



UP2025

University of Pretoria

Thinking forward,
empowering tomorrow's decision makers



UNIVERSITEIT VAN PRETORIA
UNIVERSITY OF PRETORIA
YUNIBESITHI YA PRETORIA

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UP2025

UP2025 is the University of Pretoria's 2025 strategy implementation plan to scale-up our contribution to society, as expressed in the United Nation's Sustainable Development Goals (SDGs), the African Union's Agenda 2063 and South Africa's National Development Plan 2030.

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Knowledge and Information is Power

Message from the Vice-Chancellor
Professor Tawana Kupe

The world urgently needs good leaders in every sector: leaders with foresight and wisdom, who are well-educated, well-skilled and well-rounded citizens; leaders who see the way forward to creating a better normal in a changed era.

To achieve this we need strong institutions that nurture leaders, anchor truly democratic futures, and promote inclusive economic development, environmental sustainability and social progress. Universities have a critical role to play in achieving this, and the University of Pretoria (UP) has a compelling story to tell. Our *raison d'être* is to make a difference in society.

In times of crisis, whether it is the global Covid-19 pandemic, the climate change crisis, the global poverty and food security crisis or the global economic crisis, future strategies are not built on 'business as usual' approaches; future societies are not built on conventional thinking and future solutions are not found in traditional approaches. At UP, we are pursuing new, creative and innovative research and initiatives to address the multiplicity of critical problems facing the world. We are reimagining, rethinking

and repositioning the university to achieve greater social impact.

An essential part of this is to leverage the opportunities provided by rapid technological change to implement digitalisation in all spheres of the institution, including teaching and learning research, operations, administration and the overall management of the university.

UP today is 99% digitalised with our Department of Education Innovation (EI) leading the university in the leap from supplementary digital learning to a holistic integration of all modes of learning, such as the Hybrid Flexible (HyFlex) model. The model is designed to allow students to shift between attending class in person, joining in at the same time online, or catching the recorded class later.

In 2019 UP invested R100 million to upgrade our IT system. Little did we know that our system would be seriously put to the test less than a year later with the onset of the Covid-19 pandemic in March 2020. By then, 95% of our undergraduate courses already had a substantive online presence as part of



our hybrid model. Our system proved robust enough to enable our students to complete the 2020 year online, with students accessing more than 3100 courses 40 million times and submitting 3.5 million assessments.

Professor Tawana Kupe. Photo: EYEscape

Data from a UP survey in May 2020 shows that the vast majority of lecturers and students managed to move with confidence into the remote (online) teaching and learning mode. The transition was relatively seamless because in 2015 UP transitioned to a hybrid approach for teaching and learning, with both a contact and an online component. We will resume our hybrid and HyFlex modes as the situation allows.

At UP, we see the current context as a door to experimentation, creativity and innovation in teaching and learning. It requires constant development of the system to determine which courses and programmes at specific levels of study are best taught in a completely online, hybrid or HyFlex mode.

The continent
requires
universities
that are locally
and globally
responsive to
the imperative
to transform and
benefit society

Some practical sessions and laboratory-based research require the use of physical spaces and equipment. However, these practices are changing due to the rapid advancements in augmented and virtual reality laboratories and knowledge environments. At UP, for example, our Department of Mining Engineering has the Kumba Virtual Reality Centre for mining – the only one in Africa - where our students can experience being underground in a mine virtually. Minerals and Mining Engineering at UP were ranked in the top 50 best places in the world to study these subjects in the 2021 QS World University rankings.

Our innovative teaching and learning, knowledge creation, impactful and relevant research, quality academic programmes and social responsiveness and engagement are focused on making a decisive difference to the many different spheres required to solve pressing African and global challenges.

The continent requires universities that are locally and globally responsive to the imperative



to transform and benefit society, to include a diversity of views, amplify Africa's innovation and research impact, and partner with other universities globally to accelerate discoveries, new knowledge and breakthroughs that make a positive difference to the world.

All universities need to be deliberate and urgent about dismantling disciplinary silos, boundaries and borders. Societal problems and challenges do not come neatly packaged to fit into disciplinary thinking or national boundaries.



Thinking beyond disciplines and boundaries requires bold new thinking and agile shifts. It demands of us to be much more communicative about why and what we research, and how such research responds to society's major challenges and wicked problems.

The upwelling of transdisciplinary research locally and globally offers a unique opportunity for universities to take the lead in creating new knowledge, and new ways of doing things. The trigger is this moment in history with its focus on a COVID-19-free future, one-world sustainability and the Fourth Industrial Revolution.

It all starts with a commitment to quality: quality of education and quality of life. At UP there is one thing on which we do not compromise – and that is quality. We breathe and live quality, and we give 100% of our efforts. It's the driver

of our institutional strategy and it's why UP is a leading research-intensive university in South Africa and Africa.

It gives me pleasure to say we have seven exceptional campuses and nine highly regarded faculties spanning the knowledge spectrum: from classic academic fields to rapidly evolving Fourth Industrial Revolution (4IR) focused programmes. We are ranked in the top 1.9% of universities worldwide and recognised internationally for the standard, relevance and impact of our teaching and learning programmes and our innovative research.

Our slogan is Make Today Matter. We are keenly aware that our actions today have a ripple effect on our collective well-being and future. Our purpose is to empower people through the gifts of knowledge, innovation and diversity and to be a facilitator in their life path. Students come to university interested; our goal is to keep them interested, while ensuring they gain the knowledge and agile thinking ability they need to make significant contributions to their communities, society and the world.

We have some of the brightest minds using their skills to find solutions for society's complex

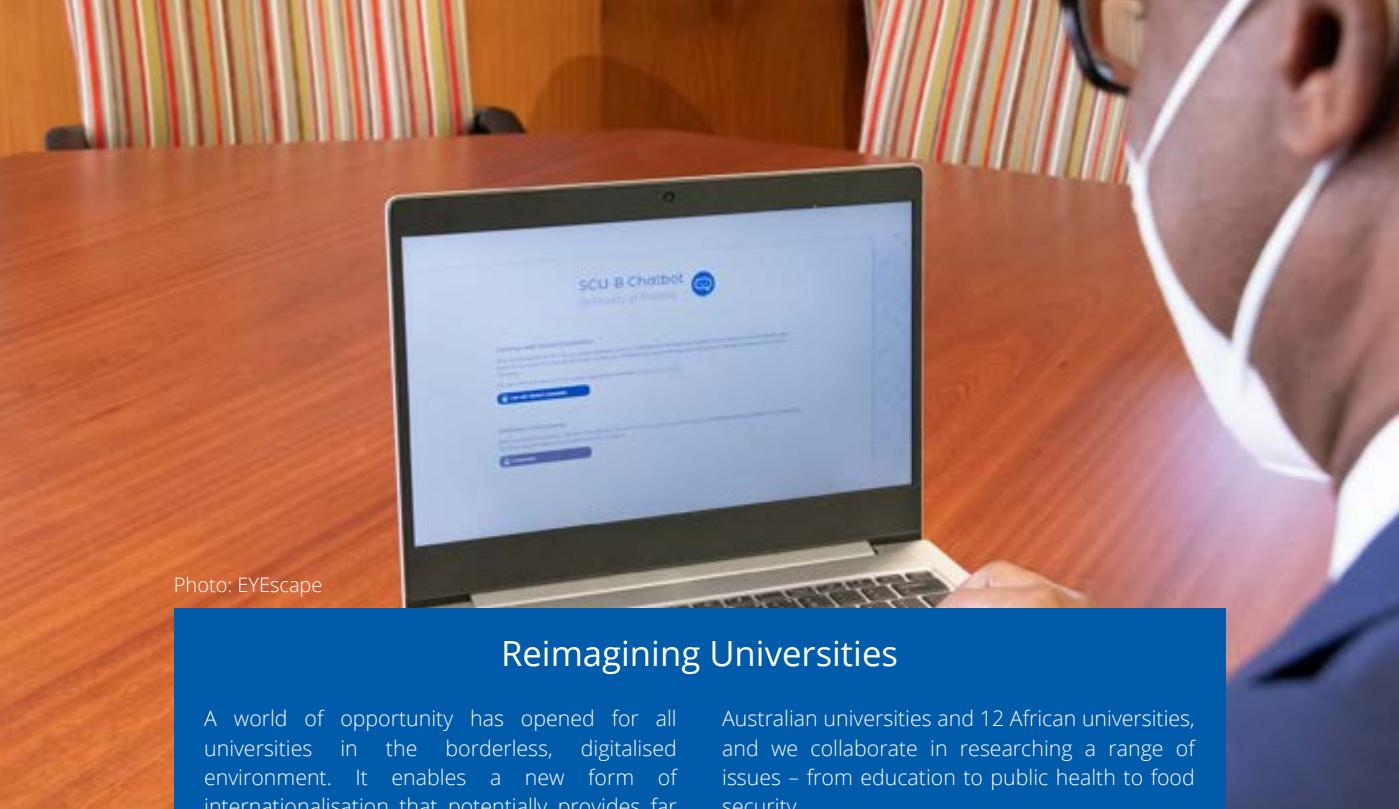


Photo: EYEscape

Reimagining Universities

A world of opportunity has opened for all universities in the borderless, digitalised environment. It enables a new form of internationalisation that potentially provides far greater access for African universities. Pre-Covid, so much more travel was required, often from the Global South to the Global North, but students and academics may not need to travel as much as they did before to engage internationally.

Before Covid, a significant amount of my time was spent travelling to meet with potential partners, which is necessary to establish initial interest. From 2020, I was able to sign a significant number of agreements online with new partners.

UP strongly supports the internationalisation of knowledge and global engagement, and about 44% of the research we conduct is done with international collaborators. Digitalisation positively contributes to this. The massive advantage of collaboration is that it enables universities to take research and innovation leaps by building on each other's areas of expertise.

As part of the internationalisation of knowledge that digitalisation facilitates, universities worldwide need to share expertise and partner in addressing the Sustainable Development Goals (SDG) in collaboration with communities, industries and governments. An example of such a collaboration is the Australian Africa Universities Network (AAUN), of which UP is a member, and I serve as co-president. The network includes ten

Australian universities and 12 African universities, and we collaborate in researching a range of issues – from education to public health to food security.

Collaborations and partnerships also need to address the requirements of the 4IR for which digital skills and capabilities are a 'must have' for all graduates. Areas such as data analytics, artificial intelligence (AI) and robotics require advanced computing technologies. To provide a few examples of what UP is doing: we teach all our students digital literacy, we have an extensive transdisciplinary curriculum in big data science and analytics. We participate in the Centre for Artificial Intelligence Research (CAIR) - a South African national research network of five universities that research various aspects of AI. We recently launched Engineering 4.0 about all things digital in the transport and mobility space, and we are training students in how smart cities and intelligent transport will work.

We are also pursuing research on AI ethics, and our Student Counselling Unit has just activated a first-of-its-kind counselling chatbot called SCU-B. It is a primary mental healthcare resource for students to supplement traditional counselling services in a virtual setting. The initiative enables students to build personalised self-help coping toolkits that address mood, stress and lifestyle to help them cope and pursue their academic goals. Chatbots are also successfully integrated into other areas of the university.

issues, and to advance new ways of being. They are committed to social justice and sustainable growth; to greening and earth-friendly initiatives which give back positively to the planet in place of current harmful practices. Our graduates draw on their education to create a better and equal world in which prejudice, gender-based violence, xenophobia, racism and fear have no place.

Diversity of experience contributes to this. As a top university we have a number of agreements with universities and institutions around the world for a range of activities, including staff and student exchanges, research collaboration, expanding on teaching and learning expertise and increasing cultural understanding and cooperation. We currently have more than 200 active research agreements across 70 countries and six continents. Over the last two decades

we have partnered with over 330 institutions around the world.

We regard it as our duty to focus on innovation and transformation in all spheres of society, the economy, and the environment. We believe that education for the 4IR is one of the key opportunities to achieve this and to contribute to creating a prosperous continent

The Fourth Industrial Revolution is creating overarching conditions that have important implications for our universities: what we teach and learn, what we research and our contribution to the economy, employment and society. This requires a deliberate leveraging and repositioning in order to optimise our role in reconstructing South Africa's and Africa's future.



UP's Professor Mashudu Tshifularo pioneered the world's first middle ear transplant using 3D-printed bones

Opportunities for Africa's youth

The need to drive innovation and create opportunities for Africa's youth is explicitly acknowledged in both global and continental agendas. Investments in higher education in Africa yield the highest returns – up to 21% – the highest globally. Higher education and knowledge creation directly and indirectly drives innovation and technology, which are critical for economic growth.

All ten of the world's countries with the youngest populations are in Africa, with approximately 65% of the continent's citizens being below the age of 35. From this perspective, access to relevant and quality higher education is a fundamental building block not only for economic growth but also for working towards improving how we address the multiple disruptions and crises.

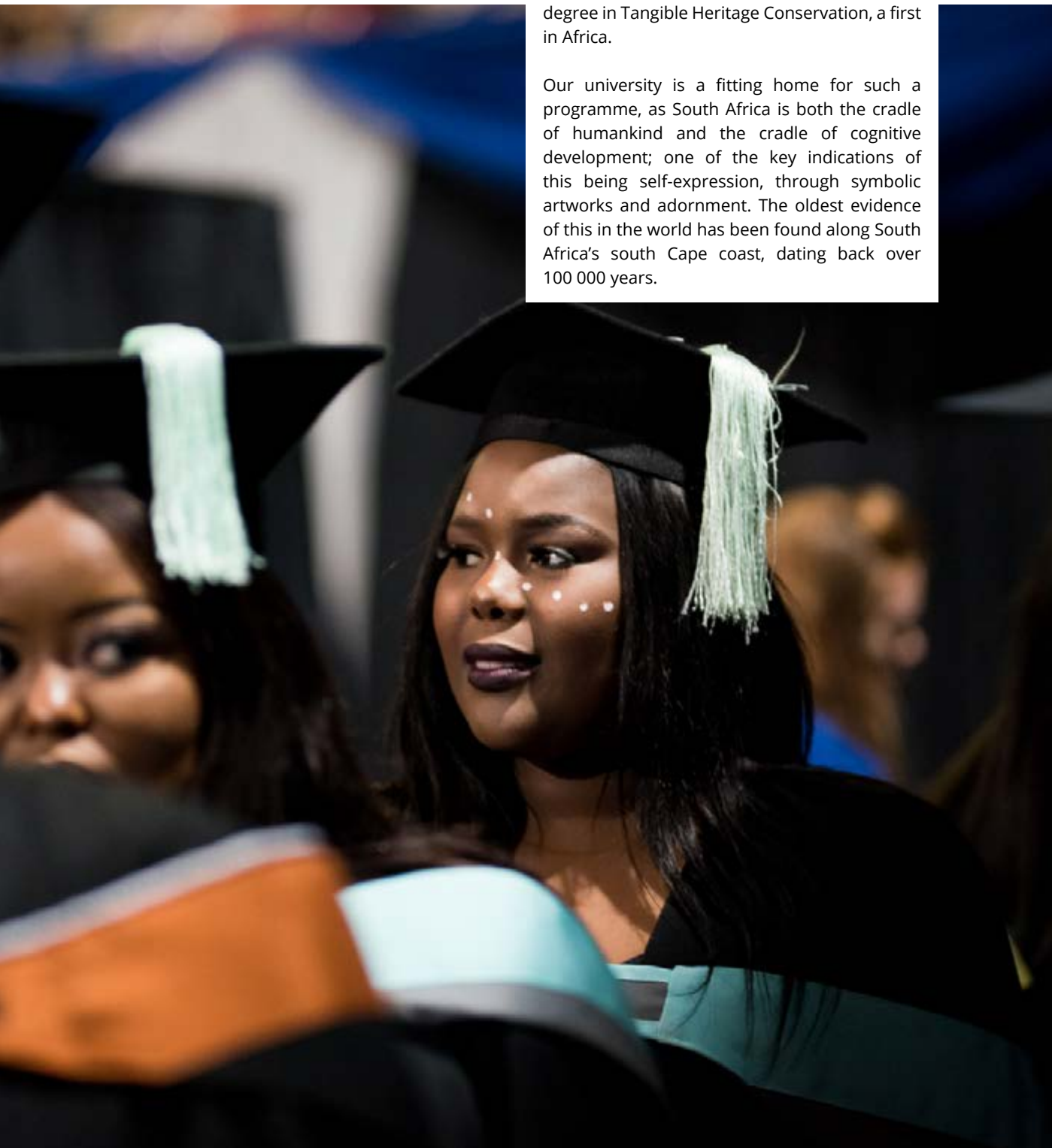
Our Future Africa Institute and Campus is a wonderful transdisciplinary research and collaborative platform for local and global research and innovation that addresses society's wicked problems and pressing needs.

Humans are at the centre of everything we do, and as society hurtles into the future of technology, it is the arts and humanities that hold the reins. These disciplines help us to develop our humanity and our full potential; they are the guiding forces of rational and creative thinking, ethical living, compassion, empathy, storytelling, of justice and fairness. They help us to delve into our intellect and understand how much more we are capable of achieving.

We are proud of the many innovations in our transdisciplinary teaching and learning approach that enhance student understanding, and the ever-increasing use of blended learning, video lectures and online interactions that bring the world to our university and share our university with the world.



UP has achieved many breakthroughs and achievements in the research domain, including many world firsts, such as the use of 3D-printed bones to restore hearing in patients; the non-surgical artificial insemination of a lioness that resulted in the birth of healthy lion cubs; our participation in the first ever imaging of a black hole; our research on the genes impacting the formation of biomass in trees as a renewable source for biomaterials and bioenergy; and our research into what defines culture and who we are as humans through our new master's



degree in Tangible Heritage Conservation, a first in Africa.

Our university is a fitting home for such a programme, as South Africa is both the cradle of humankind and the cradle of cognitive development; one of the key indications of this being self-expression, through symbolic artworks and adornment. The oldest evidence of this in the world has been found along South Africa's south Cape coast, dating back over 100 000 years.

Agents of Change

The Mapungubwe gold rhino and gold leopard, which are housed in the Javett-UP Art Centre on our south campus, take us back to AD 900 to 1300. The people from this legendary civilisation faced many disruptions and crises, including what is believed to be a climate-associated decimation of natural resources.

Like Mapungubwe, throughout time civilisations the world over have faced all sorts of disruptions, crises and diseases. What is critical is how we respond to them. Do they drive us to extinction or do we find a way forward?

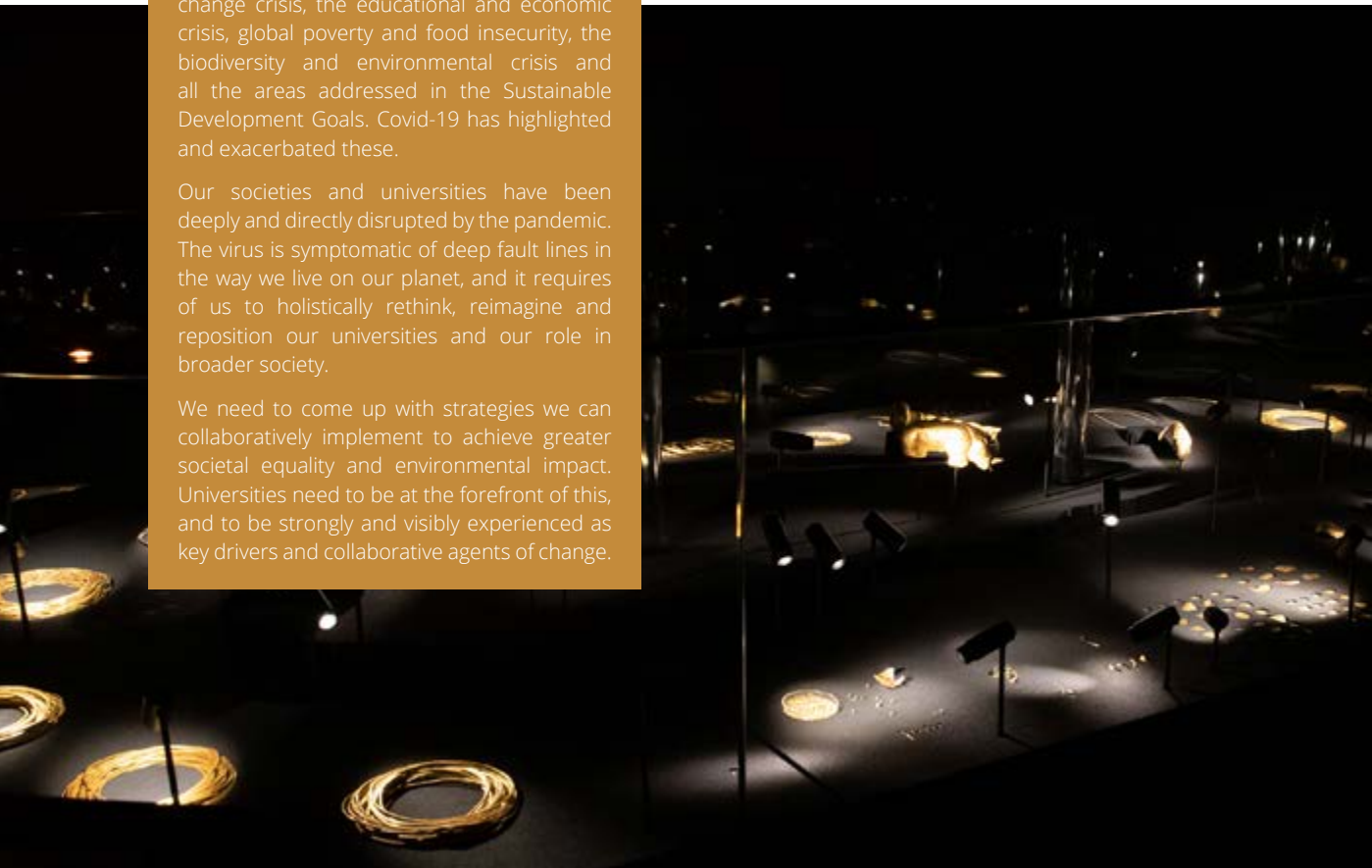
This is the crossroad we are facing, confronted as we are by multiple disruptions, including the global Covid-19 pandemic, the climate change crisis, the educational and economic crisis, global poverty and food insecurity, the biodiversity and environmental crisis and all the areas addressed in the Sustainable Development Goals. Covid-19 has highlighted and exacerbated these.

Our societies and universities have been deeply and directly disrupted by the pandemic. The virus is symptomatic of deep fault lines in the way we live on our planet, and it requires of us to holistically rethink, reimagine and reposition our universities and our role in broader society.

We need to come up with strategies we can collaboratively implement to achieve greater societal equality and environmental impact. Universities need to be at the forefront of this, and to be strongly and visibly experienced as key drivers and collaborative agents of change.

To consolidate our leading position, UP's strategy over the next five years will be to increasingly address society's need for new knowledge through curriculum transformation, research, exploration, discovery and innovation. We will continue to strengthen our visibility and international profile as we have so much to show and share.

We look forward to increasing our network, collaborations and partnerships with like-minded institutions, organisations, business and industry in South Africa, our continent and our world. Let's share the gifts of knowledge, innovation and diversity. Let's make today matter so that in 2025 when we review what we have achieved, we will see the multiple impacts we have made in transforming society.



The Mapungubwe gold rhino at the Javett-UP Art Centre. Photo: EYEscape



UP2025 Vision

To be a leading research-intensive university in Africa, recognised internationally for quality, relevance and impact, and also for developing people, creating knowledge and making a difference locally and globally.



UP2025 Strategy

The UP2025 strategy is focused on strengthening our position as a leading, innovative and socially responsive university. The main focus of UP's 2025 implementation plan is to scale up our contribution to society, as expressed in the United Nation's Sustainable Development Goals (SDGs), the African Union's Agenda 2063 and South Africa's National Development Plan 2030.

Strategic Goals

Five linked strategic goals define the academic vision and identity of UP2025:





- To enhance access and successful student learning through our FLY@UP initiative, which provides students with the support they need to succeed and graduate in the minimum time;
- To enhance postgraduate success, including through our FLYHigher@UP initiative, which supports postgraduate students to succeed and complete their studies in the minimum time;
- To strengthen UP's research and international profile;
- To foster and sustain a transformed, inclusive, and equitable university community;
- To optimise resources and enhance institutional sustainability;
- To strengthen the university's social responsiveness and impact in society.



UP Administration building



UP at a Glance*







TOP 1%

UP ranks in the top 1% internationally in 10 fields:

- Agricultural Sciences
- Biology & Biochemistry
- Clinical Medicine
- Economics & Business
- Engineering
- Environment/Ecology
- Immunology
- Microbiology
- Plant and Animal Sciences
- Social Sciences

Source: Web of Science Essential Science Indicators, 4 Nov 2020.



Leading research-intensive university in South Africa

Founded in

1908



2nd

South African university for research outputs

9 Faculties and GIBS Business School

1 Economic and Management Sciences	7 Natural and Agricultural Sciences
2 Education	8 Theology
3 Engineering, Built Environment and Information Technology	9 Veterinary Science (the only faculty of its kind in South Africa)
4 Health Sciences	+1 Gordon Institute of Business Science (GIBS) – among the world's 50 best business schools
5 Humanities	<small>Source: UK Financial Times 2018 Executive Education</small>
6 Law	

* Information correct as at October 2020

564

National Research
Foundation (NRF)
Rated Researchers

16

NRF
A-rated
Researchers

93

NRF Y-rated
Researchers (scientists
under the age of 35)



29

Industry-sponsored
Research Chairs



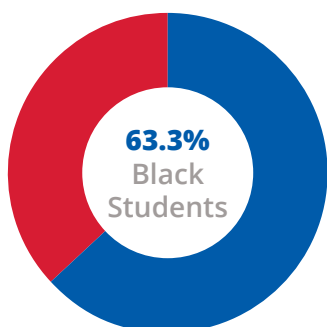
4

Centres of
Excellence



4

Innovation
Platforms



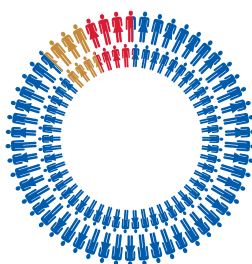
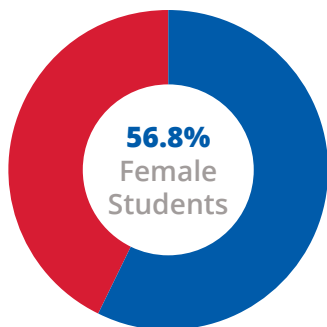
19

DSI/NRF SARCHI
Chairs



100

Research Institutes,
Centres and Units



3 569

International
Students

52 852

Students

3 217

Distance Education
Students

68.1%

of Academic Staff with
doctoral degrees

* Information correct as at October 2020

University Rankings

UP's reputation is reflected in its rising international profile, as evidenced by its strong showing in the university rankings systems, which place UP among the top 1.9% of universities in the world, and by the growing number of areas in which we have attained global excellence. 35 UP researchers are in the top 1% according to the Web of Science Index of 2019.

The university was ranked among the top 100 universities in the world in three categories of the *Times Higher Education* Impact Rankings 2019: Quality Education; Industry, Innovation and Infrastructure; and Peace, Justice and Strong Institutions.

In the QS World University Rankings by Subject, UP was noted as the South African leader in the fields of Theology, Divinity & Religious Studies, Electrical & Electronic Engineering and Veterinary Science.

The university's Gordon Institute of Business Science (GIBS) was also ranked as the most gender-balanced business school in the world by the UK's *Financial Times*, and once again ranked as the top South African and African business school for executive education by the *Financial Times* in their Executive Education 2020 Ranking. These achievements have placed UP as one of the preferred research partners for global collaborations in South Africa.



56

Number of UP researchers in the top 1% of the world

Source: Essential Science Indicators, 2019.

40%

Of students in the 2019 NSC exams with nine or more distinctions applied to study at UP



77%

Of students in the 2019 IEB exams with eight or more distinctions applied to study at UP



Sporting powerhouse



Home to the Sport, Exercise Medicine and Lifestyle Institute (SEMLI)

7

Campuses

** Information correct as at October 2020*



UP2025 Leadership Style

UP2025 leadership style is based on:

- Continually developing the intellectual and emotional intelligence required to understand the many dynamics in a complex organisation while dealing with the wide of range of practical and academic issues;
- Continually developing our online and hybrid learning and teaching facilities;
- Ensuring that the circumstances of all our students are addressed;
- The ability to form strong, enduring partnerships and collaborations;
- The ability to listen, have empathy, and acknowledge other perspectives;
- The ability to be sensitive to the needs of diverse groups of people;
- The ability to take people with you and to delegate; and
- Communicating to the world what we are achieving as a university.

The UP Way of Life

The UP way of life is experienced in our ethos, our vibe and what we stand for as an institution. It is as much about where we come from as it is about where we are heading. It is about our

excellence, perseverance, respect, creativity, innovation, diversity, growth, kindness and making a difference every day. It reflects our culture and what we do to uplift each other and society to make today matter. It reflects our brand, which lives in the hearts and minds of our staff, students and alumni.

UP's Navigational Markers

Quality

Quality is the overarching, non-negotiable principle that cuts across all areas of our academic, administrative, management and leadership activities.

Relevance

What we teach and learn, what we research and our contribution to the economy, employment and society need to be relevant to the society and world in which we live, and to the global context.

Diversity

Diversity refers to all aspects of the university, ranging from students and staff and the programmes we offer, to research, teaching and language policy.



The Most Innovative Square Mile in Africa

UP is located in Pretoria's scientific hub, known as the most innovative square mile in Africa, which is comparable to similar spaces globally. It includes:

- The Council for Scientific and Industrial Research (CSIR) – an affiliate of the World Economic Forum's Centre for the Fourth Industrial Revolution Network
- The Technology Innovation Agency (TIA)
- The National Research Foundation (NRF)
- The Department of Science and Innovation (DSI)
- The Innovation Hub and other research, development and innovation agencies

Sustainability

Social, environmental and financial sustainability are the non-negotiable keys to our future.

Financial Sustainability

The challenges facing the higher education sector in South Africa, including declining public funding, the high number of students from financially stressed families and the poor performance of the economy, made worse by the Covid-19 pandemic, calls for a re-investment in higher education and stimulus funding for universities from diversified and alternate sources.

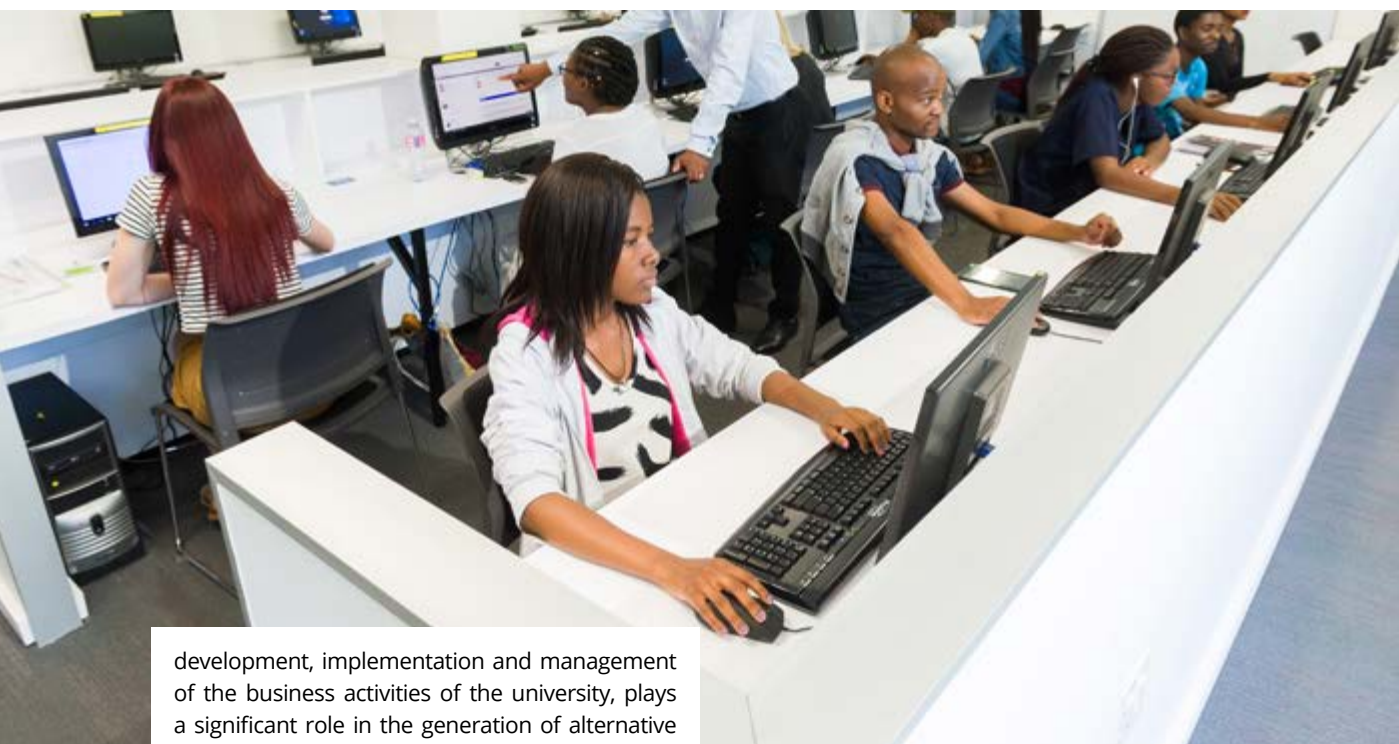
To address our needs and challenges, UP has developed a financial sustainability plan for the period 2019–2025. Underpinning this is UP's unwavering commitment to teaching, learning and research excellence, student success, transformation and the quality of academic programmes.

In order to retain the capacity to support these academic and strategic objectives, financial sustainability permeates all aspects of the institution, including organisational performance across all domains, diversification of revenue streams, third stream income, astute resource utilisation and procurement, and optimal management of campus services, the built environment, energy and water utilisation, waste management and information and communication technology.

While Covid-19 has many negative implications for higher education, which will reverberate long after the pandemic has been contained, a positive consequence is that it is serving as a springboard for re-thinking the future of higher education and strengthen the pact between universities, governments, business, society and communities in South Africa, on the continent and internationally.

Generation of alternative funding streams

Enterprises University of Pretoria Pty Ltd (Enterprises UP), which is responsible for the



development, implementation and management of the business activities of the university, plays a significant role in the generation of alternative sources of funding. The company has, over the years, successfully expanded its footprint in the business and governmental sectors in South Africa and internationally, through two main channels: Research Solutions and Training Solutions.

Research Solutions generates research funding through applied research outputs, offering more than 50 areas of functional expertise. This has resulted in hundreds of contract research and consulting projects, and a considerable body of research articles and papers.

Training Solutions generates funds through a diverse catalogue of well over 500 customised training programmes and short courses, thus substantially contributing to socio-economic development in South Africa and beyond. Access to training has been broadened through the strategic utilisation of online and hybrid modes of delivery. More than 370 public institutions and 950 companies in South Africa make use of the contract research and consulting offerings, and the training products, with over 1 000 training events annually.

UP Alumni Connect

We maintain strong relationships with over 285 000 alumni. Our UP Alumni Connect app, which provides UP alumni with a platform for maintaining ties to the university and networking with other UP graduates, has been named the fastest-growing alumni platform in the world by Graduway – the developers of the software used by top universities around the world.

Big Data and Digital Disruption

UP2025 is focused on all aspects of the drivers of the 4IR, notably big data, data science, digital disruption, smart cities, hybrid and blended learning platforms. All our campuses are connected and the fibre-optic connectivity project is significantly increasing capacity. Our library services employed 'Libby' the first client-service robot in any university library in Africa. Libby answers routine questions, which frees the human librarians to offer specialised services to students and staff.



Teaching and Learning in an Age of Choice

In an age of overwhelming choice, UP continues to attract top students and staff in great numbers, and to produce quality graduates who contribute to the knowledge economy. The primary reason is UP's culture of 100% commitment to excellence and quality across all fields of study. Our policies of access, inclusion and transformation have attracted a diversity of top students.

The most recent statistics released by the Department of Higher Education and Training (DHET) confirm that UP remains one of the largest producers of graduates in a wide range of fields, which include identified scarce skills such as engineering, financial sciences and health sciences. We produce all of the country's veterinarians, almost a third of all engineers (28,4%) and just under 15% of all doctors.

Our committed academics have multiple approaches to teaching to ensure that students with a variety of learning strengths succeed and graduate in the minimum time set out for a degree. Our degrees are locally accredited and internationally recognised. We have agreements in place with the relevant legal accreditation bodies around the world.

We have contact sessions in traditional lectures, seminars, laboratories and practical sites, together with the experience gained by more than 20 years of using online learning platforms. This has enabled access and success for an increasing number of students.

Teaching and learning approach

Our teaching and learning approach is based on inquiry-based learning, hybrid learning and community-based learning. Our students are encouraged to seek out additional resources and videos to supplement their classes and to use their knowledge in a practical way through engagement in the communities neighbouring our campuses.

Additional academic development facilities are offered to our first-year students, including tutoring, mentoring and advisory services, to orientate them to the range of support services available at UP to help them achieve.

We believe in developing well-rounded graduates, and our students have access to a range of extramural activities, including sports, arts and culture.

As a research-intensive university we ensure that:

- We offer and continually develop inquiry-led undergraduate curricula where the disciplines taught are at the forefront of their respective knowledge fields
- We strengthen the pipeline of potential postgraduate students through strong base disciplines and formative qualifications
- We ensure our modes of teaching, learning and assessment are relevant to a 21st century world where ubiquitous access to information is a given.

Hybrid Learning

Hybrid Learning in teaching and learning is used alongside traditional lecturing. We have been working for several years on implementing a system-wide hybrid approach to teaching and learning. The aim is for each undergraduate module to include up to 30% of teaching and learning engagements online. Almost 95% of all undergraduate modules have an active online presence.

Data from the learning management system demonstrated that the most engaged students online outperformed the least engaged by 15%, a good argument in favour of the hybrid learning approach. Online learning also helps prepare our students for the world beyond university, and, as expressed in the Vice-Chancellor's introduction, online teaching and learning was essential during the Covid-19 pandemic.

In addition to computer and learning management system literacy skills, participating in an online environment requires a device, connectivity, data, general computer skills. The university secured free or cheap data for all students and is loaning laptops to more than 3 000 students to facilitate remote teaching and learning. Connectivity and electricity supply remain a challenge for a small number of students and these were allocated a telephone tutor.



For the future, it is clear that a remote learning environment has several advantages and will continue into the era of the 'new normal'. However, this does not preclude the need for on-site practicals and face-to-face interactions between students and lecturers on campus that are so much part of the university experience.

Lifelong learning

At UP we promote a lifelong learning environment through our choice of professional development and beyond the classroom offerings.



Photo: EYEscape

Beyond the classroom

Recognising that professionals often struggle to find the time to attend formal lectures, the university has consolidated all its online skills development offerings under one umbrella: Professional Online Development (POD). POD provides skills development training through intensive, collaborative and focused learning opportunities in an online environment that optimises global participation and lifelong learning opportunities presented by UP's experts beyond the classroom. The POD offering includes open education resources (OERs) and a range of online short courses.

Decolonising disciplines

The university is engaged in transdisciplinary research and curriculum development relevant to the decolonising of disciplines and the development of a canon that includes multi-layered knowledge from the past and present, with scholarly input from the Global South and Global North. The insight, debate and analysis that it provokes provides a productive framework for critiquing and thinking about the knowledge project. It is a pioneering and creative space that takes seriously the intellectual debates that constitute the decolonial movement (and, importantly, the 'decolonial turn') in the academy and in other spaces.

Professional development

UP has positioned itself at the forefront of skills enhancement opportunities and continuing professional development (CPD) with offerings through campus entities such as Enterprises University of Pretoria (Pty) Ltd and the Gordon Institute of Business Science (GIBS). In this way, the university enables continued, specialised training for any professional to maintain and improve their professional competence, enhance career progression, keep abreast of technological advances and industry practices, while also complying with professional regulations.

In 2019 UP launched the *Journal for Decolonising Disciplines (JDD)* through the Faculty of Humanities. It is spurred in part by recent developments in the social movement for transformation in the higher education landscape. Its approach includes two forms: the 'epistemological' case, in which decolonisation is seen as constitutive of reorganising and rethinking knowledge and the 'historical' case, in which decolonisation is seen as playing an unprecedented role in reviewing and reconstituting social relations and identities in contemporary society.



Research that Matters

The main driver of UP's focus on *Research that Matters* lies in the fusion of knowledge that is future-oriented for economic advancement and social justice equally. Our research expertise from a range of disciplines is focused on co-creating new understandings and breakthroughs in a number of transdisciplinary areas.

About 44% of the research conducted at UP is pursued with international collaborators and through multifaceted international programmes. Our researchers are prolific producers of knowledge in their quest for innovative and better solutions and greater understanding of our world and universe.

South Africa's latest *Report on the Evaluation of the 2018 Universities' Research Output* (Department of Higher Education and Training, March 2020), reveals that UP has the highest number of permanently appointed academics (839) who hold a doctoral degree. This means 69.6% of UP's academic staff hold a doctoral degree, while another 28.4% hold a master's degree. The national average for staff with doctorates sits at 48%.

Fifty-three UP researchers are in the top 1% according to the 2019 International Web of Science Index. The visibility of UP's lead researchers is demonstrated in the Essential Science Indicators (ESI) database. The ESI database covers 22 knowledge fields, and we are rated among the top 1% globally in eight fields: agricultural sciences, clinical

Doctoral degrees and National Research Foundation Ratings

In 2020 69.6% of our academic staff had doctoral degrees and this is increasing year on year. The qualification levels of academic staff have a direct impact on the capacity for research supervision and productivity, with an increase of approximately 70 doctoral graduates each year.

A further measure of quality is the number of researchers who have achieved a National Research Foundation (NRF) rating. UP has 564 NRF-rated researchers, 16 of which are A-rated (2019/2020) – the highest number in South Africa. The NRF rigorously rates world-class researchers. Our 16 A-rated researchers are recognised as leading international scholars in their field. Meanwhile, our 90 Y-rated scientists indicate the high quality of promising young researchers, which bodes well for the university's talent pipeline.

medicine, engineering, environment/ecology, immunology, microbiology, plant and animal sciences, and social sciences (general).

Transdisciplinarity

UP's transdisciplinary knowledge creation approach includes the following:

- Working with partners across Africa and the world



Photo: EYEscape

- Working across and beyond disciplines, which extends beyond academia to working with governments, business, civil society, funding agencies and development partners
- Ensuring that science and knowledge translate into impact for complex issues on the ground
- Developing ways to communicate science and knowledge in ways that reach the public, locally and internationally, which, at the same time militates against fake news and disinformation
- Training a new generation of academics and researchers who can transcend disciplinary constraints and geographical borders

In this way, we seek to collaborate with other universities and partners to address complex and seemingly intractable challenges in ways that are impactful.

UP is very conscious that transdisciplinary research is not always easy, but it is the most likely to lead to transformative action that can change the world. Intrinsic to this is the 4IR and global sustainability, with the emergence of new study fields such as bioengineering, which merges research and expertise in medicine, biology and engineering, and green chemistry (a blend of chemistry, biology and environmental science).

Javett-UP Art Centre

This remarkable centre for the arts of Africa is all about exploring what makes us human, what inspires us to think, feel, act, innovate, and advance. It's the story of who we are, where we come from and the importance of Africa in the world.

Supporting UP's academic programmes and encouraging the development of creative, flexible, adaptable minds, the Javett-UP Art Centre is integral to promoting sought-after Fourth Industrial Revolution capabilities, with the so called STEAM subjects: science, technology, engineering, arts and mathematics.

Students from across the continent are able to enrol in a unique (and first in Africa) transdisciplinary Master's in Tangible Heritage Conservation, taught by academics from the humanities and sciences, focused on restoring artworks and preserving heritage. Tangible heritage is as much about art, language, and literature, as it is about ancient artefacts, oral histories, the built environment, the land and the marine environment – all of which have something to tell us about the diverse meanings of heritage and the importance of diverse heritage conservation.

Sustainable Development Goals

The 2030 Agenda for Sustainable Development with its 17 Sustainable Development Goals (SDGs) is the world road map to global well-being for current and future generations, including better educational opportunities, climate action, gender equality, clean water, affordable and clean energy, good health and healthy environments. It is integral to UP2025.

The SA Sustainable Development Goals Hub at UP is the convening space for all stakeholders interested in contributing to South Africa's attainment of the SDGs, and aligning these with South Africa's National Development Plan 2030. The main aim of



01 *Cry Havoc* by Mary Sibande. Photo: Thania Louw

02 Future Africa Institute. Photo: EYEscape

the hub is to connect policymakers with the best South African research on the SDGs. We do this by collecting and disseminating African SDG research through an open access platform. We also provide policy advice, host SDG public lectures, and publish SDG briefing notes. We're particularly proud of hosting the Master's in Development Practice, a well-regarded interdisciplinary master's degree on the leadership capacities needed to implement the SDGs.



SDG-focused transdisciplinary innovation platforms

In 2018 and 2019, UP established four new transdisciplinary innovation platforms that contribute to one or more of the SDGs, with significant opportunities for international collaboration: the Future Africa Institute and Campus; Javett-UP Art Centre; Engineering 4.0 Complex; and Innovation Africa @ UP.



Future Africa Institute and Campus

Future Africa is a driver of inter- and transdisciplinary science and a focal platform for developing research networks within UP and the global research community. Its research and innovation programmes are underpinned by the ethos of sustainability, diversity and equity, and are aligned with global research initiatives such as 'Future Earth', launched at the UN Conference on Sustainable Development (Rio+20) in 2012.

At the institute's green campus, natural and social scientists and researchers in the humanities, economics and technology will co-create knowledge that addresses the United Nations' Sustainable Development Goals, which relate to poverty, inequality, climate change, environmental degradation, peace and justice. Within this context networks of scientists and partners from many disciplines and sectors in the broader community will come together to work on transformative research projects that seek to resolve some of Africa's complex and intersectional problems, and contribute to Africa's sustainable development.



Enhancing Research Productivity

To enhance our research productivity and impact, UP2025 is:

- Increasing the number of active researchers in faculties
- Increasing international collaboration and co-authorships
- Recruiting and appointing international postdoctoral fellows to research programmes, especially those associated with Future Africa, as a first priority
- Identifying UP's rising stars early and supporting them to accelerate their development into top researchers
- Transforming, diversifying and expanding UP's research base
- Establishing a UP Young Academy
- Using research subsidies to incentivise high impact international publishing
- Prioritising high impact research areas
- Building on strategic partnerships that advance excellence
- Enhancing the societal impact of UP's research



Engineering 4.0 Complex

The Engineering 4.0 Complex is a hub for smart transport systems and smart cities, which focuses on research, teaching, training and testing for transport and mobility in all its forms using digital technologies and smart intelligence systems. At the same time it works to develop skills in civil engineering, technology and data sciences – still scarce skills in South Africa.

The complex includes Africa's first independent materials testing facility and National Reference Lab, and partners with the South African National Roads Agency (SANRAL) and the Council for Scientific and Industrial Research's (CSIR) Smart Mobility cluster.

The team conducts tests and analysis on how different road surfaces perform, how traffic moves on highways and the density and type of traffic at any given time. Environmental impact also forms part of Engineering 4.0's research and development, including exhaust-related emissions, air quality monitoring, tyre materials, braking systems, semi-autonomous and autonomous vehicles.

This data and modelling will support the planning and designing of future transport systems and support cost-effective and innovative road surface engineering, which is key to South Africa's infrastructure development.

01 Engineering 4.0 Complex

02 Vice-Chancellor, Prof Tawana Kupe, with Veterinary Science students. Photo: EYEscape

03 Engineering 4.0 Complex



03

02

Innovation Africa @ UP

Focusing on smart agriculture, this platform partners with academic researchers in agriculture and food security and the humanities, and – through the Agricultural Research Centre (ARC) – the agricultural sector and industry. It draws on a transdisciplinary approach to co-create knowledge and innovative technologies to develop systems of agricultural production that are resilient to climate change, environmentally friendly, promote sustainable agriculture, and are easy for people to implement.





UP Faculties, GIBS Business School, Mamelodi Campus

UP is one of the largest research-intensive and contact universities in South Africa, with seven exceptional campuses and nine highly regarded

faculties spanning the knowledge spectrum: from classic academic fields to rapidly evolving 4IR-focused programmes.

Our faculties are well equipped with state-of-the-art research facilities, laboratories, academic libraries, skills development and practical learning opportunities, and spaces to learn or study socially or individually. Our seven campuses are customised for their purposes so that our students, academic and research staff have the best possible resources at their disposal to maximise their talent in their chosen field of study.

We are home to Africa's best Faculty of Law according to the *Times Higher Education's* (THE) 2020 survey, to South Africa's only Faculty of Veterinary Science (celebrating 100 years in 2020), and our business school, the Gordon Institute of Business Science (GIBS), is ranked as one of the top business schools in Africa and globally, according to the UK *Financial Times*.

Our Mamelodi Campus hosts the first year of UP's flagship BSc and BCom Extended Curriculum Programmes (ECPs). Our Faculty of Economic and Management Sciences celebrated 100 years in 2020 and our Faculty of Humanities, one of the oldest in South Africa, celebrated its centenary in 2019.

One hundred and twenty academic departments provide a combined course offering of over 1 200 programmes across the following faculties and business school.



Faculty of Humanities



73%
Academic staff
with PhDs

60

NRF rated
researchers

As the intellectual home of the liberal arts, the Faculty of Humanities believes that universities need to contribute in a much more intentional and engaged manner to the development and transformation of society.

Our academic curricula, research activities and community engagement initiatives not only address the diverse needs of local communities, but also help shape and drive international endeavours and debates. We understand and embrace new technologies and innovation, we promote and protect democracy, ethics and freedom of expression, and our programmes equip students to become critical thinkers and concerned citizens who are able adapt to diverse environments.

We are one of the most comprehensive humanities faculties in South Africa and our subjects have been ranked among those of the top 400 universities in the world. Amongst our outstanding offerings are the unique Master's in Tangible Heritage Conservation, the Political Science Department's world first 'Global Classroom' and, in the Department of Speech-Language Pathology and Audiology, Africa's first specialist Neuro-Otologic Test Centre, equipped with South Africa's only advanced Neuro-Otologic Test system.



Faculty of Engineering, Built Environment and Information Technology (EBIT)

The Faculty of EBIT contributes 28% of the graduate professional engineers in South Africa, strives for research excellence and actively pursues international collaboration.

The faculty comprises four schools: Engineering, the Built Environment, IT and the Graduate School of Technology Management. The university's engineering discipline has been ranked among the top 1% in the Clarivate Analytics Web of Science™ Essential Science Indicators for research citations and No. 1 in Africa in the 2020 *US News and World Report* Rankings on the Best Global Universities for Engineering.

Our research strategy focuses on six research areas of excellence, to embrace the 4IR, and aimed at bringing competitive knowledge to industry, education and society:

- Smart Cities and Transportation
- Big Data and Data Science, ICT and Technology and Innovation Management
- Water and Environmental Engineering,
- The Fourth Industrial Revolution,
- Minerals and Materials Beneficiation and
- Energy

ENGAGE

The School of Engineering offers a five-year, Engineering Augmented Degree Programme (ENGAGE) in all engineering disciplines. It provides opportunity for access and success through a carefully structured curriculum that helps students adjust to university life and cope with the academic demands of engineering studies.



69%

Academic staff
with PhDs

82

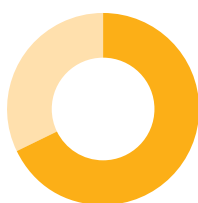
NRF rated
researchers

Faculty of Education

The Faculty of Education is the largest contact faculty of its kind in South Africa and a leader in teacher education and training. Our core function is to train quality teachers, educational psychologists, education leaders and managers. Our admission criteria ensure that we attract high-performing students from South Africa and globally.

In pursuit of teaching excellence, the faculty supports the university's hybrid teaching and learning model, which offers students an optimal blend of face-to-face and online learning opportunities. Students have access to some of the best infrastructure, libraries, laboratories, online study resources, lecturers and work opportunities in South Africa, together with a host of support services to help and guide them throughout their studies.

The faculty has five departments: Humanities Education; Educational Psychology; Early Childhood Education; Mathematics and Technology; Education Management and Policy Studies. There are also six faculty research centres: the Living Lab for Innovative Teaching, the Centre for Diversity and Social Cohesion, the Centre for Evaluation and Assessment, the Centre for the Study of Resilience, the Centre for Visual Impairment and the Unit for Distance Education.



68%
Academic staff
with PhDs

19

NRF rated
researchers





Since its establishment in 1920, the Faculty of Economic and Management Sciences (EMS) has expanded its programme offering to produce graduates who are ready for the future world of work and can meet the demands of a dynamic business environment.

Faculty of **Economic and Management Sciences (EMS)**



52%
Academic staff
with PhDs

39

NRF rated
researchers

Today, the faculty has close to 8 000 undergraduate and postgraduate students enrolled in various specialised BCom and BAdmin degrees, focusing on four broad areas: financial sciences, economic sciences, management sciences, and public management and administration. Several of EMS's degrees are accredited by statutory and professional bodies at national and international levels. The faculty is also recognised as one of just nine centres for internal audit excellence globally by the Institute of Internal Auditors and is a member of the Association to Advance Collegiate Schools of Business International.

EMS generates high-quality research that has an academic and societal impact in a range of focus areas. The faculty also hosts the SARCHI Chair in Tax Policy and Governance, the South African Reserve Bank Chair in Monetary Economics, the African Tax Institute and the Albert Luthuli Leadership Institute.

Faculty of Natural and Agricultural Sciences (NAS)

The Faculty of Natural and Agricultural Sciences is the largest of its kind in Africa. It focuses on solving diverse societal challenges by finding cures for poverty-related and infectious diseases such as tuberculosis, HIV/ AIDS and malaria, and finding solutions to global issues, such as food security and access to clean water. The faculty offers 35 undergraduate degree programmes and 142 postgraduate degree programmes. There are 13 academic departments, ranging from Actuarial Science to Zoology and Entomology. NAS also hosts seven research centres, six research institutes and eight SARChI chairs.

The faculty currently chairs the Next Einstein Forum's (NEF) Community of Scientists Programme, a joint initiative of the Robert Stiftung Foundation and the African Institute for Mathematical Sciences (AIMS), which has centres in South Africa, Ghana, Senegal, Cameroon and Tanzania.

Unique Degrees

- BSc Meteorology – the only degree of its kind offered in sub-Saharan Africa
- The MSc Applied Mineralogy qualification is only offered at UP in South Africa
- Professional bachelor's degrees (vocational qualifications) e.g. BSc Actuarial and Financial Mathematics and BScAgric in various fields of specialisation.



88%
Academic staff
with PhDs

201
NRF rated
researchers



Photo: EYEscape

Faculty of Health Sciences

The Faculty of Health Sciences has a tradition of excellence in the education of health care professionals. We use the latest technology and offer students hands-on clinical experience in a range of hospital, clinic and community settings, and we have a 95% module pass rate.

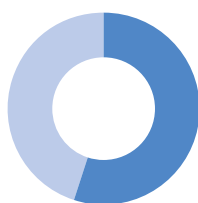
The faculty comprises 43 departments across four schools: Medicine, Dentistry, Health Care Sciences, and Health Systems and Public Health. It also hosts 14 institutes, centres and entities as well as participating in the Nelson Mandela/Fidel Castro medical student training programme.

Ranking in the top 1% internationally in clinical medicine, immunology and microbiology, the faculty is home to the following research chairs:

- SARCHI Chair in Sustainable Malaria Control
- AMPATH Chair in Human Genetics
- Co-chair with NAS of the DSTNRF-SAMRC SARCHI Research Chair in Biostatistics
- NRF-DSI South African Research Chair in Infectious Diseases of Animals (Zoonoses)
- NRF-DSI SARCHI Ubuntu Community Model of Nursing

Innovation

- **3D transplant:** A Faculty of Health Sciences team performed the world's first middle ear transplant using 3-D printed bones.



55%
Academic staff
with PhDs

54

NRF rated
researchers

- **TB and Covid-19 Detection:** The Division of Infectious Diseases (Department of Internal Medicine) is leading a study in collaboration with Leicester University to investigate testing for Covid-19 by wearing a face mask for 30 minutes. A Covid-19 mask was developed for this, and other respiratory pathogens such as *Tuberculosis mycobacterium* can also be identified.

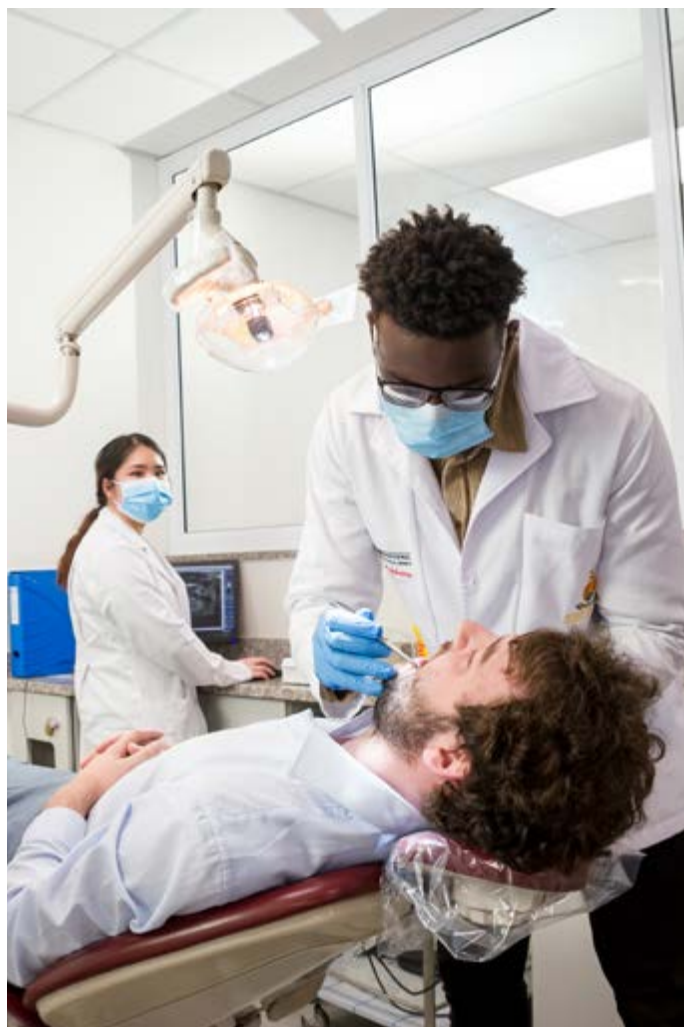


Photo: EYEscape



Photo: EYEscape

Faculty of Veterinary Science

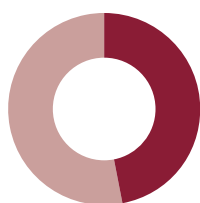
The Faculty of Veterinary Science, situated on the Onderstepoort Campus, just outside of Pretoria, is the only one of its kind in South Africa. It is solely responsible for the training of veterinarians and veterinary nurses in this country.

In 2020 we celebrated our centenary year. The first veterinary student was admitted in 1920 and the Bachelor of Veterinary Science degree became the second 'medical degree' offered in South Africa, predated by University of Cape

Town's MBChB two years earlier. Today the faculty is among the top 50 of all veterinary schools in the world in international rankings.

In our state-of-the-art facilities students gain hands-on experience with a variety of different animals. We offer specialist training in 22 fields of veterinary medicine, MSc and PhD degrees, a nursing degree and a postgraduate diploma. With 101 academic staff members, each year we train over 170 veterinarians and over 40 veterinary nurses. The faculty also hosts the SARChI Research Chair in Poultry Health and Production and the Chair in Primary Animal Health Care programme. Internationally, UP's veterinary degrees are recognised by a wide range of countries including the UK and Australia and New Zealand, and the faculty maintains close links with other veterinary faculties worldwide.

The faculty's core strength is in infectious diseases, small animal clinical medicine, epidemiology of local diseases and wildlife chemical immobilisation. In 2020 our Veterinary Academic Hospital opened a dedicated wildlife clinic able to hospitalise both herbivores and carnivores, including buffalo and big cat species.



47%
Academic staff
with PhDs



40
NRF rated
researchers

Faculty of Theology and Religion



The faculty's teaching and research focuses on critical, relevant, contextual and engaging theologies. It has five departments: Old Testament and Hebrew Scriptures; New Testament and Related Literature; Practical Theology and Mission Studies; Religion Studies; Systematic and Historical Theology.

Our students come from at least 33 different denominations, and we are committed to creating a culture that embraces a true ecumenical spirit and posture. We offer a space for different epistemologies, inter-religious dialogue and new technologies for our students to engage in the critical reading of texts from religious, historical and life experiences. Our mission is to nurture transformative leaders who serve academia, faith communities and society by promoting justice, peace, integrity and diversity in order for human life to flourish in South Africa and our continent.

We are introducing different methods in our teaching to encourage critical thinking, investigation, interactive and participatory learning. Our teaching modules are also directed to incorporate non-theological modules to enable students to also train for careers outside of theology and religion.



100%
Academic staff
with PhDs

23

NRF rated
researchers

Faculty of Law

The Faculty of Law is an internationally recognised leader in socially relevant legal research and education. UP Law obtained a global 90th placed ranking in 2020, 76th in 2019 and 92nd in 2018 in the World University Rankings, making it the highest ranked Faculty of Law on the African continent.

UP Law has a strong international brand for teaching and learning and research, attracting academic staff and students from throughout the world. Faculty partners include the United Nations, the European Union, the African Union, the World Bank and a range of international universities. Three UP law professors serve as international experts on United Nations bodies in Geneva, responsible for the development and application of international law.



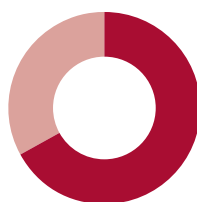
Photo: EYEscape

The faculty comprises six academic departments: the Centre for Human Rights; Jurisprudence; Mercantile Law; Private Law; Procedural Law; and Public Law. Emphasis is placed on an inquiry-led approach to teaching to improve the research and problem-solving skills of our students.

UP Law has the best mooters (student participants in simulated court hearings) in Africa and the 5th best in the world according to the 2018 Jessup ranking.

Research chairs include: Absa Africa Chair in Banking Law in Africa, SARChI Professorship in International Constitutional Law, SARChI Professorship of International Development Law and African Economic Relations, UNESCO Chair in Education Law in Africa. The UP Law Clinic provides free, quality legal services to the indigent. Final year LLB students, candidate attorneys and junior legal practitioners are offered a unique opportunity to practise law while being mentored by experienced UP Law attorneys.

UP law students have exclusive access to the Oliver R Tambo Law Library, which has the biggest Law of Africa collection in the world.



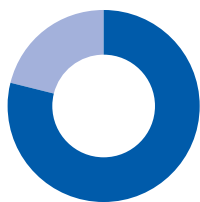
67%
Academic staff
with PhDs

25
NRF rated
researchers



Photo: EYEscape

Gordon Institute of Business Science (GIBS)



79%
Academic staff
with PhDs

6

NRF rated
researchers

Founded in 2000, the Gordon Institute of Business Science (GIBS) seeks to improve organisational performance through high quality business and management education in South Africa and the continent as a whole. We work with more than 6 000 executives, managers and scholars every year across multiple countries, and our MBA is ranked among the top 100 globally in the *Financial Times* Executive MBA Rankings.

Our core focus as a school lies in equipping general managers to start and run successful organisations in the African context. Impact is core to how GIBS programmes are designed, delivered and assessed, and our students graduate as leaders who can proactively manage cross-functional teams, who understand diversity, who appreciate the societal impact of business and who engender a sustainable approach. These leaders are agile, inclusive and global in their thinking and attitudes, but their roots are firmly in Africa.

As an organisation we strive for impact and effectiveness as we strengthen our efforts to be the leading business school in South Africa and on the continent: fulfilling the needs of society by developing the leaders of tomorrow.

Mamelodi Campus

The Mamelodi Campus is UP's flagship campus for the Extended Curriculum Programmes (ECPs) and Social Innovation. The programmes assist learners to successfully transition from high school to university level academic engagement.

The campus hosts:

- The BSc and BCom Extended Curriculum Programmes (ECPs)
- The Pre-University Academy (PUA)
- The After-school Football Programme
- The CAFA Music School
- The Mae Jemison Science Reading Room

Community-based Research

The Mamelodi Campus drives its community-based research through the Unit for Access, Success and Students in Transition. Activities include all inter-, multi-, and transdisciplinary community-based research-related activities on the Mamelodi Campus and in the local community. Among them are the following research focus areas: college awareness and readiness, teacher professional development, and engendering scientific literacy.

Pre-University Academy (PUA)

The Pre-University Academy, which consists of the Mamelodi Maths and Science Programme, the Saturday School Programme, and the Teacher Professional Development Programme, assists school learners from Grades 8 through to 12 to develop the capacity and skills necessary to master and perform well in science and mathematics subjects so they can meet the admission requirements in STEM related fields of study at the University of Pretoria or any other higher education institution of their choice.





Community Engagement & Social Responsibility

At UP, about 30 000 (about 45%) of our students annually are directly involved in community projects and practical work as part of their curriculum. And more than 130 of our student organisations are involved in voluntary social responsibility projects.

Community engagement and social responsibility is not an 'add on'; it is a core role and responsibility of higher education, which is a global trend. Currently, UP is the only African university on the global University Social Responsiveness Network (USRN) – an international group of the top 15 universities in the world in this field. UP is also represented on the Talloires Network, another international association of universities committed to strengthening the civic roles and social responsibilities of higher education.

The QS World University Rankings recognise the importance of this, stating in their report that '*social responsibility is best understood as the idea that organisations, institutions, and individuals have an obligation to act for the benefit of society*'. They have developed the QS Stars rating to advance an empirical understanding of community engagement and social responsibility, and how universities can and should be implementing it.

At UP we embrace this obligation; we see ourselves as an anchor institution in our communities, with a direct impact on the local

economy, the safety and security, well-being and sustainability of our people and environment.

One of the projects several of our disciplines are engaged in is *Pathways out of Homelessness*. Homelessness is one of the local and global challenges of our time, so in this project, our



Photo: EYEscape

researchers and partners are conducting engaged research with homeless people in Pretoria's inner city suburbs to understand their complex realities. The research is designed to improve policy, budget and practices in dealing with the growing problem of homelessness.

It's called 'engaged research' because it is not conducted *about* people, it is conducted *with* them. In this project, current and formerly homeless people, including students, the elderly and those afflicted with mental illness, are trained and engaged as paid research participants and fieldworkers in the projects. They are able to access homeless communities in a way that traditional researchers and students cannot, and they collect and interpret the data with our researchers.

At the Viva Village in Mamelodi's Alaska township we are part of a multi- and

transdisciplinary community engagement hub in which all our faculties are involved, including psychology, social work, geology, engineering, health sciences (medicine, nursing, occupational therapy, physiotherapy, nutrition and radiology). They work together with communities, community health care workers and clinics to provide a holistic service. We do the same in Zama-Zama squatter camp, Plastic View squatter camp, and the Pop-Up Clinic of Salvokop. We identify common health issues and address these – from improving hearing through the 3D-printed middle ear transplants innovated at our university, to addiction treatment, to sustainable agriculture and affordable nutrition.

In terms of education, we have several high school learner engagement programmes in disadvantaged communities to ensure that greater numbers of matric learners achieve access to UP and other higher education institutions. Our students contribute to this through their *Tuks Leadership and Individual Programme* (TULIP). This is a student-run, non-profit that works with promising learners from four under-resourced Pretoria schools. The primary goal is for these learners to get into a tertiary institution. The initiative has a five-tier programme that engages learners during their entire high school career.

The five areas are: leadership development and mentorship, academic support and tutoring, financial education and bursary support, human development, and application support.

Our veterinary students are engaged in rural vaccination stations; our occupational therapy students engage with parents and toddlers on the importance of play in children's development, not only as toddlers but also for their future when they go to school.

At UP we nurture students who are committed to social justice and sustainable growth and to greening and earth-friendly initiatives which give back positively to the planet.





Diversity, Transformation & Institutional Culture

UP's transformation goals are based on the creation of an inclusive institutional culture where diversity is welcomed, where different perspectives are respectfully heard and where every individual feels a sense of belonging and inclusion.

The ongoing creation of a vibrant institutional culture of inclusiveness is a critical priority for UP. Interventions include the creation of opportunities that facilitate dialogue among diverse students, academic and support staff that contributes to the advancement of the values of diversity, equity, inclusion and citizenship. Equally important is the implementation of interventions to address discrimination and any form of gender-based violence and harassment. The safety and security of our students is of paramount importance on all our campuses.

The overarching goal of transformation at UP, as stated in the university's Transformation Plan, is to foster and sustain a transformed, inclusive, and equitable university community. The appointment, development and retention of black academics is a key area that has been identified for accelerated action by the university's Employment Equity Plan.

UP's transformation priorities include:

- Realisation of employment equity targets
- Strengthening financial aid programmes to

ensure that UP is accessible to financially disadvantaged students

- Strengthening engagement with schools serving marginalised communities through the JuniorTukkie programme
- Initiatives aimed at creating an inclusive institutional culture at UP

Academic Staff Diversity

UP2025 is on an intensive trajectory to diversify our academic staff through a range of university- and government-funded initiatives, such as the Department of Higher Education and Training's (DHET) Research Development Grant for emerging researchers, the Vice-Chancellor's Academic Development Programme, and the New Generation of Academics (nGAP) programme. UP has the largest number of nGAP academics of all South African universities.

The United Nations states that gender equality is vital for the achievement of the sustainable development goals (SDGs). At UP we are concerted working towards a 50+ percentage of women professors and NRF A-rated researchers, to set an example for society, and bring women into the top leadership mainstream.

We currently have a total of 4 756 women researchers, which is 53% of the total number of researchers (8 973) employed by the university. Of these, 2 574 (29%), are black women.



Photo: EYEscape

This reflects an encouraging trend towards gender equality, but we are acutely aware that the higher you go in academia in South Africa, as in business and government, the more men you find male professors and male A-rated researchers, while women are glaringly under-represented.

Women Professors

At UP we have 83 (32.5%) women professors out of a total of 255 professors. The number of UP researchers with National Research Foundation (NRF) ratings is 528, of which 190 (36%) are women, while only 3 of our 14 NRF A-rated researchers are women. All NRF ratings reflect significant academic research achievements, with A-ratings as the pinnacle.

Towards addressing this, UP through our Department of Research and Innovation, is foregrounding a number of programmes in support of Early Career Academics and Researchers, with specific reference to black and female researchers. All our programmes are strongly underpinned by mentorship, which accelerates the time frame from early career to professor to 15 to 20 years, instead of 28 years. This is achieved without any compromise to quality through a number of key initiatives, including supporting postdoctoral fellowships, significantly reducing the teaching load to give academics more time to focus on their research and publication outputs, and one-on-one mentoring.



UP and the World: Internationalisation and Global Engagement

UP strongly supports the internationalisation of knowledge and global engagement, which enables universities to take significant research and innovation leaps by building on each other's areas of expertise. It also elevates all of our teaching and learning and research facilities to a new level, including teaching and collaborating across the continents with the use of online platforms and video calling in real-time. We treat information and communication technology (ICT) as an essential strategic resource for all aspects of university functioning.

At the apex of our UP2025 strategic plan is the strengthening of the university's international profile by increasingly addressing society's need for new knowledge through research. UP is therefore deliberately focused on building a university that is internationally recognised and produces high-quality scholarship, ultimately contributing to knowledge production in South Africa, Africa and globally, with particular reference to the Global South.

Thus, besides equipping its graduates with the attributes necessary for adapting to the demands of a changing world of work, UP is contributing to the high-level human capital required to address some of the world's major challenges. To realise higher education's contribution to local and global development, profound and transformative changes are imperative. Achieving this transformation



requires boundary-spanning partnerships that transcend geography, discipline and sector.

Key international partners and knowledge networks are being continuously identified, sustained and further developed in order to strengthen the university's research capacity and linkages. To leverage this capacity and impact, areas of existing strength are being used as catalysts to develop a pervasive research culture, as well as cross-cutting research themes of national, regional and international relevance.

Multifaceted international programmes

The university places great value on the inclusion of international students, postgraduates and academics. They add to UP's diversity and social cohesion, and bring different views, experiences and ways of doing things. The university lives its ethos that knowledge and knowledge seekers know no borders and boundaries.

UP's multifaceted international programmes are coordinated by the International Cooperation Division, which offers substantial support for international students, postgraduates and

academics. About 44% of the university's research is conducted with international collaborators.

At UP, student exchange activities contribute to the internationalisation of academic programmes, collaborative research projects and the diversification of cultures at the university. UP has over 4000 full-time international students from over 100 countries, and 400 international students on short-term exchanges annually. UP supports staff exchange programmes and visiting scholars to the university, and regularly invites international



Achieving critical mass and synergies

In order to maximise the international and national impact of our research, UP has identified a number of areas or Institutional Research Themes (IRTs) aligned with international relationships and areas of research strength. An indicative list of the first IRTs and their related knowledge fields includes: Food, Nutrition and Well-being; Genomics Research, Zoonotic Diseases, Human rights and Diversity; and Ecosystem Services and Livelihoods. In addition to the IRTs identified, other research initiatives will continue to grow, in line with disciplinary strength and research capacity.

German Chancellor, Dr Angela Merkel, visits UP in February 2020. Photo: EYEscape

Opportunities for Africa's youth

The need to drive innovation and create opportunities for Africa's youth is explicitly acknowledged in both global and continental agendas. Investments in higher education in Africa yield the highest returns – up to 21% – the highest globally. Higher education and knowledge creation directly and indirectly drives innovation and technology, which are critical for economic growth.

All ten of the world's countries with the youngest populations are in Africa, with approximately 65% of the continent's citizens being below the age of 35. From this perspective, access to relevant and quality higher education is a fundamental building block not only for economic growth but also for working towards a just and peaceful continent.

leaders to share their experience and knowledge with students and academics. In February 2020, for example, German Chancellor Dr Angela Merkel visited UP and answered questions from students at our Future Africa campus.

UP2025 Internationalisation Goals include:

- Growing and sustaining the university's international reputation through high-impact research, mutually beneficial partnerships and networks, collaborative research, a robust Visiting Professor Programme, and attracting top academics and students from across the globe to be part of UP
- Strengthening research partnerships with leading international universities on the major challenges facing society today and in future, including the SDGs
- Recruiting international postdoctoral fellows and postgraduate students from strategic partner institutions as the first priority, linked to the university's areas of research strength and strategic priority

- Setting targets for international student numbers for each faculty.

International partnerships and collaborations

Central and key to the university's strategy is the notion that knowledge is best co-created through partnerships, collaborations, networks, alliances and consortiums that span the local, the continental and the global. UP's strategy is that research is best pursued using a transdisciplinary approach, and it is in this spirit that it welcomes potential partners and collaborators.

UP is proactive about managing partnerships in a collective approach, as opposed to the traditional bilateral approach. To achieve this, UP has developed an Africa-Global University Framework (AGUP) within which the university will invite 20 to 30 core universities (10 to 15 African and 10 to 15 global institutions) to become the core partner universities with which the institution establishes long-term, expansive and synergistic partnerships.

The cross-cutting drivers of the AGUP will enable mobility and excellence and promote diversity. One of the desired outcomes of AGUP will be to develop, through its activities, young intellectual leaders with a global outlook and to achieve greater societal impact.

Partnerships and memberships

UP is:

- The only South African partner of the Michigan State University-led Alliance for African Partnership (MSU-AAP), which includes ten African universities.
- A member of the African Research Universities Alliance (ARUA), a network of universities pursuing the goal of enhancing research and graduate training in member universities through a number of channels, including Centres of Excellence.
- A member of the Regional Universities



Professor Tawana Kupe with Ambassador María Soledad Córdova of the Republic of Ecuador at the signing of a memorandum of understanding between UP and Ecuador's *Universidad Regional Amazónica Ikiam*. The partnership enables UP researchers and students – mainly from the Faculty of Natural and Agricultural Sciences – to collaborate on projects that address global challenges such as sustainable energy, safe water, biodiversity and conservation, climate change and natural disasters.

Forum for Capacity Building in Agriculture (RUFORUM), a consortium of 126 African universities that partner in the well-being of small-scale farmers and the economic development of countries in sub-Saharan Africa.

UP's partnerships include:

- The Australia-Africa Universities Network (AAUN) of which Prof Kupe is the Co-Chair. The AAUN is a group of leading universities in Australia and Africa that connect researchers and academics through institutional partnerships
- Africa Uninet, a network of higher education and research institutions in Austria and Africa, of which Prof Kupe is the South African representative
- Several Japanese institutions including the University of Tokyo; the Ministry of Education, Culture Sports, Science and Technology;

Tokyo University of Foreign Studies; the United Nations University; and the JICA Research Institute

- The African Institute for Mathematical Sciences (AIMS), an academic network that enables Africa's talented students to become scientific, educational and economic educators
- The Association of Commonwealth Universities (ACU). Prof Kupe is a council member. The ACU is an international organisation dedicated to building a better world through higher education. It has over 500 member universities in 50 countries across the Commonwealth.
- InnoFoodAfrica – the University of Pretoria (UP) is representing South Africa in a European Union Horizon 2020 consortium of 20 partners – 15 in Africa and five in Europe – that aims to enhance food and nutrition security in Africa, and open the door to export markets.



Student Access & Success

UP student access and success is a critical priority. It underpins our existence as a university and the impact that we seek to achieve with regard to our contribution to South Africa's economic growth and competitiveness by producing high-level skills in diverse fields and addressing our deeply entrenched socio-economic inequalities.

The university's focus on student access and success spans the entire student lifecycle: it begins with outreach initiatives before students join the university, and extends through recruitment, enrolment, orientation, financial aid, academic support, co-curricular support, retention, career services, graduation and beyond.

The successful implementation of these initiatives requires that any analysis and actions are based on accurate and timely data in line with the university's commitment to evidence-based decision making to enhance student success.



Photo: EYEscape



#ChooseUP Campaign



The #ChooseUP Campaign is aligned to our undergraduate and postgraduate student recruitment, access and success imperatives, and includes:

- Selecting the most talented students from all SA communities, based on academic merit
- Branding, promoting and marketing UP as an institution of choice to all prospective students
- The promotion of student academic success through the FLY@UP and FLY Higher@UP programmes to enhance throughput at both

the undergraduate and postgraduate level

- The promotion of the use of an evidence-based approach to student success
- The establishment of a programme to ensure that high-performing and high-potential students receive acknowledgement, support and opportunities to enrich their experiences at the university
- Developing a diverse and excellent cadre of postgraduates and young academics through succession planning, and by increasing the pool of doctoral graduates and postdoctoral fellows.

Photo: EYEscape



UP2025 Student Priorities

Access to student funding

Despite government funding for students from families who cannot afford university fees, there is still a significant shortfall, and student funding remains a major issue for all South African universities. At UP we make substantial contributions from our own funds to support students. UP currently awards over R1,3bn in loans and bursaries. Our efforts are bolstered by significant scholarship funding from philanthropic foundations for a number of specific programmes.

The largest of these are the Michael and Susan Dell Foundation, the MasterCard Foundation, the Motsepe Foundation and the Carnegie Foundation. A number of South Africa's Sector Education Training Authorities (SETAs), including Fassetta, Bankseta and Inseta, are also supporting students through bursaries.

Student Well-being

Student well-being is integral to the development of our students. Our aim is to enhance the overall (physical, psychological and social) well-being of our students in the context of their academic studies. We continuously seek to enhance the quality of student life to help them to develop into well-rounded individuals and socially responsible citizens. This is a collaborative endeavour involving all staff (academic and support staff), academic departments, student



Photo: EYEscape

structures and organisations, including the Student Representative Council (SRC), sport, security services, student affairs, residence affairs and accommodation and libraries.

Our Student Counselling Unit offers students mental health support. The unit provides professional counselling and therapeutic support for students to help them to deal with trauma, personal and academic stress, make correct career choices, and be academically successful. The Student Health Services Unit provides basic health services to students on all our campuses through full-time nursing staff and session doctors.

There are several initiatives to include students with disabilities. Our university's Disability Unit offers mobility training sessions, which include basic cane skills and route training to the bus stops and other campus common facilities and buildings. Tactile paving on campuses help staff and students who are visually impaired to safely and easily move around the university.

We have a range of anti-discrimination and combating gender-based violence initiatives and a policy to guide people in how to behave. The policy is aimed at ensuring that we create a university environment where everyone feels safe, that they belong, are respected and that their culture is well represented.

The UP Triple L+1 programme promotes an environment that encourages academic success, diversity and community-building in our university residences. The programme focuses on conversations to achieve understanding (Listening), creating a sense of belonging and the holistic development of all residents (Living), promoting Learning, and leaving a positive and innovative Legacy.

The Student Well-being Dialogue programme addresses topics such as life skills, healthcare and mental health, diversity, financial training, gender equality, sexual behaviour, addiction, academic skills and stress management.

Overcoming student hunger

Food insecurity is a challenge for many of our students, with significant potential for adverse effects on their well-being and success. The Student Nutrition and Progress Programme ensures that students on the programme receive funding support for meals or food parcels during the academic terms to sustain their basic needs.



Photo: EYEscape



Student Engagement

Student Partnerships

Student leaders are important partners in the university and they have statutory representation on UP's governance structures, Senate and Council.

Our ongoing strategy strives to:

- Strengthen practices of consultation and participation with student leaders in faculties and residences with regard to good governance at UP and practices aimed at enhancing student academic success

- Encourage independent student initiatives aimed at improving student success rates

Student Leadership

The Student Representative Council (SRC) and its sub-structures are an integral part of the university's governance, leadership and student engagement culture. UP is highly supportive of student structures and an integrated leadership development model. Mentorship, regular interaction, and leadership training sessions enhance the student leadership experience.

Every young person has the right to education

"I do not believe it is going to be smooth and effortless; I do not think it will be easy, but it is possible," says Lerato Ndlovu, the first black woman to be elected president of the University of Pretoria's (UP) Student Representative Council (SRC). "In the boardroom, things will get very interesting. At the end of the day, we need to understand who elected us, why we are here and why we are doing this. If we all come to an understanding of the 'who' and the 'why', then regardless of our backgrounds and political views, we can find solutions to students' problems."

Ndlovu – who is from Luka, a village in Rustenburg in North West – is a final-year Political Science student and the outgoing deputy secretary of the 2020 SRC. She strongly believes that "every young person has the right to education. Access to knowledge should be a basic right" and that fees and affordability should not be a barrier.

She also believes in the power of good communication: "I will be working on far more effective and frequent communication between the SRC and the student body, especially considering how the Covid-19 pandemic has

curtailed on-campus activities. This has resulted in there being a greater need for the SRC to be more accessible to students and to communicate with them in an inclusive manner."

Ndlovu says another priority is "fostering a more inclusive culture in our community as a whole. While we have entities at UP that deal with cases of sexual and gender-based violence and harassment, what is concerning is that students still come to the SRC and other student governance structures to report

incidents because they are not aware that these entities exist, or they feel more comfortable sharing certain things with us. So ensuring that all student governance structures at the university receive sensitivity training will be crucial. In addition, I hope to establish a help desk in the SRC that will deal with issues faced by individuals who form part of the LGBTQIA+ community, so that they are heard and not neglected."



UP 2021 SRC President,
Lerato Ndlovu



Sport, Arts & Culture

Sport

UP is Africa's premier sports performance university, with many of our athletes succeeding nationally and internationally in our 'Tukkies' (as UP is affectionately called) colours or with our blue, gold and red emblem on their sleeve.

UP's focus on sport and sport development and our world-renowned High Performance Centre, is a major drawcard for student-athletes to study at the university. Our Sport, Exercise Medicine and Lifestyle Institute (SEMLI), launched in 2018, further distinguishes UP as a centre of excellence in sports medicine, sports science and research on healthy lifestyles.

In addition to achievement in sport, UP emphasises its importance for health and well-being. The Vice-Chancellor leads the way with regular long-distance walking, which, he says 'gets the blood circulation going, helps me to find solutions and achieve peace of mind'.

The priorities for UP2025 sports include:

- Providing access to qualifying student-athletes
- Supporting student-athletes on an educational and coaching level to ensure their success
- Leveraging sports science research (inter alia via the Sport, Exercise Medicine and Lifestyle Institute) to provide TuksSport and our student-athletes with a competitive edge.
- Transforming the university into a university with an inclusive and winning culture; a university with a reputation for excellence that has a positive impact on society.



Dewald Naude Photo: Reg Caldecott



Wenda Nel. Photo: Reg Caldecott



1ST WOMAN

400m hurdles champion, Wenda Nel, made SA athletics history as the first SA female athlete to win a medal in the longer hurdles event at a major international competition

3 OUT OF 4

The SA 4x100m relay team has three TuksAthletics athletes – Anaso Jobodwana, Emile Erasmus and Akani Simbine

High Performance Centre

The High Performance Centre is situated on the Hillcrest Sports Campus and offers full hospitality services, access to world class sports facilities and SEMLI's specialist sports science and medical services, including assessments, medical practitioners, physiotherapists, psychologists, nutritionists and biomechanists. These services are available to students, patients, clients, visiting national and international athletes and the public.

TuksSport High School

TuksSport High School is an independent, co-ed school, catering for learners from Grade 8 to 12. It forms part of the High Performance Centre, and shares its vision of offering a unique sporting and learning environment for its learners, allowing current and potential high-performance athletes to train and travel internationally, while still staying in school. TuksSport High School offers learner athletes a unique opportunity to live out their passion for sport in a distinctive sporting milieu created by the High Performance Centre and the University of Pretoria.

Arts & Culture

UP prides itself in the diversity of its arts and culture offerings, which include museums, a conservation facility, music ensembles, halls and theatres, and the vast art and heritage collections.

UP's music programme is the largest in South Africa and covers everything from symphony orchestras to choral music. The nation's rich musical heritage is represented in the repertoires of the UP Symphony Orchestra, the UP Symphonic Winds, and those of its choirs, from the renowned Tuks Camerata – over 50 years old, with several prestigious CDs to its name – to the Ovuwa Ensemble's dynamic performances of indigenous music and dance forms. The Onderstepoort Veterinary Science faculty's Community Choir also proudly contributes to the university's cultural



UP Symphony Orchestra



Student, Mxolisi Magagula, plays a Tshitiringo, a traditional Venda flute made of bamboo. Photo: Callie de Wet

engagement, while UP's Youth Choir draws in choristers from 34 different local high schools, sharing the joy of traditional music, jazz, gospel and folk music, from home and across the globe.

Cultural engagement also lies at the heart of the student experience at UP. The annual *1nSync* performance is where first years have a chance to shine, as they share their talents with their contemporaries and form lasting friendships. The drama department's *Kopanong Student Arts Festival* may be their destination further along in their university career. An annual event, *Kopanong* offers students and young artists the opportunity to showcase original creative work in any language and any genre, and performances often move on to other arts festivals in South Africa.

The university's other outstanding cultural offering is in the wealth of art and artefacts contained in its numerous museums and galleries. The museums underpin UP's substantial arts education programmes. As well as the groundbreaking Master's in Tangible Heritage Conservation, the Museums Department supports ten academic modules, and partners with the Javett-UP Art Centre. The diverse institutions house thirty different collections – including the unique Mapungubwe Archive – across seven campuses, which are visited by more than 40 000 people each year, including learners from hundreds of schools. And in launching a Sculpture Route beyond the university's campus, UP goes even further in ensuring that it shares its cultural riches with the community around it.



UP and Positive Change

Sustainable infrastructure

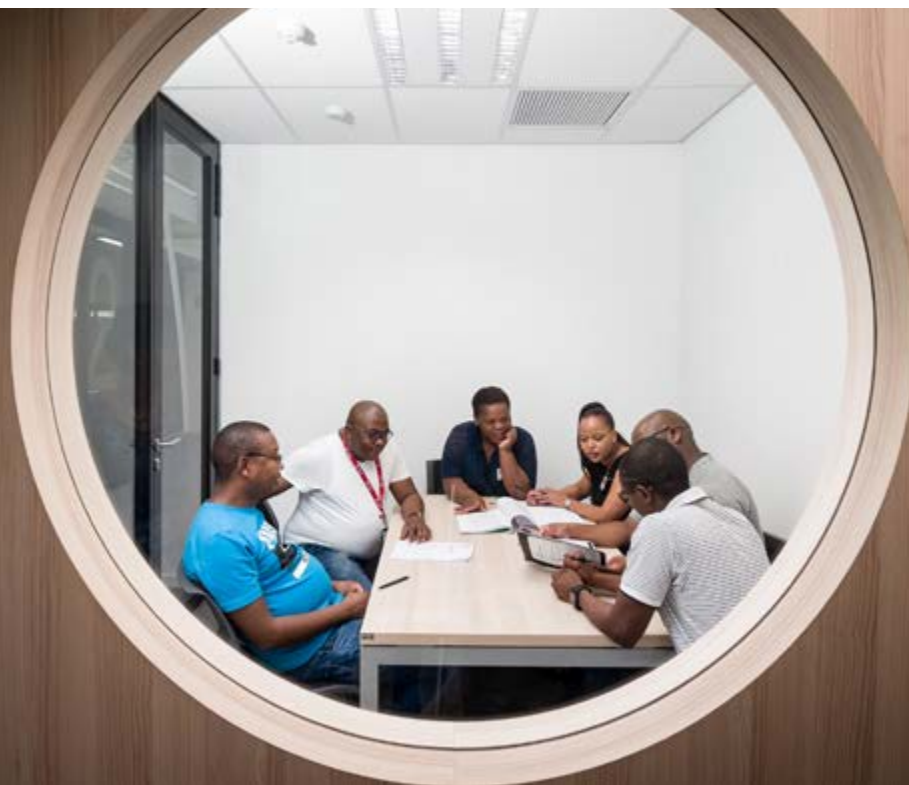
UP's Spatial Development Plan 2020–2025 provides strategic direction for the future physical development of the university. UP's infrastructure includes more than 700 buildings. More than a third of these are classified as heritage buildings (several dating back to the early 1900s) for which the university has a conservation management plan to ensure their sustainability.

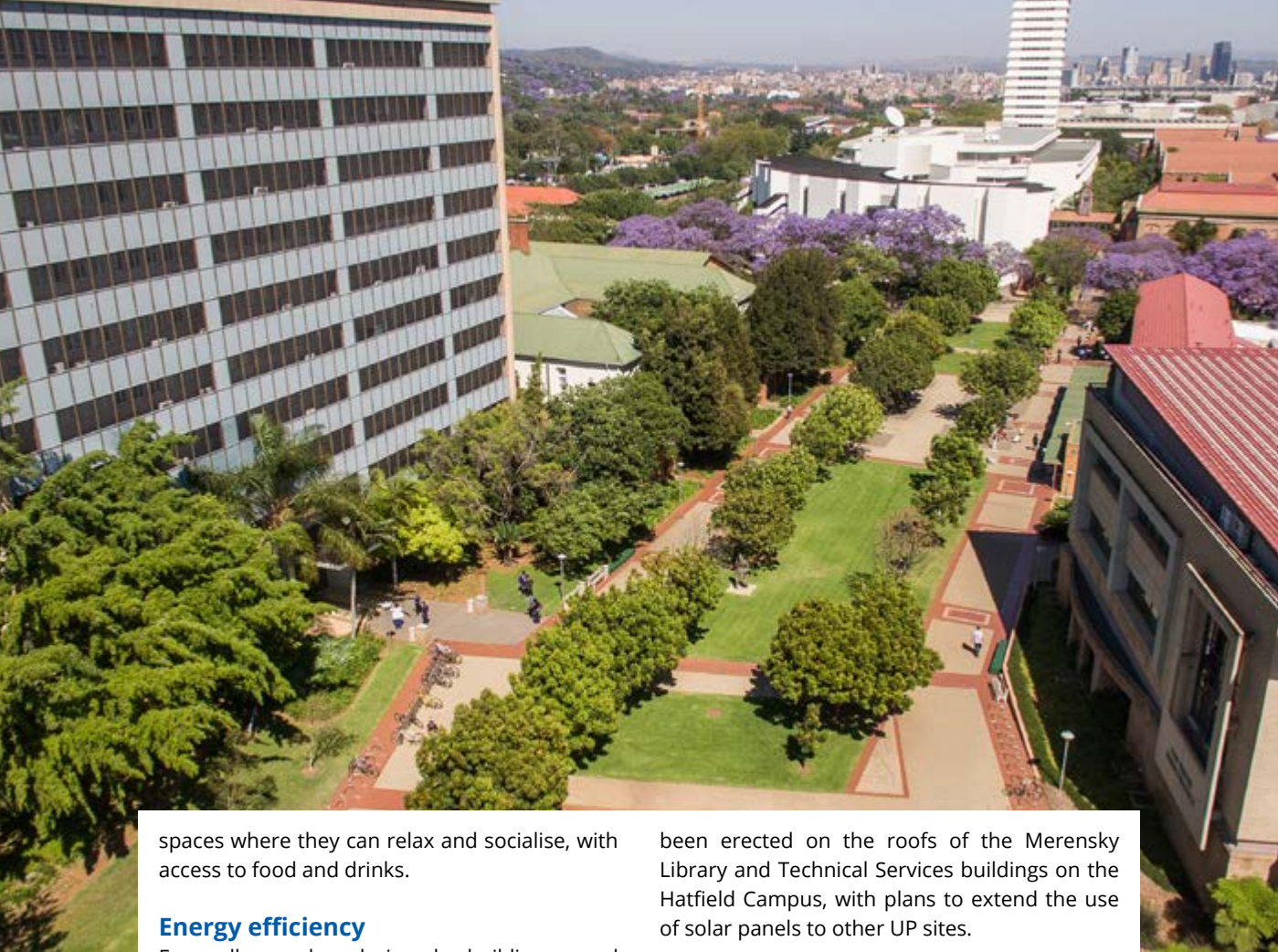
Social learning spaces

Welcoming social learning spaces promote successful learning and encourage a

transformed and inclusive 21st-century university culture. Project planning for the construction and refurbishment of facilities is undertaken in collaboration with faculties, departments and students. It is critical to involve our students, as their experience at UP is influenced by the nature of their learning and research spaces.

All social learning spaces are designed to be user-friendly, multifunctional and connectivity-enabled. They accommodate the students' need for a quiet space where they can work and have group meetings and discussions, coupled with





spaces where they can relax and socialise, with access to food and drinks.

Energy efficiency

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. In addition, any new structures to be erected must comply with a Four Star Green Rating. The university has entered into a Power Purchase Agreement (PPA) to supplement its electricity supply by installing photovoltaic (PV) panels on various existing and new buildings. Emergency back-up water systems and water harvesting initiatives, including retention ponds and sustainable urban drainage systems, are coordinated by our water management task team.

GreenUP

We have ongoing strategies to save energy and to reduce water consumption and the university's carbon footprint, which has been halved in the last few years. Solar panels have

been erected on the roofs of the Merensky Library and Technical Services buildings on the Hatfield Campus, with plans to extend the use of solar panels to other UP sites.

We harvest rainwater and make use of the many registered boreholes around our campuses for irrigation purposes. This helps reduce the university's consumption from municipal reservoirs. Sophisticated technologies monitor our buildings' electricity and water consumption in real time in order to reduce use and minimise loss due to leaks and faulty equipment.

Another GreenUP focus area is recycling. An e-waste recycling container is available for old computers, cellphones, batteries, and other e-waste, while a facility for recycling glass, paper and other waste is also available.

At the UP Experimental Farm, our green waste is processed into usable compost that is then reintroduced to feed our beautiful gardens. Through a tree-planting programme, UP has planted 1 735 trees since 2014, and for every

tree that needs to be removed, three more indigenous trees have to be planted.

Our City Our Neighbourhood

Key to UP's social responsiveness is our role as an anchor institution in the City of Pretoria/Tshwane and in our home neighbourhoods of Hatfield and Hillcrest.

We are a significant employer in the city; we generate jobs, purchase huge amounts of goods and services, attract businesses and highly skilled individuals to the city, and make a significant contribution to its economic development.

Beyond its inherent contribution to the city's social and economic development, UP has an important stake in the future of the city and its neighbourhoods, as our own success and sustainability depends, in no small measure, on the city's overall health. We work closely with the Hatfield City Improvement District to create a clean, safe, secure, interesting and attractive

environment beyond the university boundaries. This includes countering creeping urban decay and supporting efforts to clean and maintain Hatfield by removing waste from public areas throughout the year.

We frequently provide services and support to national departments. One example is The Cities Support Programme, a South African National Treasury initiative, designed to improve service delivery and municipal performance. The theme of an executive leadership programme, developed in partnership with our GIBS Business School, is *Leading Future Cities: Navigating Today's Complexity*.

UP Entrepreneurs

At UP we train our students and postgraduates to be entrepreneurial. We offer a free online entrepreneurship programme at the UP Business Incubator and the Centre for Entrepreneurship in the Faculty of Economic and Management Sciences. This empowers students to take charge of their future, and





Fulbright Scholar, Hope Muronga, at graduation.
Photo: EYEscape

opens their minds to new ways of thinking and operating.

We develop innovation and entrepreneurship through our TuksNovation ecosystem which provides specialised support to entrepreneurs throughout their start-up growth journeys. We connect science and technology innovators with corporates, academics and government. Enterprises UP, together with UP's Career Services, recently launched a Ready for Work initiative – focusing on career planning, job

preparation and workplace skills – specifically designed for students and graduates from UP to acquire the skills and attributes that help them to integrate into the world of work and make a meaningful contribution to society, the economy and their communities.

Success after Graduating

UP is recognised for the quality of its professional and research-orientated academic programmes. As a result, UP graduates are highly employable and enjoy success in the careers they choose. UP's graduate destination survey reveals that 93% of UP students are either employed or continue with their studies six months after graduating.

The university continues to provide innovative opportunities for students to gain experience that prepares them for future realities, the future world of work and lifelong learning. The envisaged pervasiveness of automation, in the context of 4IR, makes it imperative to educate students who will fill needs in society that even the most sophisticated artificial intelligence (AI) cannot. While AI agents may work like human beings, they do not, as yet, have the ability to invent, to create and to discover. We are focused, therefore, on ensuring that our graduates are employable and have the capabilities to thrive in a world of complex technological change and rapidly transforming employment contexts. Critical to this is UP2025's combination of blended learning, digital pedagogies, project-based pedagogies, other pedagogies that stimulate creativity, working in teams (collaborating with people and intelligent machines) and social perceptiveness.



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