transformation Plan.

As part of its focus on gender-based violence, the IF requested that the SRC table a report at each meeting of the IF on the cases of gender-based violence reported via the GBV Helpline of the SRC. The Director: Transformation provided members with information on the Anti-discrimination Policy and Operations Manual, the reporting and investigation of cases, and the gender-based violence advocacy programmes/campaigns at the University. The Director addressed a number of questions posed by the members on, amongst others, socialising of the Policy, and initiatives by the Transformation Office at faculty and departmental level to assist in this regard;

the turn-around time for dealing with complaints, which is dependent on a number of factors; security services and figures of authority at private accommodation facilities and the confirmation that all the structures available at UP residences (i.e. security, house parents, etc.) are also available at private accommodation; how the alleged perpetrator is dealt with during an investigation; and an upward trend in cases related to social media and cyberbullying, as well as indecent exposure. The feedback given by the Transformation Office was very valuable and gave members of the IF a better appreciation of the institution-wide initiatives and work of the Transformation Office. Synergies between the work of the IF and the Transformation Office were discussed and agreed upon.

Members of the IF discussed a number of issues regarding COVID-19, amongst others, the University's approach or policy on vaccine mandates and the return to campus of staff and students and the implications thereof.

A report on the activities of the IF during 2021 served at Council in November 2021.



Ms N Lesela

Chairperson: Institutional Forum



Date

5. REPORT ON INTERNAL ADMINISTRATIVE / OPERATIONAL STRUCTURES AND CONTROLS

UP is committed to ensuring the accuracy, comprehensiveness and reliability of its reported administrative information, including academic and financial information, as well as information on the sustainability of its operations. This is achieved, amongst others, through maintaining an effective, efficient and transparent system of governance and internal control. These systems are designed to provide reasonable assurance that the University's systems, information and assets are safeguarded against unauthorised activities, and that the University information systems provide a reliable basis for the academic administration, as well as the preparation of financial statements and related institutional reports.

The internal control systems are based on the University's organisational structure and the division of responsibilities. The University's established policies and procedures, including its General Regulations, Employee and Student Codes of Conduct, and the related Disciplinary Rules, as well as various academic and administrative procedures, are communicated throughout the institution to foster a strong ethical climate.

Compliance, ethics and anti-fraud staff training sessions and awareness campaigns are held throughout the year. In addition, the University promotes an ethical student culture through student academic integrity awareness campaigns. The University has adopted a Whistle-blowing and Anti-Fraud Policy and an Institutional Compliance Framework Policy to establish the University's clear stance on fraud, corruption, legislative and policy non-compliance as well as unethical practices and to reinforce existing systems, policies and procedures aimed at preventing, detecting, responding to and reducing the incidence and impact of irregular activities.

Internal academic and financial control systems are appraised on a continuous basis by the Department of Internal Audit and Compliance Services ("Internal Auditors"), which is independent of the University's management and operates in terms of the mandate outlined in the Internal Audit Charter. Weaknesses identified by the Internal Auditors in respect of the internal control systems are brought to the attention of the external auditors, management and the Audit, IT and Risk Management Committee of Council. The implementation statuses of all agreed management actions arising from internal audits, as well as from ad hoc review projects (including whistle-blowing investigations) are followed-up with the responsible members of Senior and Executive Management within six to 18 months after completion of each review, and reported to the Audit, IT and Risk Management Committee of Council.

Based on the results of the planned audits, ad hoc reviews and follow-up reviews undertaken during 2021, key internal administrative and operational controls were found to be generally effective in all material aspects and reported findings did not expose the University to significant risks.



Ms OV Granova-Mooi

Director: Internal Audit and Compliance Services

23/06/2022

Date



Ms T Ramano

Chairperson of the Audit, IT and Risk Committee

23/06/2022

Date

6. REPORT OF THE AUDIT, IT AND RISK MANAGEMENT COMMITTEE

The Audit, Information Technology (IT) and Risk Committee of Council is constituted in terms of paragraph 23(1) of Chapter 5 of the Statute of UP. The primary purpose of the Committee is to assist Council in discharging its duties related to the safeguarding of the University's assets, updating of the University's accounts to provide a reasonable reflection of its financial and cash-flow position, income and expenditure, assessment of business risks and ensuring that effective internal control systems are developed and implemented, understanding the University's overall exposure to IT risks, and ensuring compliance with all applicable legal requirements, legislation and accounting standards.

The Committee ensures that the management of the University has a proper risk management framework in place, continually assesses business risks, and ensures that effective control systems aimed at managing material risks, preventing losses and harnessing opportunities, are developed and implemented. The Committee further oversees IT governance and the implementation of the IT governance framework, monitors and evaluates significant IT investments and expenditure, ensures that management has a system in place to manage IT resources efficiently in order to facilitate the achievement of strategic objectives, deliver value and mitigate IT-related risks. The Committee reviews the internal auditor's assessment of risks and approves the internal audit plan, monitors the activities, scope, adequacy and effectiveness of the internal audit function and audit plans, and reviews and/or approves the external audit plans, findings, management letters, reports, and fees. The Committee regularly reports to Council on the execution of its responsibilities.

The Committee consists of a minimum of four Council members who possess expertise in, amongst others, auditing, financial management, IT management and risk management, and who are not in the employ of the University. Meetings are attended, by standing invitation or by invitation, by the Vice-Chancellor and Principal, the Registrar, the Executive members responsible for Finance and IT, the Director: Finance, the Director: Internal Audit and Compliance Services, a representative from the co-sourced independent firm of internal auditors, a representative of the external auditors, and a representative from the Office of the Auditor-General of South Africa. The Committee met virtually, three times during 2021, and the minutes of the meetings were tabled at Council meetings for noting.

Council, at its meeting of 24 June 2021, reconstituted all its committees and elected chairpersons for each committee for a period of two years. Mr BJ Kruger and Mr AE Swiegers were re-appointed by Council to serve on the Committee. Newly appointed members to the Committee included Ms T Ramano, Ms C Read, Mr DJ Fourie and Mr MW Madi. An attendance record of the Committee's meetings is presented in in Table 6.1 below.

Table 6.1. Attendance: Audit, IT and Risk Committee of Council, 2021

Meeting	Committee members present (of 4 members and 6 after the reconstitution of the Committee)	Absent with apology	Vacant seats
13 May 2021	4	0	0
26 August 2021 (following the reconstitution of the Committee)	5	1	0
21 October 2021	5	1	0



Ms T Ramano
Chairperson of the Audit, IT and Risk
Committee of Council

23/06/2022

Date



Mr KD Dlamini
Chairperson of Council

23 June 2022

7. VICE-CHANCELLOR'S REPORT ON MANAGEMENT AND ADMINISTRATION

7.1 Goals, Plans and Priorities

UP has evolved progressively over the 113 years of its existence: from starting out as the Pretoria branch of the Transvaal University College in 1908 to becoming a global African university by the end of 2021. The past year in particular, has seen the University dive into a future no one could have envisioned just two years ago.

That we have not just survived a tumultuous year, but thrived, is testimony to the anchoring role played by our overarching vision, UP 2025, and its five key strategic goals. In 2021, we embarked on last phase of our five-year strategic plan that will lead us to 2026 and beyond, and we have collectively redoubled our efforts to achieve these strategic goals, viz.

- I. To enhance access and successful student learning
- II. To strengthen the University's research, international profile, and global engagement
- III. To foster and sustain a transformed, inclusive, and equitable University community
- IV. To enhance institutional sustainability
- V. To strengthen the University's social responsiveness and impact in society

In many ways, the COVID-19 pandemic forced us to re-imagine UP at a more rapid pace. It has enabled us to become leaders in hybrid teaching and learning that innovatively combines contact and online modes. We are already one of the leaders globally leveraging digital technologies for teaching, learning and research as well as for greater societal impact, and we are well on our way to becoming masters of the digital space.

UP endeavours to be a resilient institution, adept at navigating uncertainty, turning threats into opportunities, and introducing innovations and disruptive ideas or technologies that will benefit the University and society at large. As we emerge from this pandemic experience, we know we are an even stronger university - able to drive change in South Africa, Africa and the world.

7.2 Impact of COVID-19

The University was proactive in dealing with the considerable impact that the ongoing COVID-19 pandemic had on the lives of students and staff. By accelerating innovations to transform UP's teaching, learning, research and operational functions on digital platforms, the academic year could continue with some normality. Global conferences and networking took place on various online platforms. Funding and other support for travel were re-allocated to support the critical needs of students and staff and address the challenges caused by the pandemic.

We continued to harness the latest technology to support teaching and learning and to develop scalable, flexible, interactive and active learning environments. These were supported by a digital student success strategy based on an integrated data collection and analysis plan.

As a result of the continuation of the COVID-19 lockdown restrictions into 2021, UP had to continue with remote teaching and learning at the beginning of the 2021 academic year. Easing of lockdown restrictions later in the year, allowed for a phased return of staff and students, with strict health protocols in place.

UP became the first academic institution in South Africa to open a COVID-19 vaccination site to facilitate the vaccination process and this was supported by a vaccination drive under the *#VaccinateDon'tProcrastinate* campaign. By the end of 2021, the Faculty of Health Sciences had administered 11 891 vaccines. Sadly, 18 staff members succumbed to the virus and four students died after contracting COVID-19.

7.3 Student Registration

Although 2020 was not a typical year for most high school students, the applications to UP for 2021 were not negatively affected by the COVID-19 pandemic. We received 40 169 applications for 2021, which was 2 650 more than we received for the 2020 intake.

The annual *#ChooseUP* information event for conditionally admitted students and their parents and guardians was held virtually for prospective students to engage with the University and attend information sessions. More than 10 000 participants attended the event. Similarly, the admission cycle for the 2021 intake was highly successful, with a total of 19 386 admissions, almost 2 000 more students than the 2020 intake. We had significantly higher admissions in Natural and Agricultural Sciences (800) and Engineering, Built Environment and Information Technology (730). Special arrangements were made for registration to take place online and the Welcome Day and orientation took place virtually.

Applications and admissions for the extended programmes continued the positive trend of the past few years and increased for 2021, reflecting increased interest in these programmes from prospective students. Targeted recruitment strategies paid off in terms of admissions of Cambridge, independent schools, and international students. In terms of Cambridge International Examinations, there was a significant increase in admissions from 337 for 2020 to 622 for 2021. The admission of students from independent schools increased by 490 and international student admissions increased by 340 students for the 2021 intake.

The 2021 postgraduate enrolments also grew steadily to 16 278 from 14 722 in 2020.

7.4 Collaboration and Advancement

International collaboration remains a core strategic focus for UP. The University collaborates with over 3 000 institutions across the globe to realise the University's potential to meaningfully impact on the lives of members of the local, regional and global community.

Despite ongoing travel restrictions for a large part of 2021, the University relentlessly pursued global engagements and used online platforms to sign Memoranda of Understanding (MoUs) and

Memoranda of Agreement (MoAs) resulting from the in-person visits conducted in previous years. This focus has resulted in UP emerging from a pandemic-disrupted period growing in local and international partnerships.

7.4.1 International grants

In 2021, UP was awarded sizeable international grants to advance its aim of securing the future sustainability of the University while realising its potential to positively impact the lives of people.

Enhancing food and nutrition security across the continent

UP is part of an exciting project to enhance food and nutrition security across Africa. Named *InnoFoodAfrica*, this three-year project focuses on South Africa, Ethiopia, Kenya and Uganda, with 15 African partners and five European partners also involved. The project is funded by the European Union's Horizon 2020 programme at the cost of €6,5 million, and the projected economic impact is €7,5 billion.

Expanding the US-SA Higher Education Network

The United States Embassy, UP and Rutgers University-Newark officially launched a \$500 000 (R8,3m) project that will further strengthen and support the United States-South Africa Higher Education Network (US-SA HEN). The US-SA HEN is a consortium of higher education institutions in the United States and South Africa that was founded in 2018 to promote exchanges, collaborative research and other partnerships. The current partners of the US-SA HEN are UP, Rutgers University-Newark and the University of Venda.

Encouraging entrepreneurship in Africa

UP and Michigan State University (MSU) were awarded an Alliance of African Partnership (AAP) Partnership for Innovative Research in Africa (PIRA) grant for entrepreneurs and business initiatives. UP is part of a consortium for the USAID-funded Innovation Lab for Food Security Policy hosted by MSU.

Helping learners make a successful transition to university

UP signed a contract with the United Nations Children's Emergency Fund (UNICEF) for an initial amount of R2,5 million to support the Junior Tukkies programme. JuniorTukkies seeks to strengthen UP's position in the digital online sphere in education and to assist learners in making a successful transition from high school to higher education. Based on the very successful virtual teaching campaign in Grade 11 and 12 Mathematics and Physical Sciences, the need arose to include other subjects such as Life Sciences, Accounting and English.

7.4.2 Strengthening relationships through signed agreements

About 44% of the research we conduct is done with international collaborators. The following Institutional Agreements were signed in 2021.

Cornell University

UP is proud to be the first university in Africa to sign an institutional-level agreement with Cornell University. The two universities agreed on collaborative research with a focus on sustainability, including the food-energy-water nexus, environment and global One Health. The cornerstone of this relationship is the unique status that UP and Cornell share: UP has the only Faculty of Veterinary Science in South Africa and the highest-ranked programme on the continent, while Cornell is the only Ivy League university in the US that has a College of Veterinary Medicine and a College of Agricultural and Life Sciences.

Afrobarometer

UP and research network Afrobarometer signed an MoU to boost research and analysis skills amongst young African researchers. Afrobarometer is a non-partisan, pan-African research network and the world's go-to source for reliable data on African citizens' experiences and evaluations of democracy, governance and quality of life.

Netherdutch Reformed Church of Africa (NRCA)

UP and the NRCA signed a cooperation agreement to educate and train theological students at UP. The University's partnership with the NRCA started in 1917 when the Faculty of Theology and Religion was established as the first theological faculty in South Africa at the Transvaal University College Pretoria.

African Human Rights Moot Court Competition

UP's Centre for Human Rights in the Faculty of Law and the British University in Egypt's Faculty of Law signed an MoU to organise the 31st African Human Rights Moot Court Competition. The Centre for Human Rights co-organises this competition annually together with a faculty of law at an African university.

University of Leeds

UP and the University of Leeds agreed to formalise a growing partnership, which includes collaboration on the FSNET Sustainable Food Systems Initiative and collaborations already established in the Faculties of Humanities and of Engineering, Built Environment and Information Technology, as well as the ARUA Centre of Excellence research project worth £2 million.

Murdoch University

UP and Murdoch University, which has been a long-term collaborator with UP on many research projects, signed an MoU to strengthen collaboration on health, food and the environment and will be linked to global initiatives such as One Health.

New York University

UP formalised relations with New York University to cooperate in the areas of transformational leadership, academic staff exchange, renewal and transformation of curricula, and student leadership capacity development. As part of this partnership, an executive education programme will be developed, which will focus on inclusive innovation for individuals and institutions across various sectors

7.5 Staffing

Maintaining high levels of quality and excellence in all of our operations is, to a significant extent, dependent on the knowledge and skills, talent and commitment of our academic, professional and support staff. Attracting, developing and retaining quality staff is therefore at the core of our strategic priorities.

UP remains in the top spot of all SA universities in relation to the proportion of academic staff that holds a doctorate (70.4%) and they are prolific in their output. According to the DHET's *Report on the Evaluation of the 2019 Universities' Research Output* released in March 2021, UP had the second highest weighted per capita research outputs (3.61) amongst South Africa's 26 public universities in 2019. The 2019 report is the most recent evaluation of the research outputs of universities. Research productivity, measured as research output units, earns subsidy from the government. Total research output units for research master's and PhDs for 2021 are 2270.13, up from 2151.26 in 2020.

The measures implemented to improve the EE staff profile of the University are delivering results. Overall, black staff representation has grown to 67.6% in 2021 (2020: 67.2%), with black academic staff growing to 31.1% by the end of 2021 (2020: 27.6%).

7.5.1 Senior appointments

The following senior appointments were made during 2021:

New appointments

- Prof Sunil Maharaj, Acting Vice-Principal: Research, Innovation and Postgraduate Education;
- Prof Margaret Chitiga-Mabugu, Dean of the Faculty of Economic and Management Sciences. She was also appointed as a board member of Enterprises University of Pretoria (Pty) Ltd;
- Prof Jan Eloff, Acting Dean: Engineering, Built Environment and Information Technology;
- Dr Flavia Senkubuge, Deputy Dean: Health Stakeholder Relations: Faculty of Health Sciences;
- Prof Gerald Ouma, Senior Director: Institutional Planning, Monitoring and Evaluation;
- Dr Carol Nonkwelo, Senior Director: Department of Research, Innovation and Postgraduate Education;
- Dr Diane Parker, Director: Strategy Coordination and Implementation;
- Gabisile Ngcobo, Curatorial Director of the Javett Art Centre at UP;
- Mr Steven Ball, Director: TuksSport; and
- Dr Mazibuko Msimang, first fellow in the Artist in Residency Programme at UP's Future Africa Institute. The programme was established to advance the humanities, through the arts, to specialist and non-specialist audiences.

Re-appointments

- Prof Tiaan de Jager, Dean of Health Sciences.

7.6 Notable Academic Achievements

As a multi-faculty, research-intensive university, UP is placed among the top universities in South Africa for research output and impact, and is one of the highest producers of graduates in South Africa annually. We are immensely proud of our academics who continue to take centre-stage in their endeavours, while attending to their teaching commitments.

7.6.1 World rankings

World ranking systems classify, differentiate and position universities within the global higher education landscape.

Leading researchers, impact and visibility

- UP has two researchers ranked in the top 1% by Essential Science Indicator (ESI) worldwide, Professors Mike Wingfield and Rangan Gupta. Researchers are selected for their exceptional influence and performance in their fields, through the publication of highly cited research papers.
- The University continues to enlarge its research footprint and is now rated amongst the top 1% of universities globally in 12 of the 22 ESI knowledge fields (up from 10 in 2020) (see also Section 3.4.1.2). In 2021, Molecular Biology and Genetics, and Pharmacology and Toxicology researchers were included in this elite list. The 12 subjects in which the University scores well are: Agricultural Sciences, Biology and Biochemistry, Molecular Biology and Genetics, Pharmacology and Toxicology, Clinical Medicine, Economics and Business, Engineering, Environment/Ecology, Immunology, Microbiology, Plant and Animal Science, and Social Sciences.

Subject rankings

UP's vision of becoming a global research player was cemented when the University was ranked amongst the world's top universities for the study of 20 subjects (up from 18) in the 2022 Quacquarelli Symonds (QS) World University Rankings by Subject. The rankings analyse 15 200 individual university programmes offered by 1 543 universities in 88 locations around the world. A notable accomplishment is UP's Mineral and Mining Engineering, which was ranked at position 33 and is amongst the top 50 worldwide. According to these rankings, UP is the best place in South Africa to study Veterinary Science (ranked in the 51-60 band), Accounting and Finance (101-150), Economics and Econometrics (201-250), Mechanical, Aeronautical and Manufacturing Engineering (251-300), and Electrical and Electronic Engineering (301-350).

The *Times Higher Education* (THE) Impact Rankings, which is the only ranking system that assesses the promotion of the UN SDGs, ranked UP in first place for SDG 9 (industry, innovation and infrastructure) and SDG 15 (life and land). UP was ranked third in the country for SDG 8 (economic growth and decent work).

UP was ranked second-best university in South Africa and Africa in uniRank's list of the top universities on the continent. The Shanghai Ranking Consultancy's 2021 Academic Ranking of World Universities, ranked UP third in Africa. The University received a global placement within the 401 to 500 band.

The Centre for World University Rankings (CWUR) placed UP amongst the top five universities in South Africa. CWUR rankings are based on quality of education, alumni employment and quality of faculty and research performance. Thirteen South African universities were ranked in the 2021–2022 list of the top 2 000 universities.

For the 13th year in a row, GIBS was recognised as Africa’s top-ranked business school for executive education in the prestigious UK Financial Times (FT) executive education rankings. Having moved up the rankings to 43rd overall, GIBS is amongst just 15% of an estimated 300 leading business schools globally that vie for a top-50 position.

UP was ranked top in South Africa in Computer Science, Engineering, Veterinary Science, and Finance by the Shanghai Global Ranking by Subject and second in SA in Accounting and Finance, and Biological Science by the THE World University Rankings by subject. These rankings also rated UP as the best South African institution at which to study Computer Science.

Based on the 2020 Loeries Awards results, the Information Design division at UP’s School of Arts was ranked the best design education institution in Africa and the Middle East in 2021. UP students won six medals in the Loeries, tying with the University of Stellenbosch for the most wins.

A summary of the University’s performance in the various rankings in 2021 is presented in Table 7.1.

Table 7. 1. Summary of UP’s performance in rankings, 2021

Quacquarelli Symonds (QS)		
Mineral and Mining Engineering	Number 33 in the world	
Veterinary Science	51-60 in the world	
Accounting and Finance	101-150	
Economics and Econometrics	201-250	
Mechanical, Aeronautical and Manufacturing Engineering	251-300	
Electrical and Electronic Engineering	301-350	
Times Higher Education (THE) Impact Rankings		
SDG	Domestic Rank	Global Rank
SDG 8 (Economic growth and decent work)	3rd in SA	44
SDG 9 (Industry, innovation and infrastructure)	1st in SA	88
SDG 15 (Life and land)	1st in SA	30
SDG 16 (Peace, justice and strong institutions)	2nd in SA	101-200
SDG 17 (Partnership for the goals)	2nd in SA	86
Uni Rank		
South Africa/Africa	2nd	
Shanghai Global Ranking		
South Africa	3rd in SA	
Global	401-500	
Veterinary Science	1st in SA	
Finance	1st in SA	
Engineering	1st in SA	
Computer Science	1st in SA	
THE World University Rankings by Subject		
Accounting and Finance	2nd in SA	
Biological Science	2nd in SA	
UK Financial Times (FT) Executive Education Rankings		
GIBS	1st in Africa	43 in the world

7.6.2 Academic staff recognition and awards

It was another exceptional year for UP researchers with the academic staff being honoured by a wide range of organisations. We include some of the highlights below.

7.6.2.1 Internal awards

Each year UP pays tribute to academic achievers at an annual gala event, in recognition of excellence and academics' contribution to the University's mission.

Chancellor's Award: Research - Prof Charles Manga Fombad

Prof Fombad is a Professor of Law and the Director of the Institute for International and Comparative Law in Africa (ICLA), in the Faculty of Law. His research focuses on comparative constitutionalism Africa. Prof Fombad has published 94 articles in accredited journals, 62 book chapters, and 16 books (authored, co-authored, edited or co-edited). He is a B1 NRF-rated researcher.

Chancellor's Award: Teaching and Learning - Prof Karen Leigh Harris

Prof Harris is the Head of the Department of Historical and Heritage Studies and the Director of the University Archives. She teaches history and heritage and cultural tourism to undergraduate and postgraduate students. Her innovative teaching strategies in the Heritage and Cultural Tourism undergraduate degree resulted in the National Department of Tourism awarding graduates in this degree accreditation as Gauteng tourist guides. This means that the students graduate with an academic degree as well as a professional qualification. UP is the only university in the country with this accreditation. In 2019 Professor Harris also received a Humanities Teaching Excellence Award based on the innovative experiential learning she introduced in the Heritage and Cultural Tourism Honours course – UP Campus Tours. This is a simulated-real time project where students are given the opportunity to apply the theory and knowledge-content they acquire to a real-life situation. This has been commended as a most effective way to prepare students for the world of work, build confidence and creativity.

Vice-Chancellor's Book Award (Humanities and Social Sciences) – Dr Jonathan Chimakonam Okeke and Dr Uchenaa Ogbonnaya

Dr Okeke and Dr Ogbonnaya received the award for their book 'Metaphysics, Epistemology, and a New Logic: A Decolonial Approach to Philosophy'. Dr Okeke is a Senior Lecturer in the Department of Philosophy and Dr Ogbonnaya is a Post-doctoral Research Fellow in the Department of Philosophy under the mentorship of Dr Okeke. The book focuses on African metaphysics and epistemology, and is an exercise in decoloniality. It puts forward theories to stimulate fresh debates and formulate a new understanding of the logic and methods informing African Philosophy.

Vice-Chancellor's Award for Excellent Supervision – Prof Johan Olivier

Prof Olivier is an Extraordinary Professor at the University's Gordon Institute of Business Science (GIBS). He has successfully supervised more than 40 master's students, especially MBAs, and six doctoral students. He co-supervisors with academics who have recently received their doctoral degrees and is a mentor to peers. He publishes with his students and serves on several postgraduate committees at GIBS.

7.6.2.2 NRF awards

Seven UP researchers and academics were honoured at the 2021 NRF Awards. Dr Steven Hussey was awarded a P-rating, Professors James Ogude and Michael Bruford received their first A-ratings, Professors Brenda Wingfield and Yves van de Peer received their second A-ratings, and Professors Johannes van Oort and Charles van Onselen received their third and fourth A-ratings, respectively.

The awards celebrate outstanding achievements of individuals and teams whose excellence has significantly advanced science for the benefit of society.

7.6.2.3 ASSAf recognition

Forty-three of the country's leading scholars and scientists were inaugurated as members of the Academy of Science of South Africa (ASSAf) of which four are from UP:

- Prof Christian Chimimba, a former Head in the Department of Zoology and Entomology, an Associate of the Mammal Research Institute, and a core team member of the Centre of Excellence for Invasion Biology;
- Prof James Maina, a Professor of Civil Engineering and Adjunct Professor at Chang'an University in Xi'an, China, as well as Shandong Jianzhu University in Shandong, China;
- Prof De Wet Swanepoel, a Professor of Audiology in the Department of Speech-Language Pathology and Audiology and senior research fellow at the Ear Science Institute, Australia; and
- Prof Marietjie Venter, a Professor of Medical Virology and Head of the Zoonotic Arbo and Respiratory Virus Programme. Prof Venter co-founded the Centre for Viral Zoonoses in the Department of Medical Virology.

7.6.2.4 Prestigious appointments

- Prof Sunil Maharaj, Dean of the Faculty of EBIT and Acting Vice-Principal: Research, Innovation and Postgraduate Education, has been appointed as the new Chair-elect of the Global Engineering Deans Council (GEDC). He is the first Dean elected from Africa in the history of the Council and will be Chairperson from November 2021 until 2023;
- Prof Dire Tladi, Professor of International Law in UP's Department of Public Law, was elected as the First Vice-Chair of the International Law Commission (ILC) for the 72nd session held in Geneva;
- Prof Wanda Markotter, Director of the UP Centre for Zoonoses, has been appointed to the One Health High-Level Expert Panel. This panel of international experts aims to control animal-to-human disease transmission that could trigger future pandemics;

- Prof Roula Inglesi-Lotz has been appointed as the Vice-Principal: Regional Affairs of the International Association for Energy Economics (IAEE) Council. She is also the South African Association for Energy Economics president, an affiliate of the IAEE;
- Prof Ann Skelton was re-elected to the United Nations Human Rights Office of the High Commissioner's Committee (OHCHR) on the Rights of the Child (CRC) for a second term (March 2021 to February 2025);
- Prof Patricia Forbes, holder of the Rand Water Chemistry Chair in the Department of Chemistry, was elected to the Professional Standards Board of the Royal Society of Chemistry and has been made a Fellow of the South African Chemical Institute;
- Two UP Professors from the Department of Food and Consumer Science are the president-elect and vice-president of the Southern African Association for Food Science and Technology (SAAFoST). Prof Elna Buys is the president-elect and Prof Riëtte de Kock the vice-president; and
- Prof Evans Chirwa, from the Department of Chemical Engineering, was elected as a senior fellow of the Water Institute of Southern Africa. He is also involved with the Rand Water and Sedibeng Water Research Chairs in Water Utilisation Engineering and is an expert in his field.

7.6.2.5 Prizes and other awards

- Profs Tahir Pillay and Celia Abolnik were part of a team that won the annual Gauteng Accelerator Programme (GAP) Innovation Competition, run by the Innovation Hub and Emory University's Goizueta Business School. Prof Pillay and his team were awarded first prize for developing nanobodies SARS-CoV2 proteins, which will make testing easier and is saliva-based. Prof Abolnik was part of a team that won the second prize for their work on producing animal vaccines from tobacco plants that are quick to mass-produce and also much cheaper than other current options;
- Prof Gareth Bath, Emeritus Professor in the Faculty of Veterinary Science, was awarded the Global Animal Welfare Award by the World Veterinary Association;
- Prof Emily Mitchell, a veterinary pathologist in the Faculty of Veterinary Science's Department of Paraclinical Sciences, was honoured by the South African Veterinary Association Wildlife Group with the Lycaon Award. The Lycaon Award is bestowed on an individual who has made an outstanding contribution to conservation and the wildlife veterinary fraternity; and
- Prof Stephanie Burton won the Management Award at the 2020/2021 National Science and Technology Forum (NSTF) NSTF-South32 Awards. The NSTF Awards are informally known as South Africa's "Science Oscars". She was one of eight UP finalists.

7.7 Student Success, Access, and Awards

Ensuring successful graduates, growing the pipeline of next-generation academics and researchers, and creating an enabling environment for students to succeed, remains a central priority for the University. In a year where ongoing uncertainty became the norm, the University managed to meet and even exceed the targets for most of the performance indicators it had set itself.

7.7.1 Student accolades

Despite ongoing limitations on movement and contact presented by the COVID-19 pandemic, our students demonstrated their resilience and academic excellence with a number of awards. A small sample is listed below.

7.7.1.1 Masters of their research

Dr Michael Barnes graduated with a doctorate after his master's thesis was converted into a PhD qualification. His thesis focused on atmospheric dynamics, and the study analysed the properties of weather systems that extend all the way to the surface compared to those that do not. Dr Barnes had published papers in renowned journals by the time he submitted his dissertation.

7.7.1.2 Competition winners

Dr Hossein Masoumi Karakani, a PhD (Mathematical Statistics) graduate, finished in the top five percent and won a silver medal in a Kaggle competition. Kaggle is the world's largest data science community and the most well-known competition platform for predictive modelling and data analytics. Google took over this platform in 2017.

Ms Bianca Gevers, a PhD student in Chemical Engineering, was one of six women who received a grant from the L'Oréal-UNESCO for Women in Science South African National Young Talents programme. She also won the Young Persons' Lecture Competition in South Africa in the Young Persons' World Lecture Competition.

Ms LaToya Seoke, a PhD student in the Faculty of Veterinary Science's Department of Production Animal Studies, was one of only 20 women researchers to receive the Sub-Saharan Africa Young Talent Award for academic excellence under the auspices of L'Oréal-UNESCO for Women in Science.

Dr Ismaheel Lawal, a Postdoctoral Research Fellow, was awarded the International Best Abstract Award by the Society of Nuclear Medicine and Molecular Imaging for the study "Predictors of residual metabolic activity on FDG PET/CT in patients treated for pulmonary tuberculosis".

Ms Lauren Senna Fouché, a student in the Faculty of Humanities, was jointly awarded the 2020 South African Translators' Institute (SATI) student prize. She founded her research on her experience as a high school English teacher where she realised that teachers and learners struggle with natural science because of language issues.

A UP team, and their co-team from the Makerere University in Uganda, won the 29th Africa Human Rights Moot Court Competition. The team was also placed second in the Best Written Memorial category.

7.7.1.3 Entrepreneurs in the making

Ms Bianca Payne and Ms Isa Lambrechts started a natural skincare product business named Blyde Botanics with UP's TuksNovation business incubator's assistance and using natural ingredients licensed to UP. Both are completing their PhD degrees under the supervision of Prof Namrita Lall from the Department of Plant and Soil Sciences.

Two final-year students, one completing a Bachelor of Commerce degree (Marco Booyse) and one completing a Bachelor of Town and Regional Planning degree (Jacques Fourie), walked away with the R20 000 Innovative Business Idea Award at the Entrepreneurship Development in Higher Education (EDHE) Intersarsity. They also won R 10 000 to market their business idea, a unique insurance scheme, Stu-D-sure, that allows students to insure their study modules, and if they do not pass, the tuition fees or a portion of the tuition fees for the module will be paid by the insurer.

7.7.2 Alumni achievements

Our alumni continue to be sterling ambassadors of the University and their achievements in an array of disciplines show that at UP you leave with more than a degree. You also acquire the confidence and skills to take centre-stage in whatever you choose to do.

Olympic gold medallist

South Africa and UP are still basking in the glow of Ms Tatjana Schoenmaker's medals following her record-breaking performance at the 2020 Tokyo Olympic Games, which took place from 23 July to 8 August 2021. Ms Schoenmaker put South Africa on the map and on the medal table when she set a world record for the 200m breaststroke, winning gold. She also finished the 100m breaststroke in second place, earning a silver medal.

Miss South Africa 2021

Ms Lalela Mswane was crowned as Miss South Africa 2021. The 24-year-old hails from KwaSokhulu in Richards Bay, KwaZulu-Natal, and graduated from UP with a Bachelor of Law degree in 2020. UP is also the alma mater of Miss South Africa 2020, Ms Shudhufadzo Musida.

Director-General appointment

Advocate Doctor Mashabane has been appointed as the Director-General of the Department of Justice and Constitutional Development. He holds a Master's of Law (International Human Rights Law) degree from UP.

Scientific and Engineering Award

Mr Nicolaas Verheem received the prestigious Scientific and Engineering Award from the Academy of Motion Picture Arts and Sciences for the development of Teradek's Bolt, a wireless video solution.

2021 Trailblazer

Mr Roger Wyllie won the South African Institute of Chartered Accountants (SAICA) 2021 Trainee Trailblazer competition. He graduated from UP with a BCom (Accounting Sciences) degree with distinction and did the Postgraduate Diploma in Accounting in 2019.

Young Author award

Dr Chris Oosthuizen, research associate with UP's Marion Island Marine Mammal Programme, won the Populations Ecology Young Author Award. The award acknowledges early-career authors of the best paper published in the peer-reviewed *Population Ecology*. He is an alumnus of UP's Zoology and Entomology department and the award-winning paper is based on his PhD thesis.

Southern African Rhodes Scholarship

Dr Reantha Pillay is one of the Rhodes Scholarship awardees for 2021. She graduated *cum laude* with a MBChB in 2017 and is enrolled for an MSc in International Health and Tropical Medicine at the University of Oxford.

7.8 Fundraising and Student Funding

Two years of living with the COVID-19 pandemic has exacerbated the financial challenges faced by the University, students and their families. Many students who could afford to pay tuition and accommodation fees previously are no longer able to do so. In addition, the health crisis has affected the economy, revenue collections, and the national budget, forcing the government to reprioritise national funding. This funding had a direct impact on the national budget for higher education.

The University relies on three sources of income: government grant subsidies, student fees and philanthropic and other contributions. With the first two sources under continued pressure, donor funding received renewed attention. As mentioned previously, UP's fundraising efforts exceeded the set target of R130 million for 2021, raising a total of R174 million. One of the largest individual donors is the former Deputy Chief Justice (DCJ), Judge Dikgang Moseneke, who donated R800 000 towards bursaries for law students. He also donated his personal collection of books and journals to the OR Tambo Law Library.

Mastercard remains the largest organisational donor for student bursaries and support, with R18 million being made available.

The University's Charitable Trust in the United Kingdom was approved in 2021, and we now have two foreign charitable foundations. The University's Foundation in the United States raised \$80 000 to honour the memory of a male alumnus. These funds will be used as an endowment to sponsor one supply chain management student on an annual basis.

UP seeks to provide an environment where students can succeed and flourish, with access to the support and facilities they require. An estimated R500 million was allocated to about 8 000 students in 2021 in the form of University-managed and external bursaries.

7.9 High-Profile Events

Many of the University's face-to-face activities and interactions could not take place due to lockdown restrictions on large gatherings. However, thanks to an expanded IT infrastructure, UP could maintain – and even grow – connections with its communities.

Nobel Prize Dialogue in Africa

UP, in collaboration with Nobel Prize Outreach, hosted the first Nobel Prize Dialogue in Africa. Five Nobel laureates from across the world participated in the meeting with the theme 'The future of

work'. Other topics discussed included the working skills people will need in the future and what can be done to inspire hope in the younger generation, given current technological developments.

This event received wide publicity and global exposure, with over 6 000 connections from 115 countries. As a legacy project, the University has established the Centre for the Future of Work in the Faculty of Economic and Management Sciences, which is attracting global interest with a view to collaboration and partnership.

African Genius Awards

This partnership between academia and the business world was launched to honour exceptional Africans who promote the values needed to take Africa forward. Due to the rising number of COVID-19 infections in the country, the African Genius Awards ceremony, which was to be held at Future Africa, was held online. Nominees and guests from South Africa, Ethiopia, Sierra Leone and the USA participated in the event.

Anti-apartheid activist Steve Biko, Nigerian billionaire business magnate Aliko Mohamed Dangote and 'father of African literature' Chinua Achebe, also from Nigeria, were announced as winners of the inaugural African Genius Awards.

Future Africa hosts two presidents

French President Emmanuel Macron, South African President Cyril Ramaphosa and other distinguished guests attended a high-level dialogue on manufacturing vaccines in Africa at Future Africa. This event was broadcast online and focused on access to vaccines for poorer and emerging economies. Dr Blade Nzimande, Minister of Higher Education, Science and Innovation, was the programme director for the dialogue, which also included German Minister of Health Jens Spahn, South African ministers and deputy ministers, members of the science and medical communities and the diplomatic corps. This was President Macron's first state visit to South Africa.

UP and USRN-hosted international summit

UP and the University Social Responsibility Network (USRN) hosted an international online summit with the theme 'University social responsibility: Priorities for the next decade'. The USRN has 16 members from across the world, and UP is the only African University in the network. Professor Chris Brink was the keynote speaker. He is Emeritus Vice-Chancellor of the University of Newcastle in the United Kingdom and former Rector and Vice-Chancellor of the Stellenbosch University. He is also the author of *The Soul of a University: Why excellence is not enough*.

Mail & Guardian 200 Young South Africans

Every year, the *Mail & Guardian* features promising young professionals under the age of 35 on its 200 Young South Africans list. The University was proud to host some of the 22 individuals associated with UP who featured on the list in 2021 (up from 18 in 2020).

Times Higher Education Impact Forum

UP was proud to co-host the first virtual *Times Higher Education* Southern Africa Impact Forum, where more than 20 academics from across the world acted as panellists and speakers in the field of higher education. There were 1 170 registrations with 454 attendees and 696 social media posts

referring to the forum. The theme was 'Reimagining universities for transdisciplinary knowledge co-creation'.

The African Research University Alliance (ARUA) 2021 Biennial International Conference

The Third Biennial ARUA International Conference took place at UP's Future Africa Institute. This year's conference was jointly hosted by UP and Wits under the theme 'Global public health challenges: Facing them in Africa'. The hybrid event brought together experts from universities, research institutions, government, industry, civil society and international organisations to discuss the different steps that African economies need to take in order to face global public health challenges.

Women in Science Symposium

UP hosted its Third Annual Women in Science Symposium, which was in line with the 2021 United Nations International Women's Day theme, 'Women in leadership: Achieving an equal future in a COVID-19 world'. The theme placed the spotlight on systemic gender inequalities and the fact that, to date, no single country has yet managed to achieve full gender equality that supports, nurtures and grows the next generation of talented women leaders.

GIBS Media Leadership Think Tank launch

The aim of the Media Leadership Think Tank is to create an independent research and advocacy platform for leaders and stakeholders in the media and audio-visual industries. The Think Tank aims to generate research, debate and innovative solutions for businesses, civil society and government policy and will draw on experts from across Africa and globally. It is a precursor to the introduction of a transdisciplinary media education and training programme at UP. For the launch event, an international panel of media experts explored the power of social media platforms and claims of censorship, incitement and de-platforming.

7.10 Arts and Sports

The extramural student life programme at UP is aimed at supporting the holistic development of students. It entails a wide variety of sporting codes, cultural events and activities. The Arts remain a cornerstone of such activities, and our sporting achievements are legendary.

7.10.1 Arts and culture recognition

South Africa Radio Awards

The Radio Awards programme is dedicated to fairness and integrity, and is focused on being a credible, well-judged, transparent programme that recognises exceptional and innovative excellence in South African radio. Tuks FM won Campus Station of the Year for the fifth consecutive year, along with the following awards: Multi Channel Promotion, Campus Night Time Show, Promotion Stunt Event – Campus, Community Project – Campus, and Business and Finance Show.

World Choir Council appointment

Dr Michael Barrett, conductor of the renowned UP Camerata Choir, was invited to serve on the World Choir Council. This international advisory board consists of 124 choir experts from 90 countries. They give intercultural advice and discuss artistic and other international and domestic issues in the choir world.

7.10.2 Sporting achievements

The University of Pretoria has long been considered Africa's sporting powerhouse, nurturing some of Africa's greatest athletes through the Tuks High Performance Centre.

Tokyo Olympic Games

TuksSport had a strong presence at the Tokyo Olympic Games, with 38 students, alumni, coaches and referees representing South Africa.

UP's swimming sensation, Ms Tatjana Schoenmaker, made world headlines with her record-breaking 200m breaststroke swim. Her teammate, Ms Kaylene Corbett, joined her in the finals of the 200m event, coming in fifth and swimming a personal best. At 17 years of age, Mr Pieter Coetze (100m backstroke) was the youngest male swimmer on the team.

Our track and field athletes enjoyed personal success, with Mr Akani Simbine (100m) missing out on medalling by just 0.04 seconds, and Mr Kyle Blignaut (shot put) finishing in sixth position. He is only the second South African shot-putter to compete in an Olympic final.

Ms Wenda Nel (400m hurdles) made it through to the semi-finals as did the rowing team, while the men's hockey team narrowly missed out on qualifying for the quarter-finals.

Tokyo Paralympic Games

Mr Ntando Mahlangu excelled in both his events. He set a world record in the long jump (7.17m) to win gold and he also won the 200m event in 23.59 seconds. He was joined by fellow Tuks athletes at the Paralympic Games: Mr Shaun Anderson and Mr Philip Coates-Palgrave (archery); Ms Kgothatso Montjane, Ms Mariska Venter and Mr Eliphaz Maripa (wheelchair tennis); Mr Daniel du Plessis (athletics); Mr Hendrik van der Merwe (swimming); and Ms Barbara Manning (archery coach).

Mamelodi Sundowns Football Club agreement

In a co-operation agreement for five years, Sundowns will use identified facilities on the University's Hillcrest and Groenkloof Campuses for league fixtures and training purposes. In consideration for the facilities' use, the Club will pay R3,5m per year, increased by CPI. The Club will also, at their own cost, make use of the medical and professional services provided by the Sport, Exercise, Medicine and Lifestyle Institute (SEMLI).

Sundowns will make available players to AmaTuks to play in the National First Division and other University competitions. Sundowns will also provide coaching services to the University's Junior Programme and its Academy.

University Sports South Africa (USSA) and Varsity Tournaments

Swimming: Tuks's swimming team were dominant at the USSA Gala held at Tuks. They won the men's and women's competitions as well as overall. It may be the first time that one university managed to be victorious in every relay. Double Olympic medallist and world record holder Ms Tatjana Schoenmaker won all three-breaststroke events (50 m, 100 m and 200 m). It led to her being the best female swimmer at the gala, scoring 124 points.

Rowing: The only thing that has kept changing since 2009 during the USSA Boat Race in Port Alfred is the seating of Tuks men's A-crews in the boat, the results remain the same: Tuks wins. Their winning streak of 12 consecutive victories is possibly one of the longest in any South African sporting code.

Tuks's women were brilliant in the way they dominated the USSA women's A-race. They managed to beat UCT by more than a minute, one of the most significant winning margins. Both the men and women B-crews finished second in their respective finals.

Basketball: Tuks women's basketball team surprised many by qualifying for the USSA final, after being placed fourteenth the previous year.

Squash: Ms Helena Coetzee is the USSA women's squash champion.

Hockey: To win any title in any sport is considered an outstanding achievement; to win twice on the same day in the same sport is impressive. Tuks's hockey teams were impressive during the USSA Tournament held at Wits. Possibly, for the first time, the Tuks men and women teams were crowned USSA champions on the same day.

Netball: Tuks finished third in the Varsity Tournament held in Stellenbosch, beating North-West University 62–48. They went on to beat Kovsies (University of the Free State) 37–35 in the USSA Tournament final.

Football: The statistics of the Varsity Football Tournament will show that the Tuks' women's team lost to the University of the Western Cape (UWC) in the 2021 final, but statistics are not always a true reflection of what happened on the field. Both teams fought to the very last minute. UWC finally won 4–3 in a penalty shootout.

Tuks are the Varsity Cup winners

TuksSport hosted the FNB Varsity Cup and FNB Varsity Shield Tournaments in a secure bio-bubble with all the teams being accommodated in the FNB Varsity Cup Village. In the Varsity Cup final at Tuks Stadium, Tuks survived a second-half fightback from Ikeys (University of Cape Town) to claim a 34–27 victory. It is Tuks' fourth title, having previously won the competition in 2012, 2013 and 2017.

7.11 In Memoriam

The University mourned the loss of two UP academic giants during 2021: Profs Christof Heyns and Hans Boon.

The late Prof Heyns was a professor of Human Rights Law and Director of UP's Institute for International and Comparative Law in Africa, and world-renowned for his human rights initiatives. He was a co-founder of The African Human Rights Moot Court Competition with a vision to revolutionise human rights education in Africa. The competition has been renamed the Christof Heyns African Human Rights Moot Court Competition in his honour. The University is compiling a collection of essays in his honour, which will reflect some of his achievements and will be published early in 2022, on his birthday.

During his tenure as Head of the Department of Library and Information Science at UP, the late Prof Boon played a key role in developing long-term strategies to position the Department as a leader in the modern university sector. He also served as Registrar and as Chairperson of the Advisory Board for the then newly established University Archives.

7.12 Self-Assessment

The University's performance is assessed in terms of a list of identified core performance indicators as shown and discussed in Part B of this report (Performance Report). 2021 was the last year of implementing the 2017 – 2021 plan of the University.

Consistent with our vision of becoming *a leading research-intensive university in Africa, recognised internationally for its quality, relevance and impact, and also for developing people, creating knowledge and making a difference locally and globally*, we continue to make major research breakthroughs in a number of areas. These areas include astronomy, COVID-19, malaria, food science, veterinary science, economics, plant and animal sciences and engineering. Our research breakthroughs not only demonstrate the quality of our research and the calibre of our academics but also research that matters in transforming lives and communities; research that makes a meaningful contribution to South Africa, Africa and the world.

As reported in Section 3.4.1.3 and 7.7.1, the University strengthened its position in the world rankings in 2021. In addition, the University continues to make progress toward increasing the qualification levels of academic staff. In 2021, 70.40% of UP's academic staff had doctoral degrees, an improvement from 68.8% in 2020 and 64.56% in 2017. A further measure is the 592 NRF-rated researchers in 2021, an improvement from 564 in 2020. We had 17 A-rated researchers and 106 B-rated researchers. We not only benefit from the gravitas of our internationally recognised A-rated researchers, but are pleased that our pipeline of talent is constantly replenished by our P-rated researchers (under 35 years) and Y-rated researchers (under 40 years).

We have strengthened our links with industry through, amongst others, industry-funded research chairs. In 2021, we had 32 industry-funded chairs, including two new chairs – the Exxaro Chair in Extended Reality and the Murray & Roberts Chair in Industry Leadership 4.0. In addition, we have

strengthened our network of international partners and collaborators. In 2021, we signed 29 agreements with partners globally, bringing our number of active formal partnerships to 223.

As mentioned previously, our fundraising efforts bore excellent fruit as we far exceeded our target, a trend we hope will be bolstered further by the University's Charitable Trust in the United Kingdom, which was approved in 2021.

The University is committed to diversifying its staff and students, and steady progress has been made towards this goal. The percentage of black staff increased from 67.8% in 2020 to 68.6% in 2021. In 2017, the proportion of black staff at the University was 62.33%. Regarding students, the percentage of black contact undergraduate students increased to 61.5% in 2021 compared to 53.3% in 2017. Similarly, the proportion of black postgraduate students increased to 71.2% in 2021 compared to 60.6% (67.4%) in 2017.

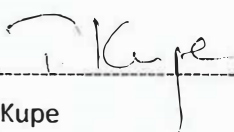
These developments, amongst other results mentioned in this report, prove that UP has all the right fundamentals to become the leading University on the African continent, and globally.

7.14 Appreciation

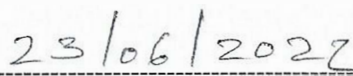
Much appreciation is extended to the outgoing Chairperson of Council, Ms Futhi Mtoba, for her steady hand in guiding the University through some of its most challenging years. She stepped down in 2021 after serving four consecutive terms as a member. Under her guidance, ably supported by every Council member, she has helped us build a world-class African university while navigating the uncertainties of a new world, especially for tertiary education.

We welcome Mr Kuseni Dlamini as the new Chairperson, and Mr Ben Kruger as deputy chairperson.

A big thank you is also extended to former Council members whose terms on the Council ended during 2021. We are grateful for the precious time they spent on Council and university activities. Their support, guidance, wisdom and valuable input will be missed.



Prof T Kupe
Vice-Chancellor



Date

PART B

8. PERFORMANCE IN 2021

Table 8.1 assesses progress in 2021 against Council-approved core indicators. The indicators assess important outcomes for UP as stipulated in UP 2025, the 2017 – 2021 Strategic Plan and the 2021 Implementation Plan. As shown in the table, the University met and exceeded the targets for nine indicators and registered growth in the master’s headcount enrolment, even though the target was not realised. The University’s performance with regard to percentage registrations in science, engineering and technology (SET) fields of study (contact students) lagged behind 2020’s performance and was also below the target set for 2021.

Table 8.1. UP’s performance against core indicators

PERFORMANCE INDICATORS		2018	2019	2020	2021	Target 2021	Target realisation
1	% Academic staff with doctoral degrees (excluding joint appointments)	67.06	67.68	68.8	70.4	67.8	↑
2	% Black staff (Department of Labour EE definitions)	63.9	65.0	66.6	67.6	66.0	↑
3	Total weighted research outputs per academic FTE staff*	2.66	2.46	2.29	2.52	2.5	↑
4	First-time entering undergraduate headcount enrolments*	9 077	8 989	8 335	9 348	7 824	↑
5	Total undergraduate headcount enrolments*	35 410	35 746	35 820	37 233	36 443	↑
6	Master’s headcount enrolments*	6 116	6 239	6 248	6 318	6 532	→
7	Doctoral headcount enrolments*	2 307	2 375	2 411	2 537	2 527	↑
8	Number of graduates in scarce skills areas (excluding distance education)*	5 642	5 242	5 169	5 545	5 350	↑
9	% of black contact students to total contact students*	57.47	59.45	60.58	62.57	60.7	↑
10	% registrations in SET (contact students)*	53.26	52.85	51.72	49.96	54.1	↓
11	% successful FTE students to total FTE enrolments*	83.42	83.74	86.73	85.83	84.7	↑
12	FTE contact students per FTE teaching staff member*	25.44	24.59	23.62	24.20	26.4	↑

*HEMIS

Key



Target achieved



Target not achieved



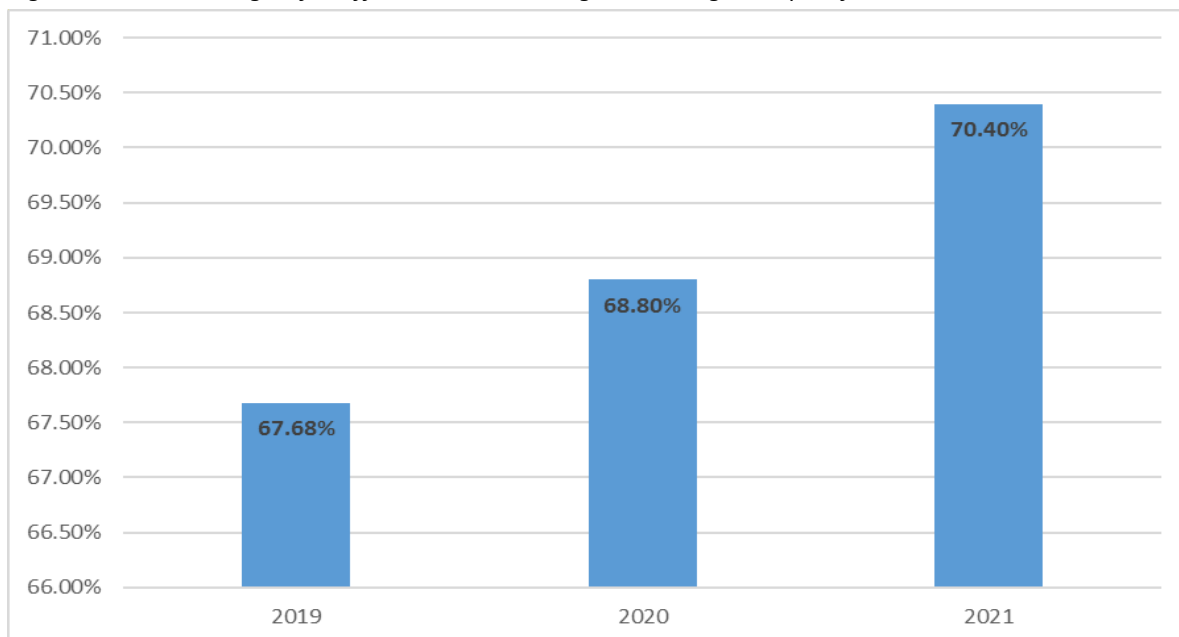
Target not achieved but there was improvement from 2017 to 2018 or the 2018 performance was very close to the target

Total weighted research outputs: The indicator includes all journal publication outputs, the research component of master’s graduate outputs and doctoral graduates. It does not include books, book chapters and conference proceedings.

The University registered strong performance with regard to growth in the proportion of academic staff with doctoral degrees, the proportion of black staff, black contact students and student success

rates. Figure 8.1 shows that the percentage of academic staff with doctorates has consistently grown over the years. In 2021, 70.40% of UP's academic staff had doctorates compared to 68.80% in 2020.

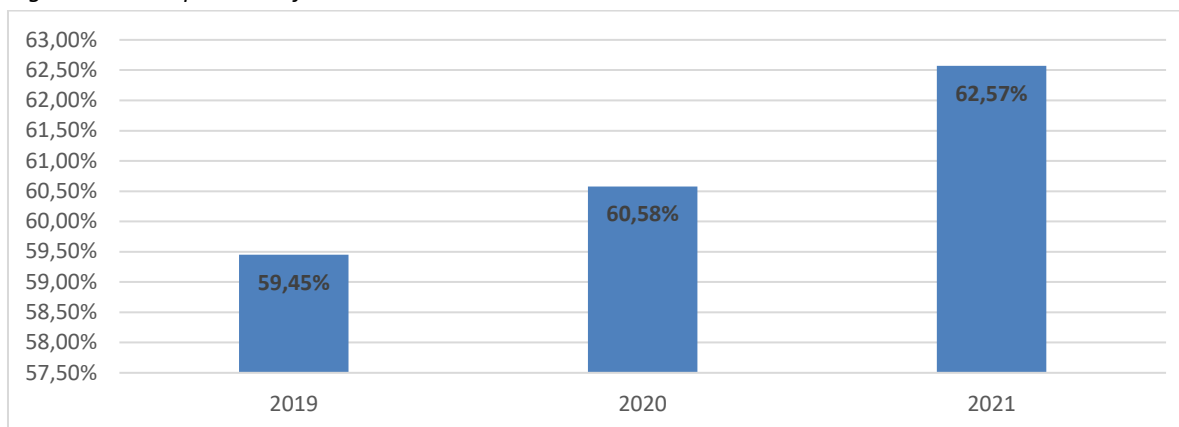
Figure 8.1. Percentage of staff with doctoral degrees as highest qualifications



The growth in the percentage of black staff (Department of Labour EE definitions), from 66.60% in 2020 to 67.60% in 2021, is aligned with the University's transformation agenda. The University's diversity profile was strengthened further by the increase in the proportion of black contact students to total contact students. As shown in Figure 8.2, the proportion of black students at UP has maintained a steady growth over the years and increased by 1.99 percentage points between 2020 and 2021.

We are committed to ensuring that transformation permeates every aspect of UP: ensuring that UP is home to student and staff populations that represent South Africa's rich diversity; providing the conditions necessary for our diverse campus community to feel welcomed, supported, included and valued, and to thrive academically and as researchers.

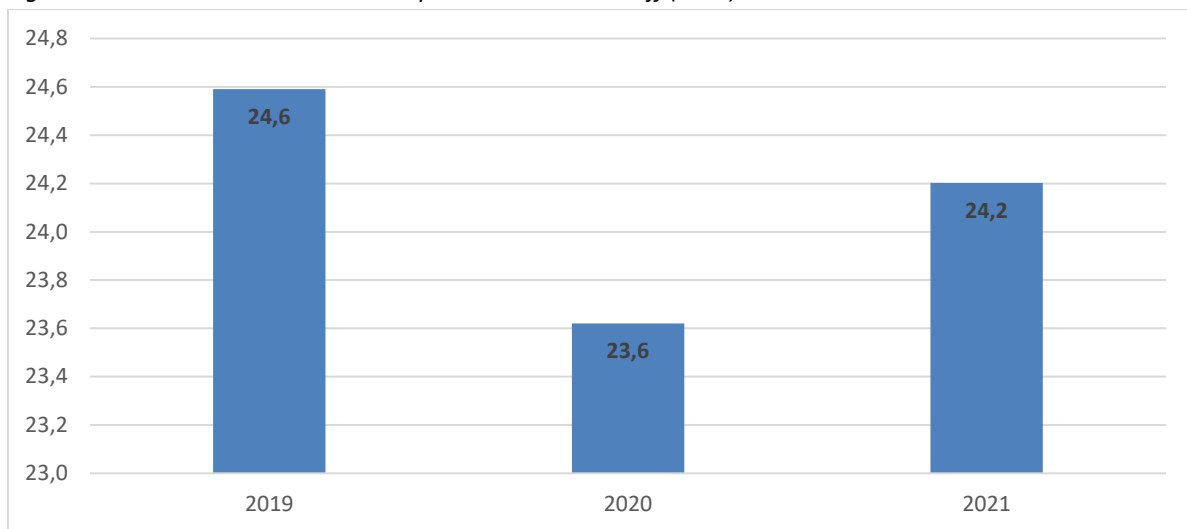
Figure 8.2. Proportion of black contact students to total contact students



The University exceeded its target for undergraduate headcount enrolments by 600 headcounts. However, its actual teaching input units (TIUs) in 2021 were below the planned TIUs by 0.7%, which is within the deviation of 2% allowed by DHET. TIUs are a weighted measure that generate the teaching input subsidy for the University and depends on the credit values for modules, the distribution of module enrolments across the four funding groups, study levels and the teaching mode.

Whilst the academic staff-to-student ratio of 24.2 for 2021 (Figure 8.3) is an improvement compared to the target of 26.54, the high ratio remains a concern. Reducing the academic staff-to-student ratio remains a top priority for the University. The University is exploring various opportunities to strengthen its academic workforce and ensure that staff-to-student ratios are within the set targets.

Figure 8.3. Total contact FTE students per FTE academic staff (ratio)



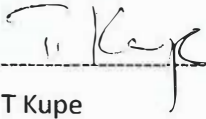
There was a slight decrease in the percentage of successful FTE students to total FTE enrolments – 86.73% in 2020 compared to 85.83% in 2021. The University has implemented a multi-pronged strategy to enhance student success. The main driver of this strategy is the FLY@UP initiative discussed in Section 3.3.8.

The increase in the total weighted research outputs per academic FTE staff is noteworthy. The increase from 2.29 in 2020 to 2.52 (exceeding the target of 2.5), suggests that the University’s research productivity is on a recovery trajectory after the disruption caused by COVID-19-related challenges in 2020.

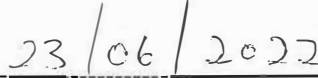
The increase in the number of graduates in the scarce skills category from 2020 (5 169) to 2021 (5 545) is notable. The increase in 2021 is mainly the result of above target first-year enrolments in 2018. The proportion of enrolments in the Science, Engineering and Technology (SET) study fields lagged the target for 2021 by 3.3 percentage points. This was mainly because of a marginally stronger growth in enrolments in non-SET fields, but more importantly, challenges related to performance in Mathematics and Physical Sciences in the National Senior Certificate examination, which negatively impacted enrolments in these fields.

8.1 Concluding Comment

The University has achieved tremendous success since the implementation of the UP 2025 strategy. These achievements strengthen our position as a strong, innovative and socially responsive university. The achievements of 2021 have built on these successes and will go a long way towards realising the University's vision and strategic goals.



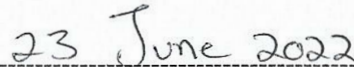
Prof T Kupe
Vice-Chancellor



Date



Mr KD Dlamini
Chairperson of Council



Date

PART C

9. FINANCIAL REVIEW

9.1 Budget Model, Process and Strategic Alignment

The University's priorities are reflected in its long-term vision, UP 2025, and the 2022 – 2026 Strategic Plan and annual implementation plans, which are used as the basis for the preparation of the budget. The strategic plan provides a set of overarching objectives for the University to achieve through the primary functions of teaching and learning, research and community engagement.

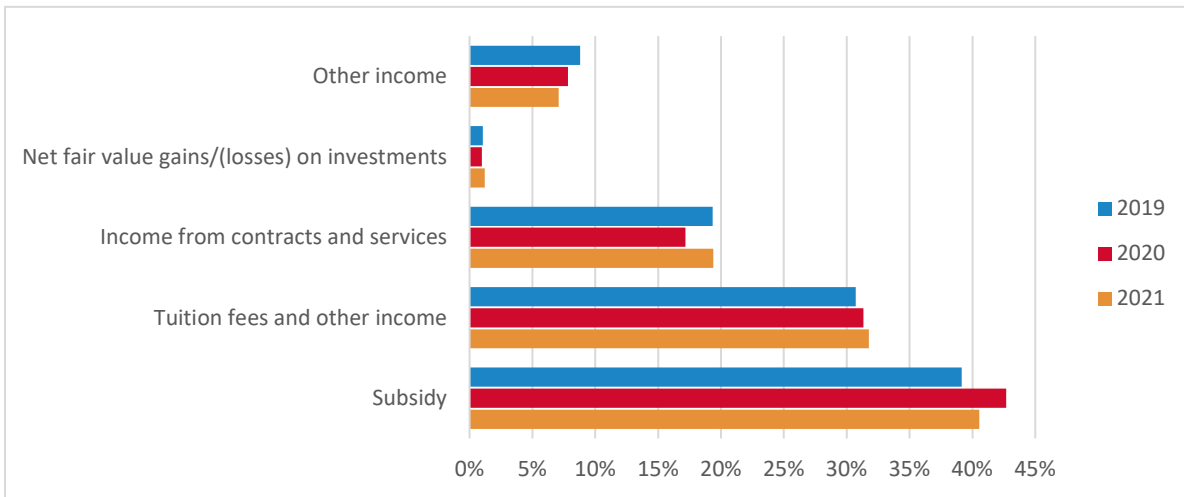
The Financial Sustainability Plan of the University performs a key role in guiding the University's response to the financial impact of the COVID-19 pandemic. The key focus areas of the plan are the maximisation of operational efficiencies, cost-containment, cost replacement and the enhancement of all income streams. It is also used as a navigational marker to expand the number of academic staff, thereby improving the staff to student ratio. The allocation of resources at the University is coordinated by the Strategic Planning and Allocation of Resources Committee (SPARC) and prioritised in accordance with the University's strategic goals and Financial Sustainability Plan.

The budget is prepared after a consultative process involving interactions with deans of faculties and directors of professional service departments. The budget process incorporates two significant phases; the first being an allocation of operating costs in line with past experience and on-going operational needs. The second phase involves a strategic allocation of resources based on a competitive process between faculties and professional services. In this regard, Deans and Directors are requested to prepare plans for the next year for their faculties and departments, respectively. The plans are presented to and approved by the Executive. The outcome of this two-phased approach provides input into the final budget, which is presented to Council for approval.

Budget control is embedded in the enterprise-wide financial system that is designed to ensure that budgeted expenses are not exceeded and that all commitments are ring-fenced from available funds. Budget updates, which monitor actual results against budgeted figures, are considered by the Executive on a quarterly basis and unexplained variations are investigated and cleared.

A breakdown of the University's main revenue streams over the past three years is provided in Figure 9.1. The analysis indicates that subsidy income (including restricted earmarked grants) accounts for a smaller proportion of total income compared to 2020 due to a recovery in income from contract and services during 2021.

Figure 9.1. UP income sources



The DHET, in consultation with USAf, capped the tuition fee increase for 2021 at 4.7% and accommodation fees at 6.7%. The proportion of tuition fees as a percentage of total income has increased slightly over the last three years.

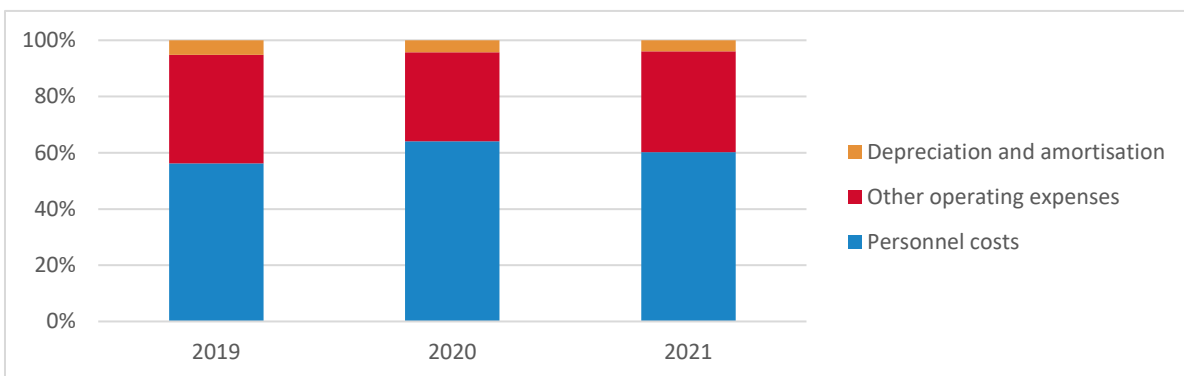
Income from contracts and services returned to a similar proportion when compared to 2019. The decrease in 2020 is due to the significant impact of COVID-19 and the resulting economic climate on this category of revenue.

Other income includes income from donations and gifts and income from interest and dividends. Income from donations and gifts was still lower than 2019 figures, due to the challenging economic climate arising from COVID-19. Income from interest and dividends continued on an upward trajectory since the latter half of 2021.

9.2 Expenses

A breakdown of the University’s major expense categories and their proportion to total expenses is provided in Figure 9.2.

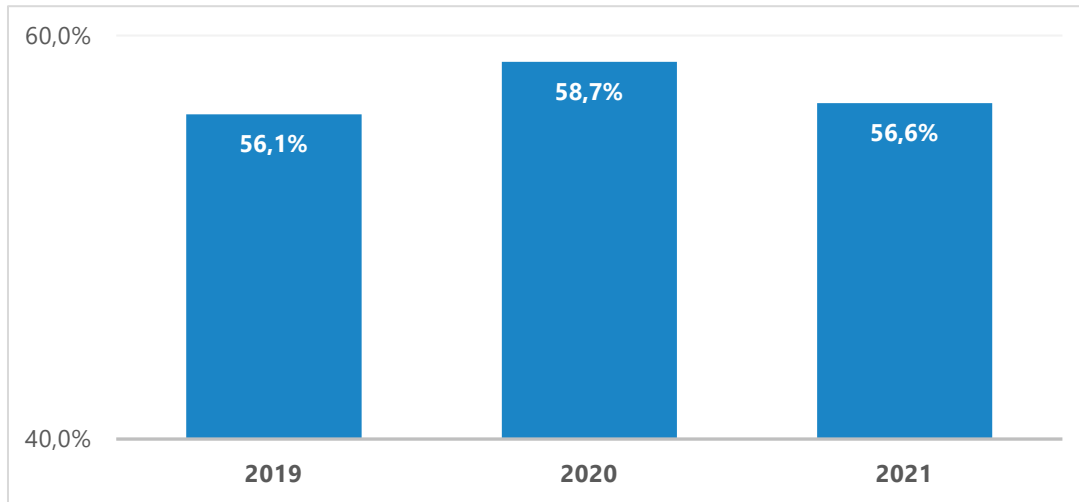
Figure 9.2. UP expense categories



Operational expenses (excluding depreciation) as a percentage of total expenses increased in 2021 due to a gradual return to normal activities as a result of the easing of lockdown regulations. Despite this, the University continued to realise savings on various operating expenses such as printing, stationery, entertainment and travel expenses. Personnel costs (on a consolidated basis) as a percentage of total expenses decreased from 64.1% in 2020 to 60.2% in 2021 as a result of the gradual increase in operating costs.

The ratio of personnel costs to total revenue, over the past three years, is as shown in Figure 9.3.

Figure 9.3. Personnel costs/annual revenue

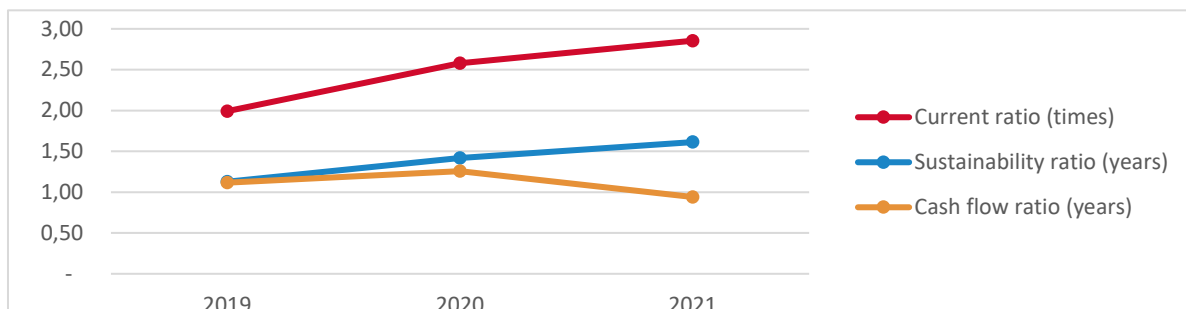


Personnel costs as a percentage of revenue has decreased in 2021 due to a proportionally smaller increase in staff expenses than the increase in revenue. The reduction is also attributed to progress made towards the achievement of the financial sustainability targets in the Financial Sustainability Plan.

9.3 Financial Sustainability

Three indicators are used to monitor the University's financial sustainability: sustainability ratio, current ratio and cash flow ratio. The University's performance against these three indicators is presented in Figure 9.4.

Figure 9.4. UP current ratio, sustainability ratio and cash flow ratio, 2019 - 2021



Sustainability ratio

The sustainability ratio depicts the ability of the University to continue with its core business without new revenue in the next financial year. It is calculated by comparing the University's cumulative Council-designated reserves to total annual expenses. This ratio indicates that the University will be able to continue with its activities for 18 months without new revenue being generated.

Current ratio

The resources at the University's disposal should be sufficiently liquid to enable it to meet its short-term needs. To assess the liquidity of the University, the ratio of available short-term funds to short-term obligations is used. The data on the University's liquidity position indicate that it is in a satisfactory position. The ratio indicates that the short-term funds at the University's disposal were sufficient to cover the short-term liabilities. Short-term cash reserves were maintained at higher levels during 2021 due to the uncertain economic climate and possible delays in the payment of Government and NSFAS funding.

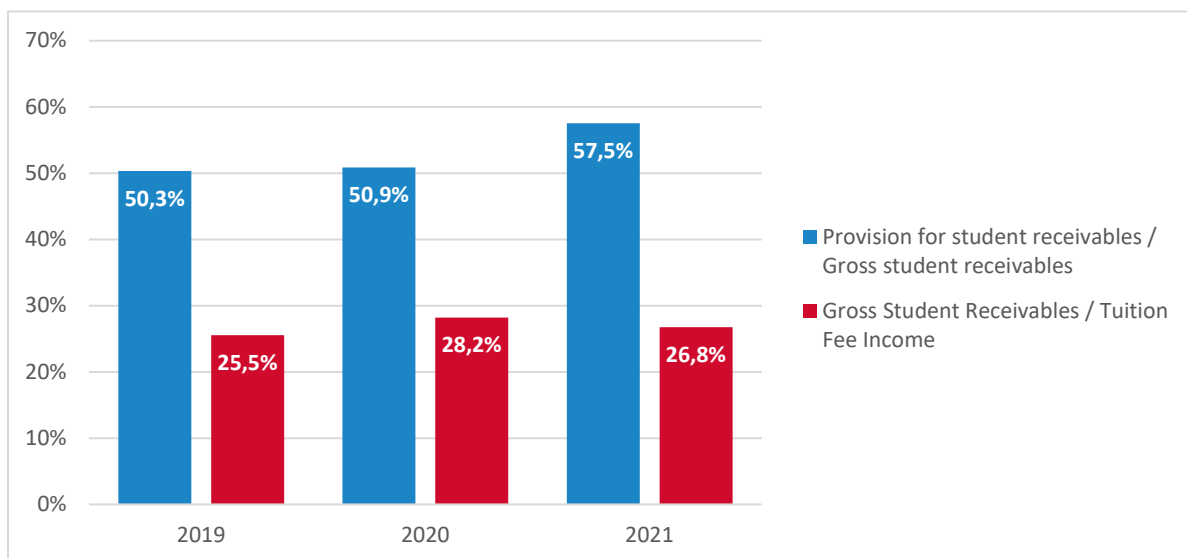
Cash flow ratio

This ratio, calculated as cash flow from operations/current liabilities (excluding deferred income), is a measure of cash management performance. This ratio indicates that the University has sufficient cash resources to fund expenses for at least nine months without further cash injections.

9.4 Student Finances

Two indicators are utilised to monitor student receivables, namely, provision for student receivables as a proportion of gross student receivables and gross student receivables as a proportion of tuition fee income. The University's performance against these indicators is presented in Figure 9.5.

Figure 9.5. UP student finances, 2019 - 2021



The provision for bad debts on student receivables is 57.5% (2020: 50.9%) of gross student receivables. This is due to insufficient funding to support the missing middle students, the general decline in the economy due to the pandemic and the demand for fee-free higher education. The University has reviewed and updated its policy on providing for outstanding student fees and adjusted for the increase in outstanding student debt taking the above factors into account. The demand for student financial aid continues to outstrip the available resources.

Gross student receivables/Tuition fee income

The ratio in Figure 9.5 also reflects the uncollected portion of tuition fee income at year end. Initiatives to curtail a disproportionate growth of outstanding student debt include:

- Requiring students to pay a first payment at registration;
- regular monitoring and increased contacting of students with outstanding debt;
- handing over student accounts for debt collection in cases of long outstanding amounts;
- charging a levy on default accounts to fund related legal tracing fees;
- requiring a 50% deposit for all first time registering international students for tuition and accommodation fees; and
- limiting registration of students with outstanding balances until settlement or conclusion of formal payment arrangements.

9.5 Investments

The University's investment funds are designed to serve three purposes, namely:

- to meet part of the short-term requirements of the University – these liabilities have a maximum term of 24 months. The risk profile emphasises the need for capital protection over short periods and a high degree of liquidity;
- to meet the long-term liabilities (5 years and more) of the University – the main requirement here is a good investment return relative to inflation over the long term; and
- to meet the requirements of a special class of the long-term liabilities being the post- retirement medical aid benefits.

The University aligns its investment philosophy to the term of the liabilities and the risk profile. To this end, three investment portfolios have been established:

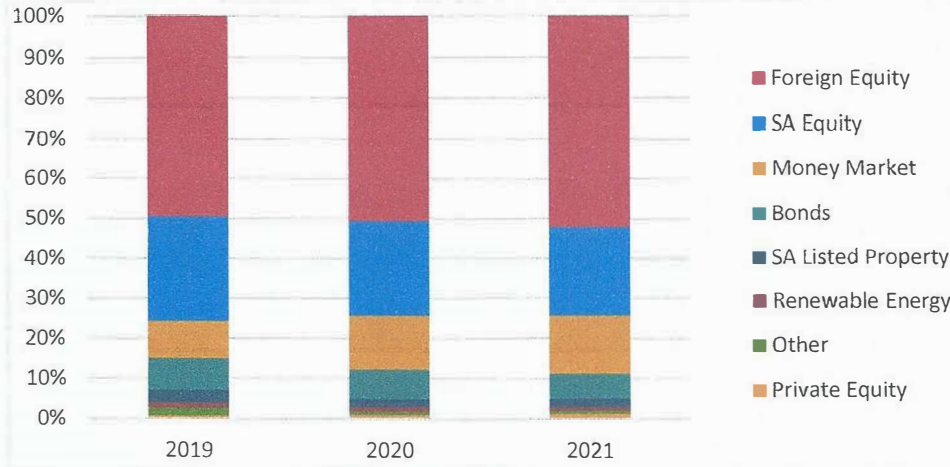
- Money Market Portfolio;
- Long-Term Capital Portfolio; and
- Continuation Medical Aid Portfolio.

The University follows an investment strategy that rebalances between Long Term Capital and Money Market portfolios according to the cash flow requirements of the University, based on a rolling working capital budget, which accounts for the cash flows of major projects over a rolling 15-month period.

An indication of the University's diversified investment portfolio over the past three years is provided in figure 9.6 below. A significant proportion in foreign investments allowed for reasonable stability

in the investment portfolio despite the volatile local financial markets, by limiting the risk of price fluctuations through leveraging foreign exchange gains.

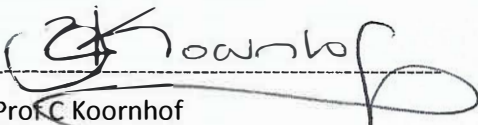
Figure 9.6. University's investment portfolio



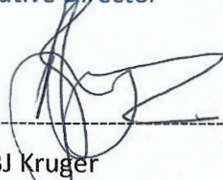
9.6 Concluding comment

The University has displayed satisfactory results for the financial year ended 31 December 2021 despite the continued impact of COVID-19 on the economy and the higher education sector. The controls and measures that the University instituted at the onset of the pandemic, have ensured that the University continues to be financially sustainable. However, the economic decline, pressures on the national fiscus, the funding of NSFAS students and increasing inflation will require prudent spending measures, a prioritisation of funding toward key strategic goals and continued progress towards reducing the proportion of personnel cost.

As indicated in the Financial Sustainability Plan approved by Council in June 2019, the University will continue with the implementation of initiatives to limit the growth of expenditure, to pursue innovative ways to utilise its resources efficiently and attract a greater proportion of third-stream income to fund the shortfall in core activities and strategic imperatives.


 Prof C Koornhof
 Executive Director

23 June 2022
 Date


 Mr BJ Kruger
 Chairperson of the Standing Committee of Council

23 June 2022
 Date

10. APPROVAL OF THE CONSOLIDATED FINANCIAL STATEMENTS

Council is responsible for the preparation, integrity and fair presentation of the financial statements of the University of Pretoria.

The consolidated financial statements accompanying this Annual Report for 2021, have been prepared in accordance with Section 41 of the Higher Education Act 101 of 1997, as amended. Council also prepared other information as required to be included in this annual report and is responsible for both its accuracy and consistency with the consolidated financial statements.

The 'going concern' approach was followed in the preparation of the consolidated financial statements. Based on forecasts and available cash resources, Council believes that the University of Pretoria will remain a 'going concern' in the foreseeable future. The viability of the institution is supported by the content of the consolidated financial statements.

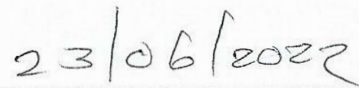
The consolidated financial statements have been audited by PricewaterhouseCoopers Inc. who were given unrestricted access to all financial records and related data, including the minutes of meetings of Council and all its committees. Council believes that all representations made to the independent auditors during their audit were valid and appropriate.

Approval of the Consolidated Financial Statements

The consolidated financial statements set out in Annexure A were approved by Council on 23 June 2022 and signed on its behalf by:



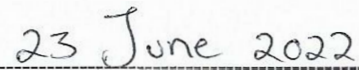
Prof T Kupe
Vice-Chancellor and Principal



Date



Mr KD Dlamini
Chairperson of Council



Date

**Consolidated Financial Statements of
the University of Pretoria
for the year ended 31 December 2021**



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA



Independent auditor's report to the Council and the Minister of Higher Education, Science and Innovation on the University of Pretoria

Report on the audit of the consolidated financial statements

Opinion

We have audited the consolidated financial statements of the University of Pretoria and its subsidiaries (the Group) set out on pages 13 to 69, which comprise the consolidated statement of financial position as at 31 December 2021, the consolidated statement of profit or loss, consolidated statement of comprehensive income, statement of changes in funds and statement of cash flows for the year then ended, as well as notes to the consolidated financial statements, including a summary of significant accounting policies.

In our opinion, the consolidated financial statements present fairly, in all material respects, the consolidated financial position of the University of Pretoria as at 31 December 2021, and its financial performance and cash flows for the year then ended in accordance with International Financial Reporting Standards and the requirements of the Higher Education Act and the Regulations for reporting by Public Higher Education Institutions, 2014, issued in terms of the Higher Education Act of South Africa, 1997.

Basis for opinion

We conducted our audit in accordance with the International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the auditor's responsibilities for the audit of the consolidated financial statements section of our report.

We are independent of the Group in accordance with the Independent Regulatory Board for Auditors' Code of Professional Conduct for Auditors (IRBA Code) and other independence requirements applicable to performing audits of financial statements in South Africa. We have fulfilled our other ethical responsibilities in accordance with the IRBA Code and in accordance with other ethical requirements applicable to performing audits in South Africa. The IRBA Code is consistent with the corresponding sections of the International Ethics Standards Board for Accountants' International Code of Ethics for Professional Accountants (Including International Independence Standards).

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Responsibilities of the Council for the consolidated financial statements

The Council is responsible for the preparation and fair presentation of the consolidated financial statements in accordance with International Financial Reporting Standards and the requirements of the Higher Education Act of South Africa, 1997 and the Regulations for reporting by Public Higher Education Institutions, 2014, issued in terms of the Higher Education Act of South Africa, 1997, and for such internal control as the Council determines is necessary to enable the preparation of consolidated financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the consolidated financial statements, the Council is responsible for assessing the Group's ability to continue as a going concern, disclosing, as applicable, matters relating to going concern and using the going concern basis of accounting unless the Council either intends to liquidate the Group or to cease operations, or has no realistic alternative but to do so.

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Private Bag X36, Sunninghill, 2157, South Africa
T: +27 (0) 11 797 4000, F: +27 (0) 11 209 5800, www.pwc.co.za

Auditor’s responsibilities for the audit of the consolidated financial statements

Our objectives are to obtain reasonable assurance about whether the consolidated financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor’s report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with the ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these consolidated financial statements.

A further description of our responsibilities for the audit of the consolidated financial statements is included in the annexure to this auditor’s report.

Report on the audit of the annual performance report

Introduction and scope

In accordance with the Public Audit Act 25 of 2004 (PAA) and the general notice issued in terms thereof, we have a responsibility to report on the usefulness and reliability of the reported performance information against predetermined objectives for selected objectives presented in the annual performance report. We performed procedures to identify material findings but not to gather evidence to express assurance.

Our procedures address the usefulness and reliability of the reported performance information, which must be based on the University’s approved performance planning documents. We have not evaluated the completeness and appropriateness of the performance indicators included in the planning documents. Our procedures do not examine whether the actions taken by the University enabled service delivery. Our procedures do not extend to any disclosures or assertions relating to the extent of achievements in the current year or planned performance strategies and information in respect of future periods that may be included as part of the reported performance information. Accordingly, our findings do not extend to these matters.

We evaluated the usefulness and reliability of the reported performance information in accordance with the criteria developed from the performance management and reporting framework, as defined in the general notice, for the following selected objectives presented in the University’s annual performance report for the year ended 31 December 2021:

Objectives	Pages in the annual report
Objective 1 - % academic staff with doctoral degrees (excluding joint appointments)	111-113
Objective 2 - % black staff (Department of Labour EE definitions)	111-113
Objective 3 - Total weighted research outputs per academic FTE staff	111-113
Objective 4 - First-time entering undergraduate headcount enrolments	111-113
Objective 5 - Total undergraduate headcount enrolments	111-113
Objective 6 - Master’s headcount enrolments	111-113



Objective 7 - Doctoral headcount enrolments	111-113
Objective 8 - Number of graduates in scarce skills areas (excluding distance education)	111-113
Objective 9 - % of black contact students to total contact students	111-113
Objective 10 - % registrations in SET (contact students)	111-113
Objective 11 - % successful FTE students to total FTE enrolments	111-113
Objective 12 - FTE contact students per FTE teaching staff member	111-113

We performed procedures to determine whether the reported performance information was consistent with the approved performance planning documents. We performed further procedures to determine whether the indicators and related targets were measurable and relevant, and assessed the reliability of the reported performance information to determine whether it was valid, accurate and complete.

We did not identify any material findings on the usefulness and reliability of the reported performance information for these objectives:

- Objective 1 - % academic staff with doctoral degrees (excluding joint appointments)
- Objective 2 - % black staff (Department of Labour EE definitions)
- Objective 3 - Total weighted research outputs per academic FTE staff
- Objective 4 - First-time entering undergraduate headcount enrolments
- Objective 5 - Total undergraduate headcount enrolments
- Objective 6 - Master's headcount enrolments
- Objective 7 - Doctoral headcount enrolments
- Objective 8 - Number of graduates in scarce skills areas (excluding distance education)
- Objective 9 - % of black contact students to total contact students
- Objective 10 - % registrations in SET (contact students)
- Objective 11 - % successful FTE students to total FTE enrolments
- Objective 12 - FTE contact students per FTE teaching staff member

Report on the audit of compliance with legislation

Introduction and scope

In accordance with the PAA and the general notice issued in terms thereof, we have a responsibility to report material findings on the University's compliance with specific matters in key legislation. We performed procedures to identify findings but not to gather evidence to express assurance.

We did not identify any material findings on compliance with the specific matters in key legislation set out in the general notice issued in terms of the PAA.

Other information

The Council is responsible for the other information. The other information comprises the information included in the Annual Report and Audited Financial Statements of the University of Pretoria. The other information does not include the consolidated financial statements, the auditor's report and those selected objectives presented in the annual performance report that have been specifically reported in this auditor's report.

Our opinion on the consolidated financial statements and findings on the reported performance information and compliance with legislation do not cover the other information and we do not express an audit opinion or any form of assurance conclusion on it.

In connection with our audit, our responsibility is to read the other information and, in doing so, consider whether the other information is materially inconsistent with the consolidated financial statements and the selected objectives presented in the annual performance report, or our knowledge obtained in the audit, or otherwise appears to be materially misstated.

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

Internal control deficiencies

We considered internal control relevant to our audit of the consolidated financial statements, reported performance information and compliance with applicable legislation; however, our objective was not to express any form of assurance on it. We did not identify any significant deficiencies in internal control.

Other reports

We draw attention to the following engagements conducted by various parties which had, or could have, an impact on the matters reported in the University's consolidated financial statements, reported performance information, compliance with applicable legislation and other related matters. These reports did not form part of our opinion on the consolidated financial statements or our findings on the reported performance information or compliance with legislation.



Audit related services and special audits

The following agreed-upon procedure engagements were performed for the University of Pretoria.

Completed engagements and report issued:

Engagement	Period covered	Date issued	Description
Anglo Chair	01/01/2021 - 31/12/2021	04/03/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Cansa	01/04/2020 - 31/03/2021	23/04/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	03/05/2022	
Capacity Development Grant (incl ISFAP)	01/04/2021 - 31/03/2022	16/05/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Capacity Development grant Collaborative Programme	01/04/2020 - 31/03/2021	17/05/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
Centre for Visual Impairment Studies Teaching and Learning Development Capacity Improvement Programme 2021	01/07/2020 - 30/06/2021	6/12/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Clinical Training	01/04/2020 - 31/03/2021	22/4/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
COE NRF Wingfield	01/01/2021 - 31/12/2021	6/4/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.

CSA&G and Irish Embassy 5 year Strategy	01/01/2021 - 31/12/2021	28/3/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
DHET COVID Response Grant	01/04/2020 - 31/03/2021	17/05/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
DHET University Staff Doctoral Programme (UCDP) GIBS	01/04/2020 - 31/03/2021	4/06/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
Eskom Asset Plant Management	01/01/2021 - 31/12/2021	25/3/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Foodborne diseases epidemiology, Surveillance and Control in Africa LMIC	1/11/2020 - 31/10/2021	3/12/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Foundation Programmes Grant	01/04/2020 - 31/03/2021	14/05/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
HEAIDS Global Fund Programme	01/04/2020 - 31/03/2021	2/08/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Infrastructure efficiency	01/04/2020 - 31/03/2021	2/08/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
Joint appointment of the Faculty of Medicine	01/01/2021 - 31/12/2021	25/2/2022	Agree the number of students with records of the University of Pretoria. Agree the tariffs per



			student for the period with the letter received from the Gauteng Department of Health.
Medical Research Council	01/01/2021 - 31/12/2021	25/2/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
nGAP	01/04/2020 - 31/03/2021	21/04/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	27/06/2022	
NRF incl Thrip	01/01/2021 - 31/12/2021	8/03/2022	Agree balances to the financial records of the University of Pretoria and expenses to supporting documentation. Compile a list of grants selected for testing and complete the audit templates for each grant as per the audit instructions.
Nurturing Emerging Scholars Program (NESP)	01/04/2020 - 31/03/2021	18/06/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	17/06/2022	
Oppenheimer Chair for Emerging African Scientists	01/01/2021 - 31/12/2021	25/1/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Performance Indicators	01/01/2021 - 31/12/2021	27/6/2022	Recalculate the performance/status indicators from Universities of Technology and Universities to ensure that the calculations are mathematically correct and agree the information used in the calculations to the actual figures to the financial records of the University of Pretoria.
Planning, Monitoring & Evaluation Support Programme	01/04/2021 - 31/03/2022	16/05/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.

RAF-17/0053 High Level Mediation and Negotiations Training in Africa	01/06/2020 - 31/05/2021	6/09/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Research Article Output Claim	01/01/2021 - 31/12/2021	19/05/2021	Perform testing on the units included in the claim submitted to the Department of Higher Education and Training. Procedures are supplied by the Department of Higher Education and Training.
Sector Monitoring and Evaluation	01/04/2020 - 31/03/2021	22/04/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
SRC Elections 2020	03/08/2021	3/08/2021	Perform agreed upon procedure on SRC election process and results
Student and Staff Statistics	01/01/2021 - 31/12/2021	8/07/2021	Perform procedures supplied by the Department of Higher Education and Training on the submission of student and staff statistics from the VALPAC system.
Successful Curriculum Development and adaptation of the PGDIP (TVET) Programme in Educational Leadership	01/01/2021 - 31/12/2021	24/2/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
Technical and Vocational Education & Training and Community Education & Training Teaching and Learning Development Capacity Improvement Programme	01/07/2020 - 30/06/2021	6/12/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
The Oppenheimer Endowed Fellowship in Molecular Archaeology	01/01/2021 - 31/12/2021	4/03/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.



Veterinary Science Grant	01/04/2020 - 31/03/2021	22/04/2021	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.
	01/04/2021 - 31/03/2022	16/05/2022	
York Timbers Chair	1/01/2021 - 31/12/2021	18/03/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.

Engagements in progress and report not yet issued:

Engagement	Period covered	Planned issue date	Description
Student and Staff Statistics	1/01/2021 - 31/12/2021	15/07/2022	Perform procedures supplied by the Department of Higher Education and Training on the submission of student and staff statistics from the VALPAC system.
RAF-17/0053 High Level Mediation and Negotiations Training in Africa	01/06/2021 - 31/05/2022	15/07/2022	Agree balances on the statement to the financial records of the University of Pretoria. Agree income and expenditure on the schedule to supporting documentation.

The following special purpose audit engagements were performed for the University of Pretoria. These engagements have been completed and the report issued:

Engagement	Period covered	Date issued	Description
Centre of Human Rights	01/01/2020 - 31/12/2020	30/04/2021	Audit of Special Purpose Financial statements.
	01/01/2021 - 31/12/2021	31/05/2022	
International Work Group for Indigenous Affairs (IWGIA)	01/01/2020 - 31/12/2020	7/06/2021	Audit of Special Purpose Financial statements as set out in the contract between the two parties
	01/01/2021 - 31/12/2021	14/06/2022	
Isindebele Dictionary	01/04/2020 - 31/03/2021	11/08/2021	Audit performed for the Isindebele Dictionary which is a member of PANSALB.
	01/04/2021 - 31/03/2022	20/05/2022	
Gordon Institute of Business Science	01/01/2020 - 31/12/2020	26/04/2021	Audit of Special Purpose Financial statements.
	01/01/2021 - 31/12/2021	21/04/2022	
SAIH Just Leadership	01/01/2021 - 31/12/2021	24/3/2022	Audit of Special Purpose Financial statements as set out in the contract between the two parties

PricewaterhouseCoopers Inc
PricewaterhouseCoopers Inc.

Director: CS Masondo

Registered Auditor

Johannesburg South Africa

29 June 2022



Annexure – Auditor’s responsibility for the audit

As part of an audit in accordance with the ISAs, we exercise professional judgement and maintain professional scepticism throughout our audit of the consolidated financial statements, and the procedures performed on the reported performance information for selected objectives and on the University’s compliance with respect to the selected subject matters.

Consolidated Financial Statements

In addition to our responsibility for the audit of the consolidated financial statements as described in this auditor’s report, we also:

- identify and assess the risks of material misstatement of the consolidated financial statements whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.
- obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University’s internal control.
- evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by the Council.
- conclude on the appropriateness of the Council’s use of the going concern basis of accounting in the preparation of the consolidated financial statements. We also conclude, based on the audit evidence obtained, whether a material uncertainty exists relating to events or conditions that may cast significant doubt on the ability of the University of Pretoria and its subsidiaries to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor’s report to the related disclosures in the consolidated financial statements about the material uncertainty or, if such disclosures are inadequate, to modify our opinion on the consolidated financial statements. Our conclusions are based on the information available to us at the date of this auditor’s report. However, future events or conditions may cause the University to cease operating as a going concern.
- evaluate the overall presentation, structure and content of the consolidated financial statements, including the disclosures, and determine whether the consolidated financial statements represent the underlying transactions and events in a manner that achieves fair presentation
- obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the consolidated financial statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

Communication with those charged with governance

We communicate with the Council regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF FINANCIAL POSITION AS AT 31 DECEMBER 2021

	NOTES	2021	2021	2020	2020
		R'000	R'000	R'000	R'000
ASSETS			26,677,041		22,162,249
NON-CURRENT ASSETS			22,670,733		18,959,133
Property, plant and equipment	1	6,324,867		6,225,564	
Right-of-use assets	2	1,473		2,737	
Intangible assets	3	72,428		74,014	
Investments at fair value through other comprehensive income	4.1	14,377,329		11,117,287	
Investments at fair value through profit and loss	4.2	1,120,480		1,041,809	
Investment in associate companies	28	1,495		1,812	
Defined benefit pension plan	10.1	325,560		244,888	
Defined benefit medical plan	10.2	423,839		223,803	
Defined benefit/contribution provident plan	10.3	10,568		10,597	
Deferred taxation	5	198		198	
Loans and receivables	6	12,496		16,424	
Student loans		11,961		15,889	
Other receivables		535		535	
CURRENT ASSETS			4,006,308		3,203,116
Inventories	7	30,206		31,853	
Investments at fair value through profit and loss	4.2	236,069		184,654	
Investments at amortised cost	4.3	2,600		2,523	
Receivables and prepayments	8	584,515		510,527	
Student receivables		268,061		300,520	
Other amounts		316,454		210,007	
Cash and cash equivalents	9	3,152,918		2,473,559	
FUNDS AND LIABILITIES			26,677,041		22,162,249
TOTAL FUNDS			22,200,607		18,126,897
NON-DISTRIBUTABLE RESERVES					
Fair value revaluation reserve funds		5,462,352		3,433,625	
RESERVE FUNDS					
Restricted funds		6,084,850		5,794,264	
Specific purpose funds		1,367,817		1,185,726	
Property, plant and equipment funds		4,715,031		4,610,081	
Student accommodation funds		2,002		(1,543)	
Council designated funds		10,649,249		8,896,622	
Specific purpose funds		9,041,565		7,559,385	
Property, plant and equipment funds		1,607,684		1,337,237	
Council controlled unrestricted operating fund		4,156		2,386	
NON-CURRENT LIABILITIES			1,714,366		1,645,915
Lease liabilities	2,11	221		1,061	
Deferred income	13	1,635,713		1,644,854	
Group life assurance liability	10.4	78,432		-	
CURRENT LIABILITIES			2,762,068		2,389,437
Lease liabilities	2,11	1,479		1,887	
Trade payables, accruals and other liabilities	12	850,325		790,910	
Deferred income	13	939,958		914,246	
Contract liabilities	14	189,385		233,920	
Student credits and deposits	15	403,169		351,589	
Agency funds	16	377,752		96,885	

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF PROFIT OR LOSS FOR THE YEAR ENDED 31 DECEMBER 2021

	NOTES	COUNCIL CONTROLLED UNRESTRICTED OPERATING FUND	SPECIFICALLY FUNDED ACTIVITIES RESTRICTED & DESIGNATED	SUB-TOTAL	STUDENT ACCOMMODATION RESTRICTED	2021 TOTAL	2020 TOTAL
		R'000	R'000	R'000	R'000	R'000	R'000
TOTAL INCOME		5,020,386	2,318,050	7,338,436	409,850	7,748,286	7,284,560
State appropriations - subsidies and grants	17.1	2,840,343	301,647	3,141,990	-	3,141,990	3,109,830
Tuition and other fee income	17.2	2,056,021	-	2,056,021	405,966	2,461,987	2,282,156
Income from contracts and services	17.3	124,022	1,373,694	1,497,716	3,884	1,501,600	1,251,245
Donations and gifts	17.4	-	152,297	152,297	-	152,297	201,211
SUB-TOTAL: REVENUE	17.5	5,020,386	1,827,638	6,848,024	409,850	7,257,874	6,844,442
Interest and dividends	18	-	342,235	342,235	-	342,235	321,533
Net interest income on defined benefit/contribution plans	10,19	-	57,868	57,868	-	57,868	53,216
(Loss) on disposal of property, plant and equipment		-	(2,616)	(2,616)	-	(2,616)	(5,182)
Net fair value gains on financial assets	20	-	93,242	93,242	-	93,242	70,730
Share of net (loss) of associates		-	(317)	(317)	-	(317)	(179)
TOTAL EXPENSES		4,795,410	1,727,186	6,522,596	310,812	6,833,408	6,267,675
Personnel	21	3,400,412	568,168	3,968,580	140,597	4,109,177	3,951,969
Leave costs	21	1,175	393	1,568	572	2,140	65,970
Other operating expenses	22	1,157,304	1,127,185	2,284,489	169,367	2,453,856	1,979,849
Depreciation and amortisation*	1, 2, 3	236,519	31,234	267,753	276	268,029	269,268
SUB-TOTAL: OPERATING EXPENSES		4,795,410	1,726,980	6,522,390	310,812	6,833,202	6,267,056
Finance expense		-	206	206	-	206	619
SURPLUS BEFORE TAX		224,976	590,864	815,840	99,038	914,878	1,016,885
Taxation Income / (Expense)	23	-	(3)	(3)	-	(3)	23
SURPLUS FOR THE YEAR		224,976	590,861	815,837	99,038	914,875	1,016,908

* Capital expenditure expensed of R27.4m (2020:R32.6m) is reflected under "depreciation and amortisation". Such expenses relate to capital items with a value under R5 000 (refer note 6 of the Accounting Policies).

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME FOR THE YEAR ENDED 31 DECEMBER 2021

	NOTES	COUNCIL CONTROLLED UNRESTRICTED OPERATING FUND	SPECIFICALLY FUNDED ACTIVITIES RESTRICTED & DESIGNATED	SUB-TOTAL	STUDENT ACCOMMODATION RESTRICTED	2021 TOTAL	2020 TOTAL
		R'000	R'000	R'000	R'000	R'000	R'000
SURPLUS FOR THE YEAR		224,976	590,861	815,837	99,038	914,875	1,016,908
OTHER COMPREHENSIVE INCOME FOR THE YEAR		-	3,158,835	3,158,835	-	3,158,835	714,309
Items that will not be reclassified to profit and loss							
Remeasurements on defined benefit pension plan	10.1	-	52,632	52,632	-	52,632	(38,706)
Remeasurements on defined benefit medical plan	10.2	-	183,588	183,588	-	183,588	(47,512)
Remeasurements on defined benefit/contribution provident plan	10.3	-	(1,035)	(1,035)	-	(1,035)	10,597
Remeasurements on group life assurance plan	10.4	-	(34,139)	(34,139)	-	(34,139)	7,227
Past service cost on defined pension plan	10.1	-	-	-	-	-	(4,300)
Past service cost on group life assurance liability	10.4	-	-	-	-	-	(177)
Net fair value gains on financial assets	20	-	2,957,789	2,957,789	-	2,957,789	787,180
TOTAL COMPREHENSIVE INCOME FOR THE YEAR		224,976	3,749,696	3,974,672	99,038	4,073,710	1,731,217

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF CHANGES IN FUNDS FOR THE YEAR ENDED 31 DECEMBER 2021

	UNRESTRICTED	COUNCIL DESIGNATED AND RESTRICTED - OTHER				COUNCIL DESIGNATED AND RESTRICTED				RESTRICTED	TOTAL
	OPERATING FUND	OPERATING FUND	LOAN FUND	ENDOWMENT AND SIMILAR FUNDS*	TOTAL OTHER	PROPERTY, PLANT AND EQUIPMENT FUNDS				STUDENT ACCOMMODATION	FUNDS
	R'000	R'000	R'000	R'000	R'000	UNEXPENDED AND PPE RESERVES R'000	RENEWAL AND REPLACEMENT R'000	INVESTMENT IN PPE FUND R'000	TOTAL PPE FUNDS R'000	R'000	R'000
BALANCE AS AT 31 DECEMBER 2019: CREDIT	871	5,698,893	72,454	5,062,621	10,833,968	857,227	121,368	4,581,107	5,559,702	1,139	16,395,680
Non-distributable reserves	-	-	-	2,803,426	2,803,426	-	-	-	-	-	2,803,426
Council designated funds	871	4,820,311	35,109	1,793,658	6,649,078	857,227	121,368	-	978,595	-	7,628,544
Restricted - other funds	-	878,582	37,345	465,537	1,381,464	-	-	4,581,107	4,581,107	1,139	5,963,710
Net (decrease)/increase in funds	1,515	608,754	22,557	713,457	1,344,768	195,360	163,282	28,974	387,616	(2,682)	1,731,217
Surplus for the year	147,770	871,711	2,557	44,637	918,905	56,559	17,475	(153,926)	(79,892)	30,125	1,016,908
Other comprehensive income comprising:											
Remeasurements on defined benefit plans				(72,871)	(72,871)						(72,871)
Remeasurements on defined benefit medical plan				(47,512)	(47,512)						(47,512)
Remeasurements on defined benefit pension plan				(38,706)	(38,706)						(38,706)
Remeasurements on defined benefit/contribution provident plan				10,597	10,597						10,597
Remeasurements on group life assurance plan				7,227	7,227						7,227
Past service cost on defined pension plan				(4,300)	(4,300)						(4,300)
Past service cost on group life assurance liability				(177)	(177)						(177)
Fair value gains/(losses) on financial assets				787,180	787,180						787,180
Net transfers (to)/from other funds	(146,255)	(262,957)	20,000	(45,489)	(288,446)	138,801	145,807	182,900	467,508	(32,807)	-
BALANCE AS AT 31 DECEMBER 2020: CREDIT	2,386	6,307,647	95,011	5,776,078	12,178,736	1,052,587	284,650	4,610,081	5,947,318	(1,543)	18,126,897
Non-distributable reserves	-	-	-	3,433,625	3,433,625	-	-	-	-	-	3,433,625
Council designated funds	2,386	5,358,340	54,685	2,146,360	7,559,385	1,052,587	284,650	-	1,337,237	-	8,899,008
Restricted - other funds	-	949,307	40,326	196,093	1,185,726	-	-	4,610,081	4,610,081	(1,543)	5,794,264
Net (decrease)/increase in funds	1,770	777,643	8,476	2,906,879	3,692,998	131,771	138,676	104,950	375,397	3,545	4,073,710
Surplus for the year	224,976	939,946	(9,105)	(267,166)	663,675	(80,554)	502	7,238	(72,814)	99,038	914,875
Other comprehensive income comprising:											
Remeasurements on defined benefit plans				201,046	201,046						201,046
Remeasurements on defined benefit medical plan				183,588	183,588						183,588
Remeasurements on defined benefit pension plan				52,632	52,632						52,632
Remeasurements on defined benefit/contribution provident plan				(1,035)	(1,035)						(1,035)
Remeasurements on group life assurance plan				(34,139)	(34,139)						(34,139)
Fair value gains/(losses) on financial assets				2,957,789	2,957,789						2,957,789
Net transfers (to)/from other funds	(223,206)	(162,303)	17,581	15,210	(129,512)	212,325	138,174	97,712	448,211	(95,493)	-
BALANCE AS AT 31 DECEMBER 2021: CREDIT	4,156	7,085,290	103,487	8,682,957	15,871,734	1,184,358	423,326	4,715,031	6,322,715	2,002	22,200,607
Non-distributable reserves	-	-	-	5,462,352	5,462,352	-	-	-	-	-	5,462,352
Council designated funds	4,156	5,951,071	63,120	3,027,374	9,041,565	1,184,358	423,326	-	1,607,684	-	10,653,405
Restricted - other funds	-	1,134,219	40,367	193,231	1,367,817	-	-	4,715,031	4,715,031	2,002	6,084,850

* This fund group includes the non-distributable fair value reserve.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
CONSOLIDATED STATEMENT OF CASH FLOWS FOR THE YEAR ENDED 31 DECEMBER 2021

	NOTES	2021	2020
		R'000	R'000
CASH FLOWS FROM OPERATING ACTIVITIES			
Cash generated from operations	26	977,678	1,238,351
Interest received	18	149,417	149,811
Dividends received	18	192,818	171,722
Interest paid		(18)	(619)
Taxation paid		205	1,006
		<u>1,320,100</u>	<u>1,560,271</u>
CASH FLOWS FROM INVESTING ACTIVITIES			
Purchases of property, plant and equipment	1	(332,789)	(419,150)
Purchases of intangible assets	3	(6,713)	(21,725)
Purchases of investments	4	(3,383,435)	(3,577,561)
Proceeds from disposal of property, plant and equipment		373	14,574
Proceeds from disposal of investments	4	3,083,833	3,219,244
(Increase)/decrease in investment in associates		-	(901)
		<u>(638,731)</u>	<u>(785,519)</u>
CASH FLOWS FROM FINANCING ACTIVITIES			
Payment of lease liabilities		(2,010)	-
		<u>(2,010)</u>	<u>-</u>
NET INCREASE/(DECREASE) IN CASH AND CASH EQUIVALENTS		679,359	774,752
CASH AND CASH EQUIVALENTS AT THE BEGINNING OF YEAR		2,473,559	1,698,807
CASH AND CASH EQUIVALENTS AT THE END OF YEAR		<u>3,152,918</u>	<u>2,473,559</u>

Capital grants received are included in cash flows from operating activities. Management considers this disclosure to be a fairer indication of the nature of these transactions as it does not view the source of these grants as being a capital provider.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES

ACCOUNTING POLICIES FOR THE YEAR ENDED 31 DECEMBER 2021

1. Basis for preparation

The University prepared consolidated annual financial statements in accordance with International Financial Reporting Standards (IFRS) and the requirements of the Higher Education Act 101 of 1997 (as amended).

The consolidated financial statements have been prepared on a historical cost basis, except for certain financial assets and liabilities and post-employment benefits, which are measured at fair value.

The preparation of financial statements requires the use of certain critical accounting estimates. It also requires management to exercise its judgement in the process of applying the University's accounting policies. The areas involving a higher degree of judgement or complexity, or the areas where assumptions and estimates are significant to the consolidated financial statements, are disclosed in accounting policy note 1.3.

The principal accounting policies adopted in the preparation of the consolidated financial statements are set out below and are consistent with those of the previous year, unless stated otherwise.

1.1. Going concern

The University's forecast and projections, taking account of reasonably possible changes in operating circumstances, show that the University should be able to operate for the foreseeable future with its current financing. Council has a reasonable expectation that the University has adequate resources to continue in operational existence for the foreseeable future. The University therefore continues to adopt the going concern basis in preparing its consolidated financial statements.

1.2. New standards, amendments and interpretations

1.2.1. New standards, amendments and interpretations adopted by the group

The group has applied the following amendments for the first time for their annual reporting period commencing 1 January 2021:

- Covid-19-related Rent Concessions – Amendments to IFRS 16
- Interest Rate Benchmark Reform Phase 2 – Amendments to IFRS 9, IAS 39, IFRS 7, IFRS 4 and IFRS 16

The amendments listed above did not have an impact on the amounts recognised in prior periods and are not expected to significantly affect the current or future periods.

1.2.2. New standards, amendments and interpretations issued, not yet effective

Certain new accounting standards and interpretations have been published that are not mandatory for 31 December 2021 reporting periods and have not been adopted early by the group. These standards are not expected to have a material impact on the entity in the current or future reporting periods and on foreseeable future transactions.

1.3. *Critical accounting estimates and judgements*

Some of the amounts included in the consolidated financial statements involve the use of judgement and/or estimation. These judgements and estimates are based on management's best knowledge of the relevant facts and circumstances, having regard to prior experience, but actual results may differ from the amounts included in the consolidated financial statements. Information about such judgements and estimations is contained in the accounting policies and/or the notes to the consolidated financial statements, and the key areas are summarised below.

Areas of judgement and key sources of estimation uncertainty that have the most significant effect on the amounts recognised in the consolidated financial statements are:

1.3.1. Impairment of financial assets

The loss allowances for financial assets are based on assumptions about risk of default and expected loss rates. The group uses judgement in making these assumptions and selecting the inputs to the impairment calculation, based on the group's past history and existing market conditions, as well as forward-looking estimates at the end of each reporting period.

The University tests whether trade receivables have suffered any impairment in accordance with the accounting policy in note 8. Assets that are individually significant are considered separately for impairment. When these assets are impaired, any impairment loss is recognised directly against the related asset. Assets that are individually significant and that are not impaired, and groups of smaller balances are considered for impairment on a portfolio basis, based on similar credit risk.

Impairment losses are recognised in an "allowance account for credit losses" until the impairment can be identified with an individual asset, and, at that point, the allowance is written off against the individual asset. Subsequent recoveries of amounts previously written off are credited in the statement of profit or loss. Refer to notes 6 and 8 of the consolidated financial statements for the carrying amounts of loans and receivables and the impairment losses provided for in 2021.

1.3.2. Useful lives of property, plant and equipment

The University estimates the useful lives of property, plant and equipment based on the period over which the assets are expected to be available for use. The estimated useful lives of property, plant and equipment are reviewed at each reporting date and are updated if expectations differ from previous estimates due to physical wear and tear, technical or commercial obsolescence or other limits on the use of the relevant assets. The amounts and timing of recorded expenses for any period would be affected by changes in these factors and circumstances. A reduction in the estimated useful lives of the property, plant and equipment would increase the recorded expenses and decrease the non-current assets.

1.3.3. Post-employment benefits

Post-employment benefits have been recognised in accordance with the accounting policy note 14. The cost of post-employment benefits is determined using actuarial valuations. The actuarial valuation involves making assumptions about discount rates, mortality rates and income at retirement. Due to the long-term nature of these plans, such estimates are subject to significant uncertainty. The main

assumptions and carrying amounts related to post-employment benefits are summarised in note 10 of the consolidated financial statements.

1.3.4. Deferred revenue

Grants and other non-commercial income received are limited to the expenses incurred and the balance is recognised as deferred income in the statement of financial position. Such income obtained to reimburse expenses incurred are analysed on an individual contract basis. The deferral of income necessitates a degree of judgement by management. Refer to note 13 of the consolidated financial statements for the carrying amount of deferred income. Judgement is also required in estimating the amounts classified as current and non-current.

2. Reserve funds

2.1. Unrestricted operating fund

The unrestricted operating fund in the consolidated statement of changes in funds reflects the University's subsidised activities and also includes the tuition fees and expenditure in respect of the formal programmes of the Gordon Institute of Business Science (GIBS). Additions to these funds mainly comprise subsidies, tuition fees and the sales and services of educational activities (including patient fees at the Onderstepoort Veterinary Academic Hospital) as well as transfers from other funds to finance expenditure.

Expenditure mainly comprises direct expenses in academic departments for teaching and learning, research and community service as well as other professional service expenses such as academic administration, library facilities, bursaries and loans. Institutional expenses, such as expenses incurred for student services, information technology and operating costs regarding land and buildings, are also recorded here.

2.2. Restricted funds

These funds may be used only for the purposes that have been specified in legally binding contracts by the provider of such funds or by another legally empowered person.

2.3. Council designated funds

These funds fall under the discretion of Council (e.g. sales of goods and services, non-prescriptive donations and grants, income from investments that are not restricted, specific purpose endowments or administrated funds) and have been designated for specific purposes.

2.4. Non-distributable reserves

These funds consist of the investment revaluation reserve. Gains/losses on the fair value adjustments of investments are recognised in a revaluation reserve until such time as the investment is disposed of or sold, when the gain/loss is transferred to Council designated funds.

3. Subsidiaries

Subsidiaries are all entities (including structured entities) over which the group has control. The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are de-consolidated from the date that control ceases.

The group applies the acquisition method to account for business combinations. The consideration transferred for the acquisition of a subsidiary is the fair value of the assets transferred, the liabilities incurred to the former owners of the acquiree and the equity interests issued by the group. The consideration transferred includes the fair value of any asset or liability resulting from a contingent consideration arrangement. Identifiable assets acquired and liabilities and contingent liabilities assumed in a business combination are measured initially at their fair value at the acquisition date. The group recognises any non-controlling interest in the acquiree on an acquisition-by-acquisition basis, either at fair value or at the non-controlling interest's proportionate share of the recognised amounts of acquiree's identifiable net assets. Acquisition-related costs are expensed as incurred.

If the business combination is achieved in stages, the acquisition date carrying value of the acquirer's previously held equity interest in the acquiree is re-measured to fair value at the acquisition date; any gains or losses arising from such re-measurement are recognised in profit or loss.

Any contingent consideration to be transferred by the group is recognised at fair value at the acquisition date. Subsequent changes to the fair value of the contingent consideration is recognised in accordance with IFRS 9 in profit or loss.

The excess of the consideration transferred, the amount of any non-controlling interest in the acquiree and the acquisition-date fair value of any previous equity interest in the acquiree over the fair value of the identifiable net assets acquired is recorded as goodwill. If the total of consideration transferred, non-controlling interest recognised and previously held interest measured is less than the fair value of the net assets of the subsidiary acquired in the case of a bargain purchase, the difference is recognised directly in the statement of profit or loss.

Inter-company transactions, balances and unrealised gains on transactions between group companies are eliminated. Unrealised losses are also eliminated. When necessary, amounts reported by subsidiaries have been adjusted to conform to the University's accounting policies.

4. Associated companies

Associates are all entities over which the group has significant influence but not control, generally accompanying a shareholding of between 20% and 50% of the voting rights. Investments in associates are accounted for using the equity method of accounting. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss of the investee after the date of acquisition. The group's investment in associates includes goodwill identified on acquisition.

If the ownership interest in an associate is reduced but significant influence is retained, only a proportionate share of the amounts previously recognised in other comprehensive income is reclassified to profit or loss, where appropriate.

The group's share of post-acquisition profit or loss is recognised in the statement of profit or loss, and its share of post-acquisition movements in other comprehensive income is recognised in other comprehensive income with a corresponding adjustment to the carrying amount of the investment. When the group's share of losses in an associate equals or exceeds its interest in the associate, including any other unsecured receivables, the group does not recognise further losses, unless it has incurred legal or constructive obligations or made payments on behalf of the associate.

The group determines at each reporting date whether there is any objective evidence that the investment in the associate is impaired. If this is the case, the group calculates the amount of impairment as the difference between the recoverable amount of the associate and its carrying value and recognises the amount in 'share of profit/(loss) of associates' in the statement of profit or loss.

Profits and losses resulting from upstream and downstream transactions between the group and its associate are recognised in the group's financial statements only to the extent of unrelated investor's interests in the associates. Unrealised losses are eliminated unless the transaction provides evidence of an impairment of the asset transferred. Accounting policies of associates have been changed where necessary to ensure consistency with the policies adopted by the group.

Dilution gains and losses arising in investments in associates are recognised in the statement of profit or loss.

5. Foreign currency translation

The consolidated financial statements are presented in South African Rand, the functional and presentation currency of the group. Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the dates of the transactions or valuation where items are re-measured. Foreign exchange gains and losses resulting from the settlement of such transactions and from the translation at year-end exchange rates of monetary assets and liabilities denominated in foreign currencies are recognised in the statement of profit or loss.

6. Property, plant and equipment

Land and buildings consist mainly of lecture halls, laboratories, student residences and administrative buildings. All property, plant and equipment is stated at historical cost less accumulated depreciation (aggregated with accumulated impairment losses). Historical cost includes expenditure that is directly attributable to the acquisition of the items. Property, plant and equipment acquired by means of donations is recorded at fair value at the date of the donation.

Land is not depreciated. Depreciation on other assets is calculated using the straight-line method to allocate their cost to their residual values over their estimated useful lives:

Vehicles	5 years
Computer equipment	6 years
Furniture and equipment	10 years
Audio-visual equipment	15 years
Buildings	15 to 80 years
Laboratory equipment	20 years
Property under construction	Not depreciated until available for use

Assets less than R5,000 are depreciated in full in the year of acquisition.

Library books and journals are expensed in the financial period incurred.

The assets' useful lives and residual values are reviewed annually and adjusted, if appropriate, at the end of each reporting period. Depreciation is charged to the statement of profit or loss.

Routine repair and maintenance costs are charged to the statement of profit or loss during the financial period in which they are incurred. The costs of major maintenance or overhaul of an item of property, plant or equipment are recognised in the carrying amount of the item of property, plant and equipment only if it is probable that future economic benefits associated with the item will flow to the group and the cost of the item can be measured reliably. Expenditure incurred to replace a component of an item is capitalised to the cost of the item. The remaining carrying amount of the replaced part is derecognised.

An asset's carrying amount is written down immediately to its recoverable amount if the asset's carrying amount is greater than its estimated recoverable amount.

Gains and losses on the disposal of property, plant and equipment are determined by comparing the proceeds to the carrying amount and are recognised in the statement of profit or loss.

7. Intangible assets

7.1. Computer software development costs

Costs associated with maintaining computer software programmes are recognised as an expense as incurred. Development costs that are directly attributable to the design and testing of identifiable and unique software products controlled by the group are recognised as intangible assets when the following criteria are met:

- it is technically feasible to complete the software product so that it will be available for use;
- management intends to complete the software product and use or sell it;
- there is an ability to use or sell the software product;
- it can be demonstrated how the software product will generate probable future economic benefits;
- adequate technical, financial and other resources to complete the development and to use or sell the software product are available; and
- the expenditure attributable to the software product during its development can be reliably measured.

Directly attributable costs that are capitalised as part of the software product include expenditure relating to the implementation partner, employee costs of staff employed and hardware and software purchased specifically for the Enterprise Resource Planning (ERP) System. Other development expenditures that do not meet these criteria are recognised as an expense as incurred. Development costs previously recognised as an expense are not recognised as an asset in a subsequent period.

Computer software development costs recognised as assets are amortised on a straight-line basis over its estimated useful life of 20 years (ERP systems) and are carried at cost less accumulated

amortisation. The useful life and residual value are reviewed annually. Intangible assets are not revalued.

7.2. *Artwork*

Artwork is recorded at cost or the estimated fair value at the date of the donation. The fair value is deemed to be a reasonable market value at the date of the donation. The market value at the date of the donation is determined by an art appraiser. Artwork is considered to have an indefinite useful life since there is no foreseeable limit to the period over which the asset is expected to generate net cash inflows. Artwork is therefore not amortised.

Artwork is not revalued. Impairment reviews are undertaken annually or more frequently if events or changes in circumstances indicate a potential impairment. There was no indication in the current year that artwork should be impaired.

7.3. *Right of transfer and licence fees*

Right of transfer and licence fees are shown at historical cost. Both these categories have a definite useful life and are carried at cost less accumulated amortisation. Right of transfer is amortised over the period of employment and the licence fees are amortised over 20 years. Amortisation is calculated using the straight-line method to allocate cost of right of transfer and licences over the estimated useful lives. The useful lives and residual values are reviewed annually.

8. **Financial assets**

8.1. *Classification*

The group classifies its financial assets in the following categories: financial assets at fair value through other comprehensive income (FVOCI), financial assets at fair value through profit and loss (FVPL) and financial assets at amortised cost. The classification depends on the entity's business model for managing the financial assets and the contractual terms of the cash flows. Management determines the classification of its financial assets at initial recognition.

(a) At amortised cost

This category applies only when the contractual terms of the instrument give rise, on specified dates, to cash flows that are solely payments of principal and interest on principal, and where the instrument is held under a business model where the objective is met by holding the instrument to collect contractual cash flows.

(b) FVOCI

Financial assets at fair value through other comprehensive income are instruments that are held within a business model where the objective is achieved by both collecting contractual cash flows and selling of financial assets. For investments in equity instruments this will depend on whether the group has made an irrevocable election at the time of initial recognition to account for the equity investment at fair value through other comprehensive income.

(c) FVPL

Financial assets at fair value through profit or loss applies to all investments that do not qualify as at amortisation cost or fair value through other comprehensive income.

8.2. *Recognition and measurement*

Regular purchases and sales of financial assets are recognised on the trade date – the date on which the group commits to purchase or sell the asset. Investments are initially recognised at fair value plus transaction costs for all financial assets not carried at fair value through profit or loss.

Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the group has transferred substantially all risks and rewards of ownership.

8.2.1. *Debt Instruments*

Subsequent measurement of debt instruments depends on the group's business model for managing the asset and the cash flow characteristics of the asset. There are three measurement categories into which the group classifies its debt instruments:

- **Amortised cost:** Assets that are held for collection of contractual cash flows, where those cash flows represent solely payments of principal and interest, are measured at amortised cost. Interest income from these financial assets is included in finance income using the effective interest rate method. Any gain or loss arising on derecognition is recognised directly in profit or loss. Impairment losses are presented as separate line item in the statement of profit or loss.
- **FVOCI:** Assets that are held for collection of contractual cash flows and for selling the financial assets, where the assets' cash flows represent solely payments of principal and interest, are measured at FVOCI. Movements in the carrying amount are taken through OCI, except for the recognition of impairment gains or losses, interest income and foreign exchange gains and losses, which are recognised in profit or loss.
- **FVPL:** Assets that do not meet the criteria for amortised cost or FVOCI are measured at FVPL. A gain or loss on a debt investment that is subsequently measured at FVPL is recognised in profit or loss and presented net with other gains/(losses) in the period in which it arises.

8.2.2. *Equity Instruments*

The group subsequently measures all equity investments at fair value. Where the group's management has elected to present fair value gains and losses on equity investments in OCI, there is no subsequent reclassification of fair value gains and losses to profit or loss following the derecognition of the investment. Dividends from such investments continue to be recognised in profit or loss as part of 'Interest and dividends' when the group's right to receive payments is established.

Changes in the fair value of financial assets at FVPL are recognised in the statement of profit or loss, as applicable. Impairment losses (and reversal of impairment losses) on equity investments measured at FVOCI are not reported separately from other changes in fair value.

8.2.3. *Loans and Receivables*

Loans and receivables are recognised initially at the amount of consideration that is unconditional, unless they contain significant financing components when they are recognised at fair value. Loans

and receivables are subsequently carried at amortised cost using the effective interest method, less allowances for loss.

8.3. *Impairment of financial assets*

The group has the following types of financial assets that are subject to the expected credit loss model:

- Student loans
- Student receivables
- Trade receivables
- Debt investments carried at amortised cost
- Debt investments carried at FVPL

The group assesses, on a forward-looking basis, the expected credit losses associated with its debt instruments carried at amortised cost and FVOCI. The impairment methodology applied depends on whether there has been a significant increase in credit risk.

For student and trade receivables, the group applies the simplified approach permitted by IFRS 9, which requires expected lifetime losses to be recognised from initial recognition of the receivables. The expected loss rates are based on the payment profiles over a period of 36 months before 31 December and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macroeconomic factors affecting the ability of debtors to settle the receivables.

9. **Impairment of non-financial assets**

Intangible assets that have an indefinite useful life and intangible assets not ready for use are not subject to amortisation and are tested annually for impairment. Assets that are subject to amortisation are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount may not be recoverable. An impairment loss is recognised for the amount by which the asset's carrying amount exceeds its recoverable amount. The recoverable amount is the higher of an asset's fair value less costs of disposal and value in use. For the purposes of assessing impairment, assets are grouped at the lowest levels for which there are largely independent cash inflows (cash generating units). Prior impairments of financial assets are reviewed for possible reversal at each reporting date.

10. **Inventories**

Inventories are initially recorded at cost and subsequently measured at the lower of cost and net realisable value. Any write down to net realisable value is recognised in profit or loss. Cost is determined on the weighted average-cost basis. When a perpetual inventory system is not present, it is determined at the most recent purchase price. Net realisable value is an estimate of the selling price in the ordinary course of business less applicable variable selling expenses.

11. **Cash and cash equivalents**

Cash and cash equivalents comprise cash in hand, deposits held at call with financial institutions, other short-term, highly liquid investments with original maturities of three months or less that are readily convertible to known amounts of cash and that are subject to an insignificant risk of changes in value, and bank overdrafts. In the statement of financial position, bank overdrafts are included in borrowings under current liabilities.

12. Trade payables

Trade payables are obligations to pay for goods or services that have been acquired in the ordinary course of business from suppliers. Accounts payable are classified as current liabilities if payment is due within one year or less. If not, they are presented as non-current liabilities.

Trade payables are recognised initially at fair value and subsequently measured at amortised cost using the effective interest rate method.

13. Current and deferred income tax

The University is exempt from income tax in terms of section 10(1)(cA)(i) of the Income Tax Act. However, some of the subsidiaries are not exempted from Income Tax.

The tax expense for the period comprises current and deferred tax. Tax is recognised in the statement of profit or loss, except to the extent that it relates to items recognised directly in equity. In this case, the tax is also recognised in equity.

The current income tax charge is calculated on the basis of the tax laws enacted or substantively enacted at year end in South-Africa, where the University's subsidiaries and associates operate and generate taxable income. Management periodically evaluates positions taken in tax returns with respect to situations in which applicable tax regulations is subject to interpretation and establishes provisions, where appropriate, on the basis of amounts expected to be paid to the tax authorities.

Deferred income tax is recognised on temporary differences arising between the tax bases of assets and liabilities and their carrying amounts in the consolidated financial statements. However, the deferred income tax is not accounted for if it arises from initial recognition of an asset or liability in a transaction other than a business combination that at the time of the transaction affects neither the accounting, nor the taxable profit or loss. Deferred income tax is determined using tax rates (and laws) that have been enacted or substantially enacted by year end and are expected to apply when the related deferred income tax asset is realised or the deferred income tax liability is settled.

Deferred income tax assets are recognised to the extent that it is probable that future taxable profit will be available against which the temporary differences can be utilised.

14. Post-employment benefits

14.1. *Defined benefit pension and defined contribution provident plans*

The University contributes towards two pension schemes namely the AIPF and the UP Pension Fund and towards two provident funds, the UP Provident Fund and the FundsAtWork (FAW) Umbrella Provident Fund.

The FAW Umbrella Fund provides employees an alternative benefit structure (retirement funding and risk benefits) to select on a voluntary basis. The FAW Umbrella Fund is a "defined contribution" fund. The Fund is managed by a Board of Trustees appointed by Momentum. Momentum is a member of Momentum Metropolitan Holdings Limited. The University has appointed an oversight committee that monitors performance and risk.

The AIPF is registered and managed in terms of the Pension Fund Act for Associated Institutions. The UP Pension Fund and the UP Provident Fund are managed by Boards of Trustees and are registered in terms of the provisions of the Pension Fund Act. The schemes are funded through payments to trustee-administered funds, determined by periodic actuarial calculations.

A defined contribution plan is a pension plan under which the entity pays fixed contributions into a separate entity. The entity has no legal or constructive obligations to pay further contributions if the fund does not hold sufficient assets to pay all employees the benefits relating to employee service in the current and prior periods. A defined benefit plan is a pension plan that is not a defined contribution plan.

The UP Provident Fund is a “defined contribution” plan in terms of members' retirement benefits. However, the disability and death benefits stipulated in the rules of the Provident Fund represent a “defined benefit” component. As a result of the defined benefit component, the UP Provident Fund is classified as a defined benefit plan.

The asset/liability recognised in the statement of financial position in respect of defined benefit pension plans is the present value of the defined benefit obligation at the end of the reporting period less the fair value of plan assets. The defined benefit obligation is calculated annually by independent actuaries using the projected unit credit method. The present value of the defined benefit obligation is determined by discounting the estimated future cash outflows using interest rates of high-quality corporate bonds that are denominated in the currency in which the benefits will be paid, and that have terms to maturity approximating the terms of the related pension obligation. Where there is no efficient market in such bonds, the market rates on government bonds are used. The current service cost of the defined benefit plan, recognised in the statement of profit or loss in “personnel costs”, reflects the increase in the defined benefit obligation resulting from employee service in the current year.

The net interest income is calculated by applying the discount rate to the net balance of the defined benefit obligation and the fair value of the plan assets. The income is included in 'net interest income on defined benefit plans' in the statement of profit or loss.

Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise.

Past-service costs are recognised immediately in the statement of profit or loss.

For defined contribution plans, the University pays contributions to an administrator on a contractual basis. The University has no further payment obligations once the contributions have been paid. The contributions are recognised as employee benefit expenses when they are due. Prepaid contributions are recognised as an asset to the extent that a cash refund or a reduction in the future payments is available.

14.2. *Defined benefit medical plan*

In accordance with the existing personnel practice, the Council has undertaken to make medical fund contributions on behalf of certain qualifying retired staff members and certain qualifying future retirees.

The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. This obligation is valued annually by independent qualified actuaries.

14.3. *Group life assurance plan*

The University provides an insured group life benefit to all employees. This benefit is payable on the death of the employee. The group life assurance scheme is an unfunded arrangement, the payment of the annual scheme subsidies are funded from revenue generated in the Council Controlled Unrestricted Operating Fund.

The expected costs of these benefits are accrued over the period of employment using the same accounting methodology as used for defined benefit pension plans. Actuarial gains and losses arising from experience adjustments and changes in actuarial assumptions are charged or credited to equity in other comprehensive income in the period in which they arise. This obligation is valued by an independent qualified actuary.

15. Short term employee benefits

Liabilities for salaries and wages, including non-monetary benefits, annual leave and accumulating sick leave that are expected to be settled fully within 12 months after the end of the period in which the employees render the related service are recognised in respect of employees' services up to the end of the reporting period and are measured at the amounts expected to be paid when the liabilities are settled. The liabilities are presented as current employee benefit obligations in the statement of financial position.

16. Agency funds

These are funds administered on behalf of beneficiaries of deceased employees and other third parties. These funds are recognised at the fair value thereof and subsequently carried at amortised cost.

The funds are held in available-for-sale investments or cash and cash equivalents until payments are requested by the beneficiaries of these funds.

17. Leave accrual

Members of staff with leave with gratuity value to their credit at the end of 2006 had a choice of either having the accumulated leave disbursed to them or to retain such leave credits in the system. Leave credits retained will be disbursed to the relative staff member upon termination of service or on request at any time after March 2007, at the value as at 31 December 2006.

18. Leases

Lease income from operating leases where the group is a lessor is recognised in income on a straightline basis over the lease term. Initial direct costs incurred in obtaining an operating lease are added to the carrying amount of the underlying asset and recognised as expense over the lease term

on the same basis as lease income. The respective leased assets are included in the statement of financial position based on their nature.

Leases (group as lessee) are recognised as a right-of-use asset and a corresponding liability at the date at which the leased asset is available for use by the group. Assets and liabilities arising from a lease are initially measured on a present value basis. Lease payments to be made under reasonably certain extension options are also included in the measurement of the liability.

The lease payments are discounted using the interest rate implicit in the lease. If that rate cannot be readily determined, which is generally the case for leases in the group, the lessee's incremental borrowing rate is used, being the rate that the individual lessee would have to pay to borrow the funds necessary to obtain an asset of similar value to the right-of-use asset in a similar economic environment with similar terms, security and conditions.

19. Revenue recognition

Revenue is measured at the fair value of the consideration received or receivable, and represents amounts receivable for goods or services, stated net of value-added tax, returns, rebates and discounts.

The group recognises revenue when the amount of revenue can be reliably measured, when it is probable that future economic benefits will flow to the group and when specific criteria have been met for each of the group's activities, as described below.

19.1. Subsidies and grants

Grants from the government are recognised at their fair value where there is a reasonable assurance that the grant will be received and the University will comply with all required conditions. Government grants are recognised in profit or loss on a systematic basis over the periods in which the entity recognises the expenses for which the grants are intended to compensate as per the Government Grants Standard (IAS 20). The balance is recognised as deferred income in the statement of financial position.

Block grants relate to the subsidy received from Government for operation activities of the University (Council-controlled unrestricted operational funds).

All other income grants relate to specifically funded programmes in teaching and research activities (Restricted and designated, specifically funded activities).

Grants relating to property, plant and equipment are included in non-current liabilities as deferred income and are recognised in the statement of profit or loss on a straight-line basis over the expected lives of the related assets. The portion of the grants that will be released to the statement of profit or loss during the next 12 months is included in current liabilities.

19.2. Income from contracts and services

Income from contracts is recognised as income at the fair value of the consideration received or receivable in the period to which it relates. Any such income is recognised as income in the financial

period when the University is entitled to use those funds. Income is deferred in the following circumstances:

- (a) Prescriptive contract income is recognised when the specified condition or occurrence has been met (at a point in time); and
- (b) Non-prescriptive contract income is recognised to the extent that expenses are incurred where the stage of completion cannot be estimated reliably.

Income derived from rendering of services is recognised in the accounting period in which the service is rendered, at a point in time or over a period of time depending on the contract. Income is recorded as revenue when received over the period of a contract and performance obligations are fulfilled. Where income has been received and the related performance obligations have not yet been fulfilled, a contract liability is recorded. Performance obligations are typically satisfied as services are rendered.

Classes of income from contracts are measured against the criteria in IFRS 15. If the criteria are not met in terms of IFRS 15, the accounting principles of the Conceptual Accounting Framework are applied to recognise revenue.

Income from contracts and services relate to specifically funded activities with third parties.

19.3. Tuition fees and other fee income

Tuition fees and residence fees are recognised as income at the fair value of the consideration received or receivable in the period to which they relate. Revenue for tuition and residence services is recognised over a period of time, based on services rendered to date as a percentage of total services to be rendered, in accordance with IFRS 15. If the services rendered exceed the payments, a contract asset is recognised. If the payment exceeds the services rendered, a contract liability is recognised. Bursaries, scholarships and other financial aid provided by the University to students for tuition fees are recognised as a reduction of fees in accordance with IFRS 15.

Deposits provided by prospective students are treated as current liabilities until the amount is billed as being due to the University.

19.4. Donations and gifts

Donations (including donations in kind) and gifts are recognised on receipt at fair value, at a point in time, in accordance with the Conceptual Accounting Framework.

20. Interest and dividend income

Interest income is recognised in the statement of profit or loss on a time-proportion basis using the effective interest rate method.

Dividend income is recognised in the statement of profit or loss when the right to receive payment is established.

21. Research costs

Research costs are written off in the year in which they arise, since these types of costs are inherent in the normal operations of a university. Research costs are not recorded separately.

22. Rounding of amounts

All amounts disclosed in the financial statements and notes have been rounded off to the nearest thousand rand unless indicated otherwise.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
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1. Property, plant and equipment

	Land and buildings	Laboratory equipment	Computer equipment	Furniture and equipment	Vehicles	Audio-visual equipment	Total
	R'000	R'000	R'000	R'000	R'000	R'000	R'000
Year ended 31 December 2020							
Opening net carrying amount	5,209,192	422,468	254,320	67,463	56,968	46,719	6,057,130
Additions	236,483	69,962	81,402	13,139	6,137	12,027	419,150
Disposals	-	(3,669)	(18,734)	(175)	(1,006)	(94)	(23,678)
Depreciation charge	(105,875)	(30,222)	(66,457)	(11,585)	(7,840)	(5,059)	(227,038)
Closing net carrying amount	5,339,800	458,539	250,531	68,842	54,259	53,593	6,225,564
At 31 December 2020							
Cost	6,295,758	938,475	736,943	171,307	108,792	100,323	8,351,598
Accumulated depreciation	(955,958)	(479,936)	(486,412)	(102,465)	(54,533)	(46,730)	(2,126,034)
Net carrying amount	5,339,800	458,539	250,531	68,842	54,259	53,593	6,225,564
Year ended 31 December 2021							
Opening net carrying amount	5,339,800	458,539	250,531	68,842	54,259	53,593	6,225,564
Additions	150,993	94,127	69,754	7,872	1,003	9,040	332,789
Disposals	-	(830)	(1,455)	(629)	-	(73)	(2,987)
Depreciation charge	(109,026)	(33,421)	(65,145)	(11,472)	(5,602)	(5,833)	(230,499)
Closing net carrying amount	5,381,767	518,415	253,685	64,613	49,660	56,727	6,324,867
At 31 December 2021							
Cost	6,446,751	1,019,225	759,757	171,177	109,783	102,646	8,609,339
Accumulated depreciation	(1,064,984)	(500,810)	(506,072)	(106,564)	(60,123)	(45,919)	(2,284,472)
Net carrying amount	5,381,767	518,415	253,685	64,613	49,660	56,727	6,324,867

Capital expenditure expensed R27.4m (2020: R32.6m) is reflected under 'depreciation and amortisation' on the statement of Profit and Loss. Such expenses relate to capital items with a value under R5 000 (refer note 6 of the accounting policies).

A complete schedule of land and buildings is available for inspection at the offices of the University.

Buildings to the amount of R306.1m (2020: R300.8m) included above, are erected on land belonging to the Gauteng Provincial Administration.

Included in land and buildings is expenditure of R93.4m (2020: R323.7m) which relates to property that is still under construction. This will be depreciated once available for use.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
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2. Right-of-use assets	2021	2020
	R'000	R'000

Details pertaining to leasing arrangements, where the group is the lessee are presented below:

The group is renting office equipment and has the right of use and to obtain all of the economic benefits from using the office equipment. The lease agreements are signed for a period of two to three years.

Right-of-use assets

Office equipment	1,473	2,737
	<u>1,473</u>	<u>2,737</u>

Additions to the right-of-use assets during the 2021 financial year were R0.6m (2020: R0.2m)

Lease liabilities

Non-current	221	1,061
Current	1,479	1,887
	<u>1,700</u>	<u>2,948</u>

Lease liabilities have been included on the statement of financial position. Refer to note 11.

The maturity analysis of lease liabilities is as follows:

Within one year	1,482	1,897
Two to five years	315	1,293
More than five years	-	-
	<u>1,797</u>	<u>3,190</u>
Less finance charges component	(97)	(242)
	<u>1,700</u>	<u>2,948</u>

Amounts recognised in the statement of profit or loss

Depreciation recognised on right-of-use assets

Depreciation recognised on each class of right-of-use assets, is presented below. It includes depreciation that has been expensed in the total depreciation charge in profit or loss, as well as depreciation that has been capitalised to the cost of other assets.

Office equipment	1,829	2,169
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Income and expenses related to leases

Interest expense on lease liabilities included in finance expense	199	364
Leases of low-value assets included in operating expenses	933	1,667
Short-term lease expenses included in operating expenses	866	104,338

The total cash outflow for leases in 2021 was R3.8m (2020: R109.3m).

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
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3. Intangible assets

	Computer software	Right of transfer and licence fee	Artwork	Total
	R'000	R'000	R'000	R'000
Year ended 31 December 2020				
Opening net carrying amount	37,227	4,876	17,655	59,758
Additions	21,211	383	131	21,725
Amortisation charge	(7,078)	(347)	-	(7,425)
Disposals/write-offs	(17)	(27)	-	(44)
Closing net carrying amount at end of the year	51,343	4,885	17,786	74,014
At 31 December 2020				
Cost	317,139	18,256	22,027	357,422
Accumulated amortisation	(265,796)	(13,371)	-	(279,167)
Accumulated impairment	-	-	(4,241)	(4,241)
Net carrying amount	51,343	4,885	17,786	74,014
Year ended 31 December 2021				
Opening net carrying amount	51,343	4,885	17,786	74,014
Additions	5,864	492	357	6,713
Amortisation charge	(7,829)	(470)	-	(8,299)
Closing net carrying amount at end of the year	49,378	4,907	18,143	72,428
At 31 December 2021				
Cost	323,003	18,748	22,384	364,135
Accumulated amortisation	(273,625)	(13,841)	-	(287,466)
Accumulated impairment	-	-	(4,241)	(4,241)
Net carrying amount	49,378	4,907	18,143	72,428

Intangible assets consist only of purchased intangible assets. There are no internally generated intangible assets.

Amortisation of intangible assets is included in depreciation and amortisation in the statement of profit or loss.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
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4. Investments

4.1 Investments at fair value through other comprehensive income

	2021	2020
	R'000	R'000
Non-current assets		
Local equity	4,447,921	3,642,448
Unlisted equity	376,621	283,823
Foreign equity	9,552,787	7,230,588
Sub-total	<u>14,377,329</u>	<u>11,156,859</u>
Investment designated for Group Life Assurance (GLA) liability*	-	(39,572)
	<u>14,377,329</u>	<u>11,117,287</u>

Investments at fair value through other comprehensive income include equity securities which the group has irrevocably elected at initial recognition to recognise in this category in accordance with IFRS 9. These are strategic investments and the group considers this classification to be more relevant.

A complete schedule of investments is available for inspection at the offices of the University.

Refer to note 20 for amounts recognised in profit or loss and other comprehensive income.

* Refer to note 10.4 for details regarding the off-set of the GLA liability.

	2021	2020
	R'000	R'000
Movement in investments at fair value through other comprehensive income		
Beginning of year	11,117,287	10,119,055
Disposals of investments	(2,821,866)	(2,720,401)
Acquisitions of investments	3,084,547	2,929,127
Movement in investment previously designated for GLA liability	39,572	2,326
Net fair value gains	2,957,789	787,180
End of year	<u>14,377,329</u>	<u>11,117,287</u>

Financial assets at fair value include the following:

	2021	2020
	R'000	R'000
Listed securities:		
Equity securities - Rand	4,447,921	3,602,876
Equity securities - US Dollar	9,262,638	6,991,064
Equity securities - EURO	290,149	239,524
Unlisted securities	376,621	283,823
	<u>14,377,329</u>	<u>11,117,287</u>

Financial assets at fair value are denominated in the following currencies:

	2021	2020
	R'000	R'000
Rand	4,824,542	3,886,699
US Dollar	9,262,638	6,991,064
EURO	290,149	239,524
	<u>14,377,329</u>	<u>11,117,287</u>

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Recognised fair value measurements

The following table explains the judgements and estimates made in determining the fair values of the financial assets that are recognised and measured at fair value. To provide an indication on the reliability of the inputs used in determining fair value, the group has classified its financial instruments into the three levels prescribed by the accounting standards. An explanation of each level follows underneath the table.

Financial Assets	Level 1 R'000	Level 2 R'000	Level 3 R'000	Total 2021 R'000	Total 2020 R'000
Listed equity:	4,438,866	-	-	4,438,866	3,578,023
Basic materials	1,102,951	-	-	1,102,951	953,718
Consumer goods	414,322	-	-	414,322	365,374
Consumer services	492,800	-	-	492,800	415,840
Derivatives	1	-	-	1	19
Financials	795,301	-	-	795,301	763,800
Health care	115,394	-	-	115,394	86,802
Industrials	163,263	-	-	163,263	83,820
Renewable Energy	22,377	-	-	22,377	4,632
Telecommunications	180,257	-	-	180,257	65,362
Real estate	468,846	-	-	468,846	279,476
Technology	435,974	-	-	435,974	386,185
Other	-	-	-	-	257
Unit trusts	247,380	-	-	247,380	172,738
Local listed commodities	9,055	-	-	9,055	24,853
Gold	8,291	-	-	8,291	16,126
Other metals	764	-	-	764	8,727
Unlisted equity	-	52,560	324,061	376,621	283,823
Oil and gas/energy	-	-	177,883	177,883	171,926
Private equity	-	52,560	145,576	198,136	111,295
Other	-	-	602	602	602
Foreign securities	9,552,787	-	-	9,552,787	7,230,588
Unit trusts	2,010,315	-	-	2,010,315	2,239,832
Specialised securities	7,542,472	-	-	7,542,472	4,990,756
	14,000,708	52,560	324,061	14,377,329	11,117,287

The fair value of listed shares and commodities is determined with reference to quoted market prices. Unlisted securities are recognised at fair value based on the market value obtained from fund managers.

For an analysis of the sensitivity of the assets to price risk refer to note 31.

Level 1: The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the group is the current bid price.

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

Level 3: If one or more of the significant inputs is not based on observable market data, the instrument is included in level 3.

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Valuation techniques used to determine fair values of unlisted equity

The fair value of unlisted equities is based on an earnings multiple methodology or a discounted cash flow methodology.

Earnings multiple method

Methodology

This valuation method determines the value of the investment through the use of an appropriate and reasonable valuation multiple applied to the maintainable earnings of the investment. Maintainable earnings are typically based on historical earnings figures that are considered to be appropriate and relevant. Maintainable earnings would be adjusted for current information, given the need to maintain an optimal correlation between the period of the benchmark multiple and the period of the maintainable earnings.

An 'Earnings before tax and interest and depreciation and amortisation' (EBITDA), an 'Earnings before interest after tax' (EBIAT) or a price/earnings (P/E) multiple is derived for each investment with reference to the multiples of comparable publicly traded entities. The benchmark multiple is further adjusted for areas of difference relating to the growth prospects and risk profile. This would typically include geographic, operational, financial, and liquidity risk factors.

Inputs

Maintainable earnings:	Historical actual earnings figures
Earnings multiple:	Between 2-9 benchmark entities per individual investment

Discounted cash flow method

Methodology

Cash flows are based on the projected future distributions due to investors in the underlying investments. The Fund Managers consider all available information for each investment, inter alia, information made available to shareholders, information presented during board meetings and other publicly available information. Cash flows are computed in and extracted from financial models adjusted for macroeconomic and applicable cash flow assumptions. Where possible the relevant cash flow forecasts are adjusted to reflect historical data, market convention or the impact of operational issues. Where these factors are not quantifiable or determinable through cash flow adjustments, the base discount rate is adjusted to reflect any additional risk or value enhancements.

A discount rate is determined for each investment and referenced to market comparable transactions where appropriate and available. The discount rate is usually based on a combination of a capital asset pricing model and a comparable market approach where an active market exists. The comparable market approach is based on the Internal Rate of Return (IRR) for recent and similar transactions observed by the Fund Manager, in addition to other market research.

Inputs

Cash flows from investments:	Ordinary and preference share dividends and redemptions and/or shareholder loan repayments
Discount rate:	Ranging from 12.3% to 17.3%
Risk free rate:	9.75%
CPI rate:	Ranging from 4.75% to 5.0%
Recent transactions used for comparison:	18

Where investments are valued on the earning multiple methodology with reference to the multiples of publicly traded companies, these investments are classified as level 2 in the fair value hierarchy. All other unlisted investments are classified as level 3 in the fair value hierarchy.

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4.2 Investments at fair value through profit or loss	2021 R'000	2020 R'000
Non-current assets		
Listed bonds	1,120,024	1,041,368
Fixed deposit	456	441
	1,120,480	1,041,809
Current assets		
Unit trusts and collective investments	236,069	184,654
	236,069	184,654
	1,356,549	1,226,463

Investments at fair value through profit or loss include debt investments managed on a portfolio basis that do not qualify for measurement at either amortised cost or fair value through other comprehensive income and equity investments that were not elected to recognise fair value gains and losses through other comprehensive income.

Refer to note 20 for amounts recognised in profit or loss and other comprehensive income.

Movement in investments at fair value through profit and loss	2021 R'000	2020 R'000
Beginning of year	1,226,463	1,008,665
Disposals of investments	(261,967)	(498,843)
Acquisitions of investments	298,811	645,911
Net fair value gains	93,242	70,730
End of year	1,356,549	1,226,463

Recognised fair value measurements

The following table explains the judgements and estimates made in determining the fair values of the financial assets that are recognised and measured at fair value. To provide an indication on the reliability of the inputs used in determining fair value, the group has classified its financial instruments into the three levels prescribed by the accounting standards. An explanation of each level follows underneath the table.

Financial Assets	Level 1 R'000	Level 2 R'000	Level 3 R'000	Total 2021 R'000	Total 2020 R'000
Equity and unit trusts	199,419	-	-	199,419	162,665
Local cash	19,884	-	-	19,884	12,865
Foreign cash	193	-	-	193	256
Local equity	616	-	-	616	245
Local real estate	1,073	-	-	1,073	480
Foreign real estate	100	-	-	100	40
Local collective investments	177,448	-	-	177,448	148,577
Local unit trusts	-	-	-	-	133
Foreign unit trusts	105	-	-	105	69
Bonds	80,907	1,076,223	-	1,157,130	1,063,798
Local bonds	80,133	374,194	-	454,327	411,445
Foreign bonds	774	-	-	774	1,032
SA credit bonds	-	702,029	-	702,029	651,321
Total	280,326	1,076,223	-	1,356,549	1,226,463

The fair value of listed shares and commodities is determined with reference to quoted market prices. For an analysis of the sensitivity of the assets to price and credit risks refer to note 31.

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Level 1: The fair value of financial instruments traded in active markets is based on quoted market prices at the end of the reporting period. The quoted market price used for financial assets held by the group is the current bid price.

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

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

4.3 Investments at amortised cost

	2021	2020
	R'000	R'000
Current assets		
Call investment account	2,600	2,523
	<u>2,600</u>	<u>2,523</u>

Investments at amortised cost include debt investments where the objective is to collect the contractual cash flows and that are solely payments of principal and interest.

The year-end balances of other financial assets which are subsequently measured at amortised cost approximates their fair value at year-end.

5. Deferred Tax

	2021	2020
	R'000	R'000
The movement in the deferred tax asset and liability is as follows:		
Balance at the beginning of the year	198	-
Movement during the year:		
Temporary differences on property, plant and equipment	-	(12)
Temporary differences on provisions	-	210
	<u>198</u>	<u>198</u>

The deferred tax balance consists of the following:

Temporary differences on property, plant and equipment	(12)	(12)
Temporary differences on provisions	210	210
	<u>198</u>	<u>198</u>

A deferred tax asset is recognised for tax losses only to the extent that recovery is probable.

6. Loans and receivables

	2021	2020
	R'000	R'000
Financial assets		
Student loans	136,213	129,354
Provision for credit losses	(124,252)	(113,465)
	<u>11,961</u>	<u>15,889</u>
Non-financial assets		
Purco SA	520	520
Other	15	15
	<u>535</u>	<u>535</u>
	<u>12,496</u>	<u>16,424</u>

The current University policy is that all student loans are due within five years from completion of studies or deregistration. The weighted average interest rate applied for student loans was 5.11% (2020: 7.21%).

The fair value of student loans amounts to R9.7m (2020: R13.0m) at year end, discounted at the prime rate of 7.25% over 5 years.

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Credit risk of student loans

To measure the expected credit losses, student loans have been grouped together based on shared credit risk characteristics and days past due.

The expected loss rates are based on the historical payment profiles of loans and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macro-economic factors affecting the ability of the students to settle the loans.

On that basis, the credit loss allowance as at 31 December 2021 was determined as indicated below for student loans.

As at 31 December 2021, a provision for credit losses of R124.2m (2020: R113.4m) was raised. The provision relates mainly to UP NSFAS loans that have a history of poor recovery as well as students who are experiencing financial difficulties.

Expected credit loss rate: 2021	Estimated gross carrying amount at default	Expected credit loss	Percentage expected credit loss
	R'000	R'000	%
Students enrolled for current year	28,242	21,968	78%
Students enrolled for previous years (experiencing financial difficulties)	25,804	20,117	78%
UP NSFAS loans	82,167	82,167	100%
	<u>136,213</u>	<u>124,252</u>	

Expected credit loss rate: 2020	Estimated gross carrying amount at default	Expected credit loss	Percentage expected credit loss
	R'000	R'000	%
Students enrolled for current year	24,328	18,246	75%
Students enrolled for previous years (experiencing financial difficulties)	20,680	10,873	53%
UP NSFAS loans	84,346	84,346	100%
	<u>129,354</u>	<u>113,465</u>	

Movements in the provision for credit losses are as follows:	2021	2020
	R'000	R'000
Beginning of year	113,465	105,836
Provision for credit losses	11,522	8,041
Receivables written off during the year	(735)	(412)
End of year	<u>124,252</u>	<u>113,465</u>

All outstanding student loans are secured by two guarantees, with each guarantor earning more than R5,000 per month.

7. Inventories

	2021	2020
	R'000	R'000
Laboratory and medical	4,270	4,997
Stationery	7,424	6,971
Technical	12,565	14,509
Study materials	471	473
Food	999	704
Other	4,477	4,199
	<u>30,206</u>	<u>31,853</u>

The costs of individual items of inventory are determined using weighted average costs.

The cost of inventories recognised as an expense and included in 'other operating expenses' amounted to R80.6m (2020: R62.7m). Inventory carried at net realisable value is R nil (2020: R nil).

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8. Receivables and prepayments	2021 R'000	2020 R'000
Financial assets		
Student receivables	517,903	491,719
Student receivables - NSFAS	5,018	22,971
Provision for credit losses	(254,860)	(214,170)
	<u>268,061</u>	<u>300,520</u>
Other trade receivables	327,227	217,727
Provision for credit losses	(37,834)	(35,819)
	<u>289,393</u>	<u>181,908</u>
Non-financial assets		
Prepayments	25,052	25,432
SARS	-	3
Payroll debtors	1,326	1,525
Other	683	1,139
	<u>27,061</u>	<u>28,099</u>
	<u>584,515</u>	<u>510,527</u>

Due to the short-term nature of the current receivables, their carrying amount is considered to be the same as their fair value.

Credit risk of student receivables

To measure the expected credit losses, student receivables have been grouped together based on shared credit risk characteristics and days past due.

The expected loss rates are based on the historical payment profiles of tuition fees and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macro-economic factors affecting the ability of the customers to settle the receivables.

As at 31 December 2021, a 94% expected loss rate was applied to student receivables - enrolled for previous years and no expected loss rate was applied to student receivables - enrolled for the current year. All other provisioning is in line with previous years.

On that basis, the credit loss allowance as at 31 December 2021 was determined as indicated below for student receivables.

As at 31 December 2021, a provision for credit losses of R254.8m (2020: R214.1m) was raised. The provision mainly relates to students who are experiencing financial difficulties.

Expected credit loss rate: 2021	Estimated gross carrying amount at default R'000	Expected credit loss R'000	Percentage expected credit loss %
Student receivables - NSFAS	5,018	-	-
Student receivables - enrolled for current year	246,080	-	-
Student receivables - enrolled for previous years	271,823	254,860	94%
	<u>522,921</u>	<u>254,860</u>	
Expected credit loss rate: 2020			
Student receivables - NSFAS	22,971	-	-
Student receivables - enrolled for current year	256,463	-	-
Student receivables - enrolled for previous years	235,256	214,170	91%
	<u>514,690</u>	<u>214,170</u>	

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	2021 R'000	2020 R'000
Movements in the provision for credit losses are as follows:		
Beginning of year	214,170	184,268
Provision for credit losses	46,298	40,222
Receivables written off during the year	(5,608)	(10,320)
End of year	<u>254,860</u>	<u>214,170</u>

The creation and release of credit losses on student receivables have been included in 'other operating expenses' in the statement of profit or loss. Amounts charged to the statement of profit or loss are generally written off when there is no expectation of recovering any additional amounts. No collateral is held as security.

For additional disclosure of the credit risk relating to student receivables, refer to note 31.1.B.

Credit risk of other trade receivables

To measure the expected credit losses, other trade receivables have been grouped together based on shared credit risk characteristics and days past due.

The expected loss rates are based on the historical payment profiles of sales and the corresponding historical credit losses experienced within this period. The historical loss rates are adjusted to reflect current and forward-looking information on macro-economic factors affecting the ability of the customers to settle the receivables. On that basis, the loss allowance was determined as follows for other trade receivables.

	Estimated gross carrying amount at default R'000	Expected credit loss R'000	Percentage expected credit loss %
Expected credit loss rate: 2021			
Current	37,726	1,668	4%
1 to 6 months past due	224,692	1,538	1%
6 months + past due	64,809	34,628	53%
	<u>327,227</u>	<u>37,834</u>	
Expected credit loss rate: 2020			
Current	39,219	2,774	7%
1 to 6 months past due	113,684	1,539	1%
6 months + past due	64,824	31,506	49%
	<u>217,727</u>	<u>35,819</u>	

	2021 R'000	2020 R'000
Movements in the provision for credit losses are as follows:		
Beginning of year	35,819	31,153
Provision for credit losses	7,134	5,629
Receivables written off during the year	(5,119)	(963)
End of year	<u>37,834</u>	<u>35,819</u>

Other receivables are written off where there is no reasonable expectation of recovery. Indicators that there is no reasonable expectation of recovery include, amongst others, the failure of a debtor to engage in a repayment plan with the group and a failure to make contractual payments for a period of greater than 120 days past due.

Credit losses on other receivables are presented within other operating expenses in the statement of profit or loss. Subsequent recoveries of amounts previously written off are credited against the same line item.

Due to the short-term nature of the current receivables, their carrying amount is considered to be the same as their fair value. No collateral is held as security.

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9. Cash and cash equivalents	2021 R'000	2020 R'000
Net cash on hand and at bank	362,015	383,548
Short-term investments		
Cash with fund managers	2,700,259	1,978,348
Short-term deposits	90,644	111,663
	<u>2,790,903</u>	<u>2,090,011</u>
	<u>3,152,918</u>	<u>2,473,559</u>

The weighted average effective interest rate on short-term bank deposits was 4.40% (2020: 5.89%).

Cash balances held by the University of R5.5m (2020: R5.5m) are not available for general use as they are secured as bank guarantees. The carrying amounts of cash and cash equivalent approximate their fair value.

Cash with fund managers includes short-term, highly liquid investments with original maturities of three months or less that are readily convertible and which are subject to an insignificant risk of changes in value.

10. Post-employment benefits

10.1 Defined benefit pension plan

In terms of section 1 of the Income Tax Act of 1962 and registration in terms of the Financial Sector Conduct Authority, the UP Pension Fund is classified as a pension fund. The Fund provides defined benefits payable in a combination of lump sums and pensions on disability, death or retirement. A lump sum is payable on withdrawal. The assets of the UP Pension Fund are held independently of the University's assets in a separate trustee-administered fund. The responsibility for governance of the plan, including investment decisions and contribution schedules, is with the Board of Trustees. The UP Pension Fund is wholly funded and is limited to the existing members. The UP Pension Fund is valued by an independent actuary at least every three years as required by the Pension Fund Act. The latest statutory actuarial valuation was carried out at 31 December 2018. The statutory valuation at 31 December 2021 will be concluded during 2022. Based on the actuarial valuation the assets of the fund are adequate to cover the liabilities associated with the fund.

The asset allocation between the main asset classes is determined by the Fund's Trustees. The investments within each asset class are managed by external investment managers in diversified investment portfolios.

The Fund ensures that the investment positions are managed within an asset-liability matching framework that has been developed to have long term investments that are in line with the associated obligations. Within this framework, the Fund has invested in equities, bonds (local and international), as well as listed property and fixed interest investments whose maturities will match the obligations as they fall due. The Fund does not make use of derivatives to manage its risk. Investments are well diversified to mitigate associated investment risk. There are no entity-specific or plan-specific risks, other than those detailed below, and no significant concentrations of risk.

Asset volatility:

The plan liability is calculated using a discount rate set with reference to government bond yields. If plan assets perform below this yield, this will create a deficit.

Changes in bond yields:

A decrease in government bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plan's bond holdings.

Inflation risk:

The University's pension obligation is linked to inflation and higher inflation will lead to a higher liability. The majority of the plan's assets are either unaffected by (fixed interest bonds) or loosely correlated with (equities) inflation, therefore an increase in inflation will also increase the obligation.

Life expectancy:

The majority of the plan's obligations are to provide benefits for the life of the member, spouse and dependents, so increases in life expectancy will result in an increase in the plan's liability.

The University accounts for post-employment benefits according to its accounting policy note 14.

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	2021 R'000	2020 R'000
Balance at the end of the year		
Present value of funded obligations	(2,078,035)	(1 870 649)
Fair value of plan assets	2,403,595	2,115,537
Defined benefit asset recognised	<u>325,560</u>	<u>244,888</u>

	2021 R'000	2020 R'000
The movement in the defined benefit obligation over the year is as follows:		
Present value of obligation at the beginning of the period	1,870,649	1,967,711
Interest expense	229,475	205,461
Current service cost	23,255	24,831
Member contributions	9,857	11,259
Past service cost	-	4,300
Benefits paid	(164,556)	(210 277)
Remeasurements	109,355	(132,636)
Present value of obligation at the end of the period	<u>2,078,035</u>	<u>1,870,649</u>

As at the last valuation date, the present value of the defined benefit obligation comprised of approximately R800.9m (2020: R763.7mm) relating to active employees, R1,206.3m (2020: R1,084.3) relating to pensioners and R70.8m (2020: R22.6m) relating to the notional pensioner account.

Remeasurements on the obligation are made up of the following:

Loss / (Gains) from change in financial assumptions	69,812	(39,561)
Experience losses / (gains)	39,543	(93,075)
	<u>109,355</u>	<u>(132,636)</u>

	2021 R'000	2020 R'000
The movement in the fair value of plan assets over the year is as follows:		
Fair value of plan assets at the beginning of the period	2,115,537	2,229,614
Interest income	260,398	233,663
Member contributions	9,857	11,259
Employer contributions	20,372	22,620
Benefits paid	(164,556)	(210,277)
Remeasurements: return on plan assets (excluding amounts included in interest income)	161,987	(171,342)
Fair value of plan assets at the end of the period	<u>2,403,595</u>	<u>2,115,537</u>

	2021 R'000	2020 R'000
The amounts recognised in the statement of profit or loss and statement of comprehensive income are as follows:		
Current service cost	23,255	24,831
Past service cost	-	4,300
Interest expense	229,475	205,461
Interest income	(260,398)	(233,663)
Remeasurements on the obligation	109,355	(132,636)
Remeasurements on the plan assets	(161,987)	171,342
	<u>(60,300)</u>	<u>39,635</u>
In profit or loss:		
Net interest (income) on defined benefit plan	(30,923)	(28,202)
Personnel costs: Current service costs	23,255	24,831
In other comprehensive income:		
Remeasurements on defined benefit plan	(52,632)	38,706
Past service costs	-	4,300
	<u>(60,300)</u>	<u>39,635</u>

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The principal actuarial assumptions used were as follows:	2021	2020
Discount rate	12%	12.7%
Pension increase rate	6%	6.0%
Inflation rate	6%	6.0%
Salary inflation at age 35	10%	9.5%
Salary inflation at age 40	9%	9.0%
Salary inflation at age 45	9%	8.5%
Salary inflation at age 60	7%	7.0%
Number of employees who are members of the UP Pension Fund	143	162
Number of pensioners of the UP Pension Fund	678	675
Post-retirement mortality - tables	PA(90)	PA(90)

The asset allocation of the plan assets as at the valuation date is as follows:	2021	2020
SA Equity	6%	8.2%
SA Bonds	66%	59.0%
Listed property, cash and cash equivalents and other	5%	5.7%
International Equity	22%	27.1%

Sensitivity analysis

The defined benefit obligation would be affected by changes in the following actuarial assumptions:

	Change in assumption	Increase assumption	Decrease assumption
Discount rate	1%	Decrease by 9.1%	Increase by 10.8%
Salary growth	1%	Increase by 1.4%	Decrease by 1.3%
Pension growth	1%	Increase by 5.8%	Decrease by 3.5%
Post retirement mortality assumption		2 years older Decrease by 1.8%	2 years younger Increase by 2.4%

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit calculated with the projected unit credit method at the end of the reporting period) has been applied when calculating the pension liability recognised within the statement of financial position.

Estimated employer contributions to be paid for the financial year ending 31 December 2022 is expected to be R25.3m.

There are no special funding arrangements that will affect future contributions.

The weighted average duration of the defined benefit obligation is estimated at 14.5 years.

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10.2 Defined benefit medical plan

The University of Pretoria operates one post-employment medical benefit scheme. In accordance with the existing personnel practice, the Council has undertaken to make certain medical fund contributions on behalf of retired staff and future retirees. The fund is not open to employees joining the University after 1 August 2002. The method of accounting and the frequency of valuations are similar to those used for defined benefit pension schemes. The responsibility for governance of the plan, including investment and contribution schedules, is with the University.

The asset allocation between the main asset classes is determined by the Investment Committee of Council. The investments within each asset class are managed by external investment managers in diversified investment portfolios.

The Fund ensures that the investment positions are managed within an asset-liability matching framework that has been developed to have long term investments that are in line with the associated obligations. Within this framework, the Plan has invested in equities, bonds (local and international) as well as fixed interest investments whose maturities will match the obligations as they fall due. The Plan does not make use of derivatives to manage its risk. Investments are well diversified to mitigate associated investment risk. There are no entity-specific or plan-specific risks, other than those detailed below, and no significant concentrations of risk.

Asset volatility:

The plan liability is calculated using a discount rate set with reference to government bond yields. If plan assets perform below this yield, this will create a deficit.

Changes in bond yields:

A decrease in government bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the Plan's bond holdings.

Inflation risk:

The University's medical obligation is linked to inflation, and higher inflation will lead to a higher liability. The majority of the plan's assets are either unaffected by (fixed interest bonds) or loosely correlated with inflation, meaning that an increase in inflation will also increase the obligation.

Life expectancy:

The majority of the plan's obligation is to provide benefits for the life of the member, spouse and dependents, so increases in life expectancy will result in an increase in the plan's liability.

The University accounts for post-employment benefits according to its accounting policy note 14.

	2021	2020
	R'000	R'000
Balance at the end of the year		
Present value of funded obligations	(1,262,019)	(1,222,876)
Fair value of plan assets	1,685,858	1,446,679
Defined benefit asset recognised	<u>423,839</u>	<u>223,803</u>

	2021	2020
	R'000	R'000
The movement in the defined benefit obligation over the year is as follows:		
Present value of obligation at the beginning of the period	1,222,876	1,244,188
Interest expense	137,388	120,745
Current service cost	13,979	15,189
Benefits paid	(90,979)	(88,665)
Remeasurements	(21,245)	(68,581)
Present value of obligation at the end of the period	<u>1,262,019</u>	<u>1,222,876</u>

As at the last valuation date, the present value of the defined benefit obligation comprised of approximately R345.5m (2020: R337.8m) relating to active employees and approximately R916.5m (2020: R885.1m) relating to pensioners.

Remeasurements on the obligation are made up of the following:

(Gains) from change in financial assumptions	(23,667)	(79,249)
Losses from change in demographic assumptions	2,422	10,668
	<u>(21,245)</u>	<u>(68,581)</u>

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	2021	2020
	R'000	R'000
The movement in the fair value of plan assets over the year is as follows:		
Fair value of plan assets at the beginning of the period	1,446,679	1,501,306
Interest income	167,815	150,131
Benefits paid	(90,979)	(88,665)
Remeasurements: Return on plan assets (excluding amounts included in interest income)	162,343	(116,093)
Fair value of plan assets at the end of the period	<u>1,685,858</u>	<u>1,446,679</u>

	2021	2020
	R'000	R'000
The amounts recognised in the statement of profit or loss and statement of comprehensive income are as follows:		
Current service cost	13,979	15,189
Interest expense	137,388	120,745
Interest income	(167,815)	(150,131)
Remeasurements on the obligation	(21,245)	(68,581)
Remeasurements on the plan assets	(162,343)	116,093
	<u>(200,036)</u>	<u>33,315</u>

In profit or loss:

Net interest (income) on defined benefit plan	(30,427)	(29,386)
Personnel costs: Current service costs	13,979	15,189

In other comprehensive income:

Remeasurements on defined benefit plan	(183,588)	47,512
	<u>(200,036)</u>	<u>33,315</u>

	2021	2020
The principal actuarial assumptions used were as follows:		
Medical cost inflation	9%	9.3%
Discount rate	11%	11.6%
Members - active	513	561
Members - pensioner	1,261	1,261
Retirement age	65 years	65 years
Mortality rate:		
<i>Pre-retirement mortality</i>	Table	Table
Males	SA 72 -77	SA 72 -77
Females (Rated down by 3 years)	SA 72 -77	SA 72 -77
<i>Post-retirement mortality</i>		
Males (Rated down by 1 year)	PA (90)	PA (90)
Females (Rated down by 1 year)	PA (90)	PA (90)
<i>Rate of ill-health early retirement</i>	40% (SA 56-62)	40% (SA 56 -62)
Mortality for ill-health retirements = a normal pensioner 10 years older		

	2021	2020
The asset allocation of the plan assets as at the valuation date is as follows:		
SA Equity	15%	14.5%
SA Bonds	54%	52.4%
International Equity	31%	33.1%

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Sensitivity analysis

The defined benefit obligation would be affected by changes in the following actuarial assumptions:

	Change in assumption	Increase assumption	Decrease assumption
Discount rate	1%	Decrease by 8.6%	Increase by 10.1%
Healthcare cost inflation	1%	Increase by 9.8%	Decrease by 8.5%

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit calculated with the projected unit credit method at the end of the reporting period) has been applied when calculating the medical liability recognised within the statement of financial position.

There are no special funding arrangements that will affect future contributions.

Expected employer contributions to post employment medical benefits plans for the year ending 31 December 2022 is R13.7m.

The discounted weighted average duration of the defined benefit obligation is estimated at 11.2 years.

10.3 Defined benefit/contribution provident plan

In terms of section 1 of the Income Tax Act of 1962 and registration in terms of the Financial Sector Conduct Authority, the UP Provident Fund is classified as a provident fund. The Fund provides lump sum payments to members on retirement, retrenchment and withdrawal. The benefits payable on retirement, retrenchment and withdrawal are defined contribution benefits. The Fund also provides lump sum benefits payable as lifelong pensions on death and recognised disability. The benefits payable on death and on recognised disability are defined benefits. The University of Pretoria Provident Fund is a defined contribution plan, but it also contains a defined benefit component. The responsibility for governance of the Fund, including investment and contribution schedules, is with the Board of Trustees. During 2019, the University established an alternative benefit structure (retirement funding and risk benefits) for employees to adopt on a voluntary basis. Staff were afforded a once-off opportunity to join the FundsAtWork (FAW) Umbrella Provident Fund. The FAW Umbrella Fund is a "defined contribution" fund.

The assets of the UP Provident Fund are held independently of the University's assets in a separate trustee-administered fund. The UP Provident Fund is valued by an independent actuary at least every three years as required by the Pension Fund Act. The latest statutory actuarial valuation was carried out at 31 December 2018. The statutory valuation at 31 December 2021 will be concluded during 2022. Based on the actuarial valuation the assets of the fund are adequate to cover the liabilities associated with the fund.

The asset allocation between the main asset classes is determined by the Fund's Trustees. The investments within each asset class are managed by external investment managers in diversified investment portfolios.

The Fund ensures that the investment positions are managed within an asset-liability matching framework that has been developed to achieve long term investments that are in line with the associated obligations. Within this framework, the Fund has invested in equities, bonds (local and international) as well as listed property and fixed interest investments whose maturities will match the obligations as they fall due. The Fund does not make use of derivatives to manage its risk. Investments are well diversified to mitigate associated investment risk. There are no entity-specific or plan-specific risks, other than those detailed below, and no significant concentrations of risk.

Asset volatility:

The plan liability is calculated using a discount rate set with reference to government bond yields. If plan assets perform below this yield, this will create a deficit.

Changes in bond yields:

A decrease in government bond yields will increase plan liabilities, although this will be partially offset by an increase in the value of the plan's bond holdings.

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Inflation risk:

The University's pension obligation is linked to inflation, and higher inflation will lead to a higher liability. The majority of the plan's assets are either unaffected by fixed (interest bonds) or loosely correlated with inflation, meaning that an increase in inflation will also increase the obligation.

Life expectancy:

The majority of the plan's obligation is to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plan's liability.

The University accounts for post-employment benefits according to its accounting policy note 14.

	2021 R'000	2020 R'000
Balance at the end of the year		
Present value of funded obligations	(4,056,099)	(3,375,573)
Fair value of plan assets	4,066,667	3,386,170
Defined benefit asset recognised	<u>10,568</u>	<u>10,597</u>

The movement in the defined contribution obligation over the year is as follows:

	2021 R'000	2020 R'000
Present value of obligation at the beginning of the period	3,375,573	3,958,531
Interest expense	403,154	382,234
Current service cost	289,494	284,960
Past service cost	241	-
Member contributions - transfer values	33,684	28,014
Benefits paid*	(298,166)	(1,036,291)
Remeasurements	252,119	(241,875)
Present value of obligation at the end of the period	<u>4,056,099</u>	<u>3,375,573</u>

As at the last valuation date, the present value of the defined benefit obligation comprised of approximately R3,568.8m (2020: R2,984.7m) relating to active employees, approximately R287.8m (2020: R247.1m) relating to pensioners, approximately R67.1m (2020: R54.4m) relating to reserves and approximately R132.3m (2020: R89.3m) relating to the notional pensioner account.

*Benefits paid in 2020 includes R695.0m which was transferred out of the Fund through Section 14 transfers to the FundsAtWork umbrella provident fund during the valuation period. This was in respect of members who elected to join the umbrella fund retirement option made available by the University.

Remeasurements on the obligation are made up of the following:

Experience adjustments	252,119	(241,875)
	<u>252,119</u>	<u>(241,875)</u>

The movement in the fair value of plan assets over the year is as follows:

	2021 R'000	2020 R'000
Fair value of plan assets at the beginning of the period	3,386,170	3,958,531
Interest income	404,401	382,234
Employer contributions	159,888	154,987
Member contributions	129,606	129,973
Member contributions - transfer values	33,684	28,014
Benefits paid*	(298,166)	(1,036,291)
Remeasurements: Return on plan assets (excluding amounts included in interest income)	251,084	(231,278)
Fair value of plan assets at the end of the period	<u>4,066,667</u>	<u>3,386,170</u>

* Benefits paid in 2020 includes R695.0m which was transferred out of the Fund through Section 14 transfers to the FundsAtWork umbrella provident fund. This was in respect of members who elected to join the umbrella fund retirement option made available by the University.

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The amounts recognised in the statement of profit or loss and statement of comprehensive income are as follows:	2021 R'000	2020 R'000
Current service cost	289,494	284,960
Past service cost	241	-
Interest expense	403,154	382,234
Interest income	(404,401)	(382,234)
Remeasurements on obligation	252,119	(241,875)
Remeasurements on plan assets	(251,084)	231,278
	<u>289,523</u>	<u>274,363</u>
In profit or loss:		
Net interest expense on defined benefit plan	(1,247)	-
Personnel costs: Current service costs	289,494	284,960
Personnel costs: Past service costs	241	-
In other comprehensive income:		
Remeasurements on defined benefit plan	1,035	(10,597)
	<u>289,523</u>	<u>274,363</u>

The principal actuarial assumptions used were as follows:	2021	2020
Discount rate	11%	11.9%
Pension increase rate	6%	6.0%
Inflation rate	6%	6.0%
Number of employees who are members of the UP Provident Fund	3,203	3 302
Number of pensioners of the UP Provident Fund	332	308
Post-retirement mortality tables (less 1 year plus mortality improvements of 0.5% from 2007)	PA(90)	PA(90)

The asset allocation of the plan assets as at the valuation date are as follows:	2021	2020
SA Equity	28%	27.7%
SA Bonds	18%	17.4%
Listed property, cash and cash equivalents and other	29%	31.9%
International Equity	25%	23.0%

Sensitivity analysis

The defined benefit obligation would be affected by changes in the following actuarial assumptions:

	Change in assumption	Increase assumption	Decrease assumption
Discount rate	1%	No effect	No effect
Pension growth	1%	No effect	No effect
		2 years older	2 years younger
Post retirement mortality assumption		No effect	No effect

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated. When calculating the sensitivity of the defined benefit obligation to significant actuarial assumptions, the same method (present value of the defined benefit calculated with the projected unit credit method at the end of the reporting period) has been applied when calculating the provident liability recognised within the statement of financial position.

Estimated employer contributions to be paid for the financial year ending 31 December 2022 is R188.4m.

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The University has approved annual increases, effective 1 April 2017, in contributions to the provident fund of 1% (0.5% contribution by the University and 0.5% contribution by employees) for a period of 5 years. Employees were requested to take up this option on or before 28 February 2017. The total increase in contribution, phased in over 5 years will therefore be 5% per employee.

The weighted average duration of the defined benefit obligation is estimated at 11.5 years.

10.4 Group life assurance liability

The University provides an insured group life benefit of 4 times annual salary for all employees, payable on the death of the employee. When an employee retires, he/she can elect to remain on the scheme from retirement up to age 70 years. The post retirement benefit remains at 4 times annual salary until age 65. Between age 65 and 70, the benefit however reduces to 1 times annual salary. The employer pays 75% of the scheme premium and the employee pays 25%.

There are no entity-specific or plan-specific risks, other than those detailed below, and no significant concentrations of risk.

Inflation risk:

The University's obligation is linked to inflation, and higher inflation will lead to a higher liability.

Life expectancy:

The majority of the obligations are to provide benefits for the life of the member, so increases in life expectancy will result in an increase in the plan's liability.

The University accounts for post-employment benefits according to its accounting policy note 14.

	2021 R'000	2020 R'000
Balance at the end of the year		
Present value of obligations	78,432	39,572
Investments designated to set-off liability*	-	(39,572)
Net obligation	<u>78,432</u>	<u>-</u>

*In the current year, management reassessed the set-off of the Group Life Assurance liability. The University previously designated investments to meet the potential liability. In practice the payment of the annual scheme subsidies is funded from revenue generated in the Council Controlled Unrestricted Operating Fund. As a result, the liability is no longer offset.

	2021 R'000	2020 R'000
The movement in the defined benefit obligation over the year is as follows:		
Present value of obligation at the beginning of the period	39,572	41,898
Interest expense	4,729	4,372
Current service cost	2,849	3,213
Past service cost	192	177
Benefits paid	(3,049)	(2,861)
Remeasurements on obligation	34,139	(7,227)
Present value of obligation at the end of the period	<u>78,432</u>	<u>39,572</u>

As at the last valuation date, the present value of the obligation comprised of approximately R58.4m (2020: R20.0m) relating to active employees and R20.0m (2020: R10.5m) relating to retired employees.

Remeasurements on the obligation are made up of the following:

Loss / (gains) from change in financial assumptions	3,566	(5,343)
Experience loss / (gains)	30,573	(1,884)
	<u>34,139</u>	<u>(7,227)</u>

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The amounts recognised in the statement of profit or loss and statement of comprehensive income are as follows:	2021 R'000	2020 R'000
Employer contribution	3,041	3,390
Interest expense	4,729	4,372
Remeasurements on obligation	34,139	(7,227)
	<u>41,909</u>	<u>535</u>
In profit or loss:		
Net interest expense	4,729	4,372
Personnel costs: Current service costs	2,849	3,213
Personnel costs: Past service costs	192	-
In other comprehensive income:		
Remeasurements on obligation	34,139	(7,227)
Personnel costs: Past service costs	-	177
	<u>41,909</u>	<u>535</u>

The principal actuarial assumptions used were as follows:	2021	2020
Discount rate	11%	12.0%
Pension increase rate	6%	6.0%
Inflation rate	6%	6.0%
Salary inflation at age 35	10%	9.5%
Salary inflation at age 40	9%	9.0%
Salary inflation at age 45	9%	8.5%
Salary inflation at age 65	7%	7.0%
Number of employees who are expected to take up the GLA benefit	4,951	5,017
Number of retirees	441	446
Post-retirement mortality tables (less 1 year plus mortality improvements of 0.5% from 2007)	PA(90)	PA(90)

Sensitivity analysis

The group life assurance obligation would be affected by changes in the following actuarial assumptions:

	Change in assumption	Increase assumption	Decrease assumption
Interest rate	1%	Decrease by 7.4%	Increase by 8.4%
Premium rate	10%	Increase by 10%	Decrease by 10%

Reducing the resignation rate assumption by 50% results in an increase to the obligation of 4.9%.

The above sensitivity analyses are based on a change in one assumption while holding all other assumptions constant. In practice, this is unlikely to occur, and changes in some of the assumptions may be correlated.

Estimated employer contributions to be paid for the financial year ending 31 December 2022 is R5.6m.

The weighted average duration of the defined benefit obligation is estimated at 12.0 years.

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10.5 Fair value of post-employment benefit obligations

The following table analyses the obligation on post-employment benefits carried at fair value by valuation method. The different levels have been defined as follows:

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

	Level 1	Level 2	Level 3	Total 2021
	R'000	R'000	R'000	R'000
Post-employment benefit obligation	-	-	(7,474,585)	(7,474,585)
Pension plan obligation	-	-	(2,078,035)	(2,078,035)
Medical plan obligation	-	-	(1,262,019)	(1,262,019)
Group life assurance obligation	-	-	(78,432)	(78,432)
Provident plan obligation	-	-	(4,056,099)	(4,056,099)

The present value of the defined benefit calculated with the projected unit credit method at the end of the reporting period has been applied when calculating the pension, medical, provident and group life liabilities recognised within the statement of financial position.

The following table outlines the effect of unobservable inputs on the fair value of the post-employment benefit obligations:

Description	Valuation techniques	Unobservable inputs	Range of unobservable inputs (probability - weighted average)	Relationships of unobservable inputs to fair value
Pension plan obligation	Projected unit credit method	Discount rate	12.0% per annum (13-year Government bond)	The higher the discount rate, the lower the obligation
		Inflation rate	6.0% per annum	The higher the inflation rate, the higher the obligation
		Salary increase rate	7.0% per annum	The higher the salary growth, the higher the obligation
		Pension increase rate	6.0% per annum	The higher the pension growth, the higher the obligation
		Duration of the fund obligation	Estimated at 14.5 years	The higher the duration of the fund liabilities, the lower the obligation
Post - employment medical plan obligation	Projected unit credit method	Discount rate	11.0% per annum	The higher the discount rate, the lower the obligation
		Medical cost inflation	9.0% per annum	The higher the inflation rate, the higher the obligation
		Duration of the fund obligation	Estimated at 11.2 years	The higher the duration of the fund liabilities, the lower the obligation
Provident plan obligation	Projected unit credit method	Discount rate	11.2% per annum (11.75-year Government bond)	The higher the discount rate, the lower the obligation
		Inflation rate	6.0% per annum	The higher the inflation rate, the higher the obligation
		Pension increase rate	6.0% per annum	The higher the pension growth, the higher the obligation
		Duration of the fund obligation	Estimated at 11.5 years	The higher the duration of the fund liabilities, the lower the obligation
Group life assurance obligation	Projected unit credit method	Discount rate	11.4% per annum	The higher the discount rate, the lower the obligation
		Inflation rate	6.0% per annum	The higher the inflation rate, the higher the obligation
		Salary increase rate	7.0% per annum	The higher the salary growth, the higher the obligation
		Duration of the scheme obligation	Estimated at 12.25 years	The higher the duration of the fund liabilities, the lower the obligation

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11. Lease liabilities	2021 R'000	2020 R'000
Non-current liabilities	221	1,061
Current liabilities	1,479	1,887
	<u>1,700</u>	<u>2,948</u>

It is group policy to lease office equipment under leases. The average lease term is two to three years for office equipment and the average effective borrowing rate is 6.0%.

12. Trade payables, accruals and other liabilities	2021 R'000	2020 R'000
Financial liabilities		
Trade payables	355,037	306,808
Accrued expenses	175,641	163,597
Payroll	2,998	3,525
Other payables	29,455	30,369
	<u>563,131</u>	<u>504,299</u>
Non-financial liabilities		
Leave with gratuity value	9,957	10,035
Non-accumulative leave	277,237	276,576
	<u>287,194</u>	<u>286,611</u>
	<u>850,325</u>	<u>790,910</u>

The carrying amounts of trade and other payables are considered to be the same as their fair values, due to their short-term nature.

Accrued expenses includes statutory payments relating to the December payroll and expenses incurred on various contract projects.

Leave accrual

Members of staff with leave with gratuity value to their credit at the end of 2006 had a choice of either disbursing the accumulated leave (as at 31 December 2006) to them at the end of March 2007 or to retain such leave credits in the system at the value as determined above. Leave credits retained will be disbursed to the relative staff member upon termination of service or on request at any time after March 2007, at the value as at 31 December 2006. As it is difficult to predict which portion of the liability will be disbursed to staff in future periods, the total accrual is treated as current.

The portion of non-accumulative leave that is not used within a period of twelve months, expires at the end of the period. For this reason, the non-accumulative leave is treated as current.

Due to COVID-19 the University extended the leave forfeiture period by a further three months limited to a maximum of 20% of each employee's leave balance.

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13. Deferred income

	Asset grants income R'000	Other grants income R'000	Total 2021 R'000	Total 2020 R'000
At 1 January	1,660,190	898,910	2,559,100	2,313,773
Deferred:				
Income received during the year	10,005	874,061	884,066	992,351
Income recognised during the year	(17,241)	(850,254)	(867,495)	(747,024)
As at 31 December	1,652,954	922,717	2,575,671	2,559,100
Current	17,241	922,717	939,958	914,246
Non-current	1,635,713	-	1,635,713	1,644,854
	1,652,954	922,717	2,575,671	2,559,100

Asset grant income

Grants relating to infrastructure are received in advance. Once the infrastructure is complete and "ready for use" the grant is recognised as income over the expected useful life of the asset. The balance is recognised as deferred income in the statement of financial position.

Other grant income

The group recognises grants received to compensate for expenses incurred, as income. These grants are subject to different requirements and are recognised over a period per the terms of the grant. The recognition of this income is limited to the expenses incurred. The balance is recognised as deferred income in the statement of financial position.

14. Contract liabilities

	Contractual income R'000	Tuition income R'000	Total 2021 R'000	Total 2020 R'000
At 1 January	106,617	127,303	233,920	123,082
Deferred:				
Income received during the year	80,342	87,544	167,886	214,697
Income recognised during the year	(102,814)	(109,607)	(212,421)	(103,859)
As at 31 December	84,145	105,240	189,385	233,920

Commercial contract income is recognised when the performance obligations have been met in the financial period in which the service is rendered. If the services rendered exceed the payments, a contract asset is recognised. If the payment exceeds the services rendered, a contract liability is recognised.

Tuition fee income is recognised over a period of time, based on services rendered as a percentage of total services to be rendered. If at the end of the annual financial year performance obligations remain outstanding a contract liability is recognised for any consideration received for such services.

Transaction price allocated to:

The aggregate amount of the transaction price allocated to long-term contracts with customers, that are partially fulfilled at the end of the accounting period, is expected to be fulfilled during the following financial years:

	2021 R'000	2020 R'000
2021	-	214,946
2022	142,309	6,389
2023	41,215	12,585
2024	5,861	-
	189,385	233,920

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15. Student credits and deposits	2021	2020
	R'000	R'000
Students enrolled for current year	244,467	236,607
Students enrolled for previous years	153,959	111,382
Student deposits	174	1,161
Other deposits	4,569	2,439
	<u>403,169</u>	<u>351,589</u>

Refer to note 31.1 for an analysis of student credits and deposits into relevant maturity groupings based on the remaining period.

16. Agency funds	2021	2020
	R'000	R'000
DHET monitoring and evaluation funds	86,813	43,247
Estate funds	18,737	13,358
External bursaries	26,261	27,728
NSFAS student funding*	229,321	-
SRC club assets	8,389	6,516
Other	8,231	6,036
	<u>377,752</u>	<u>96,885</u>

*During 2021 a reconciliation was performed between NSFAS receipts and student disbursements/allocations. This process resulted in an amount owing to NSFAS relating to prior years, up to and including 2020. This has been accounted for in the current year. Amounts relating to the 2021 funding cycle are still in the process of being reconciled. The amount owing to NSFAS is subject to change depending on student funding statuses.

17. Revenue

The group disaggregates the revenue from customers as follows:

17.1 State appropriations - subsidies and grants	2021	2020
	R'000	R'000
Subsidy - Block grant	2,840,343	2,795,634
Veterinary Sciences grant	168,812	168,895
Foundation grant	22,948	19,818
Clinical Training grant	64,841	81,094
University Capacity Development grant	35,101	27,658
nGap Lecturer grant	9,945	16,731
	<u>3,141,990</u>	<u>3,109,830</u>

The total amount of state subsidies deferred during the year was R81.8m (2020: R89.9m). State appropriations - subsidies and grants received by the University are accounted for as grants related to income.

17.2 Tuition and other fee income	2021	2020
	R'000	R'000
Tuition fee income:		
Undergraduate	1,706,497	1,561,590
Postgraduate	349,524	298,996
	<u>2,056,021</u>	<u>1,860,586</u>
Accommodation and food income	405,966	421,570
	<u>2,461,987</u>	<u>2,282,156</u>

The sector was limited to a 4.7% increase in tuition fees and a 6.7% increase in accommodation fees for 2021.

Bursaries, awarded by the University, amounting to R136.1m (2020: R128.8m) were offset against tuition fee income. Total bursaries and loans awarded, controlled and administered by the University, on behalf of third parties and the University amounts to R2,156.7m (2020: R1,867.9m).

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17.3 Income from contracts and services	2021	2020
	R'000	R'000
Training services	355,522	251,744
Research services	952,888	722,205
Other services	193,190	277,296
	<u>1,501,600</u>	<u>1,251,245</u>
17.4 Donations and gifts	2021	2020
	R'000	R'000
Donations and gifts received from external parties	<u>152,297</u>	<u>201,211</u>
17.5 Timing of revenue recognition	2021	2020
	R'000	R'000
At a point in time	182,965	224,141
Over a period of time	7,074,909	6,620,301
	<u>7,257,874</u>	<u>6,844,442</u>
18. Interest and dividends	2021	2020
	R'000	R'000
Interest income	149,417	149,811
Dividend income	192,818	171,722
	<u>342,235</u>	<u>321,533</u>
19. Net interest income on defined benefit/contribution plans	2021	2020
	R'000	R'000
Defined benefit pension plan		
Interest expense	229,475	205,461
Interest (income)	(260,398)	(233,663)
Net interest (income)	<u>(30,923)</u>	<u>(28,202)</u>
Post-employment medical plan		
Interest expense	137,388	120,745
Interest (income)	(167,815)	(150,131)
Net interest (income)	<u>(30,427)</u>	<u>(29,386)</u>
Defined contribution provident plan		
Interest expense	403,154	382,234
Interest (income)	(404,401)	(382,234)
Net interest (income)	<u>(1,247)</u>	<u>-</u>
Group life assurance scheme		
Interest expense	<u>4,729</u>	<u>4,372</u>
Net interest (income) recognised in the statement of profit or loss.	<u>(57,868)</u>	<u>(53,216)</u>
20. Net fair value gains on financial assets	2021	2020
	R'000	R'000
During the year, the following gains were recognised in profit or loss and other comprehensive income:		
Gains recognised in the statement of profit or loss:		
Net fair value gains on financial assets	93,242	70,730
	<u>93,242</u>	<u>70,730</u>
Gains recognised in other comprehensive income:		
Net fair value gains on financial assets	2,957,789	787,180
	<u>2,957,789</u>	<u>787,180</u>

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	2021	2020
	R'000	R'000
21. Personnel costs		
Salaries and wages	3,781,307	3,685,092
Current and past service costs: defined benefit pension plan (refer note 10.1)	23,255	29,131
Current service costs: defined benefit medical plan (refer note 10.2)	13,979	15,189
Current and past service costs: defined contribution provident plan (refer note 10.3)	289,735	284,960
Current and past service costs: group life assurance scheme (refer note 10.4)	3,041	3,567
	4,111,317	4,017,939
Personnel costs	4,109,177	3,951,969
Non-accumulative leave accrual	2,140	65,970
	4,111,317	4,017,939
The number of persons employed by the group on 31 December is:		
Full-time	5,708	6,377
Part-time (more than 15 hours per week)	498	373
Joint appointments - Full-time	434	442
Joint appointments - Part-time (more than 15 hours per week)	8	11
	6,648	7,203
22. Other operating expenses		
	2021	2020
	R'000	R'000
The following items have been included in other operating expenses:		
Auditor's remuneration - as auditor	7,925	7,800
- as other	3,671	3,489
Bad debts	53,492	56,062
Consultants	131,780	122,747
Consumables	39,345	32,223
Foreign exchange differences	1,034	1,763
Inventory expensed during the year	80,632	62,706
IT related expenditure	210,894	169,386
Library material and online educational resources	112,634	110,937
Municipal charges - rates, taxes, water and electricity	264,041	191,851
Repairs and maintenance	201,351	169,317
Research expenses	97,564	73,571
Travel and subsistence	45,309	43,369
23. Taxation		
	2021	2020
	R'000	R'000
The University is exempt from income tax in terms of section 10(1)(cA)(i) of the Income Tax Act. However, some of the subsidiaries of the University are not exempt from income tax.		
SA normal tax		
Current tax	(3)	(175)
Deferred tax	-	198
	(3)	23
Tax reconciliation		
Current year temporary differences	147	97
Under-provision of deferred tax in prior years	(147)	101
Under-provision of current tax in prior years	(3)	(175)
Income tax for the year	(3)	23

TuksSport (Pty) Ltd and its subsidiary TS Soccer (Pty) Ltd, have tax losses of R68.0m (2020: R53.1m). No deferred tax assets have been raised for the assessed tax losses. TuksSport (Pty) Ltd is a wholly owned subsidiary of the University of Pretoria.

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24. Contingent liabilities

Legal actions

Management is not aware of any ongoing significant legal matters.

25. Contractual obligations in respect of expenses

	2021	2020
	R'000	R'000
The following commitments existed on 31 December in respect of contracts concluded and orders placed:		
Buildings	116,114	87,914
Operating expenditure, including movable assets	50,932	74,299

26. Cash generated from operations

	2021	2020
	R'000	R'000
Reconciliation of surplus to cash generated from operations:		
Surplus before tax	914,878	1,016,885
Adjustments for:		
Depreciation	232,328	229,207
Amortisation	8,299	7,425
Net interest income on defined benefit/contribution plans	(57,868)	(53,216)
Current service cost on defined benefit/contribution plans	329,577	328,193
Past service cost on defined benefit/contribution plans	433	4,477
Contributions on defined benefit/contribution plans	(309,433)	(307,580)
Benefits paid on group life liability	(3,049)	(2,861)
Loss on disposal of property, plant and equipment	2,616	5,182
Share of loss of associate	(317)	(179)
Dividend income	(192,818)	(171,722)
Interest income	(149,417)	(149,811)
Finance expense	206	619
Net fair value adjustment on investments	(93,242)	(70,730)
Changes in working capital	295,485	403,465
(Increase) in trade and other receivables	(73,988)	(24,455)
Decrease in non-current loans and receivables	3,928	1,110
Increase/(decrease) in inventories	1,647	(6,861)
Increase in trade and other payables and other liabilities	83,031	417,697
Increase in agency funds	280,867	15,974
Cash generated from operations	977,678	1,238,351

27. Related parties

27.1 Key management personnel

The following are considered to be related parties to the University:

- University Council members; and
- Management, comprising the Executive, Deans of faculties, Directors of professional service departments and Directors of subsidiaries.

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Compensation paid to key management and members of Council:

	Members of Council	Management	2021	2020
	R'000	R'000	R'000	R'000
Salaries and other short-term employee benefits	551	97,428	97,979	99,281
Post-employment benefits	-	8,814	8,814	8,541

27.2 Subsidiaries and associates

The University of Pretoria controls and owns 100% of the shares of the following companies:

- Enterprises University of Pretoria (Pty) Ltd
- Marti TB Diagnostics (Pty) Ltd
- Stratoscience (Pty) Ltd (dormant)
- TuksSport (Pty) Ltd
- University of Pretoria Clinical Services (Pty) Ltd
- Venture Laboratories (Pty) Ltd (dormant)

The University of Pretoria controls and owns 27.22% of the shares of Insiava (Pty) Ltd.

The University of Pretoria owns 50% of the shares of SERA (Pty) Ltd which is in the process of being liquidated.

The University of Pretoria is the sole beneficiary of the following Trusts:

- Arts Centre Foundation Trust
- Eduardo Villa Trust
- Enterprises @ University of Pretoria Trust (dormant)
- Gauteng Software Incubator Trust (dormant)

The University of Pretoria controls the following Non-Profit entities:

- Nuclear Medicine Research Infrastructure NPC
- The Gordon Institute of Business Science (dormant)
- The National Exotic Leather Cluster (SA)
- TuksSport Study Centre NPC
- TuksNovation NPC

The University of Pretoria controls 100% of the University of Pretoria Foundation - Delaware (USA).

Enterprises University of Pretoria (Pty) Ltd owns the following shareholding:

- 30% in Bookmark at UP (Pty) Ltd
- 100% in Medical Services (Pty) Ltd (dormant)

TuksSport (Pty) Ltd owns 100% of the shares of the following companies:

- Play 4 Sport (Pty) Ltd (dormant)
- TS Soccer (Pty) Ltd

SERA (Pty) Ltd owns 50% of the shares of the following company:

- SERA Fund Managers (Pty) Ltd (dormant)

27.3 Post-employment contribution and benefit plans

University of Pretoria Pension Fund
 University of Pretoria Post-employment Medical Benefit Fund
 University of Pretoria Provident Fund
 FundsAtWork Umbrella Provident Fund
 University of Pretoria Post Retirement Group Life Assurance Fund

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27.4 Transactions with related parties

No transactions other than loans, lease of buildings, administration fees and management contracts have taken place between the University of Pretoria and its subsidiaries. All inter-group transactions were eliminated on consolidation.

	2021	2020
	R'000	R'000
The following transactions were carried out with related parties:		
<i>Income received from associates:</i>		
Insiava (Pty) Ltd	13	31
<i>Employer contributions paid to:</i>		
University of Pretoria Provident Fund	159,888	154,987
University of Pretoria Pension Fund	20,372	22,620
Amounts receivable at year end:		
<i>Associates</i>		
Insiava (Pty) Ltd	725	725
Loan accounts:		
<i>Associates</i>		
Insiava (Pty) Ltd	15,915	15,915
SERA (Pty) Ltd	18,116	18,116
Provision for impairment:		
<i>Associates</i>		
Insiava (Pty) Ltd	15,915	15,915
SERA (Pty) Ltd	18,116	18,116

The loans are unsecured, bear no interest and do not have defined repayment terms.

28. Investment in associate companies

	2021	2020
	R	R
Shares at cost		
SERA (Pty) Ltd - Unlisted	50	50
Bookmark at UP (Pty) Ltd - Unlisted	429	429
Insiava (Pty) Ltd - Unlisted	5,000,750	5,000,750
Share of accumulated profit/(loss) since acquisition		
SERA (Pty) Ltd - Unlisted	(50)	(50)
Bookmark at UP (Pty) Ltd - Unlisted	1,494,959	1,812,285
	<u>1,494,909</u>	<u>1,812,235</u>

The group's share of losses in Insiava (Pty) Ltd exceeds its interest in the associate (including unsecured receivables). The group does not recognise further losses.

	2021	2020	2021	2020
	Percentage	Percentage	No of	No of
	control	control	shares held	shares held
SERA (Pty) Ltd - Unlisted	50%	50%	50	50
Bookmark at UP (Pty) Ltd - Unlisted	30%	30%	429	429
Insiava (Pty) Ltd - Unlisted	27%	27%	100 915	100 915

- The University's interests in Bookmark at UP (Pty) Ltd is accounted for using the equity method.
- The University has significant influence but not control over the SERA (Pty) Ltd.

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The aggregate assets, liabilities and results of operations of associate companies for the financial year ended 31 December 2021 are summarised as follows:

	Insiava (Pty) Ltd*	SERA (Pty) Ltd**	Bookmark at UP (Pty) Ltd***	Total 2021
	R'000	R'000	R'000	R'000
Total assets	3 208	2 169	2,923	8,300
Total liabilities	24 521	(18,168)	755	7,108
Revenue	2 239	-	2,197	4,436
(Loss)/Profit after tax	(445)	-	(317)	(762)

The aggregate assets, liabilities and results of operations of associate companies for the financial year ended 31 December 2020 are summarised as follows:

	Insiava (Pty) Ltd*	SERA (Pty) Ltd**	Bookmark at UP (Pty) Ltd***	Total 2020
	R'000	R'000	R'000	R'000
Total assets	2,506	2,413	3,175	8,094
Total liabilities	23,373	(18,131)	687	5,929
Revenue	201	-	4,477	4,678
(Loss)/Profit after tax	(2,210)	114	(179)	(2,275)

*The financial year-end of Insiava (Pty) Ltd is 31 December. Results indicated above are based on audited financial statements for the year ended 31 December 2021.

**The financial year-end of SERA (Pty) Ltd is 31 March. Results indicated above are based on unaudited financial statements for the year ended 31 March 2021.

***The financial year-end of Bookmark (Pty) Ltd is 30 September. Results indicated above are based on financial statements for the year ended 30 September 2021.

29. Financial assets and financial liabilities by category

	Financial assets at amortised cost	Financial assets at fair value through P&L	Financial assets at fair value through OCI	Total 2021
31 December 2021	R'000	R'000	R'000	R'000
Assets as per statement of financial position:				
Investments (refer note 4)*	2,600	1,356,549	14,377,329	15,736,478
Non-current loans and receivables (refer note 6)**	11,961	-	-	11,961
Trade and other receivables (refer note 8)**	557,454	-	-	557,454
Cash and cash equivalents (refer note 9)**	3,152,918	-	-	3,152,918
	<u>3,724,933</u>	<u>1,356,549</u>	<u>14,377,329</u>	<u>19,458,811</u>

	Financial liabilities at amortised cost	Total 2021
	R'000	R'000
Liabilities as per statement of financial position:		
Lease liabilities (refer to note 11)**	1,700	1,700
Trade payables, accruals and other liabilities (refer note 12)**	563,131	563,131
Student credits and deposits (refer to note 15)**	403,169	403,169
Agency funds (refer to note 16)**	377,752	377,752
	<u>1,345,752</u>	<u>1,345,752</u>

Level in fair value hierarchy:

* - Levels 1, 2 and 3

** - Level 3

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	Financial assets at amortised cost	Financial assets at fair value through P&L	Financial assets at fair value through OCI	Total 2020
31 December 2020	R'000	R'000	R'000	R'000
Assets as per statement of financial position:				
Investments (refer note 4)*	2,523	1,226,463	11,117,287	12,346,273
Non-current loans and receivables (refer note 6)**	15,889	-	-	15,889
Trade and other receivables (refer note 8)**	482,428	-	-	482,428
Cash and cash equivalents (refer note 9)**	2,473,559	-	-	2,473,559
	2,974,399	1,226,463	11,117,287	15,318,149
Liabilities as per statement of financial position:				
			Financial liabilities at amortised cost	Total 2020
			R'000	R'000
Lease liabilities (refer to note 11)**			2,948	2,948
Trade payables, accruals and other liabilities (refer note 12)**			470,405	470,405
Student credits and deposits (refer to note 15)**			351,589	351,589
Agency funds (refer to note 16)**			96,885	96,885
			921,827	921,827

Level in fair value hierarchy"

* - Levels 1, 2 and 3

** - Level 3

30. Credit quality of financial assets

	2021 R'000	2020 R'000
Cash at bank and short-term deposits		
Fitch Ratings or equivalent (national short term):		
F1+	3,133,077	2,444,727
BBB+	19,841	28,832
Total cash and cash equivalents (refer note 9)	3,152,918	2,473,559
Listed bonds and other		
Government	31,473	30,342
AAA (Government guaranteed)	803	-
AAA (Non-Government)	41,752	14,716
AA	187,655	310,417
A	438,864	398,709
BBB	114,515	88,980
BB	182,083	108,839
B	102,737	77,510
CCC	12,912	11,854
D	7,230	-
Unrated	456	442
Total bonds and other (refer note 4.2)	1,120,480	1,041,809

Bonds are placed with Ninety One, Coronation Fund Managers and Futuregrowth Asset Management, and consist of South African government, parastatal, corporate and inflation-linked bonds, as well as infrastructure and development bonds.

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31. Risk management

The group is exposed to a variety of financial risks: market risk (including foreign currency risk, interest rate risk and price risk), capital risk, credit risk and liquidity risk.

A Risk Management Committee, comprising certain members of the Executive Committee, Deans and Directors identifies, evaluates and co-ordinates the management of strategic risks faced by the University. Risk management processes are reviewed regularly for continuing relevance and effectiveness. The Risk Management Committee reports to the Executive Committee and to the Audit, IT and Risk Committee of Council. A report on the risk management process that is being followed, as well as a summary of the risk register, are presented to the Audit, IT and Risk Committee, Standing Committee of Council and to the Council of the University on a regular basis.

The group varies its investment philosophy based on longer term investment and liability requirements and the risk profile. To this end two portfolios have been established, namely:

- Long Term Capital (LTC) Portfolio – Long term investing (at least 5 years) where the investment objective and risk constraint is set relative to consumer price inflation.
- Money Market Portfolio – Short-term investing (2 years and less) where the investment objective and risk constraint is set relative to short term interest rates and a high degree of capital security.

31.1 Financial risk factors

A. Market risk

(i) Foreign currency risk

The group has limited foreign exchange exposure in respect of normal operating activities. Foreign investments and foreign bank balances are subject to exchange rate fluctuations. The carrying amount of financial instruments that are exposed to foreign currency risk are as follows:

	2021	2020
	R'000	R'000
Foreign securities (USD)	9,262,638	6,991,064
Foreign securities (EURO)	290,149	239,524
	9,552,787	7,230,588
 <i>Foreign currency sensitivity analysis</i>		
	2021	2020
	R'000	R'000
	± 10%	± 10%
Foreign investments (USD)	926,264	699,106
Foreign investments (EURO)	29,015	23,952
Total	955,279	723,058

At 31 December 2021, if the USD and the EURO had strengthened by 10% against the Rand with all other variables held constant, the surplus for the year would have been R955.3m (2020: R723.1m) higher, as a result of a Rand increase in the fair value of USD and EURO denominated investments. If the USD and EURO had weakened by 10% against the Rand with all other variables held constant, the surplus for the year would have been R955.3m (2020: R723.1m) lower, as a result of a Rand decrease in the fair value of USD and EURO denominated investments. The 10% variation in the exchange rate is based on the average forward rate for 12 months in respect of the underlying currencies.

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(ii) Price risk

The group is exposed to equity securities price risk because of investments held by the group and classified as investments at fair value through other comprehensive income. The group is not directly exposed to commodity price risk. To manage its price risk arising from investments in equity securities, the group diversifies its portfolio. Diversification of the portfolio is done in accordance with the limits set by the Investment Committee of Council.

Price sensitivity analysis

Listed equities

	2021	2020
	R'000	R'000
	± 10%	± 10%
	1,400,071	1,087,304

At 31 December 2021, if the FTSE/JSE CAPI index increased/decreased by 10% with all other variables held constant and all the group's equity instruments moved according to the historical correlation with the index, the other comprehensive income for the year would have been R1,400.1m (2020: R1,087.3m) higher/lower. Due to the unpredictability of equity market returns, a general indicative percentage of 10% is used to highlight the changes in market value on equity investments.

(iii) Interest rate risk

The group has significant interest-bearing assets but no significant interest-bearing liabilities. The group's income and operating cash flows are substantially independent of changes in market interest rates. Interest rate risk is mitigated by means of a diversified investment portfolio comprising of various different asset classes and investment managers.

Interest rate sensitivity analysis

Cash, bank and cash equivalents (variable rate financial assets)

	2021	2020
	R'000	R'000
	± 50 basis	± 50 basis points
	15,765	12,368

At 31 December 2021, if the interest rate had been 50 basis points higher/lower, the surplus would have been R15.8m (2020: R12.4m) higher/lower. The increase/decrease of 50 basis points in the interest rate is based on the assumption that interest rates on average may increase/decrease in increments of 50 basis points at a time.

B. Credit risk

Potential concentrations of credit risk consist mainly of short-term cash, cash equivalent investments, student loans, trade receivables, other receivables, debt securities classified as investments at fair value through profit and loss and investments carried at amortised cost. The maximum exposure to credit risk is represented by the carrying amount of all financial assets subject to credit risk.

(i) Loans and receivables

Receivables comprise outstanding student fees, student loans and various customers, dispersed across different industries and geographical areas. The group is exposed to credit risk arising from student receivables related to outstanding fees. This risk is mitigated by requiring students to pay an initial instalment in respect of tuition and accommodation fees at registration, the regular monitoring of outstanding fees and the institution of debt collection action in cases of long outstanding amounts. In addition, students with outstanding balances from previous years of study are only permitted to renew their registration after either the settling of the outstanding amount or the conclusion of a formal payment arrangement.

The University assists a limited number of financially needy students with loans. Although this represents a credit risk, the risk is mitigated by means of two guarantees required per student loan agreement. Credit valuations are performed on the financial condition of customers other than students.

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The group considers the probability of default upon initial recognition of an asset and whether there has been a significant increase in credit risk on an ongoing basis throughout each reporting period. To assess whether there is a significant increase in credit risk, the group compares the risk of a default occurring on the asset as at the reporting date with the risk of default as at the date of initial recognition. It considers available reasonable and supportive forward-looking information such as actual or expected significant adverse changes in the sector, financial or economic conditions that are expected to cause a significant change to the debtor's ability to meet its obligations and macroeconomic information (interest rates and unemployment data).

A default on a financial asset is when the debtor fails to make contractual payments within 30 days of when they fall due.

A significant increase in credit risk is presumed if a student is overdue in making contractual payments and has completed their studies or has deregistered.

For detail regarding the nature of credit risk and expected credit losses of loans and receivables, refer to notes 6 and 8.

(ii) Investments and cash and cash equivalents

The group places long-term and short-term investments with reputable financial institutions. A multi-manager approach is followed for the management of investments in order to limit investment risk. Funds are invested with twenty-three divergent portfolio managers (eleven local and twelve foreign), with specialist mandates developed to contain risk within set parameters. In order to hedge investment funds against fluctuations, the University invests some of the available funds abroad.

The group is also exposed to credit risk in relation to debt investments that are measured at fair value through profit or loss. The group's investments in debt instruments are considered to be low risk investments. The credit ratings of the investments are monitored for credit deterioration. Refer to note 30 for detail on the credit quality of financial assets. Other instruments are considered to be low credit risk where they have a low risk of default and the issuer has a strong capacity to meet its contractual cash flow obligations in the near term. The maximum exposure at the end of the reporting period is the carrying amount of these investments, R1,120.5m (2020: R1,041.8m).

Cash and cash equivalents, investments at fair value through profit or loss and investments carried at amortised cost are subject to the impairment requirements of IFRS 9. The identified impairment loss was immaterial as these are held at reputable financial institutions with a low probability of default. No impairment losses have been recognised for these assets.

C. Liquidity risk

The group has minimised liquidity risk through substantial balances of cash and cash equivalents. The group manages a cash budget that is continually updated and reported to the Investment Committee of Council.

Cash requirements are based on a working capital budget, which in-turn is based on a break-even Council approved annual budget. Spending within the University structure is controlled through fund accounting and commitment control, which limits overall spending to the budgeted figures as approved by Council.

Management monitors rolling forecasts of cash and cash equivalents on the basis of expected cash in-flows and out-flows, while considering the level of liquid assets available to meet these requirements. A portfolio of long-term and short-term investments are strategically managed to ensure accessibility to cash funding.

The table below analyses the group's financial liabilities into relevant maturity groupings based on the remaining period at the statement of financial position date to the contractual maturity date. The amounts disclosed in the table are the undiscounted cash flows. Balances due within a year equal their carrying amount as the impact of discounting is not significant.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
NOTES TO THE CONSOLIDATED FINANCIAL STATEMENTS
FOR THE YEAR ENDED 31 DECEMBER 2021

At 31 December 2021

	Less than 1 year R'000	Between 2-3 years R'000	Between 4-5 years R'000	More than 5 years R'000
Agency funds	377,752	-	-	-
Lease liabilities	1,482	315	-	-
Student credits and deposits	403,169	-	-	-
Trade payables, accruals and other liabilities	563,131	-	-	-
	1,345,534	315	-	-

At 31 December 2020

	Less than 1 year R'000	Between 2-3 years R'000	Between 4-5 years R'000	More than 5 years R'000
Agency funds	96,885	-	-	-
Lease liabilities	1,897	1,293	-	-
Student credits and deposits	351,589	-	-	-
Trade payables, accruals and other liabilities	504,299	-	-	-
	1,241,281	1,293	-	-

D. Capital risk management

The group's objectives when managing capital (which include all items of capital and funds as presented on the statement of financial position) are to safeguard the ability of the University of Pretoria and its subsidiaries to continue as a going concern and to maintain an optimal structure to reduce the cost of capital.

In order to maintain the capital structure, the group has ensured a sound financial position by limiting exposure to debt and increasing investment and cash balances. This objective is met by a well-planned budget process each year in which the critical strategic objectives of the group is addressed.

The capital of the University comprises both restricted funds designated for specific purposes and unrestricted funds, being funds that can be employed by Council at its discretion.

The University has a satisfactory ratio of reserves to assets, however it must be remembered that much of the asset base is held in designated investments and in property which has restricted alienability.

The group's policy is to apply conservative financing. Internal loans are used for managerial purposes at a rate appropriate to the inherent risk. Debt is avoided but, where utilised, the policy is to settle in as short a period as possible.

32. Remuneration of Executive Management

The remuneration of Executive Management is approved by the Human Resources Committee of Council. Members of Council are given access to this information by the Chairperson of the Remuneration Committee on request. Council delegated the signing-off of the information to the Chairperson of Council before submission to the Department of Higher Education and Training.

The following information on amounts actually accrued during the financial year is supplied in order to comply with the Higher Education Act (101 of 1997, as amended) and the Regulations for Annual Reporting by Higher Education Institutions.

UNIVERSITY OF PRETORIA AND ITS SUBSIDIARIES
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FOR THE YEAR ENDED 31 DECEMBER 2021

Name	Position	Nature	2021 R'000	2020 R'000
Prof T Kupe	Vice-Chancellor and Principal	Basic Salary	3,697	3,612
		Employment Benefits	579	539
		Other	22	1,052
Prof NTF Duncan	Vice-Principal: Academic	Basic Salary	2,478	2,421
		Employment Benefits	327	314
		Other	12	540
Prof A Stroh	Vice-Principal: Institutional Planning, Research and Innovation and Postgraduate Education	Basic Salary	2,775	2,499
		Employment Benefits	654	588
		Other	105	965
Prof BTJ Maharaj	Acting Vice-Principal: Research and Innovation and Postgraduate Education (October to December 2021)	Basic Salary	633	-
		Employment Benefits	104	-
		Other	126	-
Prof T Mosia	Vice-Principal: Student Life	Basic Salary	2,697	2,636
		Employment Benefits	418	389
		Other	12	652
Mr S Mthiyane	Chief Operating Officer	Basic Salary	2,822	2,764
		Employment Benefits	483	451
		Other	12	12
Prof C Koornhof	Executive Director Finance and Business Initiatives	Basic Salary	2,939	2,872
		Employment Benefits	412	382
		Other	12	636
Prof CMA Nicholson	Registrar	Basic Salary	1,904	1,861
		Employment Benefits	336	314
		Other	12	636
			23,571	26,135
33. Remuneration of members of Council			2021	2020
			R'000	R'000
DM Behr			18	30
AD Botha			16	29
A Chowan			14	-
KP Diale			5	17
LL Dippenaar			-	21
K Dlamini			72	77
DJ Fourie			18	-
HH Koster			9	-
BJ Kruger			59	4
P Langeni			5	-
N Lesela			60	66
MW Madi			22	13
DE Magugumela			9	44
NT Mtoba			12	84
PA Nel			9	17
AJ Pienaar			14	30
V Qinga			27	42
MMT Ramano			22	-
DM Read			14	-
BJ Ribeiro			-	25
IB Skosana			-	35
FD Swart			36	38
AE Swiegers			31	-
AW Taylor			-	25
S Taylor			19	38
ST Tsengiwe			22	13
RJ Van Der Eyden			9	-
JHP Van Der Merwe			29	21
			551	669

Council members are remunerated on a per-meeting basis.