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1.0 Introduction

The University of Pretoria’s long-term strategy (UP 2025) “captures the cornerstones of a common vision and understanding of the University’s role and identity in the context of multiple and changing circumstances—nationally, regionally and in an increasingly interconnected global world.”¹ The implementation of the vision’s robust agenda is guided by five-year strategic plans and annual implementation plans. The current strategic plan (2012 – 2016) is about to end, and a new strategic plan is required to guide the implementation of the University’s vision for the period 2017 to 2021. This new five-year plan is therefore a necessary component of UP 2025. It builds on the achievements and progress of the past five years, re-aligns institutional priorities and strategies in view of the significant changes that have since taken place in the University’s external environment and, above all, re-affirms UP’s strategic importance as a national asset that is responsive to national priorities and global challenges.

This strategic plan has been developed and will be implemented within a context of unprecedented volatility and instability in the post-apartheid history of higher education in South Africa. The national #Feesmustfall student protests, which started in October 2015, continue at this time, and remain unresolved. The 2015 protests resulted in a Presidential moratorium on fee increases for 2016, which impacted negatively on UP, given that the compensatory funding received from the Department of Higher Education and Training (DHET) only covered 70% of the shortfall. The University’s financial stability was compromised further by the insourcing of hitherto outsourced campus services. The 2016 student protests, which have been more intense and violent compared to the previous protests, have so far disrupted academic programmes and the functioning of all public universities, including UP. It remains unclear how the tuition fees contestation and the other demands by students will be resolved. What is clear, however, is that the context of South African universities has changed drastically.

A critical challenge for UP, and a key focus for this plan, is ensuring that the University thrives within the envisaged context of instability and complexity. This means that, in order to ensure the University’s sustainability and the successful execution of its core mandate of teaching, research and impacting society, UP has to draw on its history of resilience and innovation to navigate the changing circumstances.

2.0 Key achievements and progress: 2012 – 2016

This Strategic Plan is built on a strong foundation of significant progress towards the realisation of the University’s vision. The strategic goals for the 2012 – 2016 period were as follows:

I. To be a leading research-intensive university
II. To strengthen the University’s international profile
III. To strengthen the University’s impact on economic and social development
IV. To pursue excellence in teaching and learning
V. To increase access, throughput and diversity

¹ University of Pretoria (2011). Strategic plan: the vision, mission and plan of the University for 2025.
The hallmark of progress toward the goal of research intensity has been the significant increase in the number of academic staff with doctorates, research productivity and the number of fields in which the University is recognised as a research leader. The percentage of academic staff with doctorates increased from 43% in 2012 to 62.5% in 2015\textsuperscript{2}, while research productivity increased from 0.66 accredited publication units per academic full-time equivalent (FTE) staff to 1.06 units from 2012 to 2015, respectively. In addition, the total doctoral graduate output increased by 66.5%, from 200 in 2012 to 333 in 2015.

UP has consistently maintained its position as a research leader in the fields of Agricultural Sciences, Clinical Medicine, Engineering, Environment and Ecology, Molecular Biology and Genetics, Plant and Animal Sciences, Social Sciences, and Veterinary Sciences (based on bibliometric data for high impact research activity, high publication numbers and citations\textsuperscript{3}). Leading researchers at UP have been recognised in a range of research fields including, specifically, Forestry Biotechnology, Microbiology, Genetics and Bioinformatics, Mammal Research and Veterinary Tropical Diseases, Insect Sciences, Malaria, Immunology, Clinical Medicine, Neuroendocrinology, Artificial Intelligence and Economics and Business.\textsuperscript{4}

Closely linked to UP’s research performance is the strengthening of its international profile and visibility. The University’s international profile has continued to grow as demonstrated by several indicators. In 2015, there were 772 international doctoral students compared to 544 in 2012. The number of international postdoctoral fellows also increased – from 78 in 2012 to 126 in 2015, as did the number of international academic staff – from 144 in 2012 to 174 in 2015. Equally important is the growth in international co-authorships. In 2015 a total of 914 papers co-authored with international researchers - compared to 643 in 2012 – were published by UP researchers in journals indexed by the Web of Science (WoS).

UP’s contribution to the country’s social and economic development has grown significantly. The University is one of the main contributors of human capital in a broad range of fields that are critical to the advancement of South Africa. These fields include engineering, life and physical sciences, initial teacher education, and health and animal sciences. Enrolments in Science, Engineering and Technology fields experienced strong growth, and currently account for 53.8% of all undergraduate headcount enrolments. In addition, the University developed important partnerships with local communities, the City of Tshwane, government, industry and international organisations. Approximately 12 000 students work at about 1 200 community sites of learning, supported by 5 000 student volunteers. In this way the University contributes significantly to the local economy and to sustainable socio-economic upliftment of under-served communities.

Progress in the achievement of the goal of excellence in teaching and learning is attested to by, among others, the continued improvement in success and throughput rates, reduction in the barriers to student success, enhancement in the educational experience of students, innovations in the University’s teaching model as exemplified by the adoption of a hybrid teaching model and the

\textsuperscript{2} The latest data for all the indicators are available up to 2015.
\textsuperscript{3} Web of Science Essential Science Indicators, 2015.
\textsuperscript{4} QS subject rankings, 2015; Web of Science Essential Science Indicators, 2015.
increased utilisation of modern technologies in teaching and learning. Significant progress has also been made with regard to the goal of access and diversity. Student numbers have grown as per approved enrolment plans, the University’s student financial aid initiatives have expanded considerably and its diversity profile has increased in line with its transformation imperative. Table 1 below provides a summary of the University’s performance against key performance indicators.

Table 1: Performance against core indicators

<table>
<thead>
<tr>
<th>PERFORMANCE INDICATORS</th>
<th>2012</th>
<th>2013</th>
<th>2014</th>
<th>2015</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Goals 1 &amp; 2. To be a leading research university in Africa and strengthening the University’s international profile</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% academic staff with Doctorate degrees as their highest qualification</td>
<td>43.04%</td>
<td>44.09%</td>
<td>54.02%</td>
<td>62.45%</td>
</tr>
<tr>
<td>Accredited publication journal units per academic FTE staff</td>
<td>0.66</td>
<td>0.69</td>
<td>0.99</td>
<td>1.06</td>
</tr>
<tr>
<td>Weighted M and D graduate output per academic FTE staff</td>
<td>0.68</td>
<td>0.74</td>
<td>1.05</td>
<td>1.35</td>
</tr>
<tr>
<td>Master’s headcount enrolments (HEMIS)</td>
<td>6 559</td>
<td>6 676</td>
<td>6 853</td>
<td>6 911</td>
</tr>
<tr>
<td>Doctoral headcount enrolments (HEMIS)</td>
<td>1 860</td>
<td>1 978</td>
<td>2 155</td>
<td>2 279</td>
</tr>
<tr>
<td><strong>Goal 3. To strengthen the University’s impact on SA economic and social development</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Number of graduates in scarce skills areas (excl. distance education)</td>
<td>3 949</td>
<td>4 365</td>
<td>4 258</td>
<td>4 682</td>
</tr>
<tr>
<td>% registrations in SET (HEMIS contact students) *</td>
<td>51.65%</td>
<td>52.26%</td>
<td>53.33%</td>
<td>52.50%</td>
</tr>
<tr>
<td><strong>Goal 4. To pursue excellence in teaching and learning</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% successful FTE students to total FTE students (contact)</td>
<td>81.57%</td>
<td>81.50%</td>
<td>82.67%</td>
<td>83.58%</td>
</tr>
<tr>
<td>Total contact FTE students per FTE academic staff member (ratio)</td>
<td>18.27</td>
<td>18.39</td>
<td>25.59</td>
<td>26.38</td>
</tr>
<tr>
<td>First-time entering undergraduate headcount enrolments (HEMIS)</td>
<td>7 412</td>
<td>8 497</td>
<td>8 648</td>
<td>8 773</td>
</tr>
<tr>
<td><strong>Goal 5. To increase access, throughput and diversity</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>% black UG contact students</td>
<td>45.10%</td>
<td>46.90%</td>
<td>48.18%</td>
<td>50.13%</td>
</tr>
<tr>
<td>% black PG contact students</td>
<td>53.30%</td>
<td>55.10%</td>
<td>54.90%</td>
<td>56.84%</td>
</tr>
<tr>
<td>% black Staff (Department of Labour EE definitions)</td>
<td>36.70%</td>
<td>39.90%</td>
<td>39.35%</td>
<td>40.91%</td>
</tr>
</tbody>
</table>

The University realised significant improvements in external funding for research, including increased national agency grants as well as increased industry funding, increased income for student support, and awards for major research equipment. Important progress has been made in the area of infrastructure development and modernisation, as epitomised by, inter alia, the construction, extension and refurbishment of facilities on the Prinshof and Onderstepoort Campuses to accommodate increased intakes of medical and veterinary students, respectively; new facilities on the Hatfield Campus, including the *Makerspace* in the Merensky Library, which is the first of its kind in the country. These infrastructure projects were completed on time and within budget. Equally significant was the successful implementation of an Enterprise Resource Planning (ERP) system which provided integrated management information system across the entire university, enabled online applications, registrations and efficiencies in the overall administration and management of the university, for example, paperless leave and finance approvals.

The University’s strong performance has not been registered across all of the University’s priorities, especially as pertains to:

→ Staff/student ratios;
→ completion times and throughput of postgraduate students;

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5 The *Makerspace* is a collaborative research, experimentation and work space furnished with advanced and specialised equipment and technological aids such as 3D printers, for use across disciplines by UP staff and students.
→ Publication impact (citations per paper);
→ Proportion of research articles published in internationally listed journals; and
→ Number of international academic staff and students.

The challenge for the University is therefore to build on performance where this is already strong, and accelerate it in the various areas where this is required.

3.0 Navigating a dynamic and complex landscape

In a complex and dynamic world characterised by rapid technological innovation, political volatility, intensifying migration of capital and skills, universities will have to continually reposition and re-invent themselves in order to survive and thrive as vibrant educational institutions. The trends examined below, are the most relevant to UP’s priorities and will have a significant influence on the successful achievement of the goals and outcomes of the plan.

Globally, the main trends impacting on universities include demands for universities to play an active role in fostering the advancement of their societies; technological innovations that have significant implications for how students learn and how academics teach and conduct research, and international competition for talented students and researchers, resources and prestige. These features are underpinned by an overarching trend of declining or below inflation increases in public financial support, which has inevitably constrained the ability of universities to adapt and respond to these trends and challenging circumstances effectively, and simultaneously play their crucial role as catalysts of national productivity and competitiveness.

Since the collapse of apartheid, universities in South Africa have been called upon to play a lead role in advancing the transformation and development imperatives of the post-apartheid dispensation; that is, to reflect and serve their new milieu. It is in this context that the White Paper for Post-School Education and Training, for example, sets an enrolment target of 1.6 million for South African universities by 2030 and, in accord with the National Development Plan (NDP), identifies the scarce and critical skills needs for South Africa’s economic development as an important priority. Further, the two policy documents call for an increase in research and innovation for effective participation in a global knowledge economy.

The country’s high levels of inequality are a challenge with which South African higher education institutions must contend. The unacceptably high levels of inequality in the country are linked, inter alia, to the lower skill levels among marginalised communities6. In this regard, an integral part of the public mission of South African universities is enhancing access, equity and social justice. Accordingly, providing educational opportunities to students from diverse communities and undoing the regressive effects of socio-economic background on educational achievement are important national imperatives. For UP, these imperatives require that the University builds stronger connections with schools, especially those serving disadvantaged communities, enhance mechanisms to recognise talent and potential, and enhance success rates. Equally important is the

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need for UP to accelerate its transformation imperatives focused on equity, diversity and inclusive institutional culture.

It is a truism that through their research universities play an important role in making it possible for their countries to join the global knowledge society and compete in sophisticated knowledge economies. The criticality of research has further been driven by the urgent need to address the many complex challenges confronting society, such as food, water and energy security, life threatening diseases, climate change, global terrorism and sustainable development. In this context, an urgent call to universities is to intensify research and aligning it with complex societal challenges, that is, to pursue “research that matters”. For many universities, including UP, one of the main challenges regarding the intensification of research is the unlocking of these institutions’ full capacity to the point where the majority of academics are engaged in impactful research and scholarship. UP cannot be an excellent research institution if only a few of its academics are conducting research.

Funding is the major constraint on universities’ ambitions and ability to meet these imperatives. The funding challenge is characterised by several trends, key among them being the inability of public funding to meet the rising costs of higher education provision, driven mainly by increasing enrolments, and inadequate student financial aid. In South Africa, public funding has over the years declined in real terms and the National Student Financial Aid Scheme (NSFAS) is unable to provide funding support to all deserving students. The challenge of university funding in South Africa was brought into sharp focus by the 2015 nation-wide #Feesmustfall student protests, which resulted, inter alia, in a Presidential declaration of a zero per cent increase in tuition fees for 2016. The combination of declining public funding, uncertainty over tuition fees and insourcing of erstwhile outsourced campus services, coupled with the country’s flagging economy, has significant implications for the stability and viability of South African universities, including UP. These circumstances require that universities modify their financial strategies in order to weather the uncertain times ahead. Overall, a sustainable funding environment is crucial for universities to be able to execute their missions successfully and contribute to the socio-economic advancement of society.

Universities are increasingly competing with one another for talented researchers, students, institutional reputation and funding. The competition for talented researchers is driven mainly by the pursuit of research excellence and reputational capital by universities. Talented researchers produce good quality research which is a key determinant of reputational differences among higher education institutions. Related to attracting talented researchers and students, is the reputation race manifested, inter alia, through world ranking systems, which have become one of the defining features of global higher education. Rankings generally receive significant public attention and influence, and reinforce perceptions about individual universities. The intense competition among universities has fuelled a number of adaptive trends such as partnerships, differentiation, specialisation in areas of research where there is demonstrated strength, re-inventing the student experience, online delivery and internationalisation.

Furthermore, information and communication technologies (ICTs) have become a vital underpinning to the academic research and operational functions of universities. Advances in ICTs have radically changed approaches to learning, pedagogy, research and access to knowledge, and have led to the emergence of, inter alia, online and hybrid courses using digital technologies, Open Education...
Resources (OER) and Massive Open Online Courses (MOOCs). With reference to SA, it is evident that the NDP goals for 2030 will not be met by traditional contact and distance education models alone. Online education offers an opportunity for UP to increase its contribution to the human capital needs of South Africa.

The evolving political landscape in the country poses challenges for UP. We have witnessed an increasing penetration of national party politics into student politics, often leading to inter-political party rivalries on university campuses, with the potential to cause instability. The same applies to trade unions on university campuses, which have increasingly become sites of political competition between the various political parties with which they are affiliated. The result of this emerging situation is that matters of interest to trade unions have inevitably become proxy contests between the various political parties the respective unions are affiliated with. This has led to, among others, an increase in demands by trade unions and hardening of positions during negotiations. A related development is the active involvement of students in staff matters that are traditionally the remit of trade unions. A good example is the insourcing of previously outsourced campus services, which was driven, to a great extent, by student-led campaigns. These developments pose complex challenges for UP, and call for innovative approaches to address them in order to maintain stability at the University, and ensure sustainability.

The biggest source of instability for South African universities and UP is violent student protests. While the higher education sector in post-apartheid South Africa has experienced student protests of one form or another, these protests were largely limited to individual institutions and were peaceful. This changed dramatically in 2015 with the outbreak of nation-wide student protests in respect of a series of rolling demands, namely, transformation, tuition fees and the insourcing of hitherto outsourced campus services. These protests, mainly in respect of free higher education, have continued into 2016, leading to unprecedented instability in the sector. Academic programmes have been disrupted, many universities have been forced to close and property has been damaged. The ongoing instability has significant implications for the sustainability of UP, continuity of teaching and research, its international reputation, and ability to attract international students and top academic staff and researchers.

The overarching context in which UP operates presents challenges to the University’s ability to maintain its sustainability, competitiveness and stature. A key challenge for UP is to match the complexity of its environment and ensure that, irrespective of the complex challenges, it thrives as a vibrant educational institution, continues to provide high quality education to its students, consolidates the gains of the last five years in the research arena, and sustains its competitive advantage. In short, UP must adapt and effectively navigate in the new complex landscape.
4.0 Vision, strategic goals and drivers

Vision

The vision for UP, as set out in UP 2025, remains relevant and pertinent, and so too the four ‘navigational markers’ of quality, relevance, diversity and sustainability.

Accordingly, the University’s vision is:

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

Strategic goals

The five strategic goals identified in UP 2025 remain important strategic focus areas for the University. However, given the significant changes in the University’s external environment, especially the seismic changes in 2015 and 2016 related to affordability and resourcing of higher education (#Feesmustfall student protests) and transformation, it was necessary to re-think the strategic goals so as to align them with these changes. The University’s strategic goals have therefore been reformulated as follows:

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

5.0 Institutional drivers

The profound challenges and opportunities facing the University, both nationally and in the global landscape of higher education, require dynamic responses in order for UP to achieve its vision. To this end, the pursuit of the University’s strategic goals will be underpinned by the following key drivers.

Responsiveness and agility

Given the complexity of its environment, the University will strive to proactively adapt to changing and unpredictable circumstances; adjust internal structures and processes, as necessary, to effectively respond to the complex changes in our environment; embrace flexibility, agility and innovation in responding to our challenges and opportunities, and pursue “multiple courses of action and quick changes from one course to another as the environment changes.”

multiple teaching delivery modes and strategies to ensure continuity of teaching and learning and research.

Entrepreneurship and innovation
We will be entrepreneurial and innovative in addressing our resource challenges and increasing our competitiveness. This will be complemented with adaptability and efficiency in the stewardship of resources, agility in decision making and leadership innovation. Entrepreneurship and innovation will be utilised to explore ways in which to generate external funding and new opportunities for funding, manage costs and enhance operational efficiency and effectiveness, enrich teaching, learning and research, minimise bureaucratic rigidity and adapt to the challenges in the University’s external environment.

Partnerships and networks
Our academic and research enterprise will be strengthened through our strategic national and international partnerships and networks. We will identify new strategic partnerships and networks, optimise existing ones, and build and maintain internal and external relationships. We will pursue engagements with communities, private, public, and international partners, to explore strategic initiatives to increase the impact of UP. Targeted partnerships with local institutions will be pursued, inter alia, to ensure the continuity of our academic and research programmes, and strengthen our role as an anchor institution. Similarly, we will facilitate internal collaboration and teamwork, including interdisciplinary collaboration, and break down the silos within the University to enhance cross-functional team work and operational efficiency.

Harnessing the power of data analytics
The effective governance and management of UP across all levels, implementation of our strategic goals, and monitoring of the University’s performance, requires reliable data and analysis. More importantly, it requires the engendering of a data/evidence-driven culture, as a routine and sustained UP practice. With effective evidence-driven decision making, the University can more accurately identify trends, areas that need improvement and consider fact-based decision-making options and likely outcomes. By harnessing the power of data analytics, we will transform the scale and impact of the University’s activities, enhance agility in decision making, drive innovative approaches to student learning and development, community engagement, and operational excellence. Some of the priority areas where data analytics will be utilised include recruitment of talented students, improving the student experience, fundraising, and support for teaching, learning, research and effective decision-making.

A dynamic institutional culture
The realisation of our vision and strategic goals require an institutional culture in which all staff and students strive for excellence, and fosters a diverse, inclusive and equitable university community, resilience, responsiveness and adaptability. We will invest in continuous development of staff and optimise technology for teaching and learning, research and informed decision making.
6.0 Key priorities and initiatives

Institutional sustainability

UP is recognised as a very well-managed university. However, the resource constrained and volatile economic environment in which the University operates requires more agility, flexibility, fiscal responsiveness and efficiency, in order to ensure UP’s sustainability and the realisation of our strategic goals. The University needs to protect and improve its financial position in order to have the resources necessary to ensure that our students continue to receive an exceptional education, our research is world class and our engagement with society remains impactful.

UP has a large physical plant spread across seven campuses and has invested substantially in cutting-edge information and communication technology (ICT). This infrastructure needs to be leveraged to ensure that we continue providing enabling environments in which to study, work, and live. Underlying the continued maintenance and development of our infrastructure is a commitment to addressing areas such as energy and water conservation, waste reduction, transportation, campus resilience and land use. Equally important to our sustainability are partnerships with key stakeholders, aligning student growth with staffing, attracting talented students and staff, and the development of the UP precinct around the Hatfield campus (Hatfield City Improvement District). The development of the UP precinct is critical to ensuring safety and security, cleanliness, efficient transportation, improvement of the physical environment, excellent services and, ultimately, a vibrant and sustainable community of students, staff and residents. Overall, we are committed to the advancement of sustainability principles in all aspects of our operations.

The approach to ensuring institutional sustainability will be to expand and develop income generating activities, while containing and cutting costs, where appropriate. In addition, the cash flows of the University will be monitored closely, while staff will be redeployed to focus on the recovery of the growing amount of outstanding student debt. Initiatives for the expansion, upgrading and refurbishment of infrastructure will be curtailed. Resources will be reprioritised to ensure funding for the continuation of core academic activities of teaching and learning and research.

Key outcomes

a) A financially sustainable University in terms of solvency, liquidity and cash flow.
b) Ecologically and economically sustainable infrastructure.
c) A diverse and exceptional cohort of academic and support staff that collectively drive the academic enterprise and aspirations of the University.
d) World-class infrastructure and a UP precinct that creates an enabling environment for staff and students to excel.
e) Integrated sustainability principles in all University operations.
Key strategies

Students and Staff

- Carefully plan and manage student access and success within the constraints of facilities and other resources and in accordance with the approved enrolment plan.
- Modernise postgraduate administrative procedures and selection protocols.
- Increase financial support for students with bursaries and loans (funded students) through own, controlled and administered funds.
- Foster an enabling, inclusive and safe environment for students and staff.
- Retain and develop a diverse body of excellent academic and support staff.
- Develop dynamic staff planning and workload models to create an optimal staff establishment for the University.
- Complete and implement pro-active succession planning for the renewal of the University’s staff, in light of retirements over the next five years.
- Improve qualifications of academic and support staff.
- Decrease student to academic staff ratios.
- Redeploy and where necessary, train staff to ensure effective and efficient use of human capital.

Financial sustainability

- Expand, diversify, and effectively steward funding to ensure economic viability of UP.
- Manage costs and ensure efficient use by redirecting resources.
- Optimise operations to ensure efficiency.
- Optimise subsidy income by, inter alia, improving student throughput.
- Optimise the return on investments and University assets.
- Increase third stream income to fund staff and operational costs, research and study finance.

Physical spaces

- Uphold environmental sustainability as a guiding principle in the stewardship of the University’s facilities and resources.
- Implement efficient transport services, where necessary, for students.
- Planning for cost effective construction and maintenance projects.
- Optimise existing space use.
- Develop campus resilience plans.
- Manage waste effectively.
- Support the full implementation of the Hatfield City Improvement District (UP precinct) project.

Information and technology (IT)

- Optimise IT resources, for example, Blackboard, to ensure continuity of the University’s academic and research programme in the event of unplanned campus closures.
- Implement strategically focused and cost-effective enhancements to the IT infrastructure in support of research, teaching and learning, and operational efficiency.
- Enhance data gathering processes and procedures and develop analytics capabilities to enhance the quality and speed of strategic decision-making.
- Configure support services in such a way that optimal use is made of IT.
→ Strengthen administrative and operational efficiency by improving communication and collaboration between and among academic and support service departments.
→ Protect the IT infrastructure in the event of disruptions.

Transformation

Transformation at UP is a strategic driver for ensuring success in teaching, learning and research, a means for attracting historically disadvantaged communities, and a catalyst for creating the conditions in which all members of the University can thrive. We recognize that our success is dependent on how well we value, engage and include students, staff and stakeholders (including suppliers) from diverse backgrounds. Transformation is an overarching institutional imperative that requires a fundamental change of the University’s culture by embedding diversity, inclusion and equity, in every effort, aspect, and level of the University. The goal is to make transformation a norm that is practiced by everyone within UP.

Key outcomes

(a) Enhanced student and staff diversity profiles.
(b) University of choice for talented students and staff from diverse backgrounds, and also an institutional partner of choice.
(c) Institutional cultures and practices that are welcoming to students and staff from diverse socio-economic and cultural backgrounds.
(d) Positive image as a transformed university.

Key strategies

→ Address all the cultures, practices, policies and processes, covert and overt, which alienate, and inhibit transformation.
→ Consolidate existing transformation initiatives and accelerate their implementation.
→ Accelerate the recruitment of black staff, especially academic staff.
→ Revise staff recruitment practices and policies so as to ensure a systemic and sustained search, intake and retention of staff from the designated groups, especially at senior levels.
→ Foster a learning environment free of prejudice and bias in which all students – from different social and economic backgrounds – feel welcome, equally valued and are able to actualise their potential and achieve academically.
→ Eliminate intergroup disparities in the enrolment, retention, and graduation rates of undergraduate and postgraduate students.
→ Make the necessary adjustments to the University’s physical and social environment to meet the changing needs of its constantly changing student and staff corps.
→ Create opportunities for learning, discussion and debates about transformation.
→ Procure goods and services from black, disabled persons and black female entrepreneurs and small businesses.
Access and student success

UP strives to provide access to the full diversity of South Africans, and ensure that all students have the maximum opportunities to succeed and graduate within the minimum time. Effective teaching and learning at undergraduate and postgraduate levels are key to fulfilling the primary function of the University; i.e. producing knowledgeable and skilled graduates in line with the high-level needs of the South African economy and society, and replenishing our human capital needs and those of other knowledge institutions. The realisation of expanded access and enhancement of teaching and learning require the implementation of innovative strategies. In this regard, the delivery of the University’s programmes via online platforms is an important priority. In addition, the University will seek partnerships with reputable international higher education institutions to offer joint degree programmes. To this end, the university will engage with the Department of Higher Education and Training and the Council on Higher Education (CHE) regarding the funding of programmes offered via online platforms, and the applicable regulatory frameworks for changing programme delivery mode and the offering of joint degree programmes.

In view of the needs of the South African economy and society as well as the resource intensiveness of university education, the success of our students is paramount. We recognise that student success is intricately linked to the totality of the student experience at the University. In this regard, the management of the whole student lifecycle – from pre-application through graduation – in an integrated and holistic manner, is a top priority. This will entail the integration and close coordination of the various functions related to student success, namely, student recruitment and enrolment, financial aid, student accommodation, teaching and learning, student affairs and campus safety, and will be underpinned by data analytics. Data analytics will be utilised, inter alia, to attract the best students \(^8\) for UP, proactively identify at-risk students, create the best learning outcomes, and enhance campus experience.

**Key outcomes**

a) Delivery of transformed curricula, using best practices in teaching, learning and assessment.

b) University-wide hybrid delivery model with a focus on online and blended learning methodologies.

c) Significantly improved minimum-time-to-qualification completion for all undergraduate and postgraduate student cohorts.

d) Increased funding for students.

e) Diverse and stable profile of academic staff.

f) Improved rates of graduate employment and/or entrepreneurial venture start-ups within three months following graduation.

g) Significant reduction and ultimately the elimination of differential student success rates based on race, gender, class and other critical variables.

h) Excellent integrated services to students and prospective students over the full lifecycle.

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\(^8\) ‘Best students’ are not necessarily high performing students in school leaving (matriculation) examinations, but students who are resilient, ambitious, committed to their studies and most likely to succeed in their studies and post-university careers.
Key strategies

→ Enhance the University’s academic continuity capabilities to mitigate the impact of disruptions and unplanned campus closures.
→ Transform curricula in line with the principles in the framework document: ‘Reimagining curricula for a just university in a vibrant democracy’ as well as sound principles of curriculum design and delivery (teaching, including signature pedagogies).
→ Utilise most promising and innovative practices in teaching, learning and assessment.
→ University-wide delivery of programmes via online platforms.
→ Offer joint degree programmes with reputable international partners.
→ Engage the DHET and CHE regarding the funding of online programmes and the regulatory frameworks related to the change of delivery modes and joint degree programmes.
→ Manage the student lifecycle in an integrated and holistic way.
→ Reward sustained high performance and excellence in teaching.
→ Develop capacity for data-based decision-making related to teaching and learning.
→ Ensure a diverse student body reflective of the demographic mix and social complexity of the country.
→ Develop a learning environment conducive to the success of all students.
→ Provide appropriate, adequate and timely student support aimed at maximising student success (as reflected in, inter alia, qualification completion in minimum time by both undergraduate and postgraduate students) at university and as graduates (as reflected in employability and profitable entrepreneurial activity).
→ Address the learning challenges of students from disadvantaged backgrounds, for example, by providing proactive and remedial support for English as an academic language in an equitable and fair manner, and ensuring a learning atmosphere that is sensitive to diversity and supportive to students from disadvantaged backgrounds.
→ Accelerate the recruitment of black academic staff.
→ Strengthen programmes for development of emerging academics.

Strengthened research and international profile

Research is a central part of the University’s vision. We aspire to advance the frontiers of knowledge and to make a positive impact on the world by focussing on areas of significant societal need, where creative and innovative responses to major challenges can provide new solutions, in a rapidly changing environment. The University’s broad range of regional, national and international partnerships and networks contributes to enhancing its role as a hub for regional collaboration, especially in research which seeks solutions to the major challenges confronting South Africa, Africa and the world. We will seek to build a resilient research enterprise by drawing on partnerships and networks, to foster mutually beneficial collaborative relationships, and to attract the necessary resources by demonstrating relevance and excellence in the research we conduct.

The University has wide-ranging expertise and hosts a number of centres of excellence and research platforms, already focussing on some of the major global questions. In an environment of rapid social, political and economic change, both internal and external to the University, our research programmes will also be developed to respond to the challenges that hinder transformation towards
a prosperous, equitable and sustainable future for South Africa and Africa. In addition to pursuing high impact research in our areas of strength (agricultural sciences, clinical medicine, engineering, the environment and ecology, molecular sciences, plant and animal sciences, social sciences, and veterinary sciences), we will develop greater impact through a focus on areas of immediate relevance to our environment and community. These will include the development of institutional research programmes on big data science and digital technologies, linked to applied areas such as astrophysics, earth observation, epidemiology and genomics. We will address our regional urban challenges through a research focus on future cities and smart transportation, and we will continue to address health issues through research on topics such as Sports Medicine, Nutrition, Neuroendocrinology, Malaria, Nuclear and Molecular Medicine. In addition, the complex societal challenges related to food, water and energy security, life threatening diseases, climate change, global terrorism and sustainable development will receive the attention of researchers and research innovation at UP.

UP has a solid history of regional and international engagement. The primary focus of the University’s internationalisation strategy will be Africa. UP will endeavour, inter alia, to position itself as a continental hub for research, and to consolidate and strengthen partnerships in Africa, especially in the area of postgraduate education. UP’s prioritisation of the African region is closely tied to its institutional identity as an engaged African university that is actively involved and interconnected with its immediate and broader society. It is an expression of the University’s identity and affirmation of its oneness with the continent. In addition to the focus on Africa, UP will actively pursue other international partnerships and research collaboration. The University has collaborative relationships and formal partnerships with many institutions abroad, largely through the establishment of international agreements based on research collaboration, inbound and outbound staff and student exchange, postdoctoral fellowships, and enrolment of international students at undergraduate and postgraduate levels. The primary focus will be on building and strengthening strategic and productive research partnerships with research universities in the fields that UP has prioritised, and on developing regional and international partnerships focussing on teaching and learning, postgraduate training and research.

The recent volatility in the higher education sector, especially violent student protests, has occasioned the disruption of academic programmes and research activities. Given this context, ensuring research continuity is a critical priority. To this end, the University will develop the appropriate research continuity capabilities, which will include partnerships with nearby and collaborating research institutions. Of particular importance will be to re-conceptualise flexible master’s and doctoral research programmes where field and laboratory work are, for example, structured as research internships undertaken with research entities that are associated with UP, or with regional and international partners engaged in similar fields of research. In turn, this would make possible blocked time allocation for on-campus research activity, as well as targeted regional and international strategies. Linked to this is the need to prioritise the development of a web and e-learning presence and capability to support postgraduate students and supervisors.

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Key outcomes

a) Increased output and impact of research leading to enhanced national and international profile and visibility, and improvement of UP’s international standing.

b) A dynamic and more inclusive research environment that promotes research excellence and greater participation by students as well as academic staff from diverse backgrounds.

c) Enhanced postgraduate throughput and success.

d) Increased innovation support leading to successful commercialisation of research.

Key strategies

Ensuring research continuity and resilience

→ Plan research continuity to ensure that research and postgraduate training programmes are sufficiently agile to achieve continuity and productivity in uncertain, disruptive and resource-constrained conditions.

→ Re-design postgraduate programmes to allow for flexible field and laboratory work off-campus, linked to nearby and/or partner research entities.

→ Develop online e-learning and support for postgraduate students and supervisors to provide access to resource materials and greater flexibility with respect to ongoing engagement.

→ Implement creative strategies so that research activities can be conducted off-campus (for example through IT support), online and through cooperation with local partner networks, for example by temporarily housing research projects for the duration of disruptions and structured internships.

→ Optimise onsite and online uses of the library for researchers and students, and support the ongoing development of a digital library infrastructure.

→ Create online as well as social learning spaces (e.g. research commons and virtual collaboration spaces) that allow for interaction, collaboration and teamwork.

→ Explore the feasibility of developing virtual laboratories and/or secure partnerships with institutions with such laboratories, to provide access to our students and researchers.

Doing research that has greater impact

→ Incentivise high impact research and invest in high impact research areas as follows:
  – An institutional research focus on big data science and digital technologies will build upon strengths in computing and data science to develop crosscutting, multidisciplinary competencies linking data science with our established and expanding expertise in a number of relevant related fields such as artificial intelligence, epidemiology, and genomics. In addition, the big data science focus will serve to build capacity in data intensive astronomy research related to the international SKA project, new postgraduate programmes will be developed, specialising in data science, with a view to attracting students from the region and the African continent.
  – A research focus on future cities and smart transportation will be developed by establishing research in relevant areas, especially related to the African continent, including trans-disciplinary approaches to sustainability,
→ Maintain high impact research in fields where the University has established expertise and recognition.

→ Prioritise internationally recognised research with an emphasis on inter-disciplinary and trans-disciplinary approaches to address complex challenges.

→ Focus on convergence science needed to address national and global priorities (e.g. a wide spectrum of health-related research; food, water and energy security; climate change; global terrorism; and sustainable development).

→ Build partnerships with key stakeholders and seek greater levels of external funding.
  – This will include building collaborative consortia whereby research infrastructure can be shared, both physically and virtually, through new digital technologies, and through open access and data sharing systems.

→ Enhance interdisciplinary and collaborative research through effective research information and data management, including:
  – a coordinated approach to provision of infrastructure, tools and training underpinning the full research cycle of data generation, computation and curation, including digital (cloud) hosting, and provision for open access to data;
  – an online Virtual Research Environment within the University’s Library system, to enable researchers to facilitate document hosting, access to research data for analysis and visualisation and to enable collaboration.

→ Play a leading role in research in Africa by focussing research on challenges relevant to Africa, particularly through the Future Africa project.

**Playing a leading role in research in Africa**

→ Develop a strategy for African research partnerships for each faculty in relevant research areas.

→ Strengthen collaboration with African universities and African research centres.

→ Finalise and implement the research plan for Future Africa.

→ Develop a recruitment plan for attracting African postgraduate fellows and postgraduate students.

**Create a more vibrant and transformed research community**

→ Build greater research capacity to enable transformation and expansion of the University’s research base, and thereby contribute to improving UP’s research output, impact and visibility by:
  – Setting targets for research output and impact.
  – Developing emerging research fields at the threshold of attaining high impact status.
  – Strengthening programmes for the development of emerging researchers.
  – Increasing annual research share of black, disabled and black female academics.

→ Develop research support interventions to provide a more enabling environment and to build cohesion in our research community.

→ Attract and retaining highly cited leading researchers.

→ Strengthen programmes for development of emerging and ‘rising star’ researchers, with particular focus on black researchers.
→ Support regional and internationalisation activities to increase UP’s visibility and impact, including building international partnerships and research collaborations which contribute to enhancing the research profile of the University.
→ Attract international staff and students to the University and increase international postgraduate enrolments through strategic partnerships.

**Incorporating research at all levels of study**

→ Build an inclusive culture of research by developing a *Student Research Fellowship* programme.
→ Establish a research chair focusing on student success.
→ Incorporate blended learning, inquiry led curricula and online approaches in all course-work masters.
→ Establish online research methodology programmes open to all students and staff.
→ Develop the postgraduate learning and research environment and experience to enhance student success.
→ Improve completion times and throughput in research and professional higher degrees.

**Providing pathways for innovation**

→ Increase commercialisation of the University’s research by developing an environment where new ideas can be advanced, leading to translation and innovation.
→ Develop innovation activities and flexible innovation spaces for innovation centres in the Faculties of Engineering, Built Environment and Information Technology (EBIT) and Economic and Management Science (EMS).
→ Establish operational approaches to provide appropriate support for students and staff.
→ Establish a competition for students to win opportunities for sponsorship and seed funding, and find funders to sponsor their ideas.

**Social responsiveness and impact on society**

One of UP’s overarching identities is that it is an engaged university that is responsive to the contexts in which it is embedded. This institutional identity points, unequivocally, to the fact that UP is not a closed system, an ‘ivory tower’, but an institution that is interconnected with society, and is alive to its critical role of contributing to the socio-economic advancement of South Africa, Africa and the world. UP is committed to interacting with and impacting communities, producing the high level skills that South Africa needs and pursue research that makes a positive impact on areas of great societal need. Equally important is the need to ensure that our graduates have developed the capacity to either obtain or create work. This will entail, inter alia, curriculum transformation, the inculcation of entrepreneurial skills in our students, and implementation of other strategies to ensure superior graduate outcomes.

Key to UP’s social responsiveness is its role as an anchor institution in the City of Tshwane, especially in the Hatfield area. UP has a large stake and an important presence in the City of Tshwane. It is one of the largest employers in the City, generates jobs, purchases huge amounts of goods and services, attracts businesses and highly skilled individuals to the City, and makes a significant contribution to
the City’s economic development.\textsuperscript{10} Beyond its inherent contribution to the social and economic development of the City, UP has an important stake in the future of the City and its neighbourhoods, as its own success depends, in no small measure, on the overall health of the City.

The anchoring role of UP in the City of Tshwane, therefore, extends beyond its economic impact; it is critical for the fulfilment of its vision and mission, inter alia, strengthening the University’s research, attracting talented students and staff, ensuring their safety and security, and a positive and holistic experience that goes beyond the classroom. In this regard, it is a strategic priority for UP to be actively involved in defining the urban environment where it is located, specifically to enhance the vibrancy and liveability of the Hatfield area. A key component of the University’s anchor strategy is the \textit{UP Hatfield Precinct Project}, which was endorsed by the UP Council in 2015. The project, which involves multiple stakeholders, seeks mainly to ‘revitalise’ the Hatfield area.

**Key outcomes**

(a) Strategic partnerships that lead to societal impact and drive up the University’s reputation as a leading African university.
(b) Commercialisation of research.
(c) Student employment soon after graduation.
(d) Creation of entrepreneurial ventures by students (start-ups) soon after graduation.
(e) A safe, clean and vibrant University precinct.

**Key strategies**

→ Enhance graduate output in scarce-skills areas.
→ Expand and enhance UP’s engagement with communities, the City of Tshwane, government departments, the private sector and international partners.
→ Job creation through inter alia procurement of goods and services and commercialisation of knowledge.
→ Enhance graduates’ work-readiness and entrepreneurial abilities.
→ Extend the impact of our research through innovation and commercialisation.
→ Utilise the University’s expertise to address critical societal issues through research, the arts, community and public policy engagement.
→ Strengthen continuing professional development opportunities mainly through the provision of short courses.
→ Share and exchange knowledge and skills with local communities.
→ Promote and develop social responsibility awareness among students and staff.
→ Conduct strategic stakeholder management to ensure a growing body of high interest, high influence stakeholders engaging with UP.
→ Implement a stakeholder management strategy including a comprehensive database and CRM system.
→ Develop a model for categorising and tracking external partners/stakeholders.
→ Enhance internal fundraising capacity by broadening senior staff participation in stakeholder management and fundraising.

7.0 Implementing the plan

This plan identifies broad institution-wide implementation strategies for each strategic goal. The enactment of these strategies will be guided by annual implementation cycles over the five-year period of the strategic plan. Accordingly, each faculty and support service department will prepare detailed annual implementation plans, which will feed into the annual institutional implementation plan. The implementation plans will detail specific initiatives, actions and targets that are aligned with the broad strategies and desired outcomes identified in the strategic plan.

The annual implementation cycles are designed to provide the opportunity to review the achievement of targets and the implementation of strategies, and to ensure that flexibility, innovativeness and agility are built into the implementation process, considering the dynamic environment in which the University operates.

The implementation of the plan will be monitored on an annual basis using key performance indicators. These indicators and corresponding targets are detailed in Appendix A.
## Appendix A

### PERFORMANCE INDICATORS

<table>
<thead>
<tr>
<th>Indicator</th>
<th>Target 2017</th>
<th>Target 2021</th>
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</thead>
<tbody>
<tr>
<td>1. % successful FTE students to total FTE students (contact)</td>
<td>84.06%</td>
<td>85.06%</td>
</tr>
<tr>
<td>2. Total contact FTE students per FTE academic staff member (ratio)</td>
<td>25.77</td>
<td>23.83</td>
</tr>
<tr>
<td>3. Total master's graduate output</td>
<td>1,850</td>
<td>1,950</td>
</tr>
<tr>
<td>4. Total doctoral graduate output</td>
<td>340</td>
<td>406</td>
</tr>
<tr>
<td>5. Number of international postgraduate students</td>
<td>2,532</td>
<td>2,650</td>
</tr>
<tr>
<td>6. % black contact students to total contact students</td>
<td>54.5%</td>
<td>59.8%</td>
</tr>
<tr>
<td>7. % academic staff with doctorate degrees</td>
<td>64.03%</td>
<td>70.00%</td>
</tr>
<tr>
<td>8. % black academic staff</td>
<td>25.47%</td>
<td>32.01%</td>
</tr>
<tr>
<td>9. Accredited publication journal units per academic staff (headcount)</td>
<td>1.20</td>
<td>1.40</td>
</tr>
<tr>
<td>10. Total external income (Rand million)</td>
<td>921.13</td>
<td>1,162.90</td>
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</tbody>
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