NELSON MANDELA UNIVERSITY

Annual Performance Plan: 2023

Compiled by the Office for Institutional Strategy
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Contents

FOREWORD BY CHAIRPERSON OF COUNCIL

Nelson Mandela University embraces its identity as a comprehensive university with an inherent commitment to social embeddedness, transformative engagement, and sustainable stewardship. We carry a significant responsibility to embody the legacy and ethos of the late Nelson Mandela, our iconic namesake, and in particular his lifelong struggle for a non-racial, non-sexist, democratic society where all citizens are treated with respect and dignity.

A set of interlinked external and internal reconfigurations are ushering in a sea-change in the higher education landscape. Geo-political shifts together with the socio-economic and planetary challenges, digital advancements, and the emerging dominance of techno-rationality suggests that a 'new moment' is at play. At a time when individual higher education institutions (HEIs) and the sector are under sustained fiscal pressure, the deepening of stability will be a powerful instrument in promoting institutional reputation, scholarly depth, and vibrant growth. It remains imperative to develop, and maintain, appropriate strategic and operational responses over a period that is likely to remain volatile and uncertain. This includes continuously evaluating the higher education legislative framework and macro-environmental context within which we operate, to assess the impact thereof on institutional strategy and the University's core academic missions.

Universities in South Africa are increasingly called upon to participate more actively in addressing the developmental needs of the African continent, with specific reference to the United Nations Sustainable Development Goals, the African Union Agenda 2063, and South Africa's National Development Plan. Societal expectations of higher education institutions to demonstrate social responsiveness and impact are simultaneously increasing, particularly in developing nations, and universities.

The COVID-19 pandemic exposed pre-existing structural deficiencies and compelled universities to re-evaluate their value and purpose undergirding their learning, teaching and research functions, governance and institutional cultures, and external engagements. Universities are, therefore, grappling with the challenges and opportunities of reconstructing the post-COVID-19 academy along the competing axes of restoration, reformation, and transformation. The first represents a powerful desire to return to the pre-pandemic past, the second to graft innovations undertaken during the pandemic into the architecture of higher education, and the third a drive to deploy the lessons of the pandemic for a profound overhaul of the sector (Zeleza, 2022).

In 2021, Council approved the University's Vision 2030 Strategy as a roadmap for strategic planning and decision-making for the current decade. Through Vision 2030, Mandela University reaffirms its commitment to change the world through life-changing educational opportunities,

innovative research, and transformative engagement that contribute to a better world. The process of formulating the Vision 2030 Strategy allowed for broad-based stakeholder engagement at all levels to promote ownership and agency in deploying our strategic focus areas or core academic missions, which include the following:

- Strategic Focus Area 1: Liberate human potential through humanising, innovative lifelong learning experiences that prepare graduates to be socially conscious, responsible global citizens who serve the public good.
- Strategic Focus Area 2: Pursue impactful, pioneering research, innovation, and internationalisation to address grand societal challenges and promote sustainable futures.
- Strategic Focus Area 3: Engage with all publics in equalising partnerships to co-create transformative, contextually responsive solutions in pursuit of social justice and equality.
- Strategic Focus Area 4: Catalyse dynamic, student centric approaches and practices that provide life-changing student experiences within and beyond the classroom.

Through our humanising, student-centric approaches, Mandela University strives to cultivate graduates who are responsible, innovative global citizens contributing to promoting social justice and equality. The University furthermore seeks to differentiate itself within the higher education sector nationally and globally by pushing forward the frontiers of knowledge through engaged learning, teaching, research, innovation, and internationalisation which are recognised for generating cutting-edge knowledge for a sustainable future.

Fundamental to the overall institutional transformation project, has been the establishment of a new executive management portfolio rooted in the interplay between engagement and transformation, and their interlinkages with research, learning and teaching. In so doing, the University has responded to a key dilemma facing the higher education sector, nationally and globally. That is, if not immersed in society, universities will find it near impossible to engage authentically and, thus, productively with the current socio-economic, environmental, cultural, and political challenges of our time.

As a comprehensive university situated in one of the poorest provinces of South Africa, our efforts to promote student access for success remain paramount, with a specific focus on various strategies to improve success and throughput rates, as well as graduate and research outputs. Strategic resource mobilisation interventions geared towards expanding access for the so-called “missing middle” and postgraduate students who do not qualify for the National Student Financial Aid Scheme (NSFAS) are also vital especially for academically deserving students from disadvantaged backgrounds.

Our core academic missions are supported and enabled through strategic enablers, which create the conditions conducive to achieving our strategic intentions and aspirations. These Vision 2030 enablers include ethical governance and leadership, fostering a values-driven institutional culture that empowers employees, creating an enabling environment for innovation, accelerating our digital transformation trajectory, optimising the utilisation of modernised and flexibly designed infrastructure, and deepening our commitment to long-term financial sustainability and responsible resource stewardship.

The experiences over the past decade have been invaluable in developing an evolving "leadership toolbox" as we ready the University to navigate an uncertain future within this 'new moment'. As we cascade Vision 2030 into every domain of the University, our priorities for the next five years include the following:

- Further advancing social embeddedness and responsiveness by facilitating convergence in respect of the interplay between our academic and social projects.
- Strengthening excellence in our strategic trajectories including the medical school, ocean sciences, revitalising humanities, sustainability sciences, and repositioning engagement in the service of society.
- Deepening transdisciplinarity as a key strategic differentiator by consolidating our strengths across all faculties and campuses.
- Reviewing our academic programme portfolio, academic size and shape, modes of delivery, and pedagogical approaches to ensure that Mandela University is a higher education institution of choice for talented students and employees.
- Pursuing student-centric and inclusive student access for success as one of our key differentiators as a comprehensive university, including cultivating holistic and vibrant student life experiences that release the full potential and talent of our graduates.
- Addressing rising youth unemployment by implementing wide-ranging interventions to enhance graduate employability and entrepreneurship.
- Deepening a values-driven, transformative institutional culture characterised by authentic stakeholder engagement and a well-developed institutional self-understanding of what it means to embrace an African identity.
- Centering integrated talent stewardship to attract and retain high-performing, socially diverse employees.
- Positioning Mandela University globally, by expanding our internationalisation footprint in Africa and the global South, while sustaining existing mutually beneficial partnerships.
- Accelerating digital transformation in pursuit of improved efficiencies, agile systems and processes, and adaptive institutional operating models that facilitate innovation and continuous improvement.
- Promoting the long-term sustainability of the University through innovative resource mobilisation, strategy-aligned budgeting, and ethical resource stewardship.

As part of its oversight role, Council continuously evaluates the legislative frameworks and macro-environmental context within which the University operates to assess the impact of national policy provisions on institutional strategy. As a socially embedded higher education institution in the service of society, the University is breaking exciting new ground in respect of key strategic trajectories mandated by Council, namely, launching the country's tenth medical school, implementing its ocean sciences strategy, fostering intellectual renewal through revitalising the humanities, and advancing transdisciplinary sustainability sciences.

OFFICIAL SIGN-OFF

It is hereby certified that the Nelson Mandela University Annual Performance Plan for 2023:

- Was developed by the senior management of the Nelson Mandela University under the guidance of the Vice-Chancellor, Professor Sibongile Muthwa.
- Was prepared in alignment with Nelson Mandela University's Vision 2030 Strategic Plan.
- Accurately reflects the performance targets which Nelson Mandela University will endeavour to achieve within the resource envelope provided for in the budget for 2023.

AMBASSADOR NOZIPHO JANUARY-BARDILL
CHAIRPERSON OF COUNCIL

PROFESSOR SIBONGILE MUTHWA
VICE-CHANCELLOR

SECTION A: SITUATIONAL ANALYSIS

1. Performance delivery environment

Higher education plays a key role in fulfilling certain societal agendas such as democratisation, social mobility, economic development, innovation, and a better quality of life for all citizens (Maassen and Olsen, 2007). The constant and ever-increasing pace of change nationally and globally acts a driver for universities to revisit their core purpose, academic missions, and operating models to ensure that they thrive within a volatile, uncertain, and complex macro-environment. Most recently, these external drivers have manifested as challenges such as food insecurity, uneven access to quality healthcare and education, climate change, and rising societal expectations of universities. This calls for universities to engage with key stakeholders at global, national, and local levels to anticipate future trends, serve as catalysts for inclusive development, and contribute to promoting the public good.

1.1. Poverty, inequality, and economic recovery

Across the world, the number of people living in extreme poverty and facing acute food insecurity has risen. Billions of people face an unparalleled cost-of-living crisis compromising lives and livelihoods. The result is an unsettled geopolitical landscape marked by downward pressure on the global economy and rising citizen discontent with how national governments are addressing profound socio-economic inequalities. As poverty increases so does vulnerability, particularly for women and girls.

South Africa remains the most unequal country in the world with a Gini coefficient of 0.63. The Eastern Cape is in a particularly perilous position, with weak economic growth and high levels of unemployment. The SOPA 2022 highlights that roughly 43% of the provincial population depend on social grants. Financial instability results in poor quality service delivery and continued disruptions in electricity supply negatively impact on industries and threaten job security. Given that Nelson Mandela University draws most of its incoming students from the Eastern Cape, these socio-economic realities have an adverse impact on student success.

Against this background, Zeleza argues for inclusion which he defines as the *"…intentional and continuous processes and outcomes in which all members of the community as individuals and groups are welcomed and feel a sense of belonging and are provided with equal opportunities to participate in institutional life and flourish."* To achieve this in the post-COVID 19 academy, inclusive excellence needs to be intentionally

operationalised across all organisational structures, functions, policies, and decision-making processes. Five dimensions are particularly critical, namely:

- The recruitment and retention of diverse students, faculty, and staff and appointment of governing board members.
- The need for education and scholarship to promote epistemic integration, humility and respect for different knowledges, and ways of knowing.
- The structure, allocation, and accountability for institutional investment, expenditures, and infrastructure that are often skewed in favour of dominant schools, disciplines, and fields.
- The nature of institutional climate in addressing polarisation, acrimony, bullying, and microaggressions directed at underrepresented groups.
- The anchoring of the university's relationships and partnerships with its communities to promote service and impact.

1.2. Unemployment and livelihood crises

Although the expanded unemployment rate decreased by 1.4 percentage points to 44.1% in the second quarter of 2022 compared to the first quarter, the Eastern Cape continues to have the highest unemployment rate of South Africa's nine provinces. The Quarterly Labour Force Survey (QLFS) for the second quarter of 2022 revealed that the province had an unemployment rate of 42.8% , with an expanded unemployment rate of 51.8%. This burden is disproportionately felt by the youth, women and people with disabilities and unlocking the barriers to full employment remains a critical priority. The labour force in the Eastern Cape also has a large share of people who have not completed secondary education (54.0%). Youth aged 15 to 34 years make up 37% of the population and unemployment in this age group remains a severe macro-economic challenge. As social cohesion erodes, existing disparities are expected to widen among youth groups, including students. This may lead to a disillusioned or resentful group of young adults who are increasingly polarised from other generations.

1.3. Youth disillusionment

A dire economic outlook, economic hardship, persisting intergenerational inequality, failure in governance, and rampant corruption have reinforced the significance of youth disillusionment, which contributes to a marked deterioration in the holistic wellbeing of young people. The World Economic Forum's Global Risks Report 2021 highlights how "pandemials", that is, young people aged 15 to 24, already bear the scars of a decade-long financial crisis, an outdated education system, and an entrenched climate crisis. Since the start of 2020, mental health has worsened for 80% of this group across the globe and young people have become more vocal in expressing their anger, disappointment, and pessimism. There is therefore an urgent need to open pathways for the youth globally to acquire the skills and tools they require to thrive in a post-pandemic world.

With the number of young Africans projected to increase to 42 percent of the world's youth by 2030 – with current numbers of African youth doubling by 2055 – expanding on employment and entrepreneurship initiatives for African youth in the short term will reduce poverty, contribute to sustainable development, and foster social inclusion in the long term. South Africa annually spends one of the highest percentages in the world on education, yet unemployment remains high and labour market participation low. Furthermore, while the country has made significant improvements in basic and tertiary education enrolment, the country still suffers from the poor quality of educational achievement by almost any international metric. This is largely due to the poorest 75–80% of learners depending on dysfunctional public schooling and achieving poor outcomes. Reversing this requires collaboration and commitment, policy change and active business and governmental participation, driven by a new sense of purpose.

Contending with the question of rising youth unemployment, the South African government established the Presidential Employment Stimulus programme to provide employment opportunities and work experience to unemployed youth and graduates. Launched in October 2020, the initiative has already provided 850 000 opportunities. More than 80% of participants were young people, and over 60% were women. The National Youth Service Programme (NYSP) is a government initiative aimed at engaging South African youth in community service activities to strengthen service delivery, build patriotism, promote nation-building, foster social cohesion and to assist the youth to acquire occupational skills necessary to access sustainable livelihood opportunities. The National Youth Service, will recruit its first cohort of 50 000 young people in 2022/23, creating opportunities for the youth to contribute to their communities, develop skills and enhance employability. The government has also introduced the Social Employment Fund to create a further 50 000 work opportunities by accessing the capability of non-governmental organisations in areas such as urban agriculture, early childhood development, public art, and tackling gender-based violence.

In addition, the National Youth Policy (NYP) outlines various interventions that can be introduced to improve youth unemployment, such as:

- Introducing a new basic income grant aimed specifically at unemployed youth.
- Abolishing the requirement for experience for entry-level jobs.
- Providing access to a basic package of support and work-readiness training.
- Equipping young people with skills in key growth sectors to access opportunities such as the green, waste and food economies.
- Providing grant funding and business support for 100 000 young entrepreneurs over the next three years.
- Offering practical experience to young people by scaling up the Youth Employment Service (YES).

Against a backdrop of global change and volatility, university graduates need to be adaptable lifelong learners with transferable knowledge, skills, and competencies that can be applied in various contexts, as well as by the ability to be nimble and imaginative, digitally literate, and ethical decision makers. Higher education institutions need to shape their futures by reflecting on what has worked well during the pandemic

and how these innovations can be scaled up to enhance student access for success, while also embracing the future world of work and creating optimal conditions for flexible ways of working for employees.

Trends include the adoption of hybrid or blended learning, admitting students and offering courses in person or online throughout the year, and connecting with students before acceptance, during enrolment, and after graduation. These are not likely to reverse, hence universities must deliver on students' evolving expectations, including quick pivots to quality online and hybrid learning, touch-of-a-button convenience, and affordability.

1.4. Online learning and the digital divide

The coronavirus pandemic accelerated the transition to online learning at schools and universities across the world. The "digital divide" refers to uneven access to information and communication technologies (ICT) in societies and is particularly pronounced on the African continent. According to mobile operators trade body GSMA, approximately three-quarters of the population (747 million people) in sub-Saharan Africa have a mobile connection, but only a third of these use a smartphone. A widening digital gap may entrench societal fractures and undermine prospects for inclusive growth.

South Africa lags many of its counterparts for innovation around information and communications technology (ICT) systems, network connectivity and more sustainable technologies. This limits the ability of businesses and the public sector to deploy new technologies and transition into the fourth industrial revolution (4IR).

Against this backdrop, the 2016 declaration by the United Nations Human Rights Council of the internet as a basic human right is pertinent. Similarly, the adoption of the Digital Transformation Strategy by the African Union in February 2020 is a step towards narrowing the digital divide by ensuring that access to digital technologies and the internet are regarded as basic rights. Unequal access to data connectivity and mobile devices needs to be addressed to enable our students, particularly those in remote rural areas and impoverished townships, to access digital learning and online services. This will require extensive upfront investments in digital infrastructure, equipment, learning management systems, as well as capacity development interventions to enhance digital literacy. To this end, national government, the telecommunications corporate sector, donors, and development partners need to partner with universities to prioritise investment in narrowing the digital divide.

However, it must be noted that the appetite for fully online learning is likely to be lower for digitally adept students who perceive learning as a social act. This cohort is more likely to enrol at a university with a proven track record of adopting student-centric approaches that meet their

academic, financial, social, and future career needs. They are looking for sought-after qualifications, a vibrant student life, robust academic support, as well as experiential and lifelong learning opportunities. This suggests that residential universities should adopt flexible, technology-rich approaches to learning, which provide students with inclusive learning environments and experiences that enable them to succeed in academic and co-curricular pursuits. This includes providing quality online or in-person wellness, inclusion and student life initiatives that will equip them to become conscientious global citizens who drive positive societal change.

1.5. Future world of work

Complex forces are shaping the workforce of the future and automation is rapidly changing the skills needed by organisations. This amplifies the comparative advantage of those employees performing tasks requiring attributes that are uniquely human such as critical thinking, innovative problem-solving, creativity, collaboration, and interpersonal skills.

Attracting and retaining pivotal talent will be a significant challenge in the future and organisations will need to devote careful attention to the employee value proposition. During the pandemic, it was estimated that more than 20 percent of the global workforce, predominantly in high-skilled jobs, were working remotely. Although most employees have returned to the workplace as economies have reopened post-pandemic, there has been a structural shift towards hybrid ways of working, especially in highly skilled jobs in sectors such as finance, insurance, management, business services, and information technology.

This transition surfaces two key challenges for organisations, the first of which relates to the role of the office in cultivating a sense of belonging. In the short term, universities will have to make key decisions on investment in digitalisation compared to physical infrastructure development. They also will need strategies to refurbish, modernise and optimally use existing infrastructure to facilitate hybrid learning and flexible ways of working. More attention will need to be devoted to infrastructure in the form of IT hardware as well as cybersecurity measures and software to enhance collaboration, measure employee performance and effectiveness. A further challenge will be to prepare the workforce for the future world of work characterised by automation, digitalisation, and other technological advancements.

1.6. Lifelong learning and upskilling

The benefits of re- and upskilling employees outweigh the costs and typically include improved loyalty, employee satisfaction, and higher levels of productivity. Successful reskilling starts with knowing what skills are needed, then offering tailored learning opportunities to address these needs through inculcating a culture of lifelong learning.

The Sub-Saharan Africa and Latin America regions could see over 7% additional GDP by 2030 if they invest in upskilling. Both regions are characterised by a high proportion of youth, high inequality, and underdeveloped business and consumer sectors. Upskilling could propel the transition to an economy where human labour is increasingly complemented and augmented by new technology, improving the overall quality of jobs.

Educators and training providers must play a central role in any comprehensive upskilling agenda by providing a wide range of self-directed, online learning opportunities that also combine face-to-face and experiential learning for a more human-centric experience. Several areas urgently need to be addressed such as training programmes that prioritise "just-in-time" learning, as well as recognition and credentialing systems that build bridges between formal qualifications and informal, lifelong learning.

1.7. Gender-based discrimination and violence

The feminisation of poverty remains an intractable challenge with women disproportionately affected by limited access to safe places of work, education, skills, resources, and technology. GBV continues to haunt South Africa where the rate of femicide is five times higher than the global average and women from low-income households and those aged between 18 to 24 years are most likely to experience physical violence. The National Strategic Plan on Gender-Based Violence and Femicide (GBVF) launched in April 2021 will allocate approximately R12 billion over three years to implement a sustained programme of social action against GBV.

The Policy and Strategy Framework Addressing Gender-based Violence in the Post-School Education Sector has an appropriate focus on challenging social norms that perpetuate gender inequality, while also improving survivor support services. Higher education institutions need to intensify efforts to eliminate GBV, discrimination based on gender, and patriarchal attitudes that reinforce toxic masculinity. This is especially urgent considering that, according to the South African Medical Research Council, ten percent of all rape cases reported in South Africa stem from institutions of higher learning.

Given that women constitute 59 percent of all students at public universities in South Africa, Mandela University is deeply committed to challenging social norms that perpetuate gender inequality and toxic masculinity. The Centre for Women and Gender Studies (CWGS) is among those University entities addressing this ongoing societal scourge by advancing intersectional, inter-disciplinary approaches to the promotion of gender equality and transformation. As part of its educational and advocacy mandate, the Centre has been providing scholarly and intellectual leadership in foregrounding African women's biographical thinking, intellectual production, and political histories. This scholarly work has been significantly bolstered by the awarding of a prestigious research chair in African Feminist Imaginations. Furthermore, interventions aimed at

enhancing safety and security of students and staff have included activations at sectoral and institutional levels, with significant investments in digital technologies and electronic surveillance.

1.8. Urbanisation and human settlements

More than half of the people the world (55%) live in urban areas and the percentage of city dwellers is projected to increase to 68% and reach a total of 6.3-billion people by 2050. This will add 2.3-billion more people to urban areas. Most of this increase (about 90%) is likely to occur in the two poorest regions of the world, South Asia, and Sub-Saharan Africa, where the urban population is likely to double in the next 20 years.

Urbanisation is largely unplanned and fuels the growth of informal or slum settlements. In South Africa, 63% of the population are living in urban areas and this is projected to rise to 71% by 2030. By 2050, eight in 10 people will be living in urban areas which will place additional pressure on constrained resources and make it more difficult to deliver on the goal of the Integrated Urban Development Framework (IUDF) to foster a shared understanding across government and society about how best to manage urbanisation to achieve economic development, job creation and improved living conditions.

Despite the challenges, however, urbanisation is also an opportunity for change at all levels and for all types of human settlements. Cities and towns can help drive the sustainable agenda across social and cultural change, environmental protection, and economic growth by embracing principles of the circular economy. Contributing about 80% of global GDP, cities are catalysts to drive innovation, consumption, and investment worldwide, making them a positive force to address issues related to poverty, social exclusion, and spatial inequality.

To ensure that the benefits of urbanisation are fully shared and inclusive, policies to manage urban growth need to ensure access to infrastructure and social services for all, focusing on the needs of the urban poor and other vulnerable groups for housing, education, health care, decent work, and a safe environment. Integrated policies to improve the lives of both urban and rural dwellers are needed, while strengthening the linkages between urban and rural areas, building on their existing economic, social, and environmental ties.

As a university that prides itself on being in the service of society, our presence in the urban, suburban and township areas of Nelson Mandela Bay significantly contributes to sustainable socio-economic livelihoods in the Metro. The University intentionally develops each campus to be part of, and engaged with, its surrounding communities through research, innovation, and engagement in a range of projects, from renewable energy to food security and entrepreneurship development programmes.

1.9. Climate action and sustainability

The Global Risks Report 2022 ranks climate action failure as the risk with potentially the most severe impacts over the next decade. Climate change is already manifesting rapidly in the form of natural disasters, abnormal weather patterns, resource scarcity, and species loss all of which will have an increasing impact on economies, demographics, crop production, food security, migration, and political landscapes in unprecedented ways. The threat of climate change is already destroying lives, livelihoods, and ecosystems, especially in poorer regions that contribute the least to global warming and the destruction of the planetary commons.

Climate change projections for the SADC region show that the greatest impact will be on water availability, which could severely affect food production and energy generation. Annual rainfall is expected to decrease by 20% by 2080 in southern Africa, worsening water scarcity and food insecurity. Water, energy, and food are vital and interlinked resources for human well-being, poverty reduction, and sustainable development.

South Africa is among the pioneers in adopting green economy strategies and has put in place programmes to promote energy efficiency, green transport, sustainable housing, and climate resilient agriculture. These will be implemented in a manner that stimulates investment, local economic activity, and manufacturing, as part of a just transition to a low-carbon economy and climate resilient society.

As knowledge institutions, universities have a responsibility to lead climate research, mitigation, and adaptation efforts by engaging key stakeholders and modelling sustainable environmental stewardship in their own institutions. To this end, Mandela University is intentionally driving the transition towards greening our campuses, reducing our carbon footprint, promoting renewable energies, and conserving water. As part of these efforts, the University launched a 1-megawatt solar photovoltaic installation and, as a result, we can generate 17% of our energy usage on South Campus. This will be further scaled up as the renewable energy roll-out unfolds on all campuses. Within a context of water scarcity, the University is also implementing innovative strategies to increase the use of secondary sources of water such as return effluent (RE), borehole water, rain harvesting and grey water to reduce its reliance on the municipal supply.

1.10. Access to quality healthcare

Nationally and internationally, being better prepared for the next pandemic is a high priority that calls for investments in upgrading public health infrastructure and modernising health care systems, including telemedicine and virtual health. While South Africa is making progress in addressing Sustainable Development Goal 3 on good health and well-being, key challenges include poor access to, and poor quality of, universal health care in areas such as mental health care and services for the disabled. The retention of skilled, senior health professionals in the public

sector is another issue, with many leaving the country. To counter this, the Occupational Specific Dispensation (OSD) for health professionals has been introduced in the South African public sector.

Tackling the interlinked challenges of poverty and health starts with a recognition that treating patients medically needs to be accompanied by integrated approaches that address underlying social determinants of health, such as access to decent housing, education, and social services. Against this backdrop, the principles of Primary Health Care form the basis of South Africa's health policy and service delivery. These include equity, community participation, social and economic development, interventions focused on the determinants of poor health, health promotion, prevention, cure and rehabilitation, an integrated referral system to facilitate a continuum of care, teams of health professionals with specific and sophisticated biomedical and social skills, adequate resources, and a client-centred approach.

South Africa needs to scale up key interventions within the health system such as adopting innovative models in healthcare delivery; unlocking bottlenecks in procuring quality medicines, vaccines and medical equipment, and improving the quality of health care services underpinned by evidence-based clinical practice. The operational efficiency and use of human resources in the health system must improve, supported by appropriate recruitment, retention and human resources forecasting strategies.

To this end, Nelson Mandela University launched its Medical School in 2021 with social justice at its core, embracing a comprehensive primary healthcare approach underpinned by the pillars of disease prevention, namely, health promotion, treatment, and rehabilitative medicine. It is one of only two medical schools in the region offering a full undergraduate medical degree (MBChB), and it will evolve further to offer medical specialist training.

1.11. Looking ahead

Within the context of an array of complex global megatrends, it is a crucial precondition for sustainability that Mandela University think ahead and design forward-looking strategies to enhance its strategic positioning within the post-school education and training landscape nationally, on the African continent, and globally. Despite the post-pandemic uncertainties confronting the higher education sector, the University can apply a social justice lens to planning and decision-making, to ensure that we do not perpetuate or amplify existing inequalities or precarities through our decisions and strategy implementation. This includes a careful analysis of the implications of the legislative mandate accorded to public universities in the South African context.

2. Legislative mandate

The United Nations Sustainable Development Goals (SDGs) strive to address global challenges such as those related to poverty, inequality, global unemployment, climate change, and environmental degradation. Goal 4 aims to "*ensure inclusive and equitable quality education and promote lifelong learning opportunities for all*" with one of the targets seeking to *"ensure equal access for all women and men to affordable and quality technical, vocational and tertiary education, including university"* by 2030. This positions higher education as pivotal in promoting democracy and human rights, enhancing responsible global citizenship and civic engagement, facilitating intercultural dialogue, and fostering respect for cultural, religious, and linguistic diversity. In addition to imparting skills required by the labour market, universities stimulate critical and creative thinking and generate knowledge for social, cultural, ecological, and economic development.

This is reinforced in the African Union Agenda 2063, which also emphasises the critical role of higher education in developing the human capabilities and skills required to enhance innovation, employability, and entrepreneurship on the African continent, especially among the youth and women. In the bid to cultivate a new African citizen who will be an effective agent of change for the continent's sustainable development, the African Union Commission developed a comprehensive ten-year Continental Education Strategy for Africa (CESA 16-25). CESA 16-25 calls for national governments to honour their commitment to spend 1% of gross domestic product on research and to create conducive environments for innovation and nurturing young academics.

South Africa's National Development Plan 2030 further outlines the main functions of universities in society as addressing indispensable high-level skills shortages, serving as the dominant producers of new knowledge, and strengthening equity, social justice and democracy. Challenges such as food security, quality health and education for all, secure and clean water, green and efficient energy sources, climate change, and inclusive communities need the response of universities at global and local levels as catalysts for development.

Key legislation and policy frameworks guide the purpose and mandate of public universities in South Africa. The White Paper on Higher Education Transformation (WPHET), 1997 is the cornerstone policy which calls for a higher education system based on equity of access and fair chances of success for all. The White Paper stresses the need for higher education to meet the highly skilled employment needs of a growing economy and to contribute to the advancement of all forms of knowledge and scholarship, generating innovative solutions to the diverse challenges of the local, national, southern African and African contexts. The WPHET urges higher education institutions to support a democratic ethos and a culture of human rights through educational programmes and practices conducive to critical discourse and creative thinking, cultural tolerance, and a common commitment to a humane, non-racist and non-sexist social order.

The White Paper for Post-School Education and Training, 2014 builds on this by setting out a vision of a differentiated post-school education and training (PSET) system that supports a wide range of citizens in accessing diverse opportunities for further study and self-advancement to prepare them for meaningful livelihoods. This is further elaborated in the draft National Plan for Post-School Education and Training, 2017 which provides an implementation framework to achieve the broad policy goals of the White Paper, such as ensuring the delivery of a diverse range of quality post-school qualifications that are responsive to the needs of students, society and the world of work. The NPPSET also seeks to better integrate the post-school system and support the continued implementation of initiatives that will result in significantly improved student success and throughput.

The draft National Plan for Post-School Education and Training, 2017, is a roadmap to develop and reinvigorate post-school education and training from 2018 to 2030. It provides an implementation framework to achieve the broad policy goals of the White Paper, such as ensuring a diverse range of quality post-school qualifications and programmes responsive to the needs of society and the world of work. The NPPSET also seeks to better integrate the post-school system and support initiatives that will lead to improved programmes and curricula, excellent teaching and learning, and significantly improved student success and throughput.

The White Paper on Science, Technology and Innovation, 2019 complements the WPPSET and NPPSET by providing the long-term policy direction to ensure a growing role for science, technology and innovation (STI) in improving economic competitiveness and creating a more prosperous and inclusive society. The White Paper on STI introduces policy approaches to ensure an open, responsive, and diverse knowledge system, including adopting an open science paradigm, supporting a diversity of knowledge fields, advancing a greater focus on inter- and transdisciplinary research, and acknowledging the contribution of the humanities and social sciences to addressing complex societal problems. Furthermore, the White Paper introduces a systematic approach to expanding the internationalisation of STI and science diplomacy with a strong focus on the African continent to support a pan-African agenda.

Through the Decadal Plan for Science, Technology and Innovation released in February 2022, the Department of Science and Innovation (DSI) aims to improve coherence and coordination of scientific and technological innovation in priority areas and also assesses how to align and pool resources to fund these areas. Universities are called upon to form part of a compact and work with government, social partners, and industry in developing and implementing innovation-enabling programmes that will yield benefits for the South African economy in the following priority areas:

- Climate change and the circular economy
- Education for the future
- Future of society

- ICTs and smart systems
- High-technology industrialisation
- Nutrition security
- Water security
- Health innovation
- Sustainable energy

The Draft Policy for the Recognition of South African Higher Education Institutional Types was released by the DHET in August 2022 for public comment. This Draft Policy provides for the classification of all South African institutions of higher learning into one of three types, namely: Higher Education Colleges, which can offer undergraduate degrees but have no mandate to conduct research; University Colleges, which are "universities in the making" operating under the trusteeship of an existing university; and Universities. The draft policy sets out the criteria for quality learning and teaching, research, and community engagement at universities. Among these, it is required that universities must: produce sufficient postgraduate students, particularly at doctoral level; contribute to national development needs; and be internationally active.

Against this legislative and national policy backdrop, Nelson Mandela University will distinguish itself through innovative, student-centric approaches to learning and teaching, research, innovation, internationalisation, and engagement that facilitate student access for success in keeping with the mandate of South African public universities. The University will strive to position itself strategically within a diverse PSET system through its values-driven ethos, comprehensive academic programme and qualification mix, cutting-edge inter- and transdisciplinary research, and transformative engagement that contributes to socially just and sustainable futures.

3. State of the University

Vision 2030 has revealed strategic opportunities that need to be optimised by Mandela University as it seeks to chart its future strategic directions and game-changing differentiators. The University is widely recognised for its engaged scholarship which seeks to co-create pioneering, African-purposed solutions to complex planetary and societal challenges. This is supported and enabled through a values-driven, inclusive institutional culture that liberates the full potential of students, employees, and communities. In so doing, the University aims to cultivate graduates who contribute to changing the world through pioneering discoveries, scholarship, and innovation. As part of its future-focused planning, Nelson Mandela University analyses strengths and opportunities that can be optimised over the next decade in pursuit of Vision 2030, while addressing challenges and threats that may impact negatively on students, staff, and external stakeholders. This situational analysis (SWOT) is illustrated in the graphic below.

STRENGTHS

- Transformational and transformative leadership
- Diversity and ubuntu – humane face
- Social justice orientation
- Impact on society – engagement and responsiveness
- Sustainability science – innovative solutions for environmental challenges
- Leader in decolonising HE
- Spirit of innovation and dynamism
- Pockets of academic excellence
- Student access for success
- Excellent student support
- Humanising pedagogy and human-centred relational communication
- Multiple pathways of learning
- Science for society
- Comprehensive range of programmes and qualifications

WEAKNESSES

- Ineffective HR operations and processes
- Staff workload too high
- Lack of succession planning and talent continuity
- Low staff morale and wellness
- Student health – suicide, mental health
- Remuneration and conditions of service not competitive
- Lack of career pathing and promotion opportunities for PASS employees
- Slow transformation
- Cumbersome governance and administrative processes – bureaucracy stifles innovation and creativity
- Uneven implementation of strategy – need for visionary leadership at all levels
- Graduate employability (e.g., experiential learning opportunities)
- Lack of postgraduate supervisory capacity and low research outputs

OPPORTUNITIES

- Vision, strategic planning and implementation
- Meaningful stakeholder engagement
- Attracting and retaining the best staff and students
- United collected effort from all stakeholders and hard work
- Partnerships with industry/employers
- International partnerships and collaboration
- Leverage alumni networks
- Innovative technology – systems, processes, workflows, policies, service delivery
- A University which is in touch with the plight of its immediate community
- An African university with solutions for challenges in Africa
- Relevant programmes/qualifications
- Inclusive institutional culture
- Increased and enhanced student support
- Improved research outputs and postgraduate studies
- Marketing and leveraging the Nelson Mandela name
- An HR orientation that meets international standards
- New and revitalised infrastructure and campus safety
- Entrepreneurship and commercialisation
- Adult market – upskilling and flexible, stackable credentials
- Africa's demographic dividend – tap into potential of youth

THREATS

- Covid-19 and subsequent variants
- Digital divide and unequal access to mobile devices and connectivity
- Lack of good quality senior management and leadership
- Financial sustainability – rising costs, declining state subsidies and rising student debt
- Environmental risks – Impact of climate change and pollution
- Political instability – political instability in SA as elections approach
- Higher education model and curriculum outdated
- Online learning – pace and technology requirements
- Poor quality of basic education and schooling
- Crime and violence
- High unemployment, poverty and inequality
- Global competition for talent
- Gender inequality, GBV, rape and femicide
- Youth disillusionment

This diagrammatic overview is further explicated by focusing on selected strengths, strategic opportunities, and trajectories that inform University planning as we strive to achieve the aspirations articulated in Vision 2030. Given that many of the threats were discussed as part of the situational analysis and the challenges will be indicated in the institutional performance review of the APP, these will not be further explored in this section.

3.1. Strengths

Nelson Mandela University places the pursuit of social justice at the heart of its academic core missions of learning, teaching, research, innovation, internationalisation, and engagement.

Humanising, student-centric approaches

In embracing the core mandate of facilitating holistic student access for success, the University invests extensively in various strategies to provide supportive living and learning environments conducive to improved academic performance. Mandela University has adopted a humanising pedagogical approach as the philosophical underpinning for learning, teaching, curriculum development, and assessment. This is largely based on the liberatory education philosophy and work of Paulo Freire, that enables agency and a sense of coming not only to know, but to own the knowledge and be empowered by it.

Through student-centric approaches, the University seeks to activate the agency of students as leading actors in developing and implementing student life and development interventions that liberate the full potential and talent of our students. Various sporting, leadership, entrepreneurship, and psycho-social support programmes are offered to promote a vibrant student life.

Embracing the Mandela identity

The five-year anniversary in July 2022 of renaming the institution to Nelson Mandela University marked the start of a year-long programme of institution-wide activities that address aspects of Mandela's scholarly legacy. Mandela University remains committed to giving intellectual and programmatic expression to the Mandela name and identity. The Transdisciplinary Institute for Mandela Studies (TIMS) and the Chair for Critical Studies in Higher Education Transformation (CriSHET) constitute a key intellectual differentiator for the University and signing a Memorandum of Understanding (MoU) with the Nelson Mandela Foundation, the primary custodian of the Mandela legacy, has significantly catalysed this scholarly endeavour. TIMS is intended to drive the University's pursuit of becoming the pre-eminent academic expression of Mandela and hosts workshops and events to foster a vibrant intellectual culture and advance social justice.

Transformative engagement and values-driven institutional culture

Fundamental to the overall institutional transformation project has been the establishment of a new executive management portfolio rooted in the interplay between engagement and transformation, and their interlinkages with research, learning and teaching. The core purpose of the Engagement and Transformation portfolio (ETP) is to provide intellectual and strategic leadership of engagement and transformation in support of the vision and strategic objectives of the University. The portfolio has a substantive coordination and facilitative function, interwoven with faculties, entities, and other support service units across the institution; and beyond.

The ETP entities, projects and programmes work to establish new and revitalised affiliations, systems of working and means of accountability. Together, they represent a wide range of expertise, knowledge and approaches to research and praxis with a shared commitment to building a transformative, responsive university. The budding experiments steered by the principles of the Hubs of Convergence (HoC) are generating learnings on what is possible. The work of the HoC brings together skills, capacities, and connections from across the University in various projects to work with marginalised communities. Networks have grown and connections, across faculties, disciplines, civil society organisations, government, and the private sector, have strengthened and become more impactful. Key areas of focus for the HoC will continue to be individual and organisational wellness, food sovereignty, GBV, developing local economies, and support for community-based organisations.

Cascading the *Statement of Commitment to an Inclusive Institutional Culture* is a further critical enabler for realising Vision 2030. To this end, the Institutional Culture Working Group (ICWG) commissioned a meta-analysis of the findings from previous research studies conducted on institutional culture, as well as from programmatic culture change interventions implemented at the University over the past decade (2010 to 2021). This has established a baseline assessment of institutional culture at Mandela University the report revealed that, whilst good progress has been made in addressing various challenges, forward-looking institutional culture interventions need to enable academic excellence; advance decolonisation and curriculum transformation; implement a progressive language policy; tap into the contribution of the arts, culture, and heritage in promoting social cohesion; deepen a culture of open engagement; improve student and employee wellbeing; promote a vibrant campus life experience; and ensure parity of esteem in a multi-campus context.

3.2. Strategic opportunities and trajectories

The University's Vision 2030 strategic aspirations have been crafted against the backdrop of the global, continental, and national development goals articulated in the United Nations 2030 Sustainable Development Goals, the African Union Agenda 2063, and the South African 2030 National Development Plan (NDP) respectively. This will ensure that the University is poised to change the world through generating cutting-

edge knowledge that contributes to a sustainable future. To this end, the University is consolidating excellence across key strategic trajectories as it cascades its future-focused Vision 2030 Strategy.

Transdisciplinary Sustainability Sciences

The vision of being recognised as a university that contributes to sustainable futures has gained expanded urgency to ensure that our efforts to respond to grand societal challenges find expression in curriculum design, learning, teaching, research, innovation, internationalisation, and engagement.

The University is harnessing its research excellence in sustainability science to advance responsible environmental stewardship. This was recognised by the Times Higher Education [THE] Impact Rankings in 2021 when the University ranked fourth in South Africa. These rankings assess the performance of universities in contributing to the United Nations Sustainable Development Goals (SDGs). Nelson Mandela University was the only university in South Africa to rank in the SDG *Life Below Water [SDG 14]*, where it ranked 40th globally. *Partnerships [SDG 17]* also ranked highly, with Mandela University ranking highest in South Africa, together with the University of Cape Town and the University of Pretoria.

Ocean Sciences

The United Nations proclaimed 2021-2030 as the International Decade of Ocean Science for Sustainable Development in an effort to mobilise stakeholders worldwide behind a common framework towards protecting the world's oceans. Through the establishment of the first dedicated Ocean Sciences Campus in South Africa, Mandela University houses transdisciplinary clusters working collaboratively to address issues confronting our oceans and coastal communities. Infrastructure developments funded by the Department of Higher Education and Training are enabling the University to invest in modernised laboratories, facilities, and equipment on the campus.

As part of our ocean sciences strategy, we have been scaling up under- and postgraduate academic qualifications, including the launch of a new Master of Maritime Management degree, starting in 2023 in the Business School, as well as an LLM (Coursework) in Ocean Governance. Developing our ocean sciences niches leverages off existing strategic advantages such as our five NRF-funded SARChI (South African Research Chairs Initiative) Chairs and research entities including the Institute for Coastal and Marine Research (CMR), the FishFORCE Academy, the Centre for Coastal Paleosciences and the Marine Robotics Centre. These advance pioneering research and innovation in support of global, continental, and national endeavours to unlock the economic potential of the oceans in a manner that promotes sustainable livelihoods for marginalised coastal communities.

The Ocean Sciences campus also serves as the headquarters of the South Africa International Maritime Institute (SAIMI), whose overarching objective is to develop the contribution of the oceans economy nationally and on the African continent. Through SAIMI, the University is actively promoting engagement and collaboration with industry, government, civil society, and educational partners, both nationally and internationally, to enhance our scientific, socio-economic and policy impact in domains such as marine ecology, oceanography, climate change, the oceans governance and the law of the seas, marine spatial planning, and ocean cultures.

Medical School

The opening of Mandela University's Medical School on the Missionvale Campus in Gqeberha was a significant milestone in November 2021. As the tenth medical school in the country and the second in the Eastern Cape province, the inaugural cohort of 50 MBChB students has since been augmented by a second cohort of 80 students in 2022. The medical school is setting a precedent for innovation and appreciation of the needs of a society in transformation towards social justice and equity.

Guided by the University's humanising pedagogical philosophy, the learning and teaching approach of the Medical School and Faculty of Health Sciences are marked by interprofessional education and the extensive use of technology. The digital and ICT infrastructure is aimed at enabling and enhancing learning and teaching at a time when universities are compelled to adopt hybrid modes of educational delivery. It also further facilitates connectivity with neighbouring hospitals, clinics, and other educational institutions, making it easier to learn and work collaboratively beyond geographic divides.

Beyond training medical and healthcare workers, the University will also deploy its full range of research and innovation capabilities in the search for new diagnostic, therapeutic and vaccine technologies. These will be directed toward the fight against pandemics, legacy communicable diseases such as TB and HIV/AIDS, and climate-related health risks of the future. The use of big data analytics, artificial intelligence, machine, and deep learning tools, together with Mandela University's long-standing capabilities in mobile, remote sensing and robotic technologies, will be leveraged as further crucial assets.

The University collaborates with all partner institutions in producing fit-for-purpose, service-oriented and civic-minded medical professionals committed to making a difference in the lives of the disadvantaged. While the human and capital investment for the new medical school has been significant, the returns for public health education and research will be even greater through improved health outcomes for local communities, the Eastern Cape, and the nation.

Revitalising the Humanities

In the Vice-Chancellor's inaugural address of 2018, the revitalisation of the humanities was foregrounded as one of the University's key focus areas in the renewal of the academic project. Revitalising the humanities is a central component of the University's overall academic strategy to reimagine the transformative potential of all disciplines in awakening African scholarship and systems of thought. It also contributes to the University's efforts to promote social cohesion and democratic citizenship through fostering the depth of critical, transdisciplinary thinking required to identify innovative solutions to persistent societal and planetary challenges.

While developing a vision and strategic plan, the Faculty of Humanities has already undertaken various activities towards the realisation of this vision to reposition and recentre the humanities and social sciences. This includes hosting curriculum conversations to promote critical engagement on key issues such as decolonisation and Africanisation of the curriculum, (un)-representativeness, inaccessibility, and privilege in the curriculum. Alongside the focus on decoloniality, indigenous knowledges and interrogating Western hegemonies, other new areas of study and research are emerging in the Faculty of Humanities, such as digital humanities and animation. The faculty intentionally views Africa as a source of knowledge production to diversify and deepen the arts, humanities, and social sciences canon and scientific knowledge base respectively. Progress towards achieving this has included the launch of the Centre for Philosophy in Africa and the SARChI Chair for Identities and Social Cohesion in Africa.

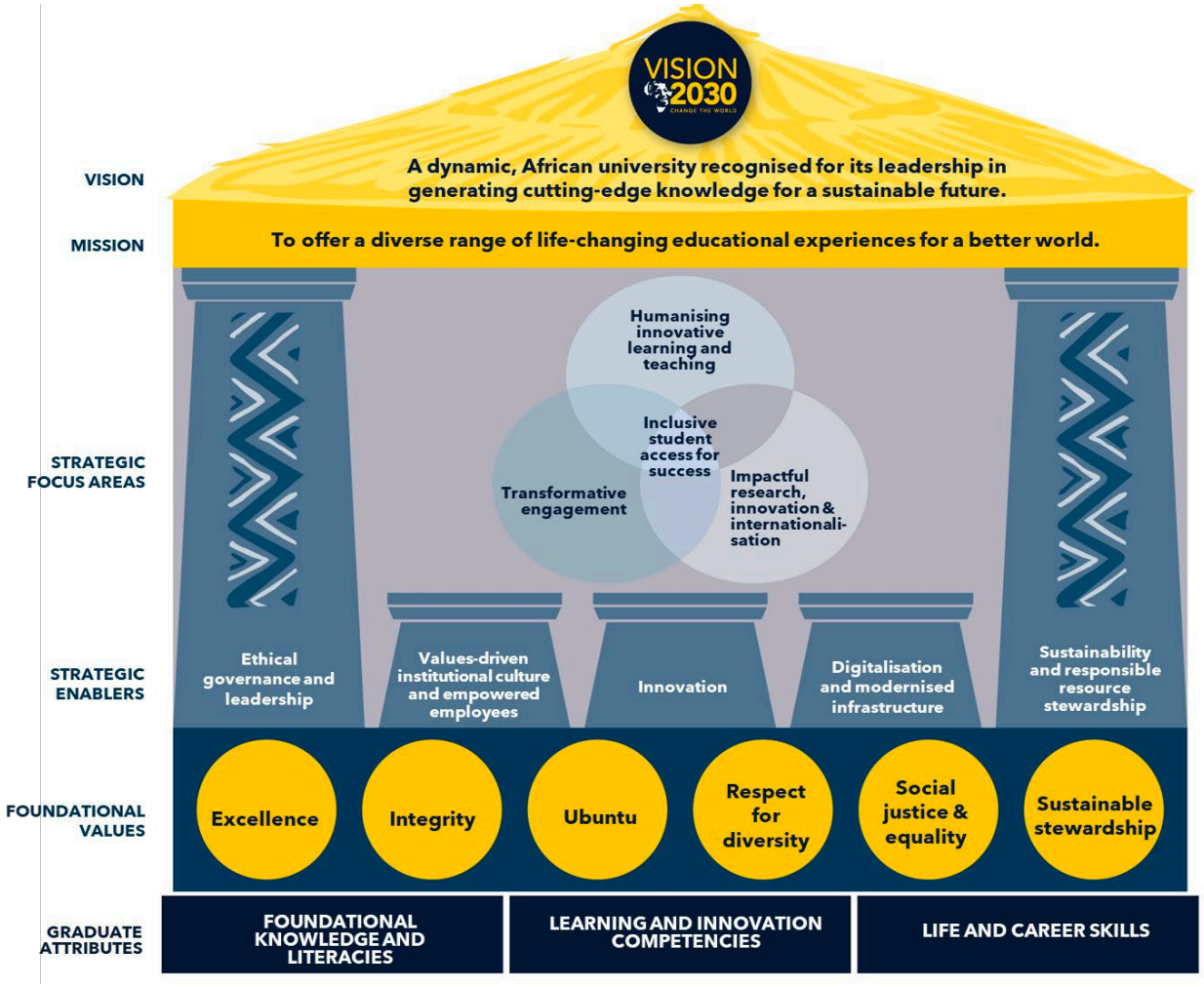
In conclusion, there are many dynamic forces of change influencing higher education, many of which challenge us to think broadly and plan for influences from unexpected domains. Against the backdrop of the situational analysis and a careful assessment of institutional strengths and strategic opportunities, the University has crafted a set of core positioning messages that underpin the Vision 2030 Strategy. These are diagrammatically illustrated below.

NELSON MANDELA UNIVERSITY

VISION 2030 CHANGE THE WORLD

SECTION B: STRATEGIC OVERVIEW

The Vision 2030 Strategic Plan outlines the University's vision, mission, values, educational purpose and philosophy, distinctive knowledge paradigm, desired graduate attributes, strategic focus areas and enablers. This is depicted below and the narrative that follows elaborates on each dimension.



1. Vision

To be a dynamic, African university recognised for its leadership in generating cutting-edge knowledge for a sustainable future.

2. Mission

To offer a diverse range of life-changing educational experiences for a better world. To achieve our vision and mission, we will ensure that:

- Our values inform and define our institutional ethos and distinctive educational purpose and philosophy.
- We are committed to promoting equity of access and opportunities to give students the best chance of success in their pursuit of lifelong learning and diverse educational goals.
- We provide a vibrant, stimulating and richly diverse environment that enables employees and students to reach their full potential.
- We develop graduates and diplomates to be responsible global citizens capable of critical reasoning, innovation, and adaptability.
- We create and sustain an environment that encourages and supports a vibrant research, scholarship and innovation culture.
- We engage in mutually beneficial partnerships locally, nationally and globally to enhance social, economic, and ecological sustainability.

3. Values

The Vision 2030 stakeholder engagement processes re-affirmed the importance of all students, employees and alumni living the University's core values. We therefore hold ourselves accountable to embodying our values as we execute our vision and mission, design of our academic programmes and curricula, engage in our academic core missions, deliver our professional, administrative and support services, and engage with our stakeholders.

Respect for diversity

- We reflect and serve diverse regional, national, and global communities.
- We promote an open society where critical scholarship and the expression of a multiplicity of opinions and ideas are actively encouraged.
- We foster an environment in which diversity is appreciated, respected, and celebrated.
- We foster a culture that welcomes and respects diverse identities, heritages, and life experiences.

Excellence

- We encourage the pursuit of the highest levels of academic, civic, and personal achievement.
- We provide a supportive and affirming environment that enables our students, employees, and publics to reach their full potential.
- We pursue inclusive excellence by embedding equality of access and opportunity in our policies, processes, systems, and practices.
- We seek to foster a culture of intellectual and personal growth and lifelong learning.
- We promote, recognise and reward excellence in our teaching, learning, research, innovation, creative outputs, engagement, and service delivery.

Social justice and equality

- We are dedicated to the realisation of a socially just, democratic society that promotes equality for all irrespective of race, gender, sex, pregnancy, marital status, ethnic or social origin, sexual orientation, age, physical and learning abilities, national origins, religion, conscience, belief, culture, and language.
- We encourage mutually beneficial, equalising partnerships and engagement with our core publics to co-create sustainable, innovative solutions to persistent societal and planetary challenges.
- We cultivate living, learning and work environments that enable students and employees to realise their full potential, without fear of discrimination, harassment, or violence.
- We develop our graduates as global citizens capable of developing and applying knowledge across multiple contexts to make meaningful contributions to advancing a socially just, equal society.

Ubuntu

- We are a people-centred, values-driven university that seeks to foster a compassionate and caring institutional culture.
- We respect the dignity of others and strive to be human-centred and relational.
- We recognise our mutual interdependence.
- We promote socially conscious and responsible citizenship.

Integrity

- We commit ourselves to the highest standards of personal honesty and exemplary moral character.
- We are dedicated to cultivating an atmosphere of trust.
- We take responsibility for our decisions, behaviours, actions, and the consequences thereof.

- We ensure the integrity of our policies, information, systems, and processes.

Sustainable stewardship

- We are committed to environmental sustainability and recognise our responsibility to conserve, protect and sustainably manage natural resources for current and future generations.
- We promote the integration of sustainability into our governance, leadership, academic core missions, operations, as well as the design and maintenance of physical and digital infrastructure.
- We inspire students and employees to embrace responsible stewardship of all financial, human, infrastructural and environmental resources entrusted to them.

4. Distinctive Knowledge Paradigm

Nelson Mandela University adopts a distinctive knowledge paradigm guided by the following principles:

- The University as an open society of students and employees committed to generating knowledge that has a liberating effect on our world.
- Application of ethical knowledge to advance social justice, the public good and a sustainable future for our planet and all its inhabitants.
- Freedom of expression and thought in speech, writing and all art forms.
- Advancement of disciplinary depth while embracing collaborative inter- and transdisciplinary approaches to address complex and intractable challenges.

5. Educational Purpose and Philosophy

We strive to be in the service of society through our learning and teaching, research, innovation, and engagement activities. To achieve this:

- We are committed to liberating the full human potential of our employees and students in the pursuit of responsible, democratic global citizenship.
- We advance the frontiers of knowledge to contribute to a socially just and sustainable future in the service of society.
- We adopt innovative, humanising pedagogies and practices that affirm diverse knowledge paradigms and world views.
- We inspire our stakeholders to be passionate about and respectful of an ecologically diverse and sustainable natural environment.
- We are known for our values-driven, inclusive institutional culture that encourages all members of the University community to contribute optimally to the vibrancy of intellectual discourse and the respectful contestation of ideas.

- We place students at the centre of all we do to enable them to deploy their agency during their studies and in their future lives as alumni.
- We seek to address the grand challenges confronting society & the planet through the co-creation of sustainable solutions with all our publics.

As an elaboration of our values, distinctive knowledge paradigm and educational purpose and philosophy, we recognise that an inclusive institutional culture is a foundational enabler of excellence in all its manifestations.

6. Desired Graduate Attributes

Graduate attributes are the high-level knowledge, skills, qualities, and understandings that a student should gain as a result of the learning and experiences they engage with while at the university. These attributes equip graduates for lifelong personal development, learning and to be successful in society and shape the contribution they can make to their profession and as citizens. Within a rapidly changing global context, graduates need to be flexible and adaptive to manage uncertainty, ambiguity, and unpredictability, as opposed to only acquiring a fixed set of skills that prepare them narrowly for the world of work.

The Vision 2030 Strategy makes provision for generic, cross-cutting graduate attributes that can be developed in numerous ways within and beyond the curriculum. These attributes outline the highly valued skills, mindsets and attitudes that equip graduates to grapple with challenges and adapt to new environments quickly and effectively. Moreover, students with these generic attributes are better able to apply their skills in diverse contexts and find ways to innovate by applying the depth of knowledge acquired through their core discipline and/or profession, while also embracing inter- and transdisciplinary thinking to solve complex problems and challenges.

Through benefitting from a life-changing educational experience at Nelson Mandela University, our graduates will develop the knowledge, skills and attributes required for success in life and work in a complex and rapidly changing world. The key categories within which our generic graduate attributes have been identified and conceptualised include the following:

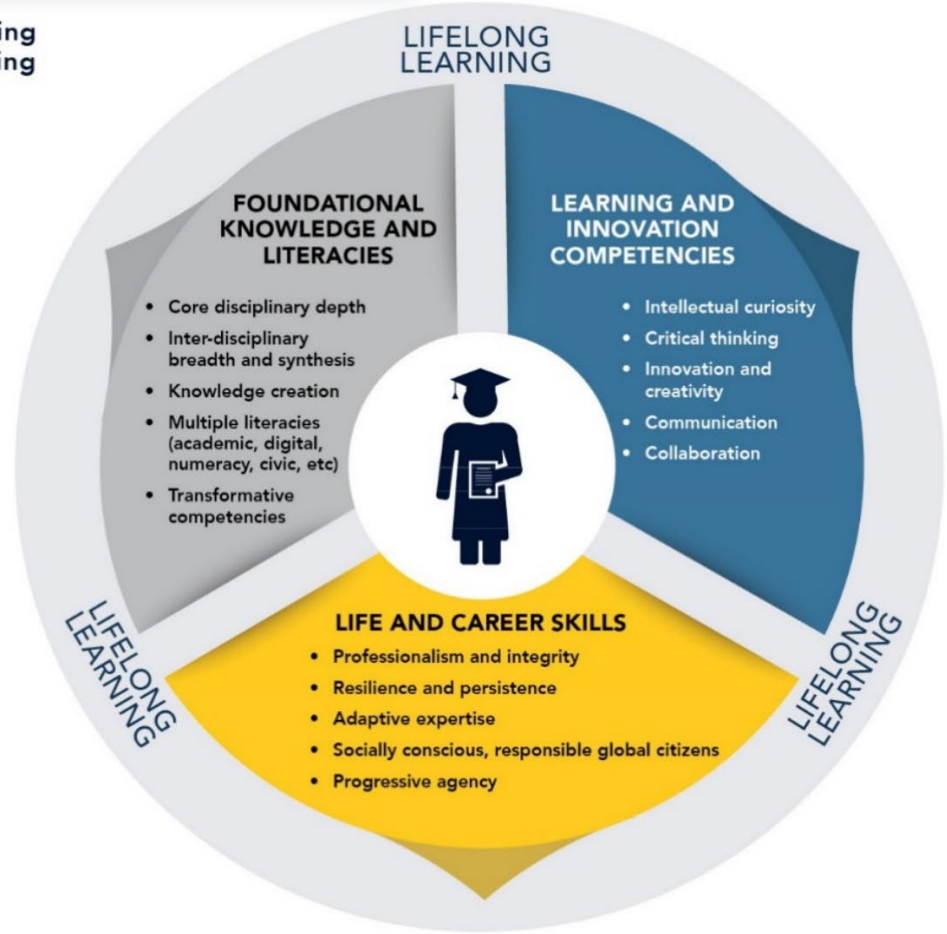
- **Foundational knowledge and literacies** represent how graduates apply core disciplinary and interdisciplinary knowledge to everyday tasks. Knowledge includes theoretical concepts and ideas in addition to practical understanding based on the experience of having performed certain tasks. Foundational literacies serve as the basis upon which graduates need to build more advanced competencies and character qualities. This includes numeracy and various literacies such as scientific, linguistic, digital, financial, cultural, and civic literacy. To meet the challenges of the 21st century, students need also need to be equipped with transformative competencies to shape a better, more sustainable future. These include:

    - Creating new value means innovating to shape better lives, such as developing new knowledge, insights, ideas, techniques, strategies, and solutions, and applying them to problems.
    - Reconciling tensions implies the acquisition of a deeper understanding of opposing positions, developing arguments to support their own position, and find practical solutions to dilemmas and conflicts.
    - Taking responsibility is connected to the ability to reflect upon and evaluate one's own actions, experience, and education to achieve personal, ethical, and societal goals.
- **Learning and innovation competencies** are increasingly being recognised as the skills that distinguish graduates who are prepared for increasingly complex life and work environments in the 21st century. Such competencies include intellectual curiosity, critical thinking, creativity, communication, and collaboration.
- **Life and career skills** need rigorous attention to ensure that graduates are equipped to confidently navigate life and work environments in the globally competitive information age. Such skills include professionalism and integrity, resilience and persistence, adaptive expertise, and exercising progressive agency to bring about constructive change as socially conscious, responsible global citizens.

The University acknowledges the importance of students exercising their own agency in advancing their personal development and growth while they are studying at Mandela University. As part of Vision 2030, our intention is to articulate a broad framework of generic graduate attributes, which can be customised and elaborated on by faculties and professional support divisions to address the specific learning and teaching requirements of various disciplines and professions. This is visually depicted in the diagram below.

GRADUATE ATTRIBUTES

Through benefitting from a life-changing educational experience, Nelson Mandela University graduates will be known for demonstrating the following attributes:



7. Strategic focus areas, enablers, and goals

The cultivation of sought-after and highly valued graduates depends largely on the pursuit of excellence in the University's core academic missions. Nelson Mandela University seeks to offer holistic curricular and co-curricular living and learning experiences that are student-centric and create an enabling, inclusive, and supportive environment for students to succeed in life and work. To this end, our core academic missions are not pursued as independent silos but are integrated to ensure that humanising learning and teaching are informed by impactful research, innovation, and internationalisation, as well as transformative engagement. This integrated approach to our academic core missions is at the heart of what makes Mandela University distinctive.

Each of these Vision 2030 strategic focus areas is unpacked further below, to indicate the University's Vision 2030 strategic goals.

Vision 2030 strategic focus areas	Goals
SFA 1: Liberate human potential through humanising, innovative lifelong learning experiences that prepare graduates to be socially conscious, responsible global citizens who serve the public good	• Scale up distinguishing strategic academic directions that differentiate Mandela University within a diverse higher education landscape nationally and globally • Embrace the distinctive features of a comprehensive programme and qualification mix that provide a range of access routes and learning pathways for multi-generational learners from diverse educational backgrounds • Design and implement strategies to support the progressive migration towards high-quality, technology-rich hybrid learning within and beyond the classroom • Design and offer hybrid and fully online short learning programmes and stackable credentials in support of lifelong learning and continuing professional development • Advance humanising learning experiences and curriculum transformation interventions that seek to prepare graduates for success at work, entrepreneurship and in life • Promote University-wide internationalisation initiatives aimed at enhancing global pedagogical relevance.
SFA 2: Pursue impactful, pioneering research, innovation and internationalisation to address grand societal challenges and promote sustainable futures	• Establish nationally and internationally renowned, inter- and transdisciplinary research themes that address key issues facing society and the planet • Review recognition, rewards, resourcing and workload models to provide an enabling environment for the generation of impactful research and innovation outputs that are locally relevant and globally significant • Invest in the attraction, development and retention of socially diverse, research active postgraduate students, postdoctoral fellows and early career academics to promote talent continuity, research productivity and academic excellence • Leverage the expertise of the HEAVA appointees and research associates for postgraduate student supervision, co-authoring of publications and joint applications for external grant funding

	• Provide sustainable support to research chairs and entities as institutionalised mechanisms to promote synergies, enhance research and innovation productivity, and leverage external funding • Enhance the global reach and visibility of the University through expanded international networks, strategic partnerships and collaborative international research grants, particularly on the African continent and in the global South • Ensure that the physical and electronic library and information services collections are appropriately resourced to maintain currency with trends in scholarship across all knowledge domains.
Vision 2030 strategic focus areas	**Goals**
SFA 3: Engage with all publics in equalising partnerships to co-create transformative, contextually responsive solutions in pursuit of social justice and equality	• Conceptually and programmatically anchor the strategic goals of engagement and transformation within and beyond the University. • Position engagement and transformation as an institutional orientation that supports the aspiration of excellence in learning, teaching and research. • Lead creative and pioneering engagement and transformation projects that differentiate Mandela University within the national and global higher education sector. • Cultivate a vibrant intellectual culture that promotes critical consciousness and creates spaces for the open sharing of diverse knowledge paradigms and ideas. • Develop and implement institutional policies, systems and processes to promote social inclusion and decisively eliminate all forms of discrimination, micro-aggressions and gender-based violence • Embed engagement and transformation across all University portfolios for broad socio-economic impact and in the interest of the public good • Cultivate a culture of scholarship as an intellectual resource base that buttresses the engagement and transformation approaches, praxes and programmes of the University • Develop platforms for co-creating sustainable, innovative solutions to societal challenges through equalising partnerships with diverse publics.

Vision 2030 strategic focus areas	Goals
SFA 4: Catalyse dynamic, student centric approaches and practices that provide life-changing student experiences within and beyond the classroom	• Conceptualise, develop and co-create an African-purposed, integrated suite of thriving student life and support services that deliver evidence-based interventions to support student success • Stimulate vibrant, inclusive living and learning student communities on- and off-campus through diverse intellectual, cultural, sport and recreational activities and programmes • Provide curricular and co-curricular experiential learning opportunities that cultivate innovative, entrepreneurial mindsets and enhance the readiness of graduates for life and work • Enact institutional communities of practice, collaborative programmes and campaigns to promote holistic student well-being, health and safety • Transform the culture of dialogue and student engagement to nurture the leadership capabilities of young African leaders and intellectuals who contribute meaningfully to society • Facilitate the continued involvement of alumni in the activities and initiatives of the University to enhance global visibility and reach through value adding collaborative networks.

The success of Nelson Mandela University in pursuing our core academic missions is dependent upon various strategic enablers that create the conditions for excellence. As a result, institutional strategies, systems, processes, and practices need to continuously adapt to ensure that strategic continuity and change are held in delicate balance. Such an enabling environment will also ensure that Mandela University is a destination of choice for students, employees, alumni, funders, and partners.

The following strategic enablers were identified as foundational pillars for the realisation of the strategic aspirations underpinning the University's Vision 2030 Strategy.

7.1. Ethical governance and leadership

The University embraces the legacy and leadership ethos of its iconic namesake, Nelson Mandela and aims to enhance organisational effectiveness through ethical governance and leadership. We strive to nurture current and future leaders who consistently promote service before self for the greater good of the University and society. Mandela University fosters an ethos of care as the cornerstone of academic and service excellence

7.2. Values-driven institutional culture and empowered employees

In embracing the legacy of our iconic namesake, Nelson Mandela University encourages students and employees to consistently live the values of excellence, ubuntu, integrity, social justice and equality, environmental and resource stewardship, and respect for diversity. We aim to attract, retain and nurture talented, diverse, and high-performing employees by cultivating a values-driven, transformative institutional culture that promotes social inclusion, a sense of belonging and holistic well-being. The University invests in continuing professional development and lifelong learning opportunities for employees to unlock talent and create pathways for development and growth.

7.3. Enabling innovation

Mandela University aspires to be a vibrant innovation hub that convenes diverse stakeholders to co-create transformative solutions to address perennial societal and planetary challenges. In so doing, the University seeks to foster a culture of innovation where our students, employees and partners can collaboratively engage in scientific, technological, and creative discovery that advances the frontiers of knowledge and promotes the public good.

7.4. Digitalisation and modernised infrastructure

The University strives for efficient service delivery, sustained value creation and agile decision making through the digitalisation of systems and processes, including investing in integrated information technology, networks, applications, and business intelligence platforms. Modernised physical infrastructure is flexibly designed and optimally utilised to foster a vibrant living, learning, and working experience for all students and employees across all campuses.

7.5. Sustainability and responsible resource stewardship

Innovative resource mobilisation and diversification is especially crucial in a context of ever-increasing costs and a shrinking national fiscus. The University recognises the need for responsible resource stewardship and cost-effectiveness to promote long-term financial sustainability. We furthermore strive to deepen our commitment to reducing our carbon footprint through harnessing the potential of renewable energies, waste reduction and recycling, and guardianship of our unique campus ecosystems and biodiversity.

The Vision 2030 goals associated with each of these strategic enablers are outlined below.

Vision 2030 strategic enablers	Goals
SE 1: Embrace ethical governance and leadership approaches and practices that embody the values of the University and seek to promote service before self	• Uphold ethical governance and leadership practices at all levels of the University to promote trust and maintain the highest standards of integrity • Develop and implement leadership enhancement and capacity development programmes to sustain a pipeline of future leaders and trailblazers across all domains of the University • Nurture constructive, mutually respectful engagement with key internal and external stakeholders to inform policies, strategies and decisions • Embed a culture of transparency and accountability to ensure that leaders, employees and students align their conduct with the values of the University • Design and implement integrated, strategy-aligned institutional performance monitoring, evaluation and reporting systems to enhance the accountability of the University to its multiple publics.
SE 2: Foster an inclusive, values-driven institutional culture to position the University as an employer of choice for talented and empowered employees	• Foster a values-driven, affirming institutional culture that promotes inclusion, holistic employee well-being and a sense of belonging • Position the University as an employer of first choice for talented, high-performing employees through an enabling work environment and progressive remuneration, recognition and reward systems

	• Accelerate the diversification of the demographic profile of employees in all occupational categories through the attraction, retention and promotion of employees from under-represented groups • Develop and implement integrated, dynamic talent management strategies that empower employees with the self-learning skills and flexible, adaptive mindsets required to thrive within the changing world of work.
Vision 2030 strategic enablers	**Goals**
SE 3: Create and sustain an enabling innovation ecosystem where students and employees can collaboratively engage with external partners to co-create pioneering discoveries that advance the frontiers of knowledge and promote the public good	• Establish hubs of innovation to facilitate the convergence of students, employees and relevant external partners in spaces conducive to co-creating and leveraging innovations to drive the inclusive economic growth and transformation • Raise the profile of the University and extend our influence, both nationally and internationally, through targeted innovation forums for key stakeholders in government, industry, the non-profit sector and broader society • Embed innovation within undergraduate and taught postgraduate curricula wherever appropriate and develop channels for student participation in innovation projects • Provide support at all stages of the innovation journey along with access to networks of accelerators, investors, incubation space, and an enterprise development educational programme to encourage students, academics and PASS employees to translate innovative ideas into scalable solutions and sustainable enterprises • Support knowledge exchange and commercialisation activities that ensure innovations are readily translated for the economic, cultural and social benefit of users worldwide.

Vision 2030 strategic enablers	Goals
SE 4: Improve efficiencies and value creation through digitalisation, integrated systems, agile service delivery, and modernised infrastructure	• Integrate and digitalise institutional systems and processes to promote responsive decision-making, agile service delivery and improved efficiencies in support of academic excellence • Progressively invest in upgraded ICT infrastructure and technologies, WiFi densification and cybersecurity enhancements to facilitate the migration towards digital transformation and cloud computing • Strengthen the University's capacity to support hybrid and fully online educational delivery through widening access to mobile devices and data connectivity for students and employees • Repurpose and modernise flexibly designed physical and virtual spaces in support of learning, research, engagement and creativity in a multi-campus context • Transform campuses into centres of excellence through distinctive academic programme offerings and research niches, efficient service delivery, modernised infrastructure and vibrant campus life.
SE 5: Promote long-term sustainability through strategy-aligned resource mobilisation and responsible stewardship	• Develop and implement a multi-year resourcing plan informed by financial modelling to fund the progressive, future focused strategic aspirations of the University • Optimise the academic programme and qualification portfolio, graduate, and research outputs of each faculty to promote financial viability and maximise subsidy yield • Increase and diversify revenue streams through integrated resource mobilisation, enterprise development, commercialisation, and investment strategies • Mobilise funding for bursaries and scholarships to widen access for academically deserving and financially needy under- and postgraduate students • Develop and implement budgeting and resource allocation models that advance strategic alignment, transversal collaboration, and sustainable growth • Pursue responsible resource stewardship and greening strategies to enhance long-term financial and environmental sustainability

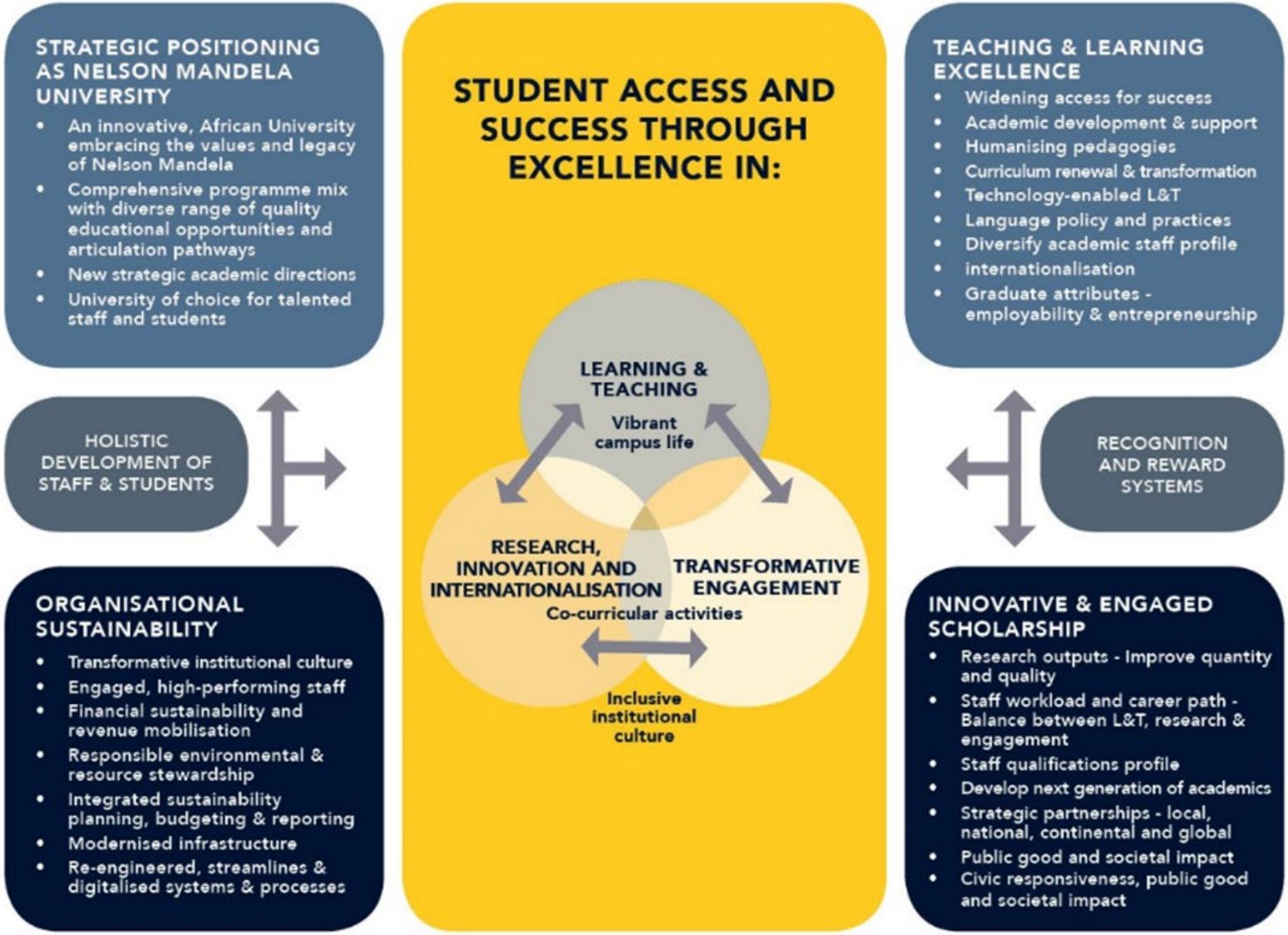
	• Promote collective ownership of transformative procurement and supply chain management to improve the University's contribution to broad-based black economic empowerment (BBBEE).

The Vision 2030 Strategy charts the strategic trajectory of Nelson Mandela University over the next decade. In cascading and operationalising institutional strategy, it is imperative that there is an institutional monitoring, evaluation, and reporting (MER) framework to inform the key performance indicators (KPIs) used to monitor, evaluate, and report on progress in implementing Vision 2030.

The University is still in the process of finalising the Vision 2030 Performance Indicator Framework and has, for the purposes of compiling the Annual Performance Plan (APP) 2023, selected a set of core indicators from the draft Vision 2030 Indicator Framework to monitor the achievement of strategic goals. The selection of performance indicators was informed by an assessment of those Vision 2030 strategic focus areas (SFAs) and strategic enablers (SEs) that can be monitored quantitatively.

In future iterations of the APP, this indicator framework will be expanded to also include strategic goals that can only be monitored using qualitative methods. This will ensure that, over time, the APP evolves towards progressively including a more comprehensive set of indicators and targets for all the Vision 2030 strategic focus areas and enablers to promote full alignment with the Vision 2030 institutional MER framework approved by executive management in April 2022. This framework is premised on student-centric approaches that promote student access for success through excellence in the core academic missions of learning, teaching, research, innovation, internationalisation, and transformative engagement. These core missions are buttressed and supported by transversal interventions to advance transformation and promote institutional sustainability. This is diagrammatically depicted on the next page.

The next section outlines the KPIs associated with the various strategic focus areas and enablers that can be assessed quantitatively and provides an overview of the historical data trends with accompanying narrative to elaborate on the contextual factors underpinning the trends and informing the setting of targets. As a result, the APP 2023 extends beyond the indicators prescribed by the Department for Higher Education and Training outlined in Table 1.


STRATEGIC POSITIONING AS NELSON MANDELA UNIVERSITY
An innovative, African University embracing the values and legacy of Nelson Mandela
Comprehensive programme mix with diverse range of quality educational opportunities and articulation pathways
New strategic academic directions
University of choice for talented staff and students
HOLISTIC DEVELOPMENT OF STAFF & STUDENTS
ORGANISATIONAL SUSTAINABILITY
Transformative institutional culture
Engaged, high-performing staff
Financial sustainability and revenue mobilisation
Responsible environmental & resource stewardship
Integrated sustainability planning, budgeting & reporting
Modernised infrastructure
Re-engineered, streamlines & digitalised systems & processes
STUDENT ACCESS AND SUCCESS THROUGH EXCELLENCE IN:
LEARNING & TEACHING
Vibrant campus life
RESEARCH, INNOVATION AND INTERNATIONALISATION
TRANSFORMATIVE ENGAGEMENT
Co-curricular activities
Inclusive institutional culture
TEACHING & LEARNING EXCELLENCE
Widening access for success
Academic development & support
Humanising pedagogies
Curriculum renewal & transformation
Technology-enabled L&T
Language policy and practices
Diversify academic staff profile
internationalisation
Graduate attributes - employability & entrepreneurship
RECOGNITION AND REWARD SYSTEMS
INNOVATIVE & ENGAGED SCHOLARSHIP
Research outputs - Improve quantity and quality
Staff workload and career path - Balance between L&T, research & engagement
Staff qualifications profile
Develop next generation of academics
Strategic partnerships - local, national, continental and global
Public good and societal impact
Civic responsiveness, public good and societal impact

SECTION C: ANNUAL PERFORMANCE PLAN 2023 KEY PERFORMANCE INDICATORS

1. Vision 2030 Performance Indicator Framework

Nelson Mandela University's academic size and shape targets constitute the basis for monitoring and evaluating progress at institutional level in relation to key performance indicators (KPIs) such as student enrolments, student success, instructional staff headcounts and qualification profile and research outputs.

Targets to monitor achievements of the APP 2023 goals were based on those recently approved by the DHET in the 2023 to 2025 Mid-Term Enrolment Planning Review. Where trends have shown that the enrolment plan target might not be achievable, a revised target has been set for the APP 2023. Targets for indicators not included in the enrolment plan have been based on historical data trends and anticipated future developments. In a few selected cases, projections are indicated where it would not be meaningful or feasible to set targets for certain indicators (for example, staff turnover).

Due to the impact of the COVID-19 pandemic from 2020 to 2022, clear benchmark data for indicators related to environmental sustainability are not available given that staff and students were mostly working and learning remotely. With the full student complement expected to be on all campuses from 2023, the University expects considerable increases in water usage, electricity consumption, and waste production close to pre-pandemic levels. Once more stable trends have been established, targets will be set for these indicators.

2. Annual Performance Plan 2023: Performance Indicators and Targets

The University pursues a sustainable growth strategy in terms of student enrolments, staff capacity, financial resources, and infrastructural facilities. As a comprehensive university, the balance between undergraduate diploma and degree enrolments, as well as between under- and postgraduate enrolments is closely monitored. Furthermore, enrolment targets are informed by various strategic considerations, such as the distinctive academic mandate and identity of a comprehensive university; the student intake profile; current and emerging research capabilities; the qualifications profile and research outputs of academic staff; as well as academic planning and curriculum renewal across all faculties.

2.1. Department of Higher Education and Training Performance Indicators

Table 1 provides an overview of the student access and success, staff profile, and research output indicators that all universities are required to report on accompanied by their associated targets for 2023. In addition, Section C will complement this with a comprehensive analysis of additional quantitative indicators to monitor and evaluate progress in respect of learning and teaching, student access for success, research, internationalisation, and institutional sustainability (financial and environmental).

Table 1: Overview of the DHET required key performance indicators

Key performance indicator	Target year n-3	Target year n-2	Target year n-1	Target year n
			2022	2023
	HEMIS 2020 Audited	HEMIS 2021 Audited	Based on preliminary 2022 data for A as well as APP 2022 targets for B & D	Reviewed targets based on the latest data trends
A. Access				
Headcount totals				
First-time entering undergraduates	5 295	5 916	8 706	7 185
Headcount enrolments	29 286	29 735	32 801	31 360
Headcount enrolments (Foundation Provisioning)	2 088	2 388	3 071	3 371
Headcount enrolments total UG	25 367	26 134	29 109	27 300
Headcount enrolments total PG	3 731	3 441	3 413	3 820
Occasional Students	188	160	279	240
Enrolments by major field of study				
Science, Engineering, Technology	10 358	10 421	11 136	10 983
Business/management	9 495	9 501	11 061	10 042
Education	2 314	2 254	2 221	2 510
Other humanities	7 119	7 559	8 383	7 845
Distance education enrolments	13	16	20	20

Key performance indicator	Target year n-3	Target year n-2	Target year n-1	Target year n
			2022	2023
	HEMIS 2020 Audited	HEMIS 2021 Audited	Based on preliminary 2022 data for A as well as APP 2022 targets for B & D	Reviewed targets based on the latest data trends
B. Success (APP 2022 targets for 2022)				
Graduates UG	5 919	6 025	6 080	6 135
Graduates PG	1 421	1 242	1 372	1 501
Success rate	85%	84%	83%	83%
Undergraduate output by scarce skills				
Engineering	387	381	380	380
Life and physical sciences	215	256	248	248
Animal and human health	408	406	431	495
Teacher education (including PGCE)	451	493	526	558
Scarce skills success rate	90%	88%	87%	87%
Teacher Education				
B Ed	321	395	405	414
PGCE	130	98	121	144
Total	451	493	526	558

Key performance indicator	Target year n-3	Target year n-2	Target year n-1	Target year n
			2022	2023
	HEMIS 2020 Audited	HEMIS 2021 Audited	Based on preliminary 2022 data for A as well as APP 2022 targets for B & D	Reviewed targets based on the latest data trends
C. Staff profile				
% Academic staff with doctoral degrees	46%	47%	47%	47%
Number of NGAP staff	14	17	16	17
Ratio of FTE students to FTE instructional/ research staff	27	27	30	29
D. Research output (APP 2022 targets for 2022)				
Publication units per FTE staff	0.8	*0.7	0.8	0.8
Research Masters graduates	249	224	244	265
Doctoral graduates	80	96	88	88
Publication units	579	*495	535	565

*This data is preliminary. Final data will only be available by the end of 2022 once DHET has reviewed the publication output units for books, chapters in books and conference proceedings.

As one of only six comprehensive universities in South Africa, Nelson Mandela University embraces its distinctive academic identity and strives to widen student access for success. Through strategy-aligned academic and enrolment planning, the University further strives to offer a wide range of general formative and career-focused, vocational qualifications from certificate to doctoral levels with various articulation pathways to facilitate student mobility and progression. Of significance in this regard is the need to maintain a balance between undergraduate certificate, diploma, and degree enrolments, as well as between under- and postgraduate enrolments across a broad range of fields of study.

Institutional enrolment targets are informed by a multidimensional set of considerations including the niche areas of the University, current and emerging research and innovation capabilities, engagement imperatives, infrastructural and resource constraints, and the profile of our staff and students.

2.2. Vision 2030 Quantitative Performance Indicators

The various Vision 2030 SFAs and SEs, which can be assessed quantitatively, are outlined below with an indication of the data trends for each of the relevant performance indicators, as well as targets (or projections where appropriate).

Strategic Focus Area 1: Liberate human potential through humanising, innovative lifelong learning experiences that prepare graduates to be socially conscious, responsible global citizens who serve the public good

Performance Indicator: Total headcount enrolments by qualification type and qualification level

As indicated in Table 2, undergraduate enrolments grew at a very strong rate of 5% on average per annum from 2019 to 2022.

Table 2: Total headcount enrolments by qualification type and qualification level, 2019-2022 with 2023 targets

Qualification Type	2019	2020	2021	2022	Average annual growth rate 2019-2022	2023 Targets	Average annual growth rate 2020-2023
UG Diploma or Certificate	10 011	10 077	10 650	12 468	7.6%	11 140	3.4%
Advanced Diploma	900	1 538	1 751	1 769	25.3%	1 845	6.3%
UG Degree	14 237	13 752	13 733	14 872	1.5%	14 315	1.3%
Total undergraduate	**25 148**	**25 367**	**26 134**	**29 109**	**5.0%**	**27 300**	**2.5%**
PG Diploma	654	647	500	533	-6.6%	612	-1.8%
Honours	814	761	770	852	1.5%	868	4.5%
Master's	1 872	1 741	1 556	1 464	-7.9%	1 700	-0.8%
Doctoral	632	582	615	564	-3.7%	640	**3.2%**
Total postgraduate	**3 972**	**3 731**	**3 441**	**3 413**	**-4.9%**	**3 820**	**0.8%**
Occasional	370	188	160	279	-9.0%	240	8.5%
Grand Total	**29 490**	**29 286**	**29 735**	**32 801**	**3.6%**	**31 360**	**2.3%**

Enrolments increased for all qualification types from 2019 to 2022, especially for advanced diplomas which were introduced to replace the former BTech degrees, which were being phased out. Advanced diplomas grew on average by 25.3% per annum over the 2019 to 2022 period. Advanced diploma enrolments are expected to continue to grow, but not as steeply as before and a target of 1 845 has been set for 2023.

During 2019 and 2020, the University experienced a sharp decline in enrolments, which were below the enrolment plan targets (2020 actual of 29 286 compared to 2020 target of 29 792). The biggest deviation from the target was at postgraduate level (3 731 which was 14% below the target of 4 347). In 2021, undergraduate enrolments increased from 25 367 in 2020 to 26 134, while postgraduate enrolments decreased further from 3 731 in 2020 to 3 441 in 2021.

In 2022, the University experienced an unprecedented growth in enrolments from 29 735 to 32 801 (10.3% increase), because of a first-time entering undergraduate intake of 8 706, which was 24.4% above the enrolment target of 7 000. The sharp increase in the number of first-time entering students has placed a strain on the available resources of the University, such as lecturing venues and the student transport system. In addition, the overall student: staff FTE ratio increased from 27: 1 in 2021 to 30: 1 in 2022.

Considering these factors, the University has set lower first-time entering undergraduate enrolment targets in the revised Mid-Term Review Enrolment Plan for 2023 to 2025 to ensure that the quality of learning and teaching is not adversely affected by enrolment growth. The first-time entering intake will be capped at a lower threshold at 7 185 for 2023 enrolments in undergraduate certificates, diplomas, and degrees. A target of 11 140 has been set for undergraduate diplomas and certificates, while undergraduate degrees are targeted to grow to 14 315 enrolments. This will also result in lower undergraduate enrolments for the period 2023-2025.

The University has strategies in place to turn around the decline in postgraduate enrolments and our target of 3 820 for 2023 represents an 11.9% increase from the 2022 postgraduate enrolment of 3 413. Reasons for low enrolments at postgraduate level include:

- The financial support available to postgraduate students does not cater for the number of academically eligible, financially needy students wishing to pursue postgraduate studies, especially those who received NSFAS funding at undergraduate level.
- Restricted supervisory capacity remains one of the most important impediments to an increase in postgraduate enrolments. This is caused largely by the retirement of senior academics with Doctoral qualifications.
- Declines in international student enrolments, which was worsened by the COVID-19 pandemic, also contributed to the decline in postgraduate enrolments.

The University is developing various targeted strategies to stimulate postgraduate enrolment growth. Among these, efforts are being made to secure external funding for postgraduate students through fellowships offered by the NRF, but these opportunities are highly competitive. To mitigate this, the strategic resource mobilisation endeavours of the University will be geared towards securing additional third-stream funding for postgraduate scholarships and bursaries.

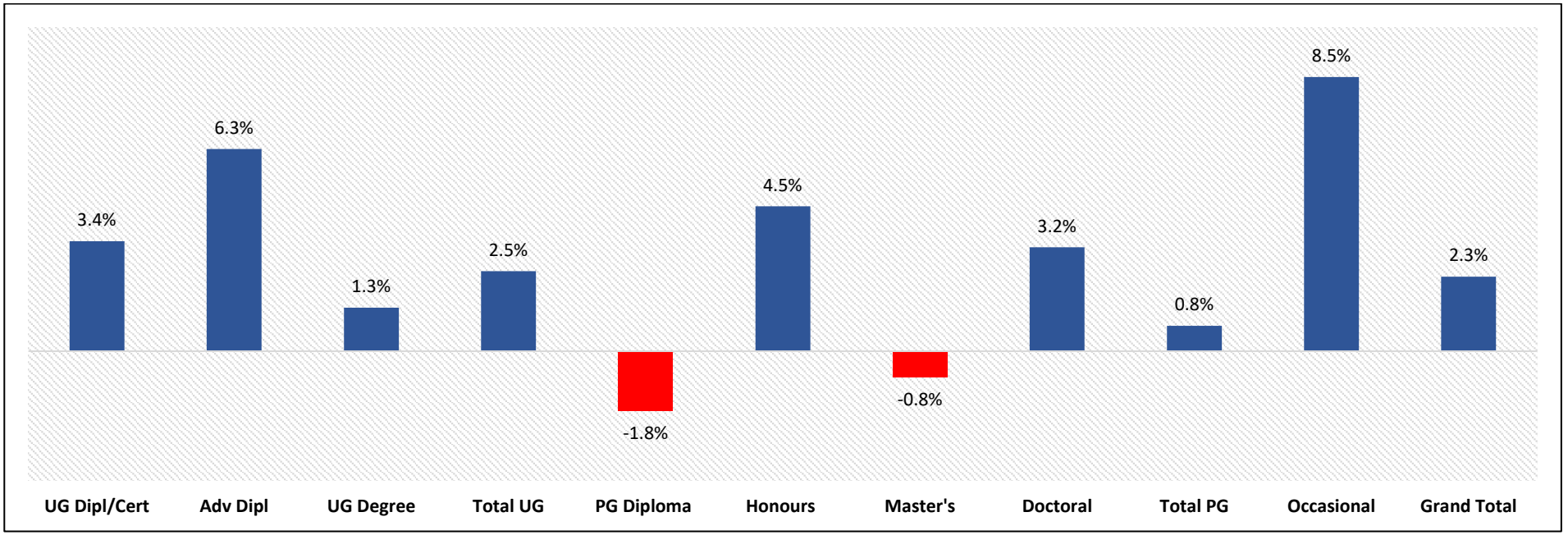
In Science, Engineering and Technology fields, postgraduate funding can be further constrained due to laboratory and research running costs exceeding the external grants awarded by national funding agencies. This negatively affects the implementation of these research projects, as well as the recruitment of postgraduate students by grant holders.

Evidence also shows that postgraduate students are increasingly mobile and will often make the choice of where to study based on the research focus area and the reputation of a research professor. To address this, the University intends to enhance the marketing of our postgraduate degrees around our defined institutional research themes, our research "champions" (such as the SARChI Chairs and NRF-rated researchers), and the niche areas of our research and engagement entities. Furthermore, various programmes are in place to improve the postgraduate qualifications profile of academic staff and to attract talented scholars with PhDs and postgraduate supervision experience to the University. Appointing research associates, HEAVA professors and postdoctoral fellows will also contribute to expanding the postgraduate supervisory pool.

The target for total enrolments is 31 360 which is 4.4% lower than the total enrolment of 32 801 in 2022.

As depicted in Figure 1, undergraduate enrolments are expected to increase at an average annual growth rate of 2.5%, postgraduate enrolments at an average annual growth rate of 0.8%, and total enrolments at an average annual growth rate of 2.3% over the period of 2020 to 2023.

Figure 1: Average annual growth rate by qualification type, 2020-2023



Performance Indicator: Demographic profile of students

As can be seen from Table 3, the demographic profile of the Nelson Mandela University student population is changing rapidly. Black (African, Coloured, Indian) students increased from 25 646 enrolments in 2020 to 30 152 enrolments in 2022, while White students continued to decline from 3 640 in 2020 to 2 649 in 2022.

Table 3: Total headcount enrolments by population group, 2020-2022, and 2023 targets

Population Group	2020	2021	2022	Revised 2023 Targets
African	21 896	23 217	27 023	26 359
Coloured	3 417	3 055	2 791	2 824
Indian	333	318	338	314
White	3 640	3 145	2 649	1 883
Grand Total	**29 286**	**29 735**	**32 801**	**31 380**

Figure 2 indicates that African students are expected to increase from 75% in 2020 to 84% of enrolments in 2023, while White students will decrease from 12% in 2020 to 6% in 2023. Coloured students decreased from 12% of enrolments in 2020 to 9% in 2022 and they are expected to remain at 9% of enrolments in 2023. Indian student enrolments are expected to remain at 1%.

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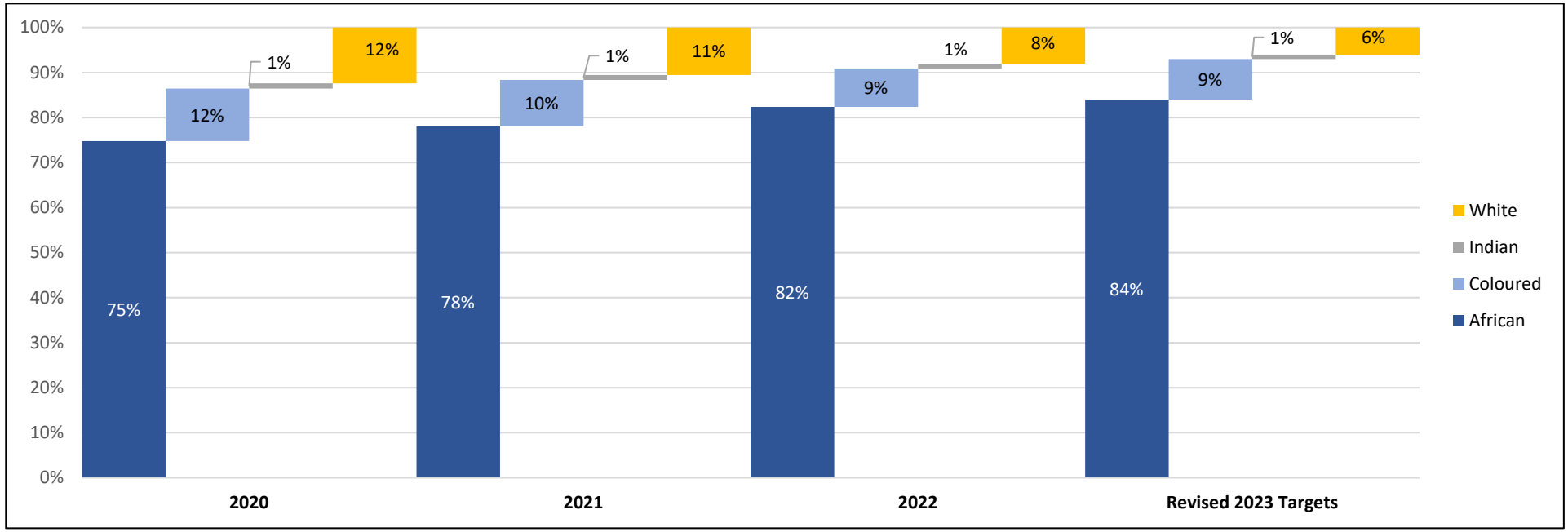
Figure 2: Percentage headcount enrolments by population group, 2020-2022, and 2023 targets



Female enrolments continued to increase from 15 722 in 2020 to 18 608 in 2022, with male enrolments also increasing from 13 564 in 2020 to 14 193 in 2022 (see Table 4).

Table 4: Total headcount enrolments by gender, 2020-2022, and 2023 targets

Gender	2020	2021	2022	2023 Targets
Female	15 722	16 431	18 608	17 259
Male	13 564	13 304	14 193	14 121
Grand Total	**29 286**	**29 735**	**32 801**	**31 380**

However, as a proportion of total enrolments, Figure 3 shows that female enrolments continued to increase from 54% in 2020 to 57% in 2022, while male enrolments decreased from 46% to 43%. The University strives to improve the enrolment of male students and targets a gender profile of 55% female and 45% male enrolments for 2023.

Figure 3: Percentage headcount enrolments by gender, 2020-2022 and 2023 targets

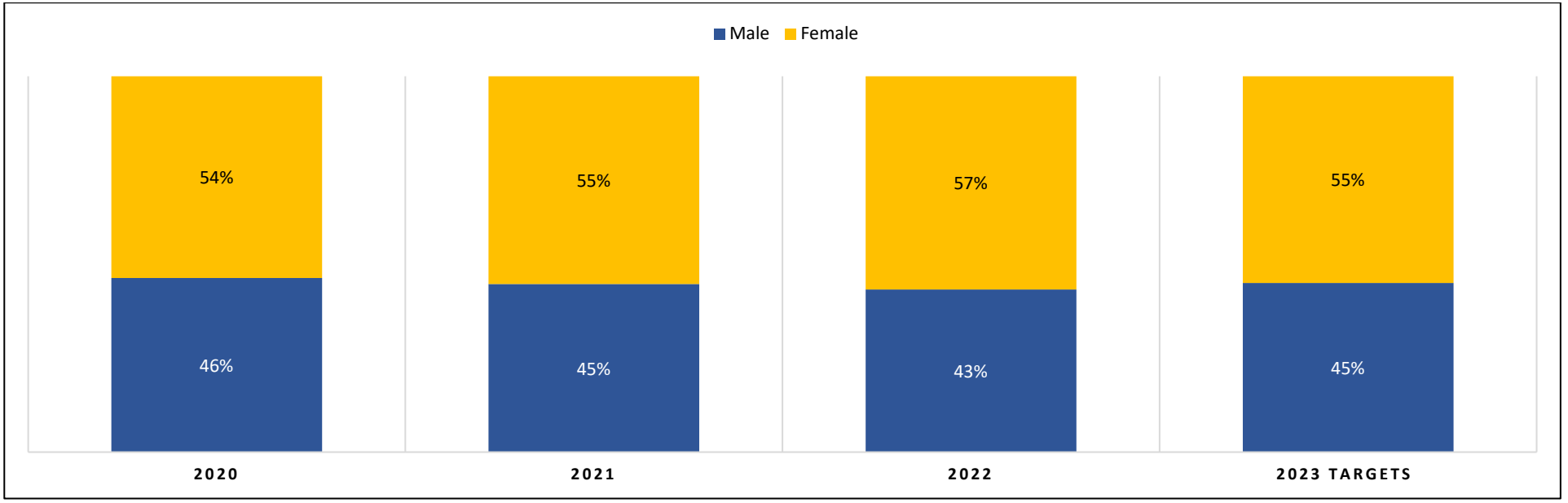
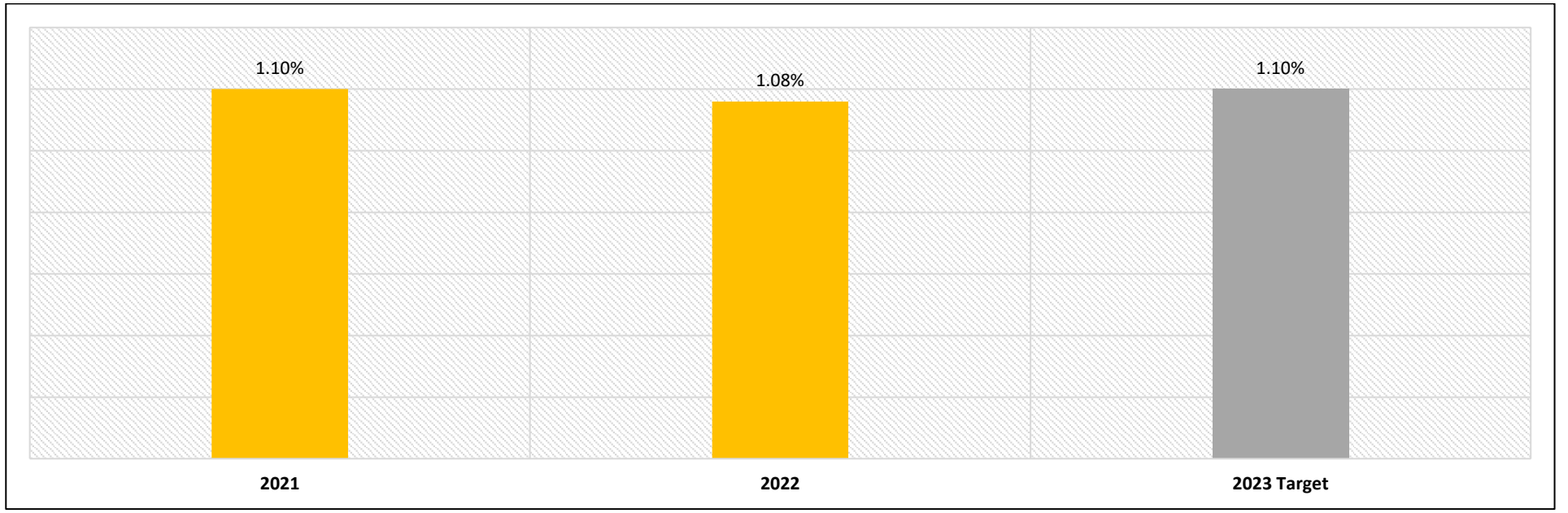


Figure 4 indicates that the percentage of differently abled students has remained relatively stable and a slightly increased target of 1.1% has been set for 2023 (up from 1.08% in 2022). The University strives to ensure that all campus facilities are accessible to students with disabilities. Every reasonable attempt is made to provide students with the assistance they require.

To create an inclusive and enabling environment for differently abled students, Universal Accessibility and Disability Services (UADS) offers the following services:

- Reasonable accommodation by providing concessions for tests and examinations, facilitating examination venues for differently abled students, scribes on request, accessible transport, accessible student housing, adaptive technology, referrals to available student funding, and universal design and accessible infrastructure.
- Awareness and sensitisation by arranging orientation and mobility for blind and partially sighted students, awareness campaigns, advocacy and counselling on disability-related issues and orientation of new, differently abled students
- Braille Transcription Services for tests and examinations, and adaptive text arrangements and other accessible formats.

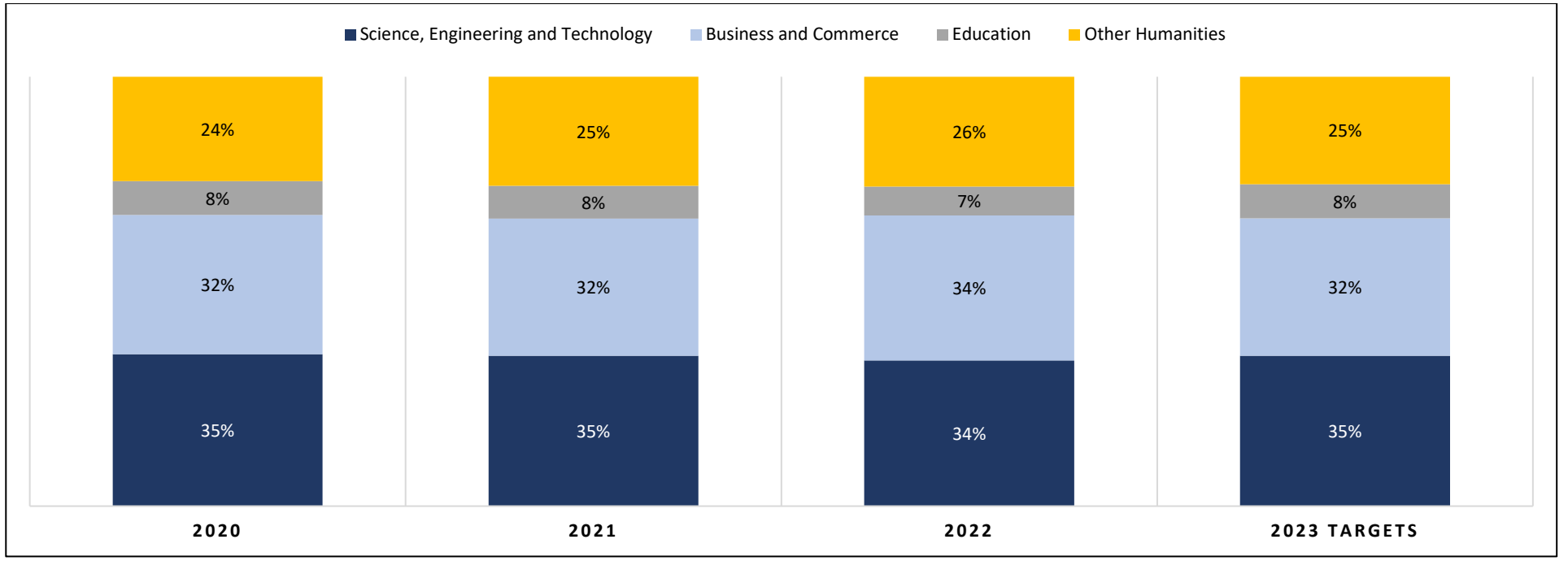
Figure 4: Percentage of differently abled students, 2021-2022 and 2023 target



Performance indicator: Student enrolments by major field of study

In 2020, most students at Mandela University were enrolled in science, engineering, and technology (35%) followed by business and commerce (32%). Other humanities constituted 24% of enrolments and education 7%. By 2022, business and commerce represented 34% of enrolments, which can largely be attributed to huge increases in enrolments in the undergraduate diplomas in this field. Enrolments in other humanities also increased from 24% in 2020 to 26% in 2022 with a decline in education enrolments from 8% in 2020 to 7% in 2022. Similarly, enrolments in science, engineering and technology declined from 35% in 2020 to 34% in 2022 (see Figure 5).

Figure 5: Percentage distribution of headcount enrolments by major field of study, 2020-2022 and 2023 targets



Due to the large first-time entering intake in 2022, class sizes and student: staff full-time equivalent ratios in business and commerce increased at a concerning rate. The planned lower first-time entering intake for 2023 will hopefully rectify this situation. This will change the percentage enrolment distribution in the various major fields of study. As depicted in Table 5, the following targets have been set for 2023:

- Science, engineering, and technology: 10 983 (35%)
- Business and commerce: 10 042 (32%)
- Education: 2 510 (8%)
- Other Humanities: 7 845 (25%).

Table 5: Headcount enrolments by major field of study, 2020-2022 and 2023 targets

Major Field of Study	2020	2021	2022	2023 Targets
Science, Engineering and Technology	10 358	10 421	11 136	10 983
Business and Commerce	9 495	9 501	11 061	10 042
Education	2 314	2 254	2 221	2 510
Other Humanities	7 119	7 559	8 383	7 845
Total	**29 286**	**29 735**	**32 801**	**31 380**

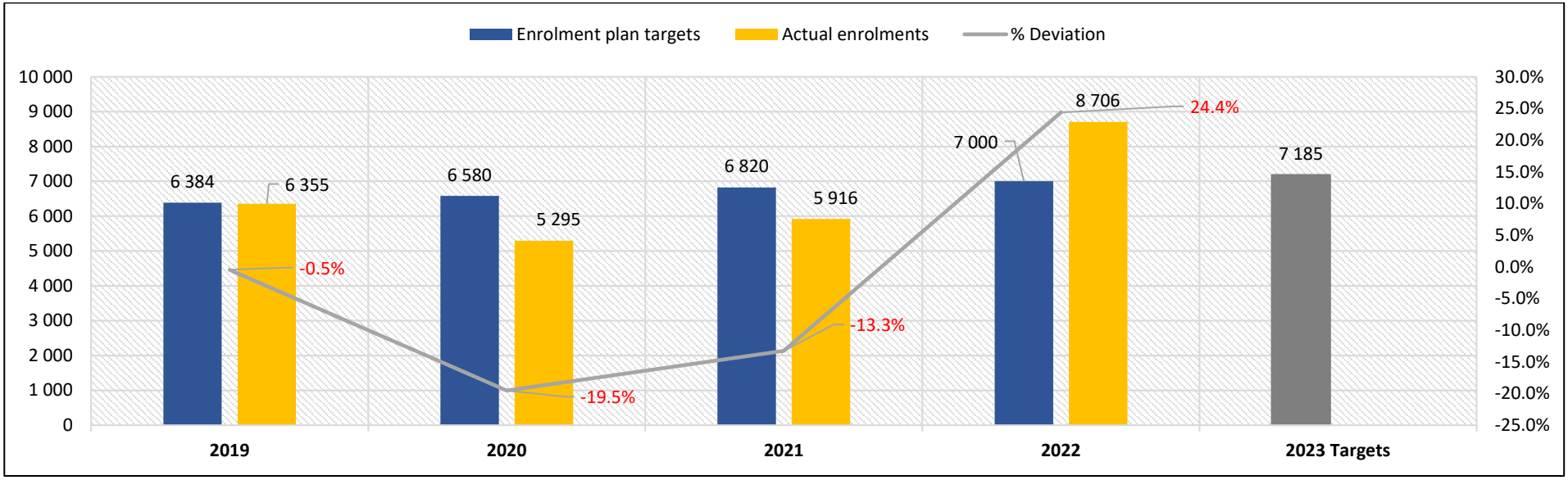
Since 2020, Nelson Mandela University has been admitting students via the Applicant Score (AS) admissions criteria. There were concerns that this might lead to a reduction in the number of applicants accepted by the University. However, this concern proved to be unfounded. By 10 March 2021, 18 888 first-year students had been finally (13 596) or provisionally (5 292) accepted to study at the University in 2021, about 2 500 more than in 2020. By October 2022, 17 147 first-time entering students were admitted.

Translating these acceptances into registrations proved to be the greater challenge as only 5 295 first-year students registered in 2020 and 5 916 in 2021. This highlights the ongoing challenge of large numbers of finally accepted applicants, who then do not register. An Enrolment Management Committee was established in 2021 to recommend strategies to address this trend, with a view to implementing the proposed solutions for the 2022 intake. Five transversal workstreams were established that addressed a range of issues affecting the intake and 2022 registration numbers (8 706) indicate that many of the challenges have been addressed. The focus of these workstreams included the admissions process, financial and accommodation issues, IT support and integration, communication and marketing, and the orientation programme for the new intake.

As can be seen from Figure 6, the uptake rates in 2022 were, however, much higher than envisaged and the sharp increase in the number of first-time entering students enrolled placed a strain on resources such as lecturing venues and the student transport system. In addition, the overall student: staff FTE ratio increased from 27:1 in 2021 to 30:1 in 2022. Considering these factors, the University has set lower first-time entering

undergraduate enrolment targets in the revised Mid-Term Review Enrolment Plan for 2023 to 2025 to ensure that the quality of learning and teaching is not adversely affected by enrolment growth. A target of 7 185 first-time entering undergraduate students has been set for 2023.

Figure 6: First-time entering student enrolments relative to targets, 2019-2022 and 2023 targets



The profile of the student intake has been changing rapidly over recent years with a significantly higher percentage of students coming from quintiles 1 to 3 schools, which are the most resource deprived. The intake from Quintile 1 to 3 schools increased from 44% in 2019 to 64% in 2022 and is expected to increase further to 66% in 2023. The high increase in students from Quintile 1 to 3 schools means that student support programmes must expand to ensure that these students achieve their full academic potential.

Table 6: School quintile profile of first-time entering students, 2019-2022 and 2023 targets

	2019	2020	2021	2022	2023 Targets
Private or Other	15%	12%	11%	11%	11%
Quintile 1	8%	12%	15%	15%	16%
Quintile 2	7%	11%	14%	16%	17%
Quintile 3	29%	31%	30%	33%	33%
Quintile 4	10%	9%	9%	9%	9%
Quintile 5	30%	24%	21%	16%	14%

Drawing a higher percentage of students from more disadvantaged backgrounds has resulted in a rapid increase in foundation provisioning (extended programmes) enrolments from 2 088 in 2020 to 3 071 in 2022. Table 7 shows that enrolments in foundation provisioning are expected to increase further to 3 371 in 2023 with an average annual growth rate of 17% over the 2020 to 2023 period. The consistent growth in foundation programmes is encouraging given that research has shown that expanded foundation provisioning contributes to student access for success.

Table 7: Foundation programme headcount enrolments, 2020-2022 and 2023 target

	2020	2021	2022	2023 Target	Average annual growth rate 2020-2023
Headcount enrolments (Foundation Provisioning)	2 088	2 388	3 071	3 371	17%

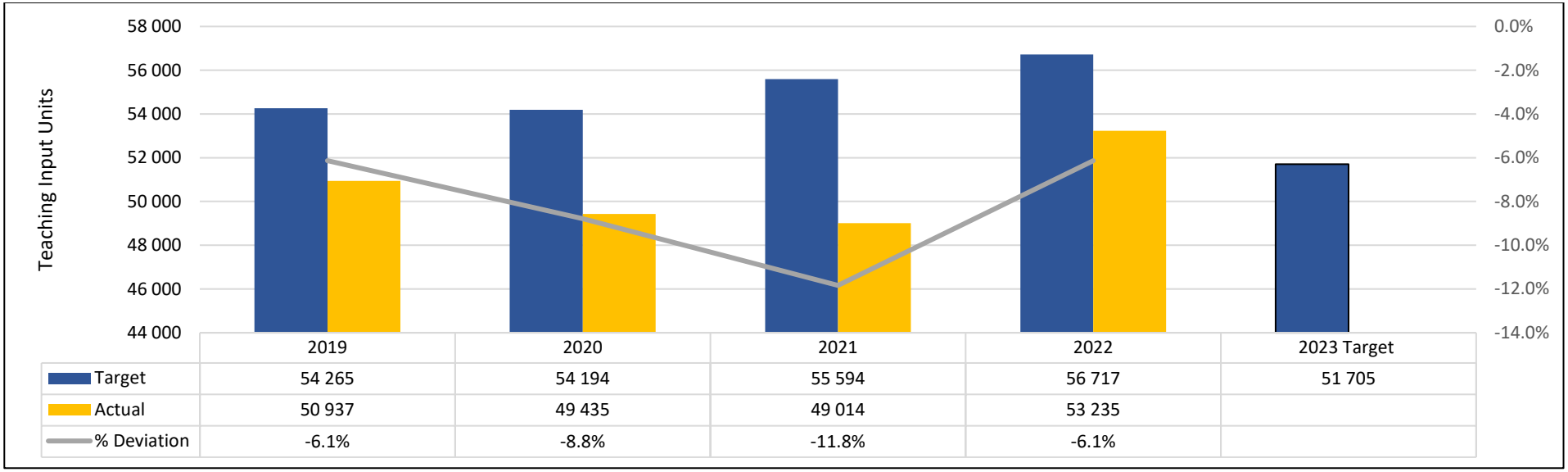
Performance indicator: Actual versus approved teaching input units

At an overarching level, the actual teaching input units of the University in 2019 were 50 937 compared to the approved funded teaching input units of 54 265. This was 6.1% below the approved target, which falls outside the acceptable deviation range of 2%. In 2020 and 2021 the deviations worsened, with 2020 actual teaching inputs (49 435) falling 8.8% below the target of 54 194, and the 2021 actual teaching inputs (49 014) falling 11.8% short of the approved funding units of 55 594.

Preliminary data for 2022 indicates a 6.1% shortfall of actual teaching input units compared to the approved teaching input units of 56 717. These trends had a negative impact on the teaching input subsidy allocation to the University and were mainly due to the non-achievement of our postgraduate enrolment targets.

The University will continue to implement wide-ranging strategies to reverse these concerning trends. Considering the non-achievement of postgraduate enrolment targets over recent years, the University has set lower targets for postgraduate enrolments for the period 2023 to 2025 than those that were contained in the original 2020 to 2025 enrolment plan. This will lead to lower teaching input unit targets than those that were based on the previous enrolment plan.

Figure 7: Achievement of the approved Teaching Input Unit (TIU) targets, 2019-2022 and 2023 target



	2019	2020	2021	2022	2023 Target
Target	54 265	54 194	55 594	56 717	51 705
Actual	50 937	49 435	49 014	53 235	
% Deviation	-6.1%	-8.8%	-11.8%	-6.1%	

As can be seen from Figure 7 above, the target of 51 705 TIUs for 2023 is now much lower than the original target of 56 717 for 2022 and lower than the preliminary actual of 53 235 for 2022 (i.e., the year with the sharp increase in first-time entering intake). The reason for this is the planned decline in the first-time entering intake and total enrolments for 2023 compared to 2022.

Performance Indicator: Student success rates in coursework modules

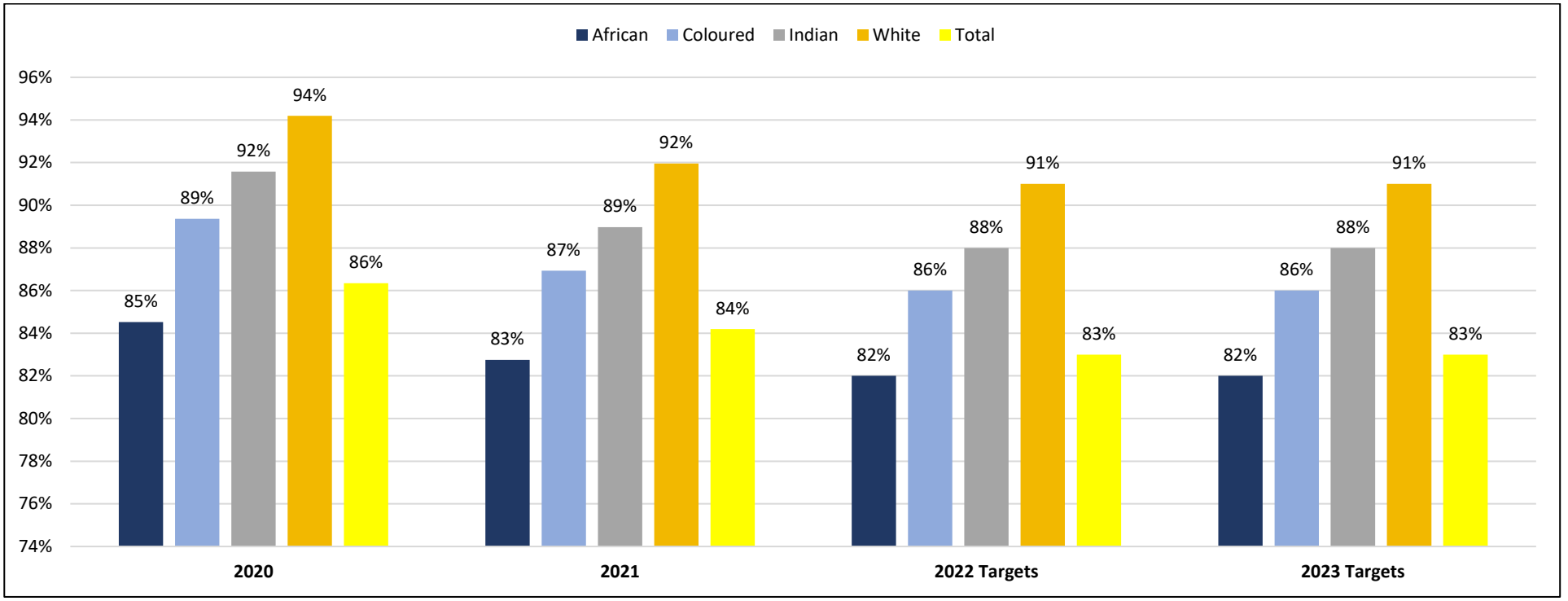
As can be seen in Table 8, the student success rate in coursework modules increased from 79% in 2019 to 86% in 2020 but decreased slightly to 84% in 2021. This is quite a remarkable achievement within the context of the complex learning and teaching challenges posed by the COVID-19 pandemic in 2020 and 2021. The reasons can potentially be due to continuous assessment being widely implemented, with students being given multiple opportunities for assessment due to the difficulties created by the transition to emergency remote learning. At this stage, it is uncertain whether the University will be able to maintain this high success rate and a slightly lower target of 83% has been set for 2022 and 2023.

Table 8: Success rate in coursework modules by population group and gender, 2020-2021 and 2022-2023 targets

Population Group	2020			2021			2022 Targets			2023 Targets		
	F	M	Total	F	M	Total	F	M	Total	F	M	Total
African	88%	81%	85%	86%	78%	83%	85%	77%	82%	85%	77%	82%
Coloured	91%	86%	89%	89%	84%	87%	88%	83%	86%	88%	83%	86%
Indian	93%	90%	92%	91%	86%	89%	90%	85%	88%	90%	85%	88%
White	96%	92%	94%	95%	89%	92%	94%	88%	91%	94%	88%	91%
Total	**89%**	**83%**	**86%**	**87%**	**80%**	**84%**	**86%**	**79%**	**83%**	**86%**	**79%**	**83%**

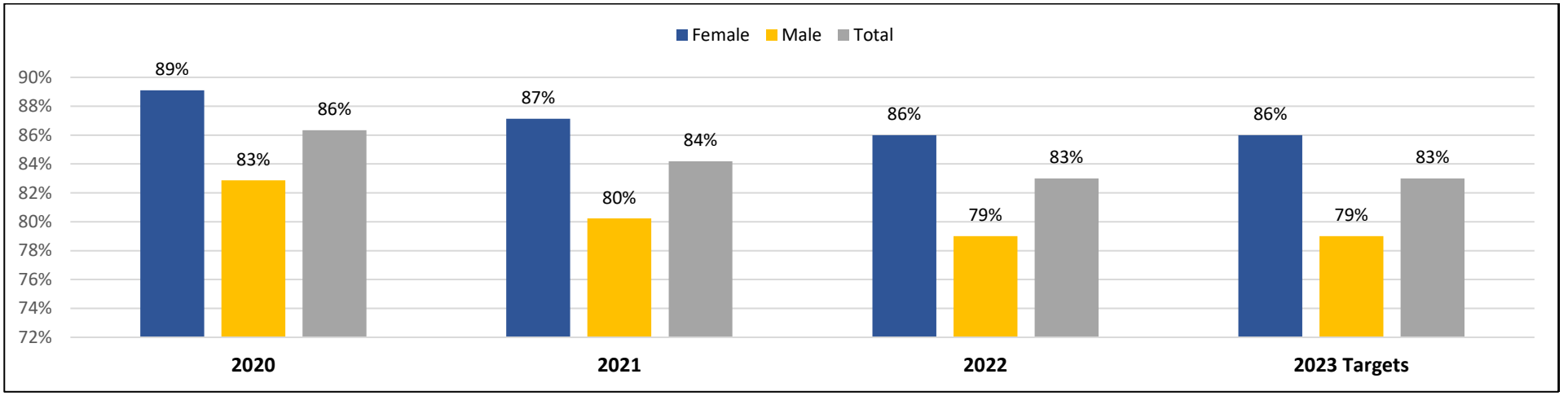
The difference in success rate between students of the various population groups remains a matter of concern. In 2021, white students had a 9% higher success rate (92%) than African students (83%), a 5% higher success rate than coloured students (87%) and a 3% higher success rate than Indian students (89%). It is foreseen that it will still take a few years to narrow these achievement gaps, especially since more African students from socio-economically deprived schools (Quintiles 1 to 3) are enrolling at the University. However, the University will continue to provide holistic wraparound student support to academically vulnerable students to maximise their opportunities for success.

Figure 8: Student success rates in coursework modules by population group, 2020-2021 and 2022-2023 targets



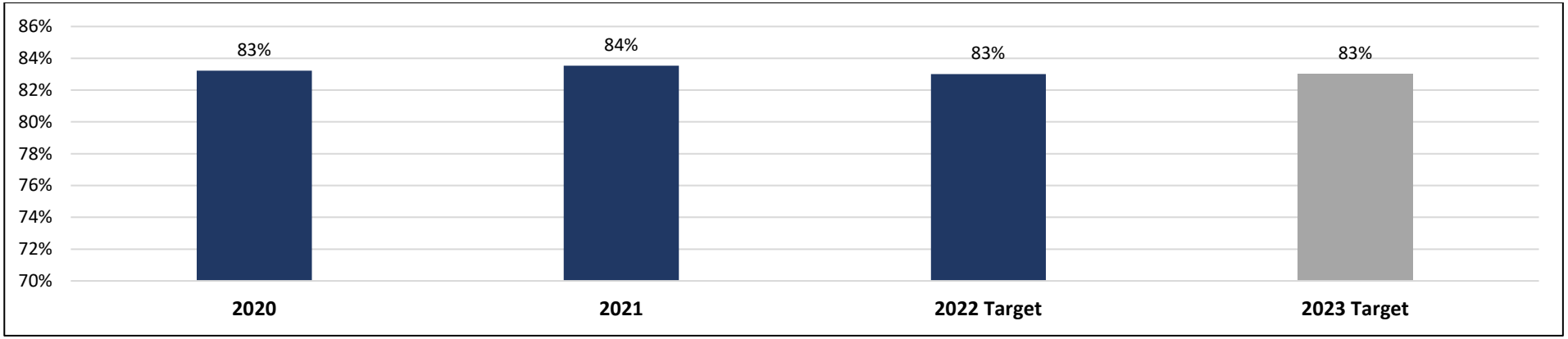
In terms of gender, Figure 9 indicates that female students had a much higher success rate (87%) in 2021 compared to male students (80%) and this trend is consistent for all population groups. The University is planning to undertake an institutional research study to identify the factors that could be contributing to these differences to devise strategies to improve the lower success rates of male students.

Figure 9: Student success rates in coursework modules by gender, 2020-2021 and 2022-2023 targets



In 2020, first-time entering students had a lower success rate of 83% compared to the average success rate of 86% for all students (see Figure 10). This was the first year of the COVID-19 pandemic, which compelled the University to transition rapidly to emergency remote learning. As a result, new first-year students did not have access to the typical campus experiences and in-person support in 2020, which are important in assisting them to transition successfully into higher education.

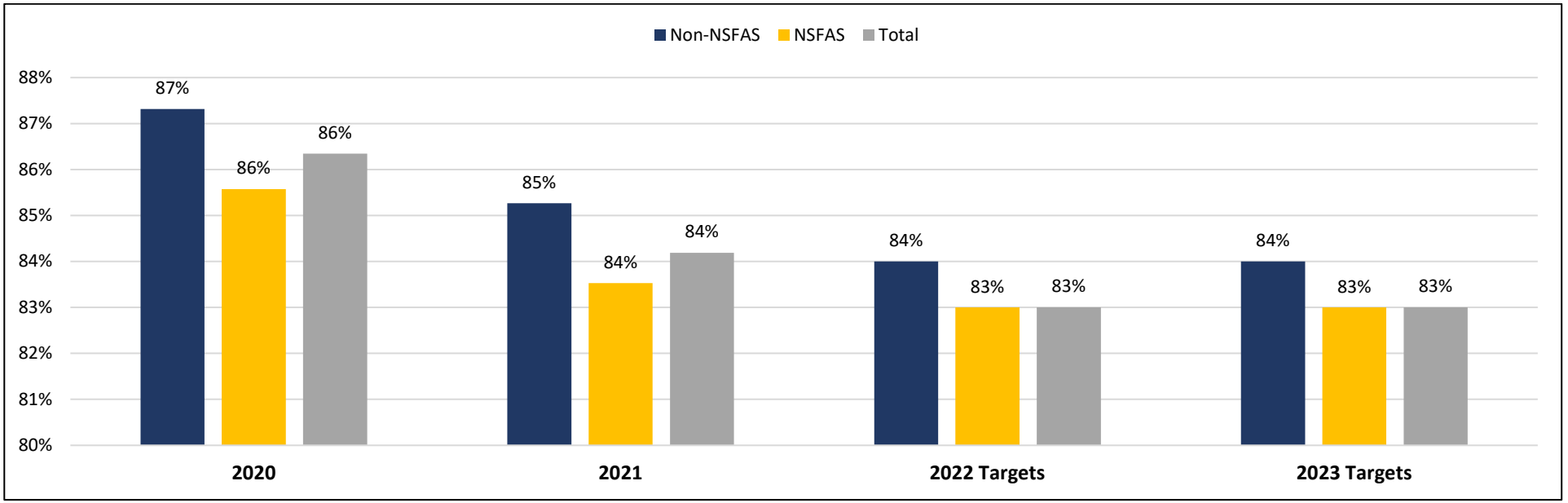
Figure 10: Success rate of first-time entering undergraduate students, 2020-2021 and 2022-2023 targets



The coronavirus pandemic significantly disrupted the core academic missions in 2020 and 2021. At the same time, however, this unprecedented crisis also catalysed innovative solutions, including the increased use of technology-rich learning and teaching. Interestingly, in 2021, Figure 10 above shows that first-time entering students had the same success rate of 84% as the average for all students. This can possibly be attributed to the improved support provided to first-time entering students based on the lessons learnt from transitioning to emergency remote learning in 2020. The targets for 2022 and 2023 are informed by the intention to maintain the success rate of first-time entering students at the same level as the average for the University.

For 2020 and 2021, the success rate of NSFAS funded students was 1% lower than the success rate for students not funded by NSFAS (see Figure 11). This difference is probably due to the socio-economically deprived backgrounds of many NSFAS students, which often has a negative impact on academic performance. It is not envisaged that this will improve in 2022 and 2023 given the challenges experienced in the sector with the administration of NSFAS funding.

Figure 11: Success rate of NSFAS funded students, 2020-2021 and 2022-2023 targets



Performance indicator: Student retention rates

Cohort analyses show that the highest percentage of dropouts are experienced during, and at the end of, the first year of study. It is thus vital to track the retention of first-time entering students and intervene timeously to assist them to succeed academically and prevent dropouts. As indicated in Table 9, the percentage of 2019 first-time entering students who did not complete their studies and returned the following year was 85.5%. This improved to 91.0% for the 2020 first-time entering students and to 91.1% for the 2021 first-time entering students returning the following year to continue their studies.

The lower percentage of the 2019 first-time entering students returning in 2020 can be attributed to the advent of the coronavirus pandemic. The targets for 2022 (91.50%) and 2023 (91.7%) are aimed at improving the retention of first-time entering students.

Table 9: Retention of first-time entering undergraduate students, 2019-2021 and 2022-2023 targets*

	2019	2020	2021	2022 Target	2023 Target
Percentage of first-time entering students that registered in the following year	**85.5%**	**91.0%**	**91.1%**	**91.5%**	**91.7%**

*Note: Students enrolled for a Higher Certificate were left out of the calculation since they would have graduated at the end of the year.

The University has a wide range of programmes to support student success and retention, coordinated under the umbrella of the Learning and Teaching Collab. These academic support programmes provide opportunities to enhance student success through initiatives such as teaching academic life skills management, developing academic literacies (writing), Supplemental Instruction (SI), and student success coaching. Data indicates that SI is one of the most successful interventions to support students in high-risk modules and courses with continued low pass rates (55% or below) for a minimum period of three years.

Student Success Coaching (SSC) is a more recent initiative at the University, instituted in 2020 and arising from a change in the admissions process in which the prime focus moved from access to student success. There is a focus on reaching out to first-year students from quintile 1, 2, and 3 schools to support their transition into the university environment. The success coaches develop a one-on-one relationship with vulnerable students to co-create individualised academic success plans. As the academic journey unfolds, the student and coach review progress and make necessary adjustments to the plan.

These interventions are informed by an integrated data tracking and early warning system, Risk Analysis and Detection to Assist and Retain Students (RADAR). This was developed by the University to monitor student academic performance and to optimise early intervention strategies to enhance student success. Academics also monitor student engagement in learning through analysing activity on the Moodle Learning Management System (LMS) module site.

Given the need to keep students and staff safe during the pandemic, 65% of our programmes were delivered using flexible, technology-rich modes of delivery. The University continuously reviewed the trajectory of the pandemic and gradually offered more on-campus academic activities, especially for first years, as pandemic restrictions lifted. It is envisaged that all students will return to campus in 2023 for face-to-face or mixed mode instruction.

The point must be made that poor network coverage and data connectivity, especially in rural areas, is a national problem that needs to be addressed. Sustainable solutions to the present data costs of providing all students with 30GB of data each month are being sought. To equip students to engage effectively in an online LT and assessment environment, the LT Collab has developed multiple online resources that students can access at any time, including multilingual support.

Increasing emphasis is also being placed on the critical role of writing and reading development and multilingualism in enhancing student learning and academic success. The development of a revised language policy for Mandela University is being informed by intensive engagements with staff and students from every faculty and division to determine what types of language support need to be provided. Language and writing support currently provided to students include multilingual glossaries and tutorials, writing respondents and consultants, academic writing support interventions, as well as an app (Refer Easy) for academic writing and referencing.

Academic staff are provided with a range of opportunities to develop their teaching practice as part of efforts to actively engage students in learning. For example, the University has reimagined the induction programme for new lecturers, now known as Beginning Your Journey (BYJ) @ Mandela University. Lecturing staff also benefit from the Teaching Enhancement Programme, which provides ongoing workshops and consultations on topical issues such as curriculum development, academic literacies and multilingualism, assessment of student learning, blended learning, teaching large classes, and developing a teaching portfolio.

The Teaching Development (TD) cluster's primary focus in 2021 was to improve the available resources on online and hybrid teaching and assessment to enhance the pedagogical repertoire of academic staff. Staff capacity development and upskilling initiatives on techniques relating to hybrid learning and teaching are now in place and include "How-2" videos and documents, discussions, and webinars.

The advent of COVID-19 sped up the development of socially-just assessment practices, directly aligned with the University's commitment to a humanising pedagogy. In the context of continuous assessment which, where feasible, is the University's preferred option, students are also offered more than one assessment opportunity, which enhances academic performance significantly. Staff development initiatives included investing time in drafting and finalising guidelines for continuous assessment.

Performance indicator: Student graduation rates

The number of graduates directly depends on student graduation and throughput rates. In the 2020 to 2025 Enrolment Plan, the University estimated 8 002 graduates. In retrospect, this was too high given that the University did not achieve the headcount enrolments projected in the previous enrolment plan. In view of this, the University revised its graduate output targets in the 2023 to 2025 Mid-Term Enrolment Plan as indicated in Table 10.

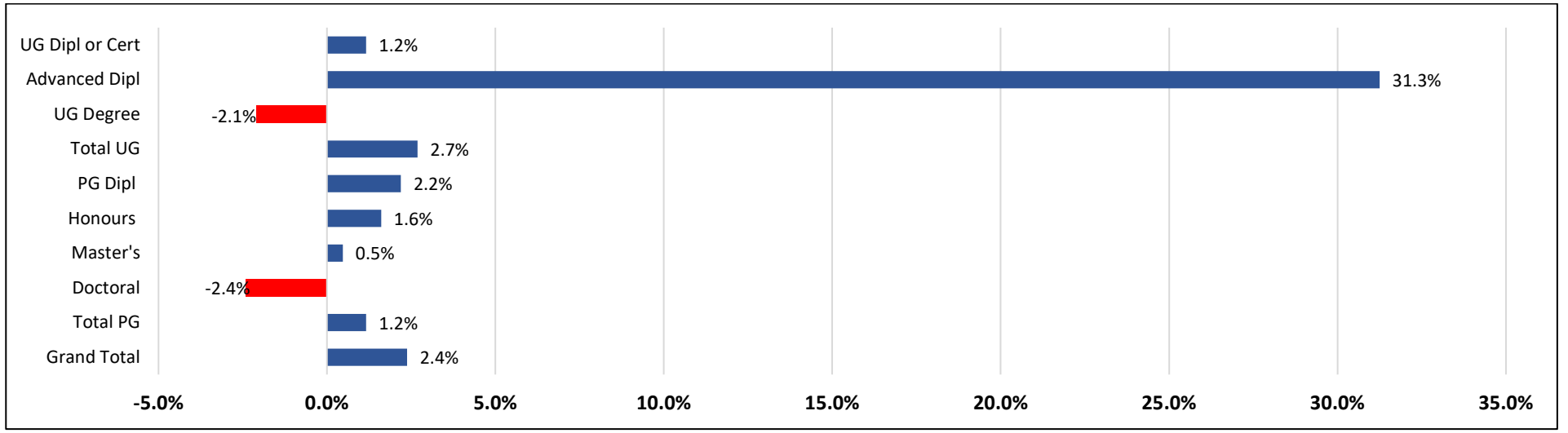
Table 10: Number of graduates per annum, 2019-2021 and 2022-2023 targets

Qualification Type	2019	2020	2021	Average Annual Growth Rate 2019-2021	Enrolment Plan 2022 Targets	Revised 2022 Targets	Enrolment Plan 2023 Targets	Average Annual Growth Rate 2019-2023
UG Diploma or Cert	2 340	2 472	2 265	-1.6%	2 260	2 358	2 451	1.2%
Advanced Diploma	373	860	1 069	69.3%	702	1 088	1 107	31.3%
UG Degree	2 804	2 587	2 691	-2.0%	3 362	2 634	2 577	-2.1%
Total UG	**5 517**	**5 919**	**6 025**	**4.5%**	**6 324**	**6 080**	**6 135**	**2.7%**
PG Diploma	353	420	267	-13.0%	424	326	385	2.2%
Honours	561	516	540	-1.9%	658	569	598	1.6%
Masters	422	405	339	-10.4%	480	385	430	0.5%
Doctoral	97	80	96	-0.5%	116	92	88	-2.4%
Total PG	**1 433**	**1 421**	**1 242**	**-6.9%**	**1 678**	**1 372**	**1 501**	**1.2%**
Grand Total	**6 950**	**7 340**	**7 267**	**2.3%**	**8 002**	**7 452**	**7 636**	**2.4%**

Undergraduate graduates increased on average by 4.5% per annum from 2019 to 2021. This can be attributed mainly to the high increase in graduates in the advanced diplomas introduced to replace the B Ed degrees that were being phased out. Graduates in the advanced diplomas increased by 69.3% on average per annum for the period 2019 to 2021, from 373 in 2019 to 1 069 in 2021. The high growth in graduates in the advanced diplomas is expected to flatten in future now that these qualifications have been established. Graduates in undergraduate certificates, diplomas and degrees declined over this period. The phasing out of B Ed degrees explains the declines in graduates in undergraduate degrees, while the discontinuation of the Higher Certificate in Pharmacy Support due to accreditation challenges could partly explain the decline in undergraduate certificates and diplomas. Given these trends, an undergraduate graduate target of 6 080 for 2022 and 6 135 for 2023 has been set compared to the 6 025 actual graduates in 2021. The target annual growth rate in undergraduate graduates for the period 2019 to 2023 is 2.7%.

Due to the decline in postgraduate enrolments, the postgraduate graduates declined by 6.9% on average per annum from 2019 to 2021, with the highest average annual declines in postgraduate diplomas (13.0%) and Master's graduates (10.4%). The University is targeting an increase in postgraduate graduates from 1 242 in 2021 to 1 501 in 2023 with an average annual growth rate of 1.2% per annum over the period 2019 to 2023. The targeted average annual growth rate for all graduates from 2019 to 2023 is 2.4% (see Figure 12) with a targeted total number of graduates of 7 452 in 2022 and 7 636 in 2023 (see Table 9 above).

Figure 12: Average annual growth rate in graduates, 2019-2023



In view of actual enrolment trends, the University has had to constantly lower the targets set in the original 2020 to 2025 Enrolment Plan for undergraduate outputs in the scarce skills fields, except for initial teacher education. Mandela University has been successful in producing more graduates in 2021 (493) than the target in the scarce skills field of initial teacher education (432). The University had 395 graduates in the B Ed programmes compared to the target of 325 which was 70 or 21.5% more than the target. The enrolments in initial teacher training are highly correlated to the number of available NSFAS and Funza Lushaka bursaries. The 98 graduates in the PGCE constituted nine graduates below the target of 107.

In 2021, improvements were made in the field of life and physical sciences with a 19.1% increase in graduates from 2020 to 2021. This was 13.8% above the target of 225 for 2021. The University was, however, not able to reach the original targets set for engineering and animal and human health sciences.

In 2021, the University had 381 engineering graduates, 71 below the target of 452. The University continues to find it difficult to substantially increase enrolments and graduate outputs in engineering. This is due to the poor Mathematics and Physical Science results of applicants, especially those coming from Quintile 1 to 3 schools in the Eastern Cape. Competition for high performing school-leaving students with Mathematics and Physical Science has intensified with the introduction of the NSFAS fee-free bursary scheme as these students may choose to study at any university in the country. There is a concerted effort in the Faculty of Engineering, the Built Environment and Technology to improve student success to increase the number of students who complete their qualifications.

The Faculty of Health Sciences has historically produced more graduates than the targets, although in recent years the number of graduates in Human Health Sciences has been declining sharply. In 2021, there were only 406 graduates compared to the target of 535, which is 24.1% below the target. The discontinuation of certain qualifications in Pharmacy and Nursing with historically high enrolments, due to professional accreditation challenges, led to a sharp decline in enrolments and graduates in the human health sciences, which led to fewer graduates. The Higher Certificate (Pharmacy Support) (90 graduates in 2018) and the Advanced Certificate (Pharmacy Technical Support) (120 graduates in 2018) have been phased out by the faculty and were the main reason for the decline in graduates by 2021. The new MBChB programme will improve the situation but will only produce the first graduates in 2026.

The success rate in the scarce skills fields was 87% in 2021, considerably higher than the success rate of 83% for the University yet slightly lower than the national average for student success in the scarce skills fields of 88% in 2020. Students in the scarce skills fields generally achieve higher success rates than students in other fields of study due to the higher admission criteria for these qualifications. This also points to the fact that the

non-achievement of the scarce fields targets is not necessarily due to lower student success rates, but rather due to the non-achievement of enrolment targets in these fields.

Table 11: Number of graduates in scarce skills fields per annum, 2019-2021 and 2022-2023 targets

Scarce Skills Fields	2019	2020	2021	Average Annual Growth Rate 2019-2021	Enrolment Plan 2022 Targets	Revised 2022 Targets	Enrolment Plan 2023 Targets	Average Annual Growth Rate 2019-2023
Engineering	433	387	381	-6.2%	480	380	380	-3.2%
Life and Physical Sciences	200	215	256	13.1%	307	248	248	5.5%
Animal and Human Health Sciences	506	408	406	-10.4%	713	431	495	-0.5%
Teacher Education	408	451	493	9.9%	447	526	558	8.1%
B Ed	308	321	395	13.2%	323	405	414	7.7%
PGCE	100	130	98	-1.0%	123	121	144	9.5%
Success rate in scarce skills fields	86%	90%	88%		87%	87%	87%	

The undergraduate enrolment trends in 2021 point to the need for targeted and integrated student recruitment strategies to attract talented students to pursue qualifications in scarce skills fields at Mandela University. Efforts to expand the national footprint of the University have been starting to bear fruit and these need to be strengthened further given the heightened competition for top-performing school leavers, especially those with Mathematics and Physical Science. There are other endeavours aimed at increasing first-time entering enrolments. These include digitalising the student access and enrolment value chain to ensure that it is experienced as more integrated and user-friendly, and wide-ranging interventions to improve the quality of Mathematics and Science teaching and learner performance in schools.

Figure 13: Average annual growth rate in graduates in scarce skills fields, 2019 - 2023

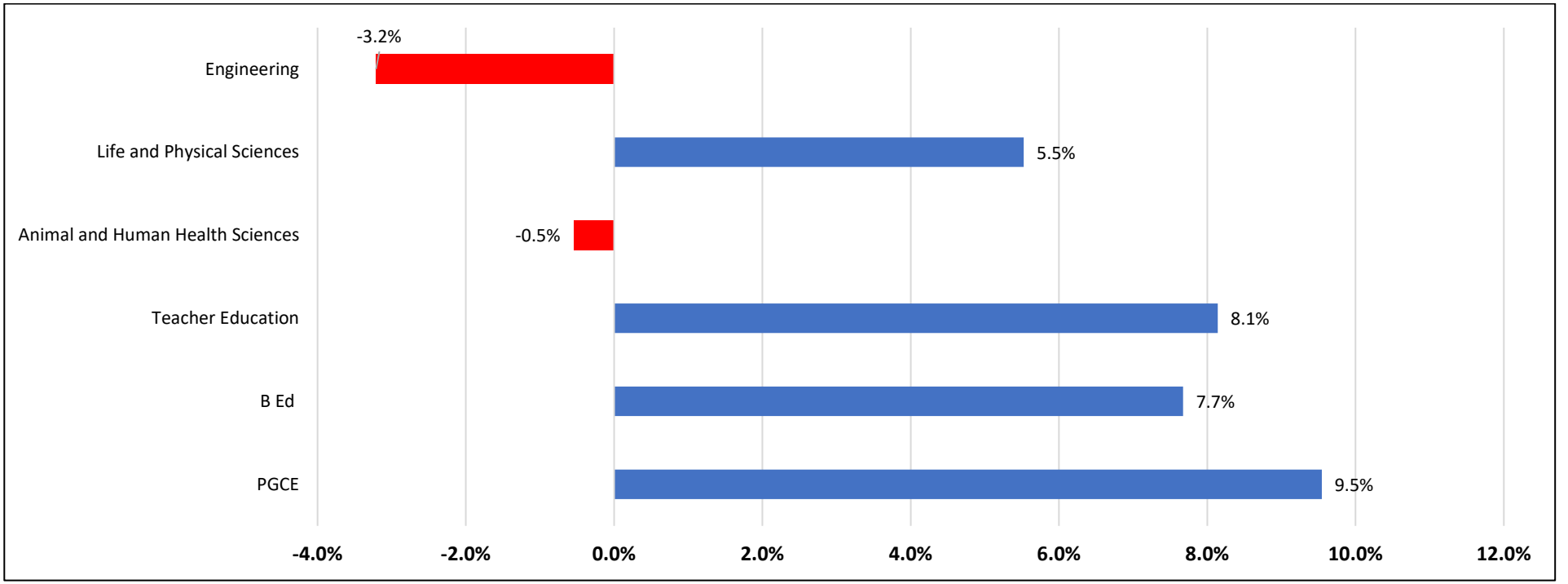


Table 11 above shows that the targets set for the scarce skills field for undergraduate Engineering graduates for 2022 and 2023 have been revised to 380 for both years. The revised targets for undergraduate graduates in life and physical sciences have been set as 248 for both years. Targets for undergraduate graduates in animal and human health sciences has been set at 431 for 2022 and 495 in 2023. The targeted teacher education graduates for 2022 are 526 (405 B Ed graduates and 121 PGCE graduates) and for 2023 are 558 (414 B Ed graduates and 144 PGCE graduates). The expected success rate for 2022 and 2023 for the scarce skills enrolled students is 87%, slightly lower than the 88% success rate in 2021.

Table 12: Average annual growth in enrolments relative to graduates

	Headcount enrolments		Graduates	
	Average annual growth rate 2019 to 2021	**Target: Average annual growth rate 2020 to 2023**	**Average Annual Growth Rate 2019 to 2021**	**Target: Average Annual Growth Rate 2019 to 2023**
Total undergraduate	1.3%	2.5%	4.5%	2.7%
Total postgraduate	-4.7%	0.8%	-6.9%	1.2%
Grand Total	**0.3%**	**2.3%**	**2.3%**	**2.4%**

The average annual growth rate in enrolments compared to graduates gives an indication of graduate efficiency. If the number of graduates grows at a higher level than the number of enrolments over the same period, it indicates that the graduate efficiency is improving (i.e., graduates are produced at a higher rate than the rate of increase in enrolments).

Figure 14: Actual and target average annual growth rates in enrolments relative to graduates

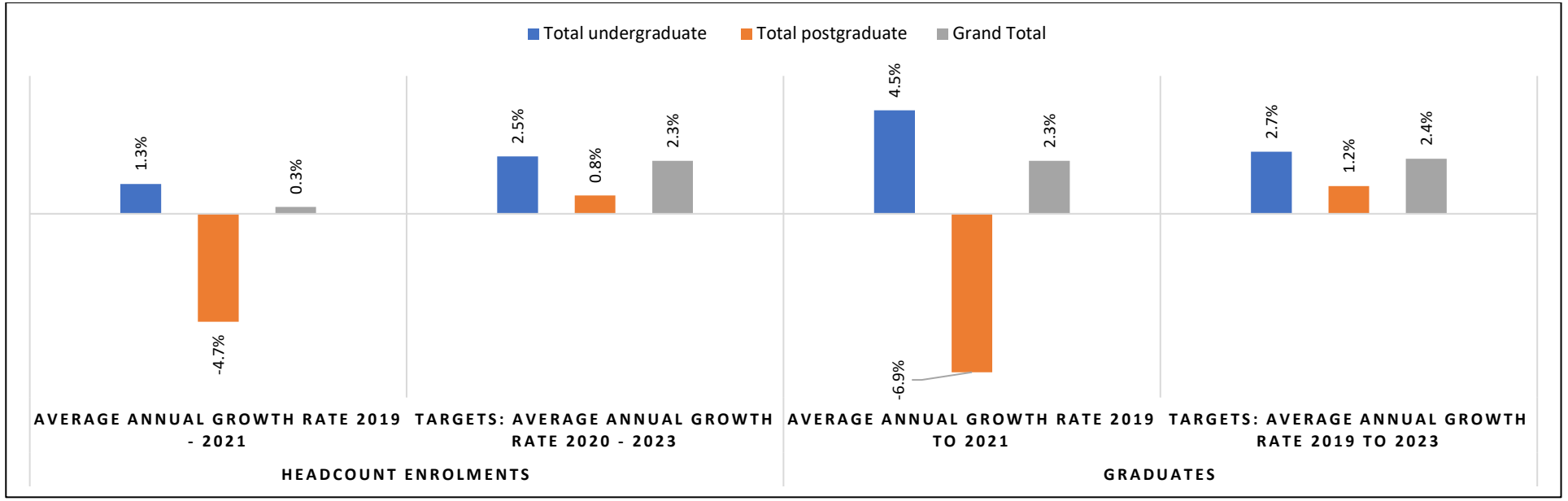


Figure 14 shows that, at undergraduate level, the average annual growth rates of enrolments versus graduates over the 2019 to 2021 period enrolments grew on average by 1.3% per annum while graduates grew on average by 4.5% per annum. This points to a high level of undergraduate graduate efficiency. At postgraduate level, the opposite can be observed. Enrolments declined on average by 4.7% per annum, while graduates declined on average by 6.9% per annum over the period 2019 to 2021, indicating a deteriorating postgraduate graduate efficiency.

The targets for the average annual growth rates for 2019 to 2023 in enrolments versus graduates, the University seeks to improve graduate efficiency at both under- and postgraduate levels. The graduates at undergraduate level are targeted to increase at 2.7% over the 2019 to 2023 period, higher than the targeted average annual growth rate in enrolments (2.5%). At postgraduate level, the average annual growth rate target for graduates from 2019 to 2023 is 1.2% compared to the 0.8% average annual growth rate in enrolments. In total, the targeted average annual growth rate in graduates for the 2019 to 2023 period is 2.4% compared to the targeted average annual growth rate in enrolments of 2.3%, indicating the intention of the University to enhance graduate efficiency over this period.

Performance indicator: Student throughput rates

Throughput rates are an important indicator of student success. Throughput rates are defined as the percentage of students of a first-time entering cohort that graduate over a period. The University normally analyses the percentage who graduate within minimum time (MT), which is the minimum number of years needed to complete the qualification. Historical data show that a large proportion of students also graduate within two years after the minimum time and therefore we also include minimum time plus one year (MT+1) and two years (MT+2).

Table 13 and 14 below provide an overview of throughput rates for the 2014 and 2015 cohorts by qualification type compared to those achieved for the 2016 cohort.

Table 13: Throughput rates for the 2014 and 2015 first-time entering cohorts by qualification type

Qualification Type	Mandela University (2014 cohort)				Mandela University (2015 cohort)			
	MT	MT+1	MT+2	MT+3	MT	MT+1	MT+2	MT+3
1-year UG certificates (MT=1)	55%	84%	88%		68%	79%	80%	
3-year diplomas (MT=3)	25%	40%	49%		28%	45%	54%	
3-year degrees (MT=3)	25%	41%	51%		28%	45%	53%	
4-year degrees (MT=4)	41%	56%	61%		46%	59%	65%	
PG Diplomas (MT=1)	67%	81%	85%		65%	80%	83%	
Honours (MT=1)	58%	81%	84%		60%	81%	84%	
Coursework Master's (MT=3)	38%			61%	39%			58%
Research Master's (MT=3)	51%			71%	46%			60%
PhDs (MT=3)	25%			58%	44%			69%

Table 14: Throughput rate targets for the 2016 first-time entering cohorts and national averages for the 2015 cohorts by qualification type

Qualification Type	Targets: Mandela University (2016 cohort)				National average excluding UNISA (2015 cohorts)			
	MT	MT+1	MT+2	MT+3	MT	MT+1	MT+2	MT+3
1-year UG certificates (MT=1)	69%	80%	81%		25%	48%	62%	
3-year diplomas (MT=3)	29%	46%	55%		25%	43%	53%	
3-year degrees (MT=3)	29%	46%	54%		31%	50%	57%	
4-year degrees (MT=4)	47%	60%	66%		48%	62%	68%	
PG Diplomas (MT=1)	66%	81%	84%		56%	75%	79%	
Honours (MT=1)	61%	82%	85%		56%	72%	80%	
Coursework Master's (MT=3)	40%			59%	44%			63%
Research Master's (MT=3)	47%			61%	41%			59%
PhDs (MT=3)	45%			70%	41%			67%

Given that 46% of our undergraduate students who were enrolled in first degree and diploma programmes in 2021 were NSFAS funded, and that the rule is to graduate in MT+1, it is important to note the difference between those who complete in MT+1 and MT+2, because these students will be without financial support from NSFAS if they complete their qualification after MT+1. An additional 9% of three-year diploma students and an additional 8% of three-year degree students graduated in year M+2. There was an additional 6% of four-year degree students that graduated in year M+2.

At postgraduate level, Master's and doctoral candidates take much longer to complete and the University considers a minimum time of three years as acceptable for these qualifications, while also including those who have completed in six years. The University performed slightly better with research Master's and PhDs than the national averages. University throughput rates for research Master's students were 46% in MT and 60% in MT+3 compared to the national averages of 41% and 59% respectively. The throughput rate for PhDs was 44% in MT and 69% in MT+3, compared to the national averages of 41% and 67% respectively.

The percentage of graduates is cumulative. The throughput rates for the 2015 first-time entering cohorts by qualification type are shown in the table above. The table above shows that our throughput rates for one-year undergraduate certificates and three-year diplomas are above the national averages, but for three- and four-year degrees the throughput rates are below the national averages. This could be because 53% of our undergraduate degree students are NSFAS funded (2021) and our NSFAS students have a lower success rate than non-NSFAS students. This is closely related to the fact that an increasing percentage of our students come from quintile 1-3 schools (i.e., 54% of school leavers entering Mandela University in 2021 were from these quintiles).

Postgraduate diplomas had a throughput rate of 65% in MT, increasing to 83% in MT+2, which was higher than the national averages of 56% and 79% respectively. The throughput rate in MT for honours degrees was 60% and 84% in MT+2, which was also higher than the national averages (MT=56%, MT+2=80%). However, the throughput rates for the University's Coursework Master's (MT=39%, MT+3=58%) were lower than the national averages (MT=44%, MT+3=63%). This is probably related to the time taken to complete the treatise if candidates are employed full-time.

The targets set for the 2016 first-time entering cohort have been increased by 1% for all qualification types for all years of analysis signalling an intention to improve throughput rates at all levels for all qualification types.

Figure 15: Undergraduate and postgraduate dropout rates, 2018-2021 and 2022-2023 targets

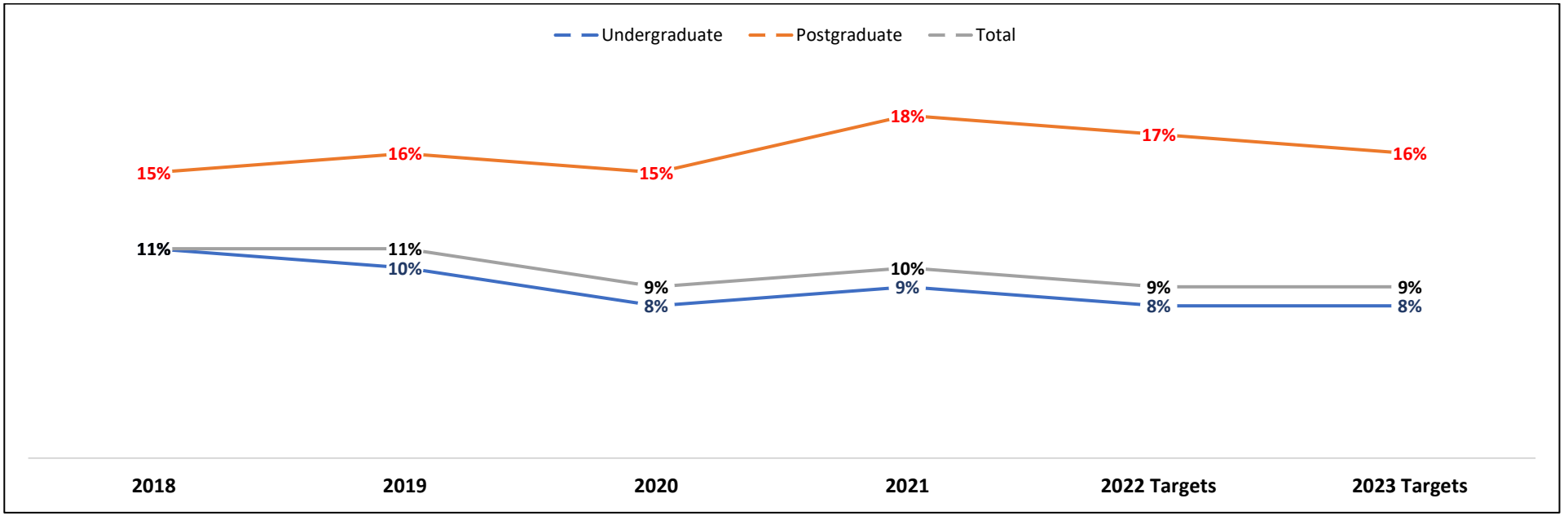


Figure 15 above provides an overview of the percentage of students who dropped out from one academic year to the next without completing their qualification for the period 2018 to 2021, as well as the targets for 2022 and 2023. The first observation is that the dropout rates at postgraduate level are much higher than those at undergraduate level which is concerning, and this has been contributing to the decline in postgraduate graduate efficiency. While the onset of the coronavirus pandemic and the decline in the economy could have contributed to this trend, the University needs to investigate this phenomenon and develop strategies to support and retain postgraduate students.

The targets set for 2022 dropouts for under- and postgraduate students are set at lower levels than 2021. The targets for the dropout rate at undergraduate level for both 2022 and 2023 are set at 8% compared to the 9% dropout rate in 2021. The target for the dropout rate at postgraduate level for 2022 is 17%, and for 2023 it is 16%, compared to the 18% dropout rate in 2021. The total dropout rate targets for 2022 and 2023 are set at 9% compared to 10% in 2021.

Strategic Focus Area 2: Pursue impactful, pioneering research, innovation, and internationalisation to address grand societal challenges and promote sustainable futures

Performance indicator: Average time to completion for coursework and research Masters' and PhDs

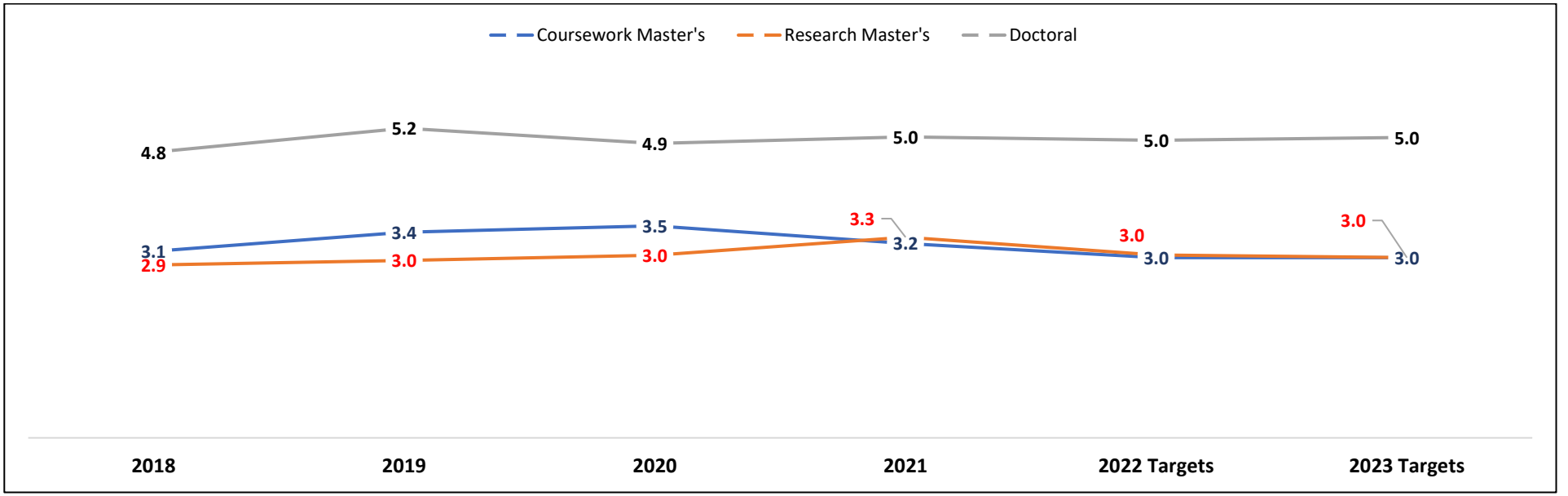
A further indicator of student success for Master's and doctoral graduates is the average number of years that graduates take to complete their degree. Table 15 indicates the average number of years taken by the graduates from 2018 to 2021 to complete their degrees. It is generally acceptable for a Master's graduate to take three years to complete and for a doctoral graduate to take five years.

Table 15: Average time to completion for coursework and research Masters' and PhDs, 2018-2021 and 2022-2023 targets

Qualification Type	Year of Graduation					
	2018	2019	2020	2021	2022 Targets	2023 Targets
Coursework Master's	3.1	3.4	3.5	3.2	3.0	3.0
Research Master's	2.9	3.0	3.0	3.3	3.0	3.0
Doctoral	4.8	5.2	4.9	5.0	5.0	5.0

As can be seen in Table 15 and Figure 16, the average number of years taken by coursework Master's graduates at the University was 3.3 years for the period 2018 to 2021, which is slightly longer than the expected three years. The average number of years taken by research Master's graduates at the University was 3.0 years for the period 2018 to 2021, which is the expected period for completion. The average number of years taken by Doctoral graduates was 5.0 years for the period 2018 to 2021, which is also the expected period for completion.

Figure 16: Average number of years to graduate for Master's and Doctoral Students, 2018-2021 and 2022-2023 targets



Reasons for Master's and doctoral students taking longer than the average or expected time to graduate in certain faculties may include the following:

- Postgraduate students registered on a part-time basis usually take longer to graduate, especially for those students who are employed full-time while pursuing their studies.
- Limited postgraduate supervisory capacity in some faculties is exacerbated by retirements, resignations and many more junior academic staff being appointed who are still in the process of obtaining their PhDs. This results in a heavier postgraduate supervisory workload for the remaining senior academic staff who must take on more postgraduate students, which may have a knock-on effect in respect of postgraduate students taking longer than the expected norm to complete their qualifications.
- Ethics clearance and approval processes for Master's and doctoral studies need to be streamlined and digitalised to improve the turnaround times since postgraduate students often experience this as a bottleneck.

The targets set for 2022 and 2023 are the expected average number of years for Master's Coursework (three years), Master's Research (three years) and doctoral (five years) graduates.

Performance indicator: Weighted graduate outputs per permanent academic staff member

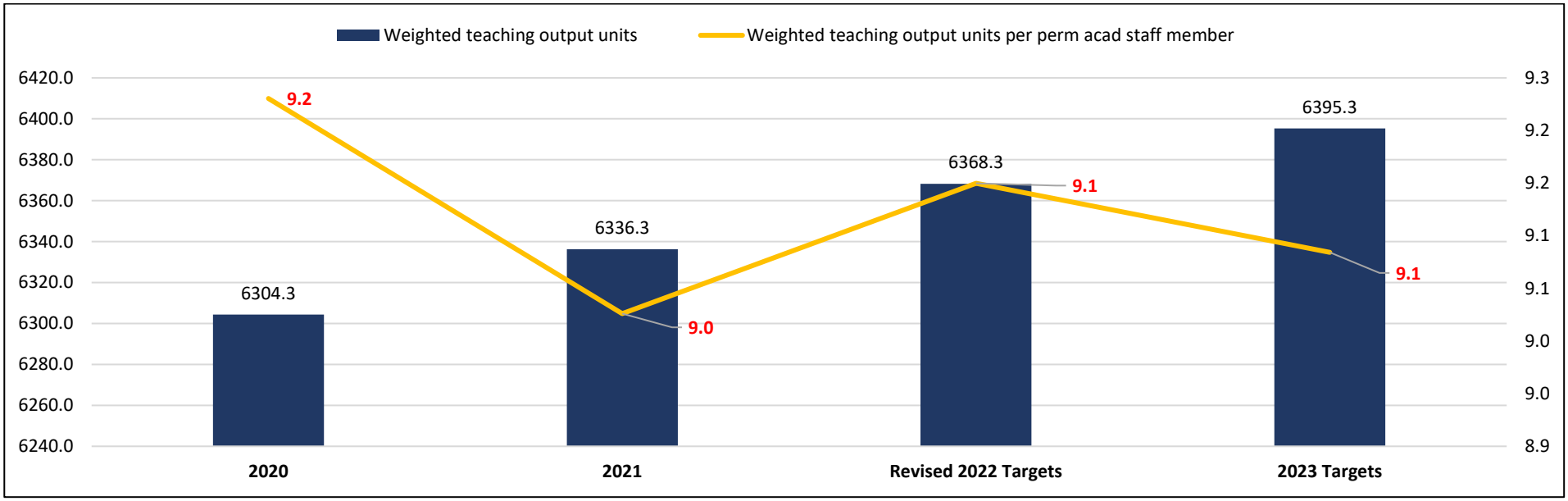
The weighted graduate outputs are calculated by applying the relevant funding weight to each graduate in each qualification type with the weight for the Higher Education Funding Framework that is used to calculate the teaching output subsidy. The funding weight for each qualification type is indicated in the second column of Table 16 below.

Table 16: Weighted graduate output units per permanent academic staff member, 2020-2021 and 2022-2023 targets

Qualification Type	Funding Weight	2020		2021		Revised 2022 Target		2023 Targets	
		Teaching Outputs	Weighted Teaching Outputs	Teaching Outputs	Weighted Teaching Outputs	Teaching Outputs	Weighted Teaching Outputs	Teaching Outputs	Weighted Teaching Outputs
UG Certificates and Diplomas (1 year)	0.5	699	349.5	478	239.0	514	257	549	274.5
UG Certificates and Diplomas (3 years)	1	1 774	1 774	1 787	1 787	1 796	1 796	1 805	1 805
UG Bachelor's Degrees (3 years)	1	1 351	1 351	1 549	1 549	1 558	1 558	1 566	1 566
UG Bachelor's Degrees (4 years or more) NQF8	1.5	935	1 402.5	999	1 498.5	1 005	1 507.5	1 010	1 515
UG B Tech (1 Year)	1.5	301	451.5	142	213	71	106.5	0	0
UG Advanced Diplomas (1 Year) NQF7	0.5	730	365	971	485.5	1 039	519.5	1 107	553.5
PG Certificate in Education (1 Year) NQF7	0.5	130	65	98	49	123	61.5	144	72
Honours Degrees/PG Diploma (1 Year)	0.5	936	468	807	403.5	871	435.5	935	467.5
Non-Research Master's degrees and Diplomas	0.5	155.693	77.847	223.553	111.777	253.558	126.779	283.563	141.781
Total		**7 011.693**	**6 304.347**	**7 054.553**	**6 336.277**	**7 227.058**	**6 368.279**	**7 399.563**	**6 395.281**
Permanent Academic Staff			683		702		696		704
Weighted teaching output units per permanent academic staff member			**9.2**		**9.0**		**9.1**		**9.1**

The weighted teaching output units per permanent academic staff member are calculated by dividing the weighted teaching outputs by the number of permanent academic staff member. This ratio provides a measure of the average graduate productivity per permanent academic staff member. The ratio declined from 9.2 in 2020 to 9.0 in 2021. A target of 9.1 has been set for both 2022 and 2023 (see Figure 17 below).

Figure 17: Weighted teaching output units per permanent academic staff member, 2020-2021 revised targets 2022-2023



Performance indicator: Weighted research outputs per permanent academic staff member

The weight for research publications is one, for Master's research outputs also one, and doctoral graduates are weighted by three to calculate the weighted research output units. Weighted research output units per permanent academic staff member provides a measure of the average research productivity of permanent academic staff members.

The ratio declined from 1.6 in 2020 to 1.4 in 2021. A target of 1.5 has been set for 2022 and 1.6 for 2023 (see Table 17).

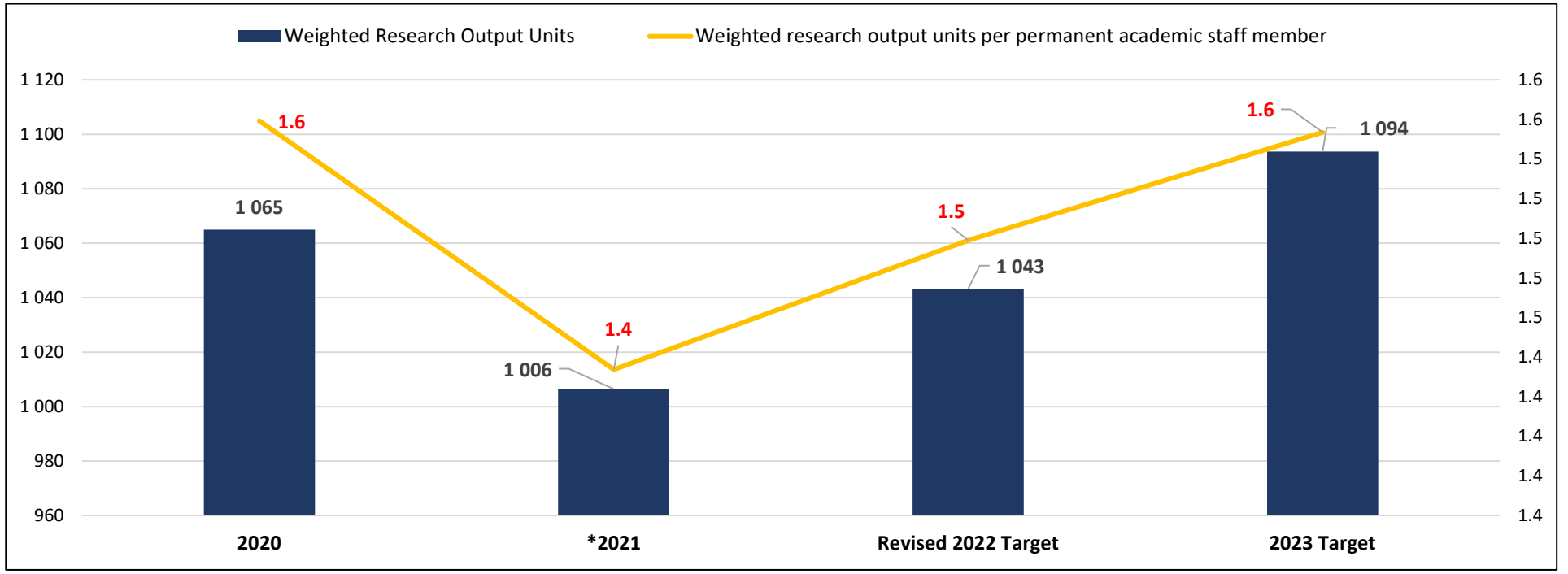
Table 17: Weighted research output units per permanent academic staff member, 2020-2021 revised targets 2022-2023

	2020	2021	Revised 2022 Targets	2023 Targets
Research Publication Units	576	495	535	565
Masters' Research Units	249	224	244	265
Doctoral (Weighted)	240	288	264	264
Total Weighted Research Output Units	1 065	1 006	1 043	1 094
Permanent Academic Staff	683	702	696	704
Weighted research output units per permanent academic staff member	1.6	1.4	1.5	1.6
Publication units per permanent academic staff member	0.8	0.7	0.8	0.8

Of concern is that the number of research Master's graduates at Nelson Mandela University has been declining over a number of years due to the declining Master's enrolments discussed earlier. Since 2017, there have been significant declines in enrolments and consequently in Master's research graduates. Declines in international postgraduate enrolments also contributed to fewer Master's graduates in postgraduate programmes.

Research Master's graduates at Mandela University declined from 262 in 2019 to 249 in 2020, and further declined to 224 in 2021. The decline from 2020 to 2021 (25 fewer research Master's units) constitutes a decline of 10.5%, which is significantly below the target of 275 (19% below the target).

Figure 18: Weighted research output units per permanent academic staff member, 2020-2021 revised targets 2022-2023



Over the period 2017 to 2022, international postgraduate Master's enrolments declined by 11.8% on average per annum, from 187 in 2017 to 100 in 2022, and South African Master's enrolments declined by 5.8% on average per annum over this period, from 1 837 in 2017 to 1 364 in 2022. The decline in international enrolments was exacerbated by the COVID-19 pandemic. Successive COVID-19 lockdowns also triggered a sharp decline in economic activity in South Africa, leading to a widespread reduction in household incomes which meant fewer individuals could afford to continue with postgraduate studies.

PhD weighted research output units increased by 20.0% from 240 to 288 from 2020 to 2021. Doctoral graduates at Mandela University increased from 80 in 2020 to 96 in 2021, which is a 20% increase and six graduates below the target of 102. The highest doctoral enrolments in recent years were achieved in 2016 when 641 doctoral students were enrolled. This number has since declined at an average annual rate of 2.1% to 564 in 2022.

The fact that such a large percentage of undergraduate students at Mandela University depend on NSFAS funding, which is not available at postgraduate level, means that a large proportion of students wanting to progress from under- to postgraduate level cannot do so. Furthermore, many of these students qualify for bursaries and scholarships, which they cannot take up to register for postgraduate studies due to historic debt.

A further challenge is that many senior academics with doctoral qualifications have retired from Mandela University, which has had a negative impact on postgraduate supervisory capacity across all faculties. The percentage of academic staff with doctoral qualifications was 47% in 2022. Furthermore, there is often a mismatch between the fields in which prospective Master's students want to pursue their studies and the available supervisory capacity in these fields. Many academic staff appointed in recent years still need training and development before they take up postgraduate supervision responsibilities. In addition, declines in financial support from national research funding agencies for "fundable grant applications" have negatively affected SET Master's students.

The University needs to work on strategies to increase enrolments in Master's and doctoral degrees such as mobilising additional third stream funding for postgraduate bursaries and scholarships, as well as increasing the proportion of academic staff with PhD qualifications to bolster postgraduate supervisory capacity across all faculties.

Performance Indicator: Number and percentage of postgraduate students by population group and gender

Table 18 indicates that the number of Black (African, Coloured, Indian) postgraduate student enrolments declined from 3 037 in 2020 to 2 824 in 2022, which is a decline of 7.0%. White postgraduate student enrolments declined from 694 in 2020 to 589 in 2022, which represents a decline of 15.1%. The University aims to increase postgraduate enrolments from 3 413 in 2022 to 3 820 in 2023, with a target of 3 227 Black student enrolments and 593 White student enrolments.

Table 18: Number of Black* postgraduate students, 2020-2022 and 2023 targets

Qualification Type	2020			2021			2022			2023 Targets		
	Black	White	Total	Black	White	Total	Black	White	Total	Black	White	Total
PG Diploma	551	96	647	428	72	500	477	56	533	558	54	612
Honours	619	142	761	612	158	770	704	148	852	723	145	868
Masters	1 435	306	1 741	1 271	285	1 556	1 198	266	1 464	1 428	272	1 700
Doctoral	432	150	582	468	147	615	445	119	564	518	122	640
PG Total	**3 037**	**694**	**3 731**	**2 779**	**662**	**3 441**	**2 824**	**589**	**3 413**	**3 227**	**593**	**3 820**

* Black includes African, Coloured, and Indian (A, C, I)

The percentage of Black postgraduate student enrolments increased from 81% in 2020 83% in 2022. The percentage of White student enrolments declined from 19% in 2020 to 17% in 2022. The 2023 target is to achieve an 84% Black postgraduate student enrolment and a 16% White postgraduate student enrolment (see Table 19).

Table 19: Percentage of Black* postgraduate students, 2020-2022 and 2023 targets

Qualification Type	2020			2021			2022			2023 Targets		
	Black	White	Total	Black	White	Total	Black	White	Total	Black	White	Total
PG Diploma	85%	15%	100%	86%	14%	100%	89%	11%	100%	91%	9%	100%
Honours	81%	19%	100%	79%	21%	100%	83%	17%	100%	83%	17%	100%
Masters	82%	18%	100%	82%	18%	100%	82%	18%	100%	84%	16%	100%
Doctoral	74%	26%	100%	76%	24%	100%	79%	21%	100%	81%	19%	100%
PG Total	**81%**	**19%**	**100%**	**81%**	**19%**	**100%**	**83%**	**17%**	**100%**	**84%**	**16%**	**100%**

Female students constitute a higher percentage of postgraduate enrolments than males. Female postgraduate enrolments declined from 2 017 in 2020 to 1 923 in 2022, which is a 4.7% decline, while male postgraduate enrolments declined from 1 714 in 2020 1 490 in 2022, representing a decline of 13.1%. As indicated in Table 20, the University aims to increase female postgraduate enrolments from 1 923 in 2022 to 2 179 in 2023, and male enrolments from 1 490 in 2022 to 1 641 in 2023.

Table 20: Number of female postgraduate students, 2020-2022 and 2023 targets

Qualification Type	2020			2021			2022			2023 Targets		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
PG Diploma	337	310	647	260	240	500	290	243	533	340	272	612
Honours	496	265	761	504	266	770	549	303	852	556	312	868
Masters	902	839	1 741	836	720	1 556	803	661	1 464	954	746	1 700
Doctoral	282	300	582	296	319	615	281	283	564	329	311	640
PG Total	**2 017**	**1 714**	**3 731**	**1 896**	**1 545**	**3 441**	**1 923**	**1 490**	**3 413**	**2 179**	**1 641**	**3 820**

The percentage of female postgraduate enrolments increased from 54% in 2000 to 56% in 2022, while the percentage of male postgraduate enrolments declined from 46% in 2020 to 44% in 2022. Although the University aims to achieve a more gender balanced postgraduate enrolment profile, Table 21 indicates that it is likely that the percentage of female postgraduate enrolments will further increase to 57%, and the percentage of male postgraduate enrolments will decline to 43%.

Table 21: Percentage of female postgraduate students, 2020-2022 and 2023 target

Qualification Type	2020			2021			2022			2023 Targets		
	Female	Male	Total	Female	Male	Total	Female	Male	Total	Female	Male	Total
PG Diploma	52%	48%	100%	52%	48%	100%	54%	46%	100%	56%	44%	100%
Honours	65%	35%	100%	65%	35%	100%	64%	36%	100%	64%	36%	100%
Masters	52%	48%	100%	54%	46%	100%	55%	45%	100%	56%	44%	100%
Doctoral	48%	52%	100%	48%	52%	100%	50%	50%	100%	51%	49%	100%
PG Total	**54%**	**46%**	**100%**	**55%**	**45%**	**100%**	**56%**	**44%**	**100%**	**57%**	**43%**	**100%**

Performance Indicator: International student enrolments

Internationalisation is an important vehicle through which the University delivers on its academic missions and transformation agenda. However, the pandemic has seen a significant decline in international student enrolments across the globe. There was a need to extend the central communication efforts of the University to international students and this was championed by the International Office (IO) in 2021. The IO also

designed an online orientation schedule for study abroad and exchange students. This assisted in navigating various challenges experienced by international students due to COVID-19 government regulations and restrictions, such as facilitating the process of extending visas for international students whose visas expired during lockdowns. Despite the restrictions on international travel, the University recorded 487 international undergraduate student admissions for the 2021 academic year, up nearly 20% from 406 in 2020. However, postgraduate international student admissions declined sharply by nearly 30% from 234 in 2020 to 164 in 2021.

Table 22: Headcount enrolments by South African, SADC, African and international origins, 2020-2022 and 2023 targets

Level	Origin	Headcount enrolments			
		2020	2021	2022	2023 Targets
Occasional	Other African		1		0
	Other Foreign	82	60	126	131
	SADC excl SA	5	2	4	4
	South African	101	97	149	105
Occasional Total		**188**	**160**	**279**	**240**
Undergraduate	Other African	100	79	59	61
	Other Foreign	39	30	25	26
	SADC excl SA	566	538	491	511
	South African	24 526	25 378	28 406	26 702
Undergraduate Total		**25 231**	**26 025**	**28 981**	**27 300**
Postgraduate	Other African	120	110	100	118
	Other Foreign	26	26	20	24
	SADC excl SA	213	217	207	245
	South African	3 508	3 197	3 214	3 453
Postgraduate Total		**3 867**	**3 550**	**3 541**	**3 840**
Total	Other African	220	190	159	179
	Other Foreign	147	116	171	181
	SADC excl SA	784	757	702	760
	South African	28 135	28 672	31 769	30 260
Grand Total		**29 286**	**29 735**	**32 801**	**31 380**

As indicated in Table 22 above, occasional international student enrolments declined from 87 in 2020 to 63 in 2021, but then increased to 130 in 2022. A target of 135 has been set for 2023. Undergraduate student enrolments declined from 705 in 2020 to 575 in 2022. A target of 598 has been set for 2023. At postgraduate level, international student enrolments declined from 359 in 2020 to 327 in 2022. The University aims to increase this to 387 in 2023. Total international student enrolments declined from 1151 in 2020 to 1 032 in 2022. The University has set a target of 1 120 in 2023.

In 2020, 2.7% of the total student enrolments were from SADC countries (excluding South Africa), which declined to 2.1% in 2022. The target for 2023 is 2.4%. The percentage of students from other African countries was 0.8% of total student enrolments in 2020, which declined to 0.5% in 2022. The target for 2023 is 0.6%. Enrolments from other foreign countries were 0.5% of total student enrolments in 2020, declining to 0.4% in 2021. This increased to 0.5% again in 2022. The University aims to increase the enrolments from other African countries to 0.6% in 2023. The University thus plans to increase the total international student enrolments of 3.1% to 3.6% of total student enrolments in 2023 (see Table 23).

Table 23: Percentage international student enrolments according to origins, 2020-2022 and 2023 targets

	2020	2021	2022	2023 Targets
Other African	0.8%	0.6%	0.5%	0.6%
Other Foreign	0.5%	0.4%	0.5%	0.6%
SADC excluding SA	2.7%	2.5%	2.1%	2.4%
South African	96.1%	96.4%	96.9%	96.4%

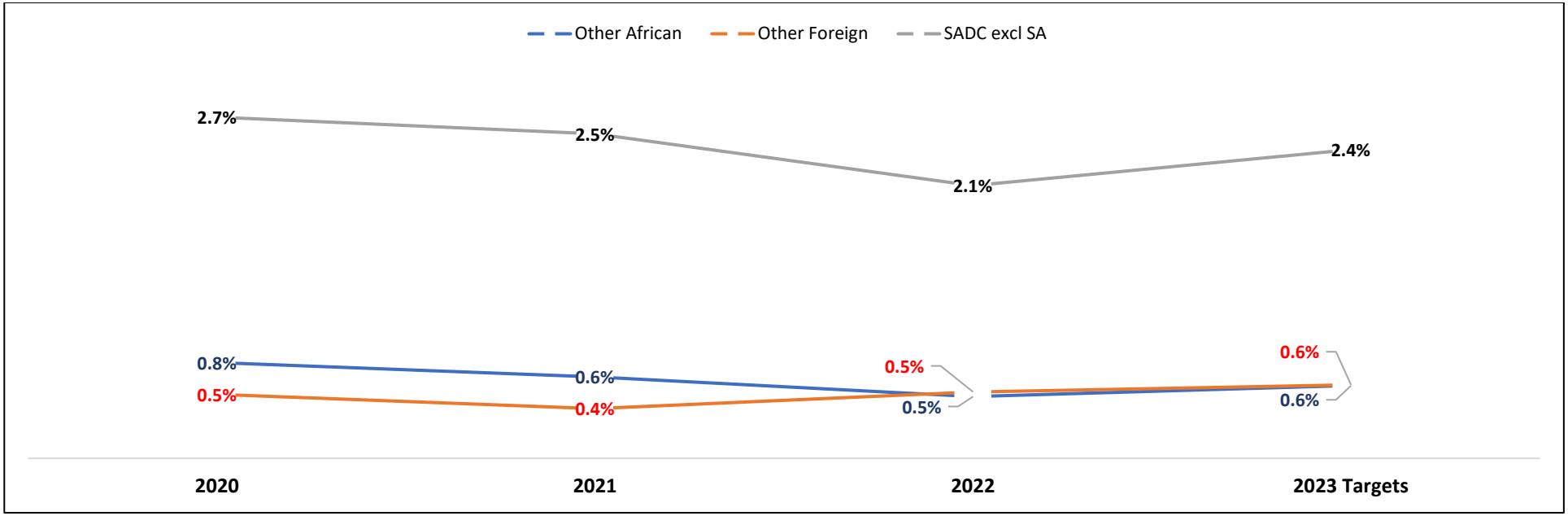
Table 24 below shows that the percentage of undergraduate international students declined from 3.1% in 2020 to 2.4% in 2022. The target for 2023 is to turn this trend around and increase it to 2.7% of total enrolments. International postgraduate enrolments increased from 9.3% of total enrolments in 2020 to 9.9% of total enrolments in 2021 but then declined again to 9.2% in 2022. The University aims to increase this percentage to 10.1% of total enrolments in 2023. In total, international student enrolments constituted 3.9% of total enrolments in 2020 but declined to 3.1% of total enrolments in 2022. The target is to increase this to 3.6% of total enrolments in 2023.

Table 24: Percentage under- and postgraduate international enrolments (SADC, African and international origins), 2020-2022 and 2023 targets

Qualification Level	2020	2021	2022	2023 Targets
% International UG Students	3.1%	2.7%	2.4%	2.7%
% International PG Students	9.3%	9.9%	9.2%	10.1%
% International UG & PG Students	3.9%	3.6%	3.1%	3.6%

Due to a variety of challenges linked to the pandemic, the international study abroad and exchange students who travel to South Africa and spend a semester at the University declined significantly over the last two years. More than 130 international study abroad and exchange students had to cancel their enrolment for the second semester, leading to a revenue shortfall of R1.4-million. A programme for reviving the Semester Study Abroad and short learning programmes as important sources of the University's third-stream revenue base is currently being developed. This is being supported by vigorous international marketing, profiling, and visibility initiatives.

Figure 18: Percentage of international student enrolments according to origins, 2020-2022 and 2023 targets



In view of the decline in postgraduate enrolments and graduate outputs, as well as the sharp decline in international enrolments, the University has established a dedicated postgraduate and internationalisation task team under the auspices of the institutional Enrolment Management Committee. This task team will focus on analysing the trends across the spectrum of postgraduate and international enrolments and factors affecting these, with a view to developing strategies and interventions to reverse these trends. Despite the decline in international student numbers over the last two years, important lessons have been learned, and various strategies identified to counter some of the losses and galvanise the improvement of international student enrolment figures.

The expansion of the global footprint of the University specifically prioritises forging and strengthening South-South linkages and expanding our African footprint. A project initiated by the Vice-Chancellor seeks to advance the recruitment of students from those previously unchartered parts of the African continent, while also revitalising our relationships with countries and regions where we have traditionally drawn the bulk of our students. This will also serve to encourage intra-Africa student and staff mobility initiatives that are key for the international exposure of our postgraduate students and emerging researchers. The International Office is reviewing existing membership of international networks and associations to ensure that there is expanded scope to influence research agendas supporting the institutional research themes.

Strategic Focus Area 4: Catalyse dynamic, student centric approaches and practices that provide life-changing student experiences within and beyond the classroom

Performance Indicator: Number of on- and accredited off-campus residence beds and occupancy rate

Research has shown that students who live in student accommodation on campus, even for just one year, achieve better academic outcomes during their degree. This has been attributed to students being closer to classes, faculty and facilities such as the library, which enable them to be more engaged. Furthermore, on-campus housing effectively integrates learning and social development by providing students the opportunity to form an identity or a sense of community with the institution. Students who live on campus generally participate in more campus activities, take advantage of campus resources such as academic support services including mentoring, advising, personal and academic counselling, career workshops, faculty mentors, and the like. It has also been found that students living on campus are more involved in leadership experiences. Access to technology is extremely important for today's students and, in general, high-speed connectivity (including wireless), computer laboratories, and similar services are more readily available, at a lower cost, to those living on campus. It is thus important that on-campus accommodation be made available to as many students as possible, with a specific focus on first-time entering students to support academic success.

Table 25: Percentage of students living in on- and off-campus student residences in Gqeberha and George, 2022 and 2023 targets

Residences	2022				2023 Targets			
	Total registered students	% Total student numbers in student accommo-dation	Registered first-time entering students	% Total number of first-time entering students in residences	Total registered students	% Total student numbers in student accommo-dation	Registered first-time entering students	% Total number of first-time entering students in residences
On-campus Beds	3 833	12%	1 376	16%	4 220	13%	1 417	20%
Accredited Off-campus Beds	12 882	39%	1 655	19%	12 954	41%	1 721	24%
Total	**16 715**	**51%**	**3 031**	**35%**	**17 275**	**55%**	**3 138**	**44%**

In 2022, 12% of all students were staying in on-campus student accommodation and a further 39% were in accredited off-campus student accommodation, with a total of 51% of enrolled students housed in student accommodation. In 2022, 16% of first-time entering students were staying in on-campus student accommodation and a further 19% in accredited off-campus student accommodation. A total of 35% of first-time entering students were staying in on- and off-campus student accommodation. The target for 2023 is to accommodate 55% of all students and 44% of first-time entering students in on- and off-campus student accommodation.

The occupancy rate is the number of residence registrations as a percentage of the available beds. In 2022, the occupancy rate for both on-campus beds and accredited off-campus beds was 88%. As indicated in Table 26, the target for 2023 is to increase the occupancy rate for on-campus beds to 100% and to 91% for off-campus beds. An increase of the total occupancy rate from 88% to 93% is projected from 2022 to 2023.

Table 26: Number of on- and accredited off-campus residence beds and occupancy rate, 2022 and 2023 target

Residences	2022		2023 Target	
	Beds	% Occupancy rate	Beds	% Occupancy rate
*On-Campus Beds	4 378	88%	4 689	100%
Accredited Off-Campus Beds	14 721	88%	14 721	91%
Total	**19 099**	**88%**	**19 410**	**93%**

*The construction of student accommodation is currently underway on the North Campus in Summerstrand and is expected to provide an additional 972 beds by March 2023.

Strategic Enabler 2: Foster an inclusive, values-driven institutional culture to position the University as an employer of choice for talented and empowered employees

Performance indicator: Total permanent academic and PASS staff according to gender, population group, disability, and nationality

The current situation of no increases in the subsidy allocation in real terms may not allow the University to appoint many, if any, new staff members. The permanent academic and PASS staff complement increased from 2 528 in 2020 to 2 542 in 2021 but declined to 2 492 in 2022. A target of 2 503 has been set for 2023. The permanent academic staff increased from 683 in 2020 to 702 in 2021 but declined to 696 in 2022. A target of 714 has been set for 2023.

Table 27: Total permanent academic and PASS staff according to gender, population group, disability, and nationality, 2020-2022 and 2023 targets

Gender	**2020**	**%**	**2021**	**%**	**2022**	**%**	**Revised Targets 2023**	**%**
Female	1 475	58%	1 494	59%	1 478	59%	1 485	59%
Male	1 053	42%	1 048	41%	1 014	41%	1 018	41%
Total	**2 528**		**2 542**		**2 492**		**2 503**	
Population group	**2020**	**%**	**2021**	**%**	**2022**	**%**	**2023**	**%**
African	1 317	52%	1 352	53%	1 344	54%	1 351	54%
Coloured	450	18%	457	18%	450	18%	452	18%
Indian	84	3%	87	3%	87	3%	88	4%
White	677	27%	646	25%	611	25%	612	24%
Total	**2 528**		**2 542**		**2 492**		**2 503**	
Disability	**2020**	**%**	**2021**	**%**	**2022**	**%**	**2023**	**%**
	66	3%	66	3%	66	3%	66	3%

Nationality	2020	%	2021	%	2022	%	2023	%
South African	2 473	98%	2 489	98%	2 439	98%	2 450	98%
International	55	2%	53	2%	53	2%	53	2%
Total	**2 528**		**2 542**		**2 492**		**2 503**	

The demographic profile of permanent PASS staff from 2020 to 2022 was as follows:

- Females increased from 58% in 2020 to 59% in 2023, while males decreased from 42% in 2020 to 41% in 2022. The female: male target for 2023 is 59: 41%.
- Black (African, Coloured, Indian) PASS staff increased from 73% in 2020 to 75% in 2023 while the percentage of White PASS staff declined from 27% in 2020 to 25% in 2022. Targets of 76% Black and 24% White PASS staff have been set for 2023.
- 3% of PASS staff for the years 2020 to 2022 reported a disability and the same percentage is targeted for 2023.
- International PASS staff remained at 2% for the years 2020 to 2022, and the same target has been set for 2023.

As depicted in Table 28, the demographic profile of permanent academic staff from 2020 to 2022 was as follows:

- Females increased from 51% in 2020 to 53% in 2022, while males decreased from 49% in 2020 to 47% in 2022. The female: male target for 2023 is 53: 47%.
- Black (African, Coloured, Indian) academic staff increased from 51% in 2020 to 56% in 2022 while the percentage of White academic staff declined from 49% in 2020 to 44% in 2022. Targets of 57% Black and 43% White academic staff have been set for 2023.
- 3% of academic staff for the years 2020 to 2022 reported a disability and the same percentage is targeted for 2023.
- International academic staff remained at 6% for the years 2020 to 2022, and the same target has been set for 2023.

Table 28: Permanent academic staff according to gender, population group and disability, 2020-2022 and 2023 target

Gender	2020	%	2021	%	2022	%	Revised Target 2023	%
Female	349	51%	366	52%	370	53%	374	53%
Male	334	49%	336	48%	326	47%	330	47%
Total	**683**		**702**		**696**		**704**	

Population group	2020	%	2021	%	2022	%	Revised Target 2023	%
African	202	30%	224	32%	232	33%	243	35%
Coloured	111	16%	120	17%	118	17%	119	17%
Indian	35	5%	37	5%	40	6%	40	6%
White	335	49%	321	46%	306	44%	302	43%
Total	**683**		**702**		**696**		**704**	
Disability	**2020**	**%**	**2021**	**%**	**2022**	**%**	**Revised Target 2023**	**%**
	18	3%	19	3%	20	3%	20	3%
Nationality	**2020**	**%**	**2021**	**%**	**2022**	**%**	**Projected 2023**	**%**
South African	640	94%	659	94%	652	94%	660	94%
International	43	6%	43	6%	44	6%	44	6%
Total	**683**		**702**		**696**		**704**	

Performance indicator: Highest qualification of academic staff

The highest qualification of staff with doctoral degrees is of particular importance since it correlates with the supervisory capacity for postgraduate students, as well as the research outputs of the University. As part of the efforts to promote long-term sustainability, the University has leveraged funding from the NRF and DHET to ensure that academic employees receive the support and training needed to attain higher qualifications. There are, however, severe capacity constraints in terms of postgraduate supervisory capacity. To mitigate this risk, all academics with at least a Master's qualification should receive mentoring to equip them to take on supervision. Regular writing retreats continue to be arranged across all faculties to encourage academic writing and boost research outputs.

The University continues to face challenges relating to a small pool of candidates in scarce skills disciplines. Affected faculties have a growing group of early career academics (ECAs) who need to be nurtured and developed to become the next generation of academic leaders. Nelson Mandela University continues to benefit from national initiatives designed to ensure that early career academics receive the support and training needed to attain higher degrees.

The Black Academics Advancement Programme (BAAP) currently funds seven academics, three of whom are women. The total investment amounts to R2.1-million and 55 academics have been funded through this programme to date. In addition, there are 18 active Thuthuka grant holders, of whom 78% are Black and 56% are women.

The New Generation of Academics Programme (nGAP) cohort at Mandela University comprised 14 Black academics in 2021, of whom nine were women. Targeted funding to support emerging academics is also offered through the DHET-funded University Capacity Development Grant, which has been awarded for the new 2021-2023 funding cycle. Of the 23 grant recipients, 15 are Black, and 12 are women. These initiatives are critical as significant numbers of senior academic employee members will retire within the next five years.

Table 29: Highest qualification of academic staff by population group and gender, 2020-2021 and 2022-2023 targets

Highest Qualification	2020							
	Female	Male	Total	African	Coloured	Indian	White	Total
Doctoral degree	164	151	**315**	81	41	19	174	**315**
Master's degree	128	123	**251**	84	50	8	109	**251**
Other	57	60	**117**	37	20	8	52	**117**
Total	**349**	**334**	**683**	**202**	**111**	**35**	**335**	**683**
Highest Qualification	**2021**							
	Female	**Male**	**Total**	**African**	**Coloured**	**Indian**	**White**	**Total**
Doctoral degree	175	153	**328**	95	43	20	170	**328**
Master's degree	132	127	**259**	91	53	9	106	**259**
Other	59	56	**115**	38	24	8	45	**115**
Total	**366**	**336**	**702**	**224**	**120**	**37**	**321**	**702**
Highest Qualification	**Target 2022**							
	Female	**Male**	**Total**	**African**	**Coloured**	**Indian**	**White**	**Total**
Doctoral degree	176	149	**324**	98	43	21	162	**324**
Master's degree	134	123	**257**	94	52	10	101	**257**
Other	60	54	**115**	40	23	9	43	**115**
Total	**370**	**326**	**696**	**232**	**118**	**40**	**306**	**696**

Highest Qualification	Target 2023							
	Female	Male	Total	African	Coloured	Indian	White	Total
Doctoral degree	180	151	**331**	104	44	22	161	**331**
Master's degree	137	127	**264**	99	54	10	101	**264**
Other	57	52	**109**	35	22	9	43	**109**
Total	**374**	**330**	**704**	**238**	**120**	**41**	**305**	**704**

The percentage of female academic staff with doctoral degrees increased from 47% in 2020 to 48% in 2022. The same target (48%) has been set for 2023. The percentage of male staff with doctoral degrees increased from 45% in 2020 to 46% in 2022. The target for 2023 remains at 46%. Changes in academic staff with doctoral degrees by population group from 2020 to 2023 are as follows:

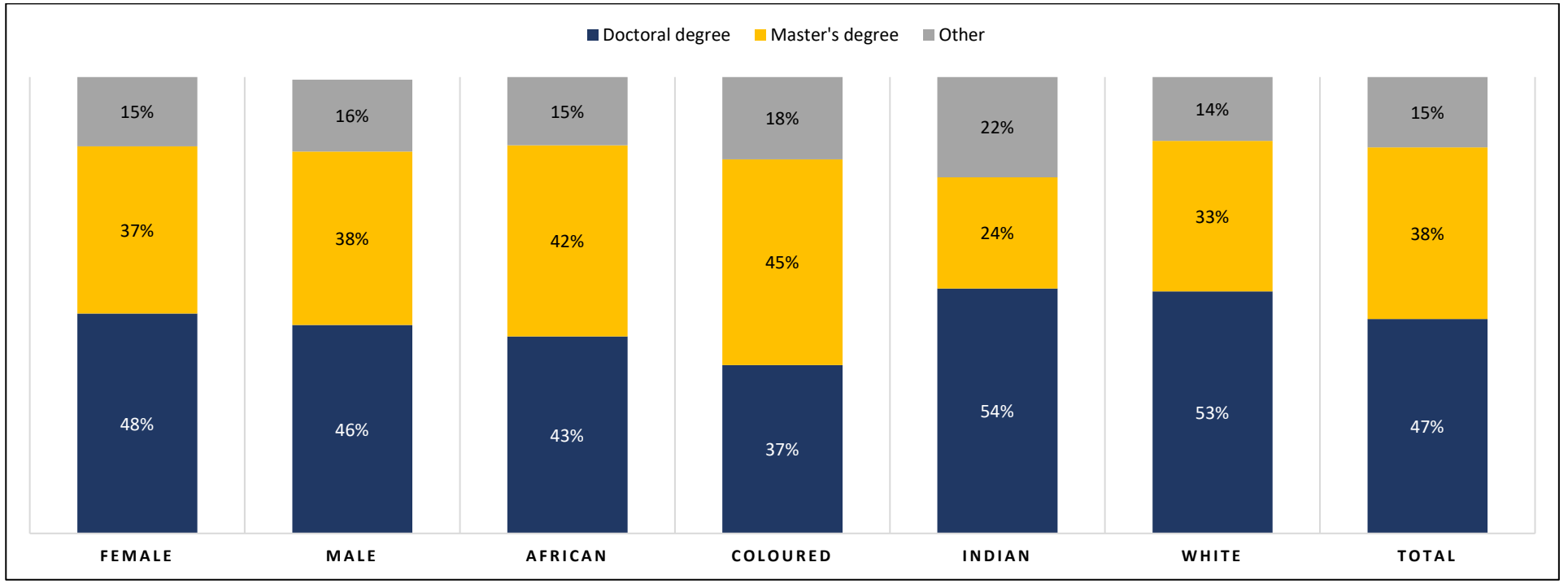
- African staff with a doctoral degree increased from 40% in 2020 to 42% in 2023. The target for 2023 is 43%.
- Coloured staff with a doctoral degree declined from 37% in 2020 to 36% in 2022. The target for 2023 is 37%.
- Indian staff with a doctoral degree remained at 54% over the period and the target for 2023 remains at 54%.
- White staff with doctoral degrees increased from 52% in 2020 to 53% in 2022. The 2023 target remains at 53%.

Table 30: Highest qualification of academic staff by population group and gender (%), 2020-2021 and 2022-2023 targets

Highest Qualification	2020 (%)							
	Female	Male	Total	African	Coloured	Indian	White	Total
Doctoral degree	47%	45%	46%	40%	37%	54%	52%	46%
Master's degree	37%	37%	37%	42%	45%	23%	33%	37%
Other	16%	18%	17%	18%	18%	23%	15%	17%
Highest Qualification	**2021 (%)**							
	Female	**Male**	**Total**	**African**	**Coloured**	**Indian**	**White**	**Total**
Doctoral degree	48%	46%	47%	42%	36%	54%	53%	47%
Master's degree	36%	37%	37%	41%	44%	24%	33%	37%
Other	16%	17%	16%	17%	20%	22%	14%	16%

Highest Qualification	Target 2022 (%)							
	Female	Male	Total	African	Coloured	Indian	White	Total
Doctoral degree	48%	46%	47%	42%	36%	54%	53%	47%
Master's degree	36%	38%	37%	41%	44%	24%	33%	37%
Other	16%	16%	16%	17%	20%	22%	14%	16%
Highest Qualification	**Target 2023 (%)**							
	Female	**Male**	**Total**	**African**	**Coloured**	**Indian**	**White**	**Total**
Doctoral degree	48%	46%	47%	43%	37%	54%	53%	47%
Master's degree	37%	38%	38%	42%	45%	24%	33%	38%
Other	15%	16%	15%	15%	18%	22%	14%	15%

Figure 19: Percentage highest qualification of academic staff, 2023 targets



Performance indicator: Research chairs and NRF-rated researchers

As a comprehensive university, Mandela University seeks to promote the convergence of inter- and transdisciplinary "blue sky" and applied research, including concerted efforts to revitalise the humanities while consolidating our strengths in science, engineering, and technology to foreground the scholarly contributions of all disciplines and fields of study.

Table 31: Number of research chairs and NRF-rated academic staff, 2020-2022 and 2023 targets

	2020	2021	2022	2023 Targets
Research Chairs	13	16	16	17
NRF Rated Researchers	90	85	85	94

The University's Research and Innovation Strategy has set a target of six new research chairs between 2020 and 2024. 50% of this target had been achieved by 2021. Three of the most recently appointed chairs have been Black, with two contributing to the revitalisation of the humanities, and the third linked to the Medical School. Future endeavours will focus on growing the pool of research chairs with an emphasis on those who are funded externally or by industry.

Nelson Mandela University currently hosts 16 research chairs, and the demographic profile of the chairs is disaggregated in Table 32 below.

Table 32: Demographic profile of research chairs

Demographic profile of research chairs	Number	%
Black (A, C, I) female	4	25%
Black (A, C, I) male	4	25%
White female	3	19%
White male	5	31%
Total	**16**	**100%**

The University ranks among the top 10 South African universities regarding the number of researchers with National Research Foundation (NRF) ratings, with 85 rated researchers in 2021. Of these, 57 are male and 28 are female, while 17 are Black (African, Coloured, and Indian) and 68 are

White. The highest number of rated researchers at Mandela University was 92 in 2018. The number of rated researchers decreased from 90 in 2020 to 85 in 2021 due to some retiring and others not choosing to apply for a re-rating.

In 2022, there was a pleasing increase in the number of applications for NRF rating. Of the 20 new applications, nine were new applicants, while the rest were being re-evaluated. The outcomes for the 2022 applications are not yet available. Should the new applicants be successful this will grow the number of rated researchers from 85 to 94. The rating system remains one of the key indicators of research stature in the SA national system of innovation.

The University also benefits from the scholarly contributions of 284 research associates, 19% of whom are African, 3% Coloured, 6% Indian and 72% White.

There are currently 22 research entities, consisting of three institutional entities, 12 centres based in faculties, one faculty-based institute and six research units, also based in faculties. These entities attract external research income which contributes significantly to the University's research outputs and postgraduate training, as well as to the strategic enabler of financial sustainability. Their work is well aligned with the UN's sustainable development goals, as well as the University's Vision 2030 strategic focus areas and six institutional research themes.
Postgraduate student training (students recruited from various African countries) and supervision of postdoctoral fellows, with a few collaborative partnerships with universities in other African countries, is helping to grow our footprint in Africa. This is an area that will require focused attention in the immediate future.

Performance indicator: Staff turnover by population group and gender

A further important strategic enabler is the fostering of an inclusive, values driven institutional culture to position the University as an employer of choice for talented and empowered employees. Staff turnover can be used as an indicator of the competitiveness of the University as an employer of choice.

Table 33: Turnover of academic staff (excluding retirements) by population group, 2020-2022 and 2023 projections

Academic Staff Total	**2020**	683	**2021**	702	**2022**	696	**2023**	704
Academic Staff Exits	**2020 Exits**	**Turnover %**	**2021 Exits**	**Turnover %**	**Projected 2022 Exits**	**Turnover %**	**Projected 2023 Exits**	**Turnover %**
African	11	1.6%	10	1.4%	11	1.6%	12	1.7%
Coloured	4		4	0.6%	4	0.6%	5	0.7%
White	12	1.8%	9	1.3%	10	1.4%	11	1.6%
Total Exits	**27**	**4.0%**	**23**	**3.3%**	25	**3.6%**	28	**4.0%**

The academic staff turnover (excluding retirements) declined from 4.0% in 2020 to 3.3% in 2021. An academic staff turnover of 3.6% for 2022 and 4.0% in 2023 have been projected. It is important that the University examines why staff leave, as this will inform the institution of strategies to retain talented employees. It is also important to monitor remuneration and conditions of service regularly, in comparison with other universities, to remain competitive as an employer of choice. In 2020, White academic staff had the highest turnover (1.8%), but in 2021 Black (African, Coloured, Indian) academic staff had the highest percentage of turnover (2.0%), which is of concern as it relates to diversifying the demographic profile of academic staff.

The turnover rate for PASS staff from 2020 to 2021 has been much higher than for academic staff over the same period. In 2020, the percentage turnover of PASS staff was 4.3%, increasing to 4.7% in 2021. The projected turnover rate for PASS staff for 2022 is 5.0% and 5.1% for 2023. The percentage turnover for Black PASS staff was 2.3% in 2020 compared to the White PASS staff turnover of 2.1%. In 2021, the Black PASS staff turnover rate was 3.0% compared to 1.7% for White PASS staff. Again, this trend is important to monitor since it will impact on the attainment of the University's employment equity targets.

As indicated in Table 34 below, the projected Black PASS staff turnover rate for 2022 is 3.1% and for 2023 it is 3.3%. For White PASS staff, the projected turnover rates are 1.8% in 2022 and 1.9% in 2023.

Table 34: Turnover of PASS staff (excluding retirements) by population group, 2020-2022 and 2023 projections

PASS Staff Total	2020	1 845	2021	1 840	2022	1 796	2023	1 799
PASS Staff Exits	**2020 Exits**	**Turnover %**	**2021 Exits**	**Turnover %**	**Projected 2022 Exits**	**Turnover %**	**Projected 2023 Exits**	**Turnover %**
African	32	1.7%	35	1.9%	36	2.0%	37	2.1%
Coloured	7	0.4%	13	0.7%	13	0.7%	14	0.8%
Indian	3	0.2%	7	0.4%	7	0.4%	7	0.4%
White	38	2.1%	32	1.7%	33	1.8%	34	1.9%
Total Exits	**80**	**4.3%**	**87**	**4.7%**	89	**5.0%**	92	**5.1%**

Analysing the percentage of academic staff turnover by gender depicted in Table 34 shows that, in 2020, more males (2.5%) than females (1.5%) left the University. However, the opposite trend is observed for 2021, where 2.0% of females left the University compared to 1.3% for males. The projected female turnover is 2.2% in 2022 and 2.4% for 2023. For males, the projections are 1.4% in 2022 and 1.6% in 2023.

Table 35: Turnover of academic staff (excluding retirements) by gender, 2020-2022 and 2023 projections

Academic Staff Total	2020	683	2021	702	2022	696	2023	704
Academic Staff Exits	**2020**	**Turnover %**	**2021**	**Turnover %**	**Projected 2022 Exits**	**Turnover %**	**Projected 2023 Exits**	**Turnover %**
Female	10	1.5%	14	2.0%	15	2.2%	17	2.4%
Male	17	2.5%	9	1.3%	10	1.4%	11	1.6%
Total Exits	**27**	**4.0%**	**23**	**3.3%**	25	**3.6%**	28	**4.0%**

As can be seen in Table 36, the percentage turnover for female PASS staff was 1.9% in 2020 increasing to 2.2% in 2023 and similarly the percentage turnover of male PASS staff increased from 2.4% in 2020 to 2.5% in 2021. The projected percentage turnover for female PASS staff is 2.3% for 2022 and 2.4% for 2023. For male PASS staff, the projected percentage turnover is 2.7% for both 2022 and 2023.

Table 36: Turnover of PASS staff (excluding retirements) by gender, 2020-2022 and 2023 projections

PASS Staff Total	2020	1 845	2021	1 840	2022	1 796	2023	1 799
PASS Staff Exits	**2020**	**Turnover %**	**2021**	**Turnover %**	**Projected 2022 Exits**	**Turnover %**	**Projected 2023 Exits**	**Turnover %**
Female	35	1.9%	41	2.2%	42	2.3%	43	2.4%
Male	45	2.4%	46	2.5%	48	2.7%	49	2.7%
Total Exits	**80**	**4.3%**	**87**	**4.7%**	90	**5.0%**	92	**5.1%**

Table 37: Academic staff retirements by population group, 2020-2022 and 2023 projections

Academic Staff Total	2020	683	2021	702	2022	696	2023	704
Academic Retirements	**2020**	**As a % of Total**	**2021**	**As a % of Total**	**Projected 2022**	**As a % of Total**	**Projected 2023**	**As a % of Total**
African	6	0.9%	3	0.4%	2	0.3%	2	0.3%
Coloured			4	0.6%				
Indian							1	0.1%
White	5	0.7%	7	1.0%	4	0.6%	8	1.1%
Total Retirements	**11**	**1.6%**	**14**	**2.0%**	6	**0.9%**	11	**1.6%**

It is important to monitor and project retirements (based on staff records) to ensure vacancies left are filled. Staff who retire, particularly highly qualified academic staff, leave an impact on faculty supervisory capacity in their fields of study. In 2020, 0.9 % of Black academic staff members retired compared to 0.7% of White academic staff members. In 2021, 1.0% of Black academic staff and 1.0% of White academic staff retired. The projections for 2022 and 2023 are based on the retirement dates of current employees. It is projected that 0.3% of Black academic staff members will retire in 2022, and 0.4% in 2023.The projected retirements of White academic staff members is 0.6% in 2022 and 1.1% in 2023.

Table 38: PASS staff retirements by population group, 2020-2022 and 2023 projections

PASS Staff Total	2020	1 845	2021	1 840	2022	1 796	2023	1 799
PASS Retirements	**2020**	**As a % of Total**	**2021**	**As a % of Total**	**Projected 2022**	**As a % of Total**	**Projected 2023**	**As a % of Total**
African	8	0.4%	10	0.5%	5	0.3%	18	1.0%
Coloured	2	0.1%	2	0.1%	1	0.1%	3	0.2%
Indian					2	0.1%	1	0.1%
White	5	0.3%	8	0.4%	11	0.6%	8	0.4%
Total Retirements	**15**	**0.8%**	**20**	**1.1%**	19	**1.1%**	**30**	**1.7%**

In 2020, 0.5% Black PASS staff members, and 0.3% White PASS staff members retired. In 2021, the retirement rate for Black PASS staff members was 0.6% and for White PASS staff members 0.4%. The projected retirement rate for Black PASS staff for 2022 is 0.5% which will more than double to 1.3% in 2023. It is projected that 0.6% of White PASS staff will retire in 2022 and 0.4% in 2023.

Table 39: Academic staff retirements by gender

Academic Staff Total	2020	683	2021	702	2022	696	2023	704
Academic Retirements	**2020**	**As a % of Total**	**2021**	**As a % of Total**	**Projected 2022**	**As a % of Total**	**Projected 2023**	**As a % of Total**
Female	2	0.3%	4	0.6%	1	0.1%	5	0.7%
Male	9	1.3%	10	1.4%	5	0.7%	6	0.9%
Grand Total	**11**	**1.6%**	**14**	**2.0%**	6	**0.9%**	**11**	**0.5%**

The actual and projected retirements of academic staff show higher percentages of male staff members have retired or will retire over this period. The total retirement rate for academic staff increased from 1.6% in 2020 to 2.0% in 2021 but will then decline to 0.9% in 2022 and 0.5% in 2023.

Table 40: PASS staff retirements by gender

PASS Staff Total	2020	1 845	2021	1 840	2022	1 796	2023	1 799
PASS Retirements	**2020**	**As a % of Total**	**2021**	**As a % of Total**	**Projected 2022**	**As a % of Total**	**Projected 2023**	**As a % of Total**
Female	7	0.4%	4	0.2%	10	0.6%	20	1.1%
Male	8	0.4%	16	0.9%	9	0.5%	10	0.6%
Grand Total	**15**	**0.8%**	**20**	**1.1%**	19	**1.1%**	**30**	**1.7%**

In 2020, equal percentages of female and male PASS staff members retired (0.4%). In 2021 male PASS staff had a higher retirements rate (0.9%) than female PASS staff (0.2%). The projections are that 0.6% of female PASS staff will retire in 2022 and 1.1% in 2023. For male PASS staff, it is projected that 0.5% will retire in 2022 and 0.6% in 2023. The total retirement rate of PASS staff is projected to increase from 0.8% in 2020 to 1.7% in 2023 (this is more than double).

Strategic Enabler 4: Improve efficiencies and value creation through digitalisation, integrated systems, agile service delivery, and modernised infrastructure

Performance Indicator: Support for hybrid, technology-rich and fully online educational delivery

The advent of the pandemic in 2020 fundamentally shifted the higher education landscape through the rapid transition to emergency remote learning and ways of working. Higher education institutions were called upon to critically reflect on the effectiveness of current operating models, systems, and processes and to explore innovative practices that promoted organisational resilience and agility.

In so doing, Mandela University ramped up its digital transformation trajectory to transition towards improved efficiencies, responsive decision-making, and value-creating service delivery in support of academic excellence and flexible, technology-rich approaches to learning. The University's Digital Transformation strategy development process, co-convened by the DVCs for Learning and Teaching and People and Operations, was concluded in October 2021, and will guide future developments towards accelerating the University's digital transformation trajectory.

Various performance indicators are outlined below to provide an indication of progress in digitalisation. Table 41 indicates that, since 2021, almost all NSFAS-funded students have had access to mobile devices to enable them to participate in flexible modes of educational delivery.

Table 41: Percentage of NSFAS-funded students with access to mobile devices

2021	2022	Target 2023
99.94%	99.96%	100%

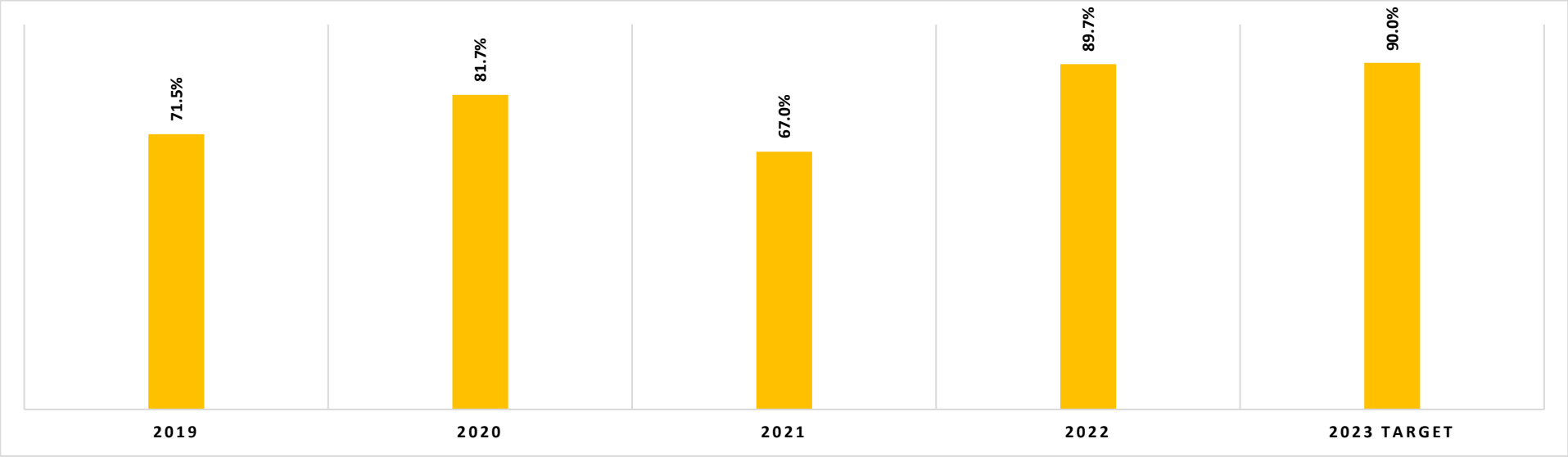
Nelson Mandela University has been using a Learning Management System (LMS) since 2008. In many courses, the University already had a hybrid approach to learning and teaching, but this was accelerated with the onset of the COVID-19 pandemic in 2020. To compare the activity rates of students and academic staff on the LMS, the activity rate was calculated of unique users logged into the Moodle system in February of each year. This was assessed as a percentage of the total number of students and permanent academic staff (see Table 42 below).

Table 42: Activity rates of students and academic staff on learning management system, 2019-2022, and 2023 target

Number of unique users logged into the Moodle system in February annually	2019	2020	2021	2022	2023 Target
Users logged in during February each year	21 570	24 492	20 384	30 039	28 858
Student headcount enrolment	29 490	29 286	29 735	32 801	31 360
Permanent academic staff	678	683	702	696	704
Total students and permanent academic staff	30 168	29 969	30 437	33 497	32 064
Percentage of users logged in as a percentage of total number of students and permanent academic staff	71.5%	81.7%	67.0%	89.7%	90.0%

As can be seen from Table 42 above, the activity rate increased steeply from 2019 to 2022, from 71.5% to 89.7% because of the rapid migration to emergency remote learning during the COVID-19 pandemic. It is projected that the activity rate will increase to 90% in 2023.The only exception is the year 2021 when the activity rate in February declined to 67%. This was most probably due to the extension of the 2020 academic year into 2021 to complete the curriculum. Many examinations for the 2020 academic year took place in February 2021, which led to fewer students and academic staff members logging into the Moodle system.

Figure 20: Percentage of users logged in as percentage of total students and permanent academic staff



The steep increase in the use of the LMS is illustrated by the following data that compares interactions over two weeks of each year (14 -28 February). Interactions are online learning activities on the LMS such as submitting a quiz or an assignment and responding to a discussion forum.

Feb 2019	3 777 371
Feb 2020	5 971 856
Feb 2021	3 547 475
Feb 2022	9 827 345

Performance Indicator: Headcount enrolments per campus

The headcount enrolment trends per campus are an important dimension to monitor since this has a significant impact on the vibrancy of campus life for students and employees. It is pleasing to note that, for the years 2019 to 2023 (projected), the highest expected average annual growth rates will be on the George Campus (8.1%), followed by the Missionvale Campus (6.6%), and Second Avenue Campus (5.2%).

Enrolments on the Summerstrand South Campus are projected to grow at a very low rate of 0.1% on average per annum, while the enrolments on the Summerstrand North Campus are expected to decline by 0.6% on average per annum over the 2019 to 2023 period. These projections were made based on the average annual growth rates over the 2019 to 2022 period, as well as the expected decline in total enrolments in 2023, because of the capping on the first-time entering intake.

Table 43: Headcount enrolments by campus, 2019-2022 and 2023 projected

Campus Name	2019	2020	2021	2022	Average annual growth rate 2019-2023	2023 projected
Summerstrand Campus South	14 266	13 871	13 633	14 845	0.1%	14 317
Summerstrand Campus North	7 355	6 891	6 742	7 049	-0.6%	7 172
George Campus	1 439	1 594	1 862	2 237	8.1%	1 962
Second Avenue Campus	5 641	6 041	6 530	7 382	5.2%	6 909
Missionvale Campus	789	889	968	1 288	6.6%	1 020
Grand Total	**29 490**	**29 286**	**29 735**	**32 801**	**1.6%**	**31 380**

Strategic Enabler 5: Promote long-term sustainability through strategy-aligned resource mobilisation and responsible stewardship

South African higher education institutions continue to function within a disruptive and volatile context that calls for visionary leadership, innovative thinking, and responsible resource stewardship. Higher education funding remains constrained while societal expectations of universities continue to increase. In this context, higher education institutions need to exercise judicious resource generation and stewardship. Mandela University established the Sustainability and Institutional Viability Task Team (SIVTT) in 2021 to enhance long-term financial sustainability through innovative resource mobilisation and responsible resource stewardship. The University is gearing itself towards ensuring that, in the medium- to long-term, recurrent cost structures are financed from recurrent revenue streams excluding finance income.

Performance Indicator: Expenditure trends

The cost of personnel as a percentage of Council-controlled recurrent income declined slightly from 57.7% in 2020 to 56.8% in 2021. The expected benchmark for total personnel costs as a percentage of total revenue is between 58% and 63% according to DHET guidelines. The staff cost is below the DHET benchmark and is projected to remain as such for 2022 (57%) and 2023 (57.5%).

Table 44: Total cost of personnel (academic and PASS) as a percentage of Council-controlled recurrent income

	2020	2021	Projected 2022	Projected 2023
Total cost of personnel (academic and PASS) as a percentage of Council-controlled recurrent income.	57.71%	56.77%	57.00%	57.50%

Currently, a higher percentage of salary expenditure (51% for 2020 and 2021) is spent on PASS staff. The percentage of the salary expenditure on academic staff was 49% for 2020 to 2021. This ratio is expected to remain the same for 2022, but the University is exploring ways to increase academic salary expenditure without negatively impacting the overall financial sustainability of the institution. A ratio of 50% salary on expenditure on academic staff and a 50% expenditure on PASS staff is therefore projected for 2023. Prior to insourcing service employees, the academic to PASS ratio was 52: 48, but the ratio has shifted in favour of PASS staff since 2017 when the University commenced reintegrating previously outsourced employees.

Table 45: Academic: PASS ratio of salary expenditure

	2020	2021	Projected 2022	Projected 2023
Academic: PASS ratio of salary expenditure (per Management Accounts)	49:51	49:51	49:51	50:50

The student: staff FTE ratio for 2020 and 2021 was 27: 1 but preliminary data for 2022 indicates a ratio of 30: 1. This increase in the ratio was caused by the sharp increase in first-time entering student enrolments in 2022. The University set aside additional funding in the academic resource allocation model (RAM) to fill academic vacancies across all faculties. This assisted somewhat to increase academic staff and alleviate

high student: staff ratios. Subsequently, the University has built a factor into the RAM, which allocates more funding to faculties with unacceptably high student: staff ratios. A percentage of budgets for academic posts allocated to faculties is now based on their variances from national averages for student: staff FTE ratios for contact universities to bring about a more equitable allocation of funding. The rest of the budget is based on the subsidy and fee income generated by faculties and, where necessary, cross-subsidisation is implemented to assist strategically viable faculties who are not breaking even financially.

Table 46: Academic full-time equivalent (FTE) student: staff ratios

	2020	2021	2022	2023 Target
FTE student: staff ratio	27: 1	27: 1	30: 1	29: 1

The University proposes a target of 29: 1 in respect of its student: staff FTE ratio for 2023 and will strive to reduce the ratio in faculties where these remain unacceptably high relative to national benchmarks and averages. Furthermore, the University Capacity Development Grant (UCDG) allocated by the DHET has also made it possible for the University to appoint additional peer mentors, tutors, and SI leaders to provide students with small group learning opportunities in modules with large class sizes.

Performance Indicator: Sources of revenue

While the financial management of Mandela University remains responsible, the higher education sector is confronted with shrinking government funding and will need to be innovative in mobilising, allocating and utilising resources. The future of the higher education funding framework in South Africa has a marked impact on financial planning at an institutional level. There has been a significant increase in funding towards the higher education since the implementation of fee-free higher education for the poor in 2018, mainly in contributions to NSFAS funding. This has assisted universities in widening access to academically deserving, financially needy students. However, the capping of tuition fee increases, providing debt relief concessions to academically deserving "missing middle" students, reintegrating service employees, and the effect of the COVID-19 pandemic have had a significant impact on the financial sustainability of higher education institutions.

It is apparent from the latest Ministerial Statement on University Funding, as well as the National Assembly Department of Higher Education and Training Budget Vote Presentation 2022 by the Minister of Higher Education, Science, and Innovation, that the already constrained budget has been reprioritised to cater for the additional funding required for NSFAS first-time entering students.

Through the annual and three-year rolling budget directives, the University strives to optimally resource the academic project, operations, infrastructure, and support services while driving strategic initiatives and growth areas in a sustainable manner. A surplus from Council-controlled recurrent operations, before finance income, is budgeted to grow reserves and seed new strategic initiatives. The university's budget is based on an Institutional Resource Allocation Model that allocates high level block allocations of resources per funding category and activity, that is, strategic allocations, academic staffing allocations, capital expenditure, bursaries, and other expenses.

The institutional financial indicators for 2021 show that the University has maintained a relatively healthy financial position. The statement of comprehensive income reflects a consolidated surplus of R469m (2020: R301m) before other comprehensive income, of which Council controlled operations amounted to R339m (2020: R167m) or 12% reserve accumulation in line with Council's performance indicator of 5% to 10%.

Management is satisfied that the financial measures taken to date at Nelson Mandela University are adequate to ensure financial sustainability over the next 12 months.

Table 47: Government subsidy as a percentage of total recurrent Council-controlled revenue

	2020	2021	Projected 2022	Projected 2023
Government subsidy as % of total recurrent Council-controlled revenue	52.28%	52.33%	52.50%	52.50%

State subsidy, which is Mandela University's first stream of income, has not increased significantly in recent years and the trend is expected to continue as DHET experiences budgetary constraints. Subsidy income is projected to increase slightly from 52.33% in 2021 to 52.5% in 2022 and 2023.

Table 48: Tuition fees as a percentage of total recurrent Council-controlled revenue

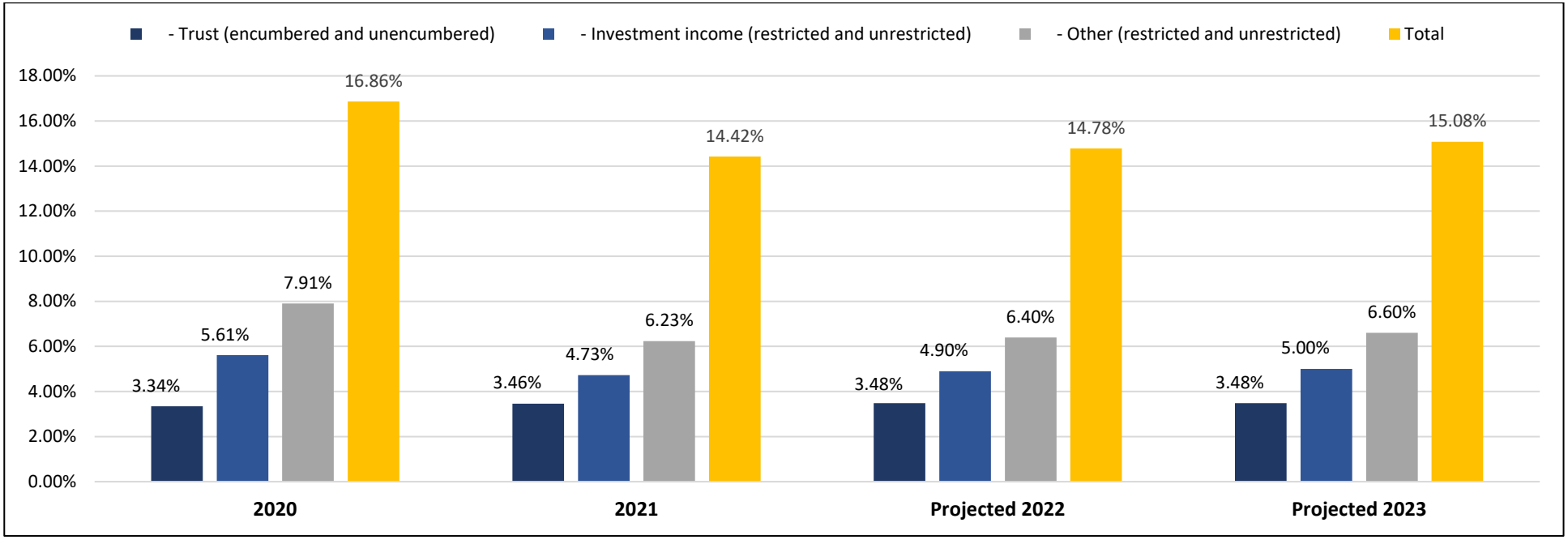
	2020	2021	Projected 2022	Projected 2023
Tuition fees as % of total recurrent Council-controlled revenue	32.24%	35.38%	35.50%	35.60%

The increase in tuition fees, by the percentage determined or proposed by DHET, is also a factor in enrolment growth. Tuition fees as a percentage of total recurrent Council-controlled revenue increased from 32.24% in 2020 to 35.38% in 2021. They are projected to increase to 35.5% in 2022 and 35.6% in 2023 since fees increase at a higher rate than the current government subsidy.

Table 49: Third stream revenue as a percentages of total recurrent revenue

	2020	2021	Projected 2022	Projected 2023
Third stream revenue as a percentage of total recurrent revenue by:				
- Trust (encumbered and unencumbered)	3.34%	3.46%	3.48%	3.48%
- Investment income (restricted and unrestricted)	5.61%	4.73%	4.90%	5.00%
- Other (restricted and unrestricted)	7.91%	6.23%	6.40%	6.60%

Figure 21: Third stream revenue as a percentage of total recurrent revenue



The mobilisation of third-stream income remains a challenge within the University as it accounts for a very small percentage of total recurrent revenue. As a percentage of total recurrent revenue, it declined from 16.86% in 2020 to 14.42% in 2021. It is projected that it will increase to 14.78% in 2022 and 15.08% in 2023. The Strategic Resource Mobilisation and Advancement (SRMA) office has reviewed the institutional Resource Mobilisation Strategy and is putting measures in place to mobilise additional income for strategic priorities, including from the Nelson Mandela University Trust and alumni donations (see Table 50).

Table 50: Alumni donations 2020-2022 and 2023 target

	2020	2021	2022	2023 Target
Alumni donations	R66 829	R28 288	R43 820	R100 000

The table above only reflects alumni donations to the Alumni Association Fund and not alumni/individual donations to the University Trust or any other institutional unit. In September 2022, a new institutional online fundraising platform was launched which will allow for better reporting relating to alumni and other donations to institutional projects. Donations via the online platform are deposited into the University Trust bank account which allows for issuing qualifying donors with tax certificates by the University Trust.

Bursary funding has been a major focus of alumni donations, but this declined drastically since the introduction of new NSFAS funding criteria. The focus is now on mobilising funding for "missing middle" and postgraduate student bursaries. The University is receiving an almost negligible amount in the form of Alumni donations and needs to increase this exponentially to make any significant impact on the financial sustainability of the University.

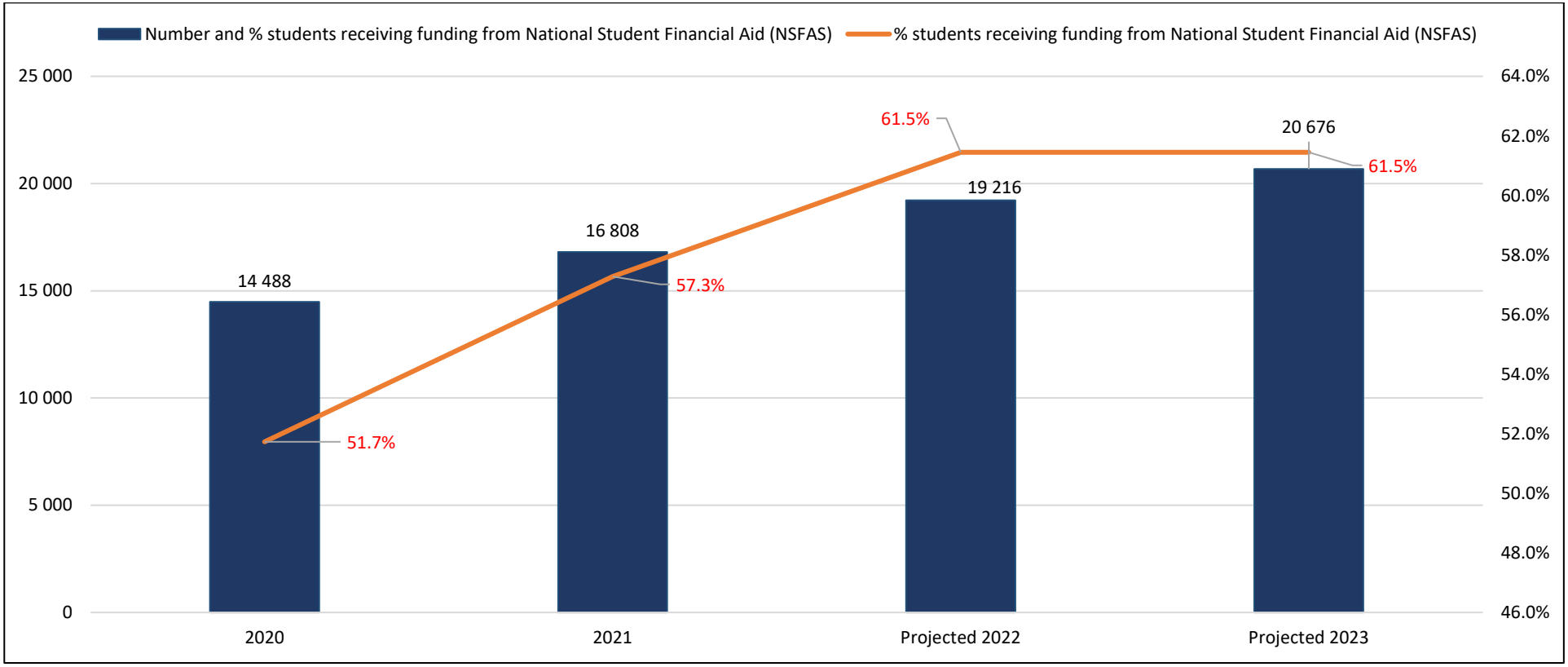
Performance Indicator: Financial aid

The number of students funded by NSFAS continues to grow, which the University views positively as the revenue from tuition fees is guaranteed to be recovered from NSFAS. It is to be expected that the percentage of students receiving NSFAS funding is increasing since the number of students from Quintile 1 to 3 schools continue to grow. In 2020, 51.7% of enrolled students received NSFAS funding, increasing to 57.3% in 2021. The projected percentage of NSFAS-funded students in 2022 and 2023 is 61.5%.

Table 51: Number and percentage of undergraduate students receiving NSFAS funding

	2020	2021	2022	Projected 2023
Number of students receiving funding from National Student Financial Aid (NSFAS)	14 488	16 808	19 216	20 676
Percentage of students receiving funding from National Student Financial Aid (NSFAS)	51.7%	57.3%	61.5%	61.5%

Figure 22: Number and percentage of undergraduate students receiving funding from NSFAS, 2020-2022 and projected 2023



Access and success for postgraduate students has been enhanced through funding for scholarships and research capacity development interventions. Council allocated R40-million for Postgraduate Research Scholarships (PGRS) and R9.2-million for postdoctoral and research fellows in 2021. Preliminary data for 2022 indicate that from the total bursaries awarded, 324 honours, 302 Master's and 189 doctoral scholarships were taken up in 2021 with funding from Council, the NRF and other external funders. This represented 881 awards comprising 79% Black (African, Coloured, Indian) and 61% female students.

Over the review period, 109 postdoctoral fellowships were awarded, of which 71% of the recipients were Black and 33% were female. In line with our transformation agenda, it is important to continue to increase the proportion of women, particularly those who take up postdoctoral training opportunities.

Performance Indicator: Student debt ratio

As indicated in Table 52 above, the student debt ratio for the University was 42.2% during the first year of the COVID-19 pandemic, which was extraordinarily high. It declined slightly to 38.1% in 2021, but this is still above the norm. Measures have been put in place to address the issue and should reflect in the 2022 figures. It is projected that this ratio will further decline to 36% in 2022 and 2023.

Table 52: Student debt ratio to student debt before impairment/total tuition and other fees

	2020	2021	Projected 2022	Projected 2023
Student debt ratio to student debt before impairment/total tuition and other fees (expected norm < 20%)	42.2%	38.1%	36.0%	36.0%

Performance Indicators: Liquidity and sustainability ratios

The liquidity ratio declined from 6.91 in 2020 to 5.13 in 2021. This is sound, as it far exceeds the norm of 2:1, which means the University can pay its short-term liabilities as they become due. Since subsidy allocations to universities are currently not increasing in real terms, it is expected that the liquidity ratio will remain at 5.13 for 2022 and 2023 (see Table 53 below).

Table 53: Total current assets excluding inventories and receivables/total current liabilities (liquidity ratio)

	2020	2021	Projected 2022	Projected 2023
Total current assets excluding inventories and receivables/total current liabilities (liquidity ratio). Expected norm is > 2:1.	6.91	5.13	5.13	5.13

The sustainability ratio for Nelson Mandela University showed a positive increase from 0.55 in 2021 to 0.63 in 2021. The projected ratio for 2022 and 2023 is 0.64 due to the stagnant subsidy income foreseen for these years. This ratio has been increasing but is still below the target of higher than one which has been set by Council (=>1).

Table 54: Total Council-controlled reserves/total Council-controlled annual recurrent expenditure (sustainability ratio)

	2020	2021	Projected 2022	Projected 2023
Total Council-controlled reserves/total Council-controlled annual recurrent expenditure (sustainability ratio). Expected norm is >= 1 (Council target)	0.55	0.63	0.64	0.64

Performance Indicator: Environmental sustainability

As Mandela University journeys towards 2030, the drive for sustainability is non-negotiable in a context where the planet is increasingly confronted with climate change, pollution, as well as severe shortages of life-supporting natural resources such as water and energy. Due to the impact of the COVID-19 pandemic, clear benchmark data for the period 2020 to 2022 related to environmental sustainability are not yet available. With the planned return of the full student complement on campuses in 2023, considerable increases in water usage, electricity consumption and waste production are expected. Once more stable trends have been established, targets will be set for these indicators.

Table 55: Green energy generated as percentage of total energy consumption

Campus	2022 Consumption kWh	2022 Green energy kWh	% Green Energy
Missionvale	15 790 325		
North	8 755 398		
South	9 278 773	1 544 235	17%
2nd Avenue	1 076 694		
George	231 001		

Table 56: Electrical consumption measured in kWh per total gross m²

Campus	2019 kWh/m2	2020 kWh/m2	2021 kWh/m2	2022 kWh/m2
Missionvale	86.7	80.9	79.5	79.3
North	146.8	113.2	116.6	138.8
South	124.8	98.0	84.9	85.8
2nd Ave	93.3	75.2	62.9	64.2
George	39.5	29.2	10.4	11.7

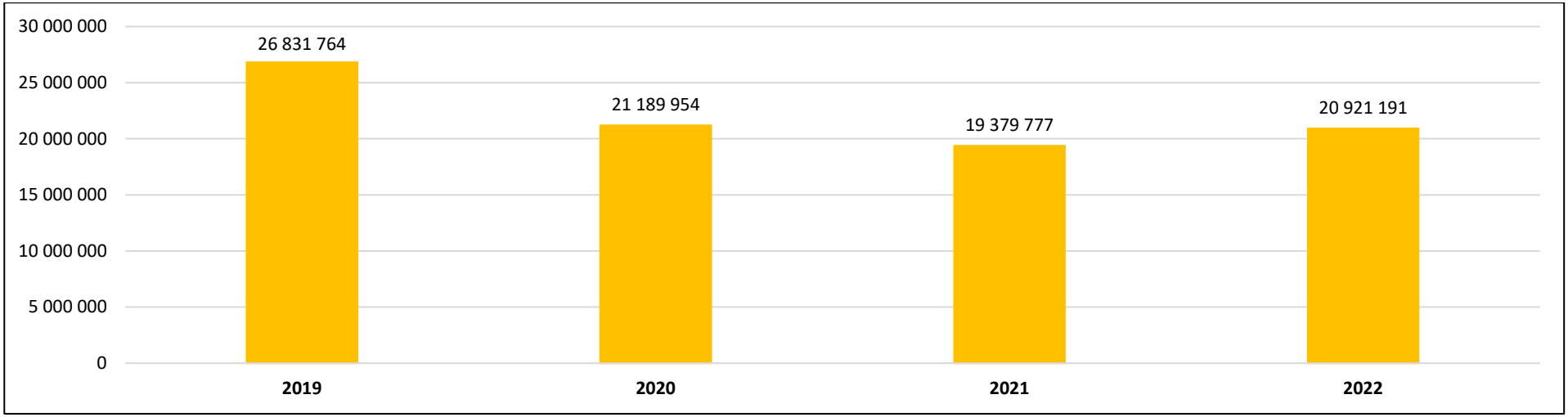
Table 57: Electrical consumption measured in kWh per student

Campus	2019 kWh/ student	2020 kWh/ student	2021kWh/ student	2022 kWh/ student
Missionvale	1 680	1 568	1 540	1 535
North	1 342	1 035	1 066	1 269
South	983	772	669	676
2nd Ave	236	190	159	162
George	415	307	109	123

Most campuses saw increases in 2022 due to the population growth and usage increase post-COVID, starting from March/April 2022. The increase at North Campus is quite steep, but it possibly only reflects on the extremely low consumption on campus during COVID-19 in 2021. The North Campus also houses the Faculty of Engineering which will be expected to have a high electricity consumption.

The University's Renewable Energy Strategy makes provision for solar-photovoltaic (PV) installations on all seven campuses over and above the existing 1 megawatt (MW) solar plant on South Campus. As the total energy/electricity requirement on South Campus is 2.5MW, 30% of its energy use during the day is now solar-generated and approximately 17% of day and night usage. The goal is for the entire daytime consumption of each campus's total energy and electricity use to be solar generated. At this stage, all solar energy plants will be grid-tied systems as there are no back-up battery installations. The solar installations are a partnership between the University, industry, and government.

Figure 23: kWh consumed on all campuses



Over the past few years, the University has stepped up its energy saving initiatives considerably, keeping pace with technology changes such as LED lighting, which is 60% more efficient than traditional lighting. Geysers have been replaced with heat pumps in 90% of the residences, contributing an energy saving of 66%. The institution aims to manage energy responsibly to meet its commitment to reducing CO2 emissions, increase energy efficiency, energy conservation and increase renewable energy supply.

This includes designing all new residences in a manner that advances sustainability to comfortably accommodate a high number of people in a smaller area and include energy- and water-efficient systems. Our George Campus currently uses the least amount of energy per square metre of assignable space and the fewest kilowatt hours per student. The Missionvale campus used almost eight times more energy per square metre,

and 15 times the kilowatt hours per student. Major security systems and lighting at Missionvale could be a contributing factor but this issue needs to be monitored more closely and addressed in combination with the new PV system currently out to tender (380kWh) for this campus.

There is a requirement to collect data to evaluate all campus buildings larger than 2 000m^2 for accreditation with Energy Performance Certificates (EPC). To date, all energy related monitoring has been at campus level. Going forward, the EPC data will give much more insight into operations at building level, with the ability to manage these areas more efficiently. Benchmarking against similar buildings and uses at commercial and higher education institutions across the country will also assist in shaping long-term energy goals.

Towards the end of 2021, the University completed a Greenhouse Gas Emissions Study. This study considers the various greenhouse gas emission categories as per the SANS 14064-1. These categories relate to Direct and Indirect Emissions (imported energy, transport, products, and other sources).

As can be expected, it is clear from Table 58 below that the pre-COVID-19 years of 2018 and 2019 had higher emission levels per annum than in 2020 and 2021. In 2018, the University emitted 75 196 tons of carbon and in 2019, slightly less, at 74 945 tons. This in relation to 40 190 and 49 337 tons of carbon emitted in 2020 and 2021, respectively, is a clear indication of the effects of COVID-19 and decreased activity on campus. In 2021, the emission figures indicate that the University produced 8.5 tons of carbon per staff member, 1.63 tons of carbon per student, and 0.22 tons of carbon per square metre of usable space on campus.

Further carbon emissions studies will generate future comparisons with 2021, and permit benchmarking. This also applies to calculating the impact of measures such as the large-scale installation of PV Solar systems on our campuses.

Table 58: Carbon footprint measured in metric tons per total gross m²

GHG Emissions Summary	Tonnes of CO2 Equivalent										
						2021					
GHG Inventory according to SAS14064-1:2021	Unit	FY18	FY19	FY20	FY21	Staff	Students	m2 Gross Usable Space	tCO2e per Staff member	tCO2e per Student	tCO2e per m2 usable space
Category 1: Direct GHG emissions and removals	tCO2e	5 590	6 644	4 614	5 726	5 804	30 178	227 709	0.99	0.19	0.03
Category 2: Indirect GHG emissions from imported energy	tCO2e	27 148	25 686	18 389	19 099	5 804	30 178	227 709	3.29	0.63	0.08
Category 3: Indirect GHG emissions from transportation	tCO2e	33 914	34 639	12 566	10 152	5 804	30 178	227 709	1.75	0.34	0.04
Category 4: Indirect GHG emissions from products used by an organisation	tCO2e	464	558	396	272	5 804	30 178	227 709	0.05	0.01	0.00
Category 5: Indirect GHG emissions associated with the use of products from the organisation	tCO2e					5 804	30 178	227 709			
Category 6: Indirect GHG emissions from other sources	tCO2e	8 079	7 418	4 225	14 087	5 804	30 178	227 709	2.43	0.47	0.06
Percentage change from previous year			-0.30%	-46%	23%						

As can be seen from Table 59, the cubic meter waste per square meter of assignable space for 2019, in relation to the 2021 and 2022 figures, is quite low. As expected, in relation to the lack of activity on site, 2020 had extremely low figures. However, 2021 had relatively high figures. The logical conclusion for this could be the reaction to COVID-19, in relation to the work conducted on site and the waste generated due to extra cleaning, types of catering, and ways of operating in residences.

Unfortunately, the upward trajectory of waste to landfill seems to have grown in 2022, and the planning and strategies will have to look at how we decrease to at least 2019 figures in the coming years (2023 to 2025) and beyond.

Table 59: Waste to landfill (m^3) per square meter of assignable space

2019	2020	2021	2022
0.093	0.053	0.176	0.191

Increased activity on campus in 2022 has led to an increase in most usable elements as water and energy, as well as waste generated across campuses. Major waste contributors include activities around residences, kitchens and support staff operating at a higher capacity than in 2021. Strategic waste management actions in the future should focus on decreasing the use of single-use elements (plastics and food containers) to decrease the waste to landfill drastically.

In a similar vein, Tables 60 and 61 show that the increased traffic on our campuses has increased the kilolitres per square metre and kilolitres per student on campus. The only campus with a decrease in water usage in both categories (per m^2 and per student), is also our largest user, South Campus. This is attributed to greater water conservancy drives, less large-scale construction, no potable irrigation, isolation of reticulation which have in the past experienced major burst pipes, amendments internally in departments related to water usage and the residence community decreasing their usage. The water usage both per student and per m^2 at George campus is high, and the only logical assumption is that the Campus still uses municipal water for irrigation.

Table 60: Annual water usage measured in kilolitres, 2019-2022

Campus	2019 KL/m^2	2020 KL/m^2	2021 KL/m^2	2022 KL/m^2
Missionvale	0.65	1.82	0.23	0.31
North	0.73	0.75	0.05	0.34
South	2.65	1.51	1.17	0.69
2nd Ave	0.06	0.15	0.13	0.16
George	1.87	1.69	1.84	2.20

Table 61: Yearly water usage measured in kilolitres per student FTE, 2019-2022

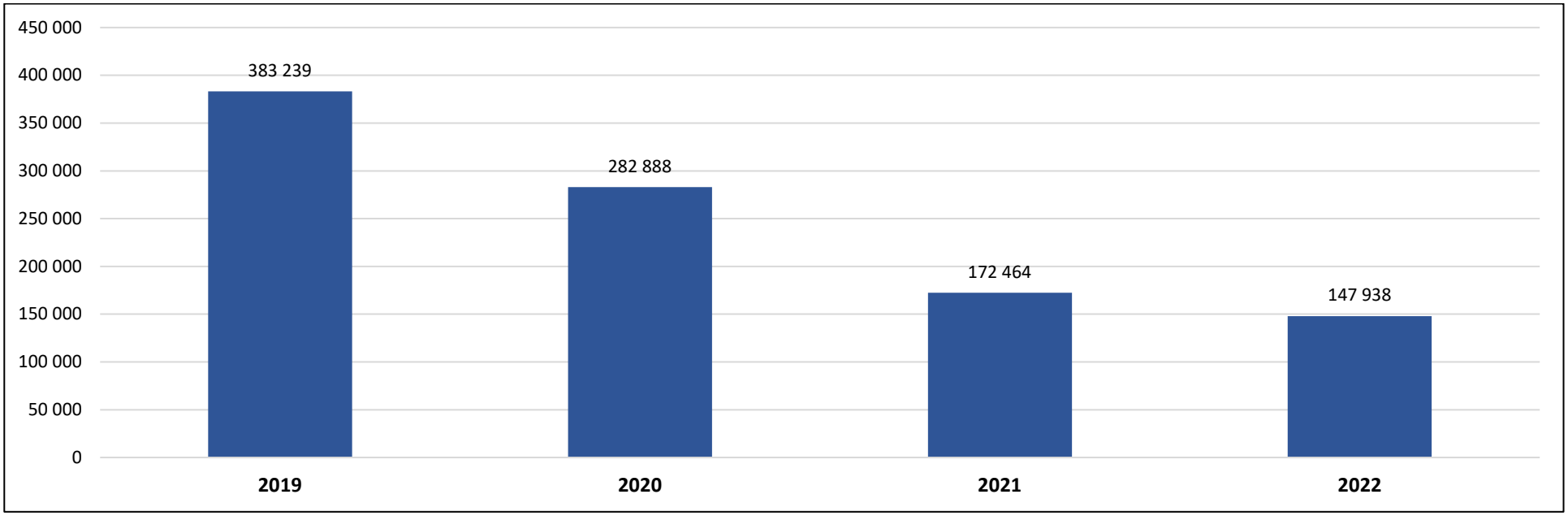
Campus	2019 KL/student	2020 KL/student	2021 KL/student	2022 KL/student
Missionvale	12.68	35.16	4.41	5.95
North	6.68	6.85	0.44	3.13
South	20.83	11.91	9.20	5.39
2nd Ave	0.14	0.38	0.32	0.40
George	19.67	17.72	19.34	23.11

Nelson Mandela University is on a water emergency and sustainability drive to address the ongoing water crisis in the Metro, which includes the ever-present reality of Day Zero, when the taps literally run dry. At great, but necessary, cost the implementation of the institutional water management and risk mitigation plan has been accelerated. The plans are predominantly focused on the Summerstrand (Ocean Sciences, North, South and Second Avenue) campuses as these are in an area classified as a red zone for municipal water supply during the peaks of the water crisis.

As can be seen from the table above, campuses with residences housing students tend to use more water, namely our Summerstrand South and George Campuses. Summerstrand North Campus usage is queried, however, due to long-term issues with the replacement of the water meter. The trend on the George Campus of using the most water per metre square of assignable space, and kilolitres per student will be monitored closely going forward.

The University is doing everything it can to ensure that students and staff continue to enjoy a sustainable water supply. A new Water Emergency Management Team comprising water scientists and technical support staff will work closely with the Municipality Disaster Management Command Centre and the Nelson Mandela Bay Business Chamber Water Task Team.

Figure 24: Kilolitres used on all campuses, 2019-2022



In anticipation of the progressive and drastic reduction of water supply, a three-pronged water emergency management and sustainability strategy was implemented on all campuses in June 2021. This included:

- Technology and the implementation of water saving systems
- Reducing the use of potable municipal water by finding and using other sources of water, such as boreholes and return effluent (RE) water
- Promoting behavioural change to encourage people to use less water

In line with the increased volumes of students and staff on campus, Table 62 indicates that the number of paper copies increased by almost a third in 2022. Although the University has moved onto electronic platforms for many of its functions, the examination process and related operations still require printing, as required by academic accreditation bodies. However, every effort will be made to reduce the volume of reprographics as part of the University's commitment to environmental sustainability.

Table 62: Volume of reprographics generated per annum, 2021-2022 and 2023 projection

	2021	2022	2023 Projection
Number of copies	2 683 857	3 633 895	3 500 000

The intentional drive to transition towards greening our campuses has led to the implementation of various interventions to reduce our carbon footprint and promote resource sustainability. The University makes a significant contribution to environmental sustainability through the management of the nature reserve and the University's extensive grounds. This includes the Nelson Mandela University Private Nature Reserve which wraps around the Summerstrand Campus and extends to the first row of dunes above the ocean's high-water mark. At 640ha, it is the largest nature reserve of all the tertiary institutions in South Africa. The nature reserve is open to the public which contributes to social sustainability and wellness.

As part of its open space management, the University's Maintenance Services partners with a range of sustainable wildlife initiatives. The George Campus is the University's living and learning sustainability hub where systems can be researched and tested before being mainstreamed. It is situated on 85ha of unfenced forestry plantations. The campus foregrounds energy and sustainability drives, including the harvesting of rainwater and recycling of organic plant waste for the gardens.

The unprecedented challenges that have emerged due to the COVID-19 pandemic have provided many opportunities for innovative, transformative changes and fresh visions of stewardship to be introduced. While there has been significant progress in driving these efforts, this commitment needs to continue and be aligned with the achievement of the desired outcomes articulated in Vision 2030. With the collective support of students, employees, surrounding communities and external stakeholders, Council and executive management of Nelson Mandela University remain steadfastly committed to the ideals and objectives of sustainability, within the institution and beyond.

EARMARKED GRANTS: 2022/23

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
Clinical Training Grant	R20 820 000	R4 594 973	Pharmacy	Project plan already submitted to DHET - History shows 100% performance on projects.	50% of budget spent by June 2022 Remaining 50% spent by March 2023
		R10 149 751	Nursing Sciences		
		R1 430 334	Biomedical technology		
		R1 361 629	Emergency Medical Care		
		R2 438 021	Radiography		
		R439 302	Dietetics		
		R405 990	Biokinetics		
Infrastructure & Efficiency Grants (2017/2018)	**R61 801 582** Efficiency 4	R6 736 365	University Projects - ICT	Increased / upgraded university infrastructure	Complete
		R29 565 217	Maintenance CSIR	Increased / upgraded university infrastructure	100% of budget to be spent by June 2023
		R25 500 000	Ocean Sciences Building	Increased / upgraded university infrastructure	50% of budget to be spent by June 2023
	R50 000 000 *Efficiency 6*	R50 000 000	Student Housing	Increased / upgraded university infrastructure	Complete
Infrastructure & Efficiency Grants (2018/2019)	**R155 550 561** *Efficiency 7*	R155 550 561	Various	Increased / upgraded university infrastructure	50% of budget to be spent by June 2023
Infrastructure & Efficiency Grants (2019/2020)	**R53 130 179** *Efficiency 7*	R53 130 179	Various	Increased / upgraded university infrastructure	50% of budget to be spent by June 2023

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
Infrastructure & Efficiency Grants (2020/2021)	**R37 744 345** *Efficiency 7*	R37 744 345	Various	Increased / upgraded university infrastructure	50% of budget to be spent by June 2023
	R35 855 925 *Interest utilised*	R4 855 925	Felsted building re-purposes - Bird Street	Increased / upgraded university infrastructure	Complete
		R6 000 000	Water reservoir – George	Increased / upgraded university infrastructure	Complete
		R8 000 000	Furntech building – George	Increased / upgraded university infrastructure	Complete
		R10 000 000	Law faculty additions – Embizweni		Complete
		R7 000 000	Reclaimed water scheme – South		100% of budget to be spent by June 2023
Infrastructure & Efficiency Grants (2018/2019)	**R11 000 000** *Efficiency 7*	R11 000 000	University Projects - ICT	Increased / upgraded university infrastructure	Complete
Infrastructure & Efficiency Grants (2019/2020)	**R6 600 000** *Efficiency 7*	R6 600 000	University Projects - ICT	Increased / upgraded university infrastructure	Complete
Infrastructure & Efficiency Grants (2020/2021)	**R4 750 000** *Efficiency 7*	R4 750 000	University Projects - ICT	Increased / upgraded university infrastructure	100% of budget spend by 30 June 2023
Budget Facility for Infrastructure (BFI Funding) for	**R33 500 000** *Efficiency 8*	R33 500 000	Student Housing	Increased / upgraded university infrastructure	Complete

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
Student Housing 2018/19					
Budget Facility for Infrastructure (BFI Funding) for Student Housing 2019/20	**R33 500 000** *Efficiency 9*	R33 500 000	Student Housing	Increased / upgraded university infrastructure	Complete
University Capacity Development Grant	**R22 224 251, revised to R11 249 000 as per latest DHET letter dated 12.10.2022. Budgets reflected are based on the previous allocation and are in progress of being revised.**	R4 045 389	Project 1: Learning Development to enhance Student Success	To improve students' academic performance	100% of budget spent by 30 June 2023
		R775 415	Project 2: Student Employability & Entrepreneurship Development	To equip Nelson Mandela University students with the skills to develop an entrepreneurial mindset.	100% of budget spent by 30 June 2023

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
		R1 913 740	Project 3: Enhancing Postgraduate Student Research Development	To increase postgraduate students' research skills	100% of budget spent by 30 June 2023
		R2 747 000	Project 4: Teaching development for transformative teaching practices and learning experiences	To enhance the quality of teaching and learning and advance reflective teaching practice	100% of budget spent by 30 June 2023
		R4 432 811	Project 5: Digital transformation of Learning and Teaching	To capacitate staff and students to effectively utilise online technology platforms	100% of budget spent by 30 June 2023
		R5 621 840	Project 6: Supporting and Strengthening Staff Research Development	To improve the effectiveness of research endeavours of currently employed staff	100% of budget spent by 30 June 2023
		R1 629 500	Project 7: Curriculum Development and Mapping	To ensure that the teaching programmes of the University are of high quality and meet the needs and expectations of students	100% of budget spent by 30 June 2023

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
		R1 058 556	Project 8: UCDG programme management, monitoring and evaluation	To efficiently and effectively implement, monitor and evaluate the University UCDG plan	100% of budget spent by 30 June 2023
Foundation Provision Grant	**R14 502 000**	R946 359	Humanities	75% success rate	100% of budget spent by 30 June 2023
		R6 559 662	Business & Economic Sciences	75% success rate	100% of budget spent by 30 June 2023
		R859 202	Engineering, Built Environment & Tech	75% success rate	100% of budget spent by 30 June 2023
		R1 181 115	Law	75% success rate	100% of budget spent by 30 June 2023
		R3 751 410	Science	75% success rate	100% of budget spent by 30 June 2023
		R1 204 251	Learning & Teaching (academic life skills)	75% success rate	100% of budget spent by 30 June 2023
COVID - 19 Responsiveness Grant (CRG1) (Existing interest approved by	**R9 312 257**	R9 312 257	Academic Recovery and Campus Readiness Plans	To recover and complete the 2020 Academic year and ensure readiness of campus considering COVID-19	Complete

		Breakdown of allocation			
Grant	**Earmarked allocation**	**Budget**	**Projects**	**Linkage to performance indicators**	**Mid-year performance indicator**
DHET)					
COVID - 19 Responsiveness Grant (CRG2)	**R15 431 000**	R15 431 000	Academic Recovery and Campus Readiness Plans	To recover and complete the 2020 Academic year and ensure readiness of campus considering COVID-19	100% of budget spent by June 2022

LONG-TERM CAPITAL EXPENDITURE PLAN AND PROPOSED LONG-TERM BORROWINGS

Description	Project value	Source of funds			2022	2023	2024	2025
		DHET	Own funding	Borrowings				
Student residences: Development of 2000 beds	R596.6m	R66.6m R75m R50m R33.5m R44.6m Note 1 R33.5m	R17.1m	R302.9m Note 2	R219m	R5m		
Development of the initial phase of a Life Rights Retirement Village	R25.7m		R25.7m Note 3			R25.7m		
Infrastructure damaged due to #fees must fall (insurance claim)	R5.8m		R5.8m			R5.8m		
Capital maintenance and infrastructure projects as per 5-year plan: Residences Education and General	R59.15m R523.94m				R15.8m R52.3m	R21.9m R54.9m	R15m R55m	R15m R55m

Description	Project value	Source of funds			2022	2023	2024	2025
		DHET	Own funding	Borrowings				
Photovoltaic Project	R65.7m		R65.7m			R65.7m		

Note – Long-term capital expenditure plan and proposed long term borrowings excludes efficiency funded capital projects except for Student Residences.
Note 1 – Interest earned on DHET allocated I&E Funding. Ministerial approval granted.
Note 2 – Ministerial approval granted.
Note 3 – Seed funding of R25.7 million budgeted to be recouped by sale of units. Ministerial approval to be obtained. Project located in Investment Company.

BUDGET 2023 AND THREE-YEAR FINANCIAL PROJECTIONS (2023-2025)

Budget process and overview

Nelson Mandela University's Vision 2030 Strategy is an articulation of our strategic intentions and aspirations as we seek to embody the soul of Mandela through life-changing, student-centric educational opportunities, pioneering and impactful research and innovation, and transformative engagement that contribute to a better world. As a centrepiece of Vision 2030, the University strives to reposition engagement to foster a more equal, inclusive, and socially just society by activating equalising partnerships with societal stakeholders that advance the co-creation of African-purposed solutions. In so doing, the University strives to promote the public good through the expansion of human understanding, pushing forward the frontiers of knowledge, and cultivating socially conscious graduates who make a positive impact on society as responsible global citizens and leaders.

The core academic missions are supported and enabled through a values-driven, inclusive institutional culture that liberates the full potential of students, employees, and communities. Further critical strategic enablers that support our intentions include ethical governance and leadership, empowering employees and embracing the future world of work, creating an enabling environment for innovation, accelerating digitalisation, ensuring the optimal utilisation of modernised and flexibly designed infrastructure, and deepening our commitment to long-term sustainability and responsible resource stewardship.

While the national government fiscus remains under pressure, universities are confronted with the challenge of declining government subsidy and tuition fee income, coupled with escalating costs and ever-increasing demands for access to fee-free higher education for the poor. Within this context, the financial sustainability of the South African higher education sector remains a critical priority. This calls for bold responses that draw on the collective creativity of all stakeholders to design forward-looking strategies that promote long-term sustainability.

The University's Vision 2030 Strategy acknowledges the significance of transversal endeavours to advance strategy-aligned resource mobilisation and stewardship as critical enablers of excellence. To this end, executive management established the Sustainability and Institutional Viability Task Team (SIVTT) to critically reflect on the viability of our core academic missions, while also exploring strategies to improve efficiencies and cost-effectiveness in our institutional operating models, systems, processes, and service delivery.

Under the auspices of SIVTT, the University is embarking on various sustainability interventions to guide resourcing and investment priorities at institutional level as we implement our Vision 2030 Strategy. However, the work of SIVTT is still in process and has not yet reached a stage where its outcomes could fully inform the formulation of the 2023 budget directives. However, through the process of cascading Vision 2030, members of executive management are developing strategic plans which will inform the annual budgeting process and provide the parameters for sustainable and strategy-aligned resource mobilisation and budgeting at institutional level from 2024 onwards.

Through the budget directives, the University strives to optimally resource the Academic Project while driving strategic initiatives and growth areas in a sustainable manner, driving down cost structures through efficiencies and freeing up capital in non-core assets. A surplus from Council controlled recurrent operations, before finance income, is budgeted. Finance income is utilised to grow reserves, seed new initiatives and strategy.

The University's budget is based on an Institutional Resource Allocation Model that allocates high level block allocations of resources to the Academic Project, Professional and Administrative Support Services, Strategic Projects, CAPEX, Bursaries, Overheads and Earmarked Accounts and Other Expenses that are further distributed via budgetary processes and allocation models.
These budgeting processes are performed by various committees that are representative of faculties and directorates within the University to ensure stakeholder inclusivity. These committees allocate funds based on models and processes informed by institutional strategy and Council's performance objectives. The Annual Performance Plan (APP), which includes a three-year cash flow and reserve accumulation plan, supports the annual budget and guides the monitoring of financial sustainability.

As the resourcing envelope is largely dependent on subsidy and fees, any material variances on the current assumptions will have a significant impact on the financial projections. The university was required to implement significant interventions as to balance the 2023 budget, reprioritising and re-setting baseline budgets while prioritising the academic project.

An institutional **Resource Allocation Model (RAM)** informs the total budget and allocation of funding. Within this framework more definitive funding models and processes are employed to distribute block funds across the University.

The institutional RAM process is summarised as follows:

- Estimate revenue resources

- Top-slice for institutional overheads and strategic allocations
- Allocate earmarked income (all earmarked income identified is allocated according to the applicable business plan, contract or agreement i.e. student accommodation, earmarked funding, facilities etc.)
- Allocate salary block funding
    - The salary budget (Council Funded) benchmark was revised during the 2022 budget cycle, considering the organisational redesign, remuneration harmonisation process, revised baseline of the academic block allocation and change in operational subsidy funding in the medium term
    - The resource allocation model and budget directives will determine the block amount available for the salary budget allocation.
        - Academic staff budget
            - An Academic RAM is utilized to allocate funding to faculties
        - Professional Administrative Support Staff (PASS) budget
            - Management Committee of Council (MANCO) members are given a block allocation based on the budget directives
        - Provision is made for a remuneration contingency to fund adjustments of the staffing costs including annual increase costs
- Allocate operating block funding
    - Operating block allocations are split between Academic block funding and Professional Administrative Support Staff (PASS) block funding.
        - The Academic Block allocation is determined based on the current budget allocation as the baseline adjusted with the inflationary increase and growth in student FTEs prescribed in the budget directives
        - The Academic RAM model is then applied and allocated to faculties who are required to distribute their allocations per school & department

- The Professional Administrative Support Staff (PASS) operating block allocations are informed by the budget directives for the applicable budgeting cycle. MANCO members will receive operating budget for their core business in two block allocations where applicable:
    - Corporate Overheads/ earmarked allocations as per budget directive and allocated from a zero base
    - MANCO member's operational allocation as per budget directive.

- MANCO members will be requested to distribute operating budget within their directorates

Assumptions used in preparing the budget (2023 – 2025)

- Inflation rate used in estimates: 2023(5%), 2024 (5%) and 2025 (5%)

1. Subsidy

- The latest MTEF, Medium Term Budget Policy Statement and correspondence from DHET was used as a basis to inform the calculations

- Net Block Grant Subsidy for operations in 2023 is an estimated baseline equal to 2022 allocation; 3 % 2024 & 5 % 2025

- Other subsidy sources that are earmarked allocations from the DHET, reflected in central budget are for Foundation Programmes and Interest & Redemption. Other DHET earmarked grants i.e. Clinical Training Grant and University Capacity Development Grant are managed as a ring-fenced funds. Budgets are based on latest MTEF.

2. Fees

- Tuition
    - 0.5% growth in 2023 according to adjusted estimate; 1% for 2024 to 2025
    - 4.45% = fee increase scenario (2023); 5% (2024 - 2025)
    - Bad debt provision of 8% provided for 2023 – 2025

- Residences
  - Fee increase scenario of 4.45% for 2023; 5% (2024 - 2025)
  - Bad debt provision of 3% provided for 2023 – 2025
  - Increase in beds as per roll out of additional 2000 beds in a phased approach
  - Off Campus – agency fund therefore only commissions receivable budgeted for. Net position reflected.

3. Other Income

The following activities fall under other income which have their own assumptions

- International Office
  - 2023 budget assumptions on an adjusted baseline + growth of 1 % applied for 2024 & 2025
  - Levy increase in line with tuition fee increase of 4.45% (2023) and 5% for 2024 to 2025

- Facilities
  - Revenue estimated on all facilities for 2023 (increased baseline based on return to campus post COVID) increasing by 10% for 2024 - 2025

- Sundry Income
  - Forecasts use 2023 adjusted budget as baseline
  - Average increase of 10% for 2024 & 2025

- Trust / Strategic Resource Mobilisation and Advancement Office (SRMA)
  - Bursaries received from Trust – no allocations for 2023 - 2025
  - SRMA operational expenses recouped – the corresponding salary & operating budgets are reflected under the expenditure line items

4. Strategic Allocations

- 2022 baseline used for 2023. 5% increase for 2024 and 10% for 2025. This is non-recurrent key institutional projects and includes funding shortfall on new Medical School financial model for which resources are being mobilised

5. Salaries

- The academic salary block is calculated using the 2022 salary Block allocation, adjusted with the effect of the 2022 general salary increase and the 2023 planned enrolment target % adjusted down to 0.5%. 2023 salary budget of Academic and PASS limited to Council benchmark of 66%. This is increased by average CPI % for 2024 and 2025.

- The PASS salary budget including the International Office is calculated using the 2023 salary budget as a baseline, adjusted with 2022 MANCO approved recurrent additions and adjusted with the effect of the 2022 general salary increase. Where departments/units/sections have moved, in relation to the VC and MANCO members, the relevant baseline salary budgets were moved based on the principle of funding to follow function. 2023 salary budget of Academic and PASS limited to Council benchmark of 66%. A budget adjustment of average CPI% (2024 & 2025) applied to the baseline taking the Council benchmark into account and business model interventions.

- The Medical School, Residences, Foundation Programme, SRMA, and Facilities budget within their applicable business models and applying the agreed salary increases as resolved. The impact of re-integration of approved previously outsourced service workers has increased the Residences and Facilities baselines. The full earmarked grant for the Foundation Programme is ring fenced and applied. The effect of phased in new student accommodation is included in the assumptions.

- Council has approved staffing structures through the Organisational Redesign process. The implementation of these structures is dependent on affordability within the 65% benchmark of Council, increased to 66% in the medium term (2022 -2024) as to fund mission critical posts and advance Vision 2030

6. Supplies & Services

The following activities fall under supplies & services which have their own assumptions:

- SRMA – 2023 budget zero based with inflation adjustments for 2024 & 2025
- Operations & Overheads – Controllable Operating costs were considered within the context of the developing a new operating model. MANCO members had the flexibility to nuance the impact between cost line items to achieve the overall required resources for their portfolio. 2023 budget used as baseline (overheads – zero base, academic project (increased by inflation + planned

enrolment growth adjusted to 0.5%, operations – baselines remained at 2022 levels to support cost abandonment and reprioritisation of support costs. Average increase of inflation +1% for 2024 & 2025 on adjusted baseline.

- Building Maintenance and Infrastructure Projects –funded from earmarked reserves for 2023. R 10 m and 15m allocated for 2024 and 2025
- International Office – same directives as central budget
- Facilities – 2023 zero based budget used as baseline increasing by 6% thereon for 2024 - 2025
- Residences – zero based budget 2023 increase by 5% for 2024 to 2025 taking cost of operations increase for phased in new beds as well as cost abandonment factor due to new support business models
- Foundation Programme – total earmarked allocation (DHET earmarked grant) + central allocation (Council) minus salary budget
- Bursaries and financial aid allocation baseline of 2023 increased in 2024 – 2025 at same rate as tuition fee increase plus growth

7. Provisions

- Depreciation – 2023 to 2025 budget based on current fixed asset register adjusted for CAPEX movement
- Accumulated leave – 2023 to 2025 budget based on leave balance estimates per staff adjusted by the estimated salary adjustments

8. Finance Costs

- Forecasts made according to existing and forecast amortization tables considering new student accommodation loan funding

9. Other operations

- Post-retirement benefits – 2023 budget based on latest actuary evaluations. 2024 & 2025 adjusted down by 4% to make provision for a phase out

10. Investment Income

- Investment income based on cash flow / investment forecasts and estimates

11. Specific Provisions

- Efficiency funding escalation provision – based on latest estimates available
- Transfers to reserves are budgeted for to build up earmarked reserve funds

12. **Non-recurrent income & expenditure** represent earmarked funding for capital projects. This budget is based on approved allocations by the DHET (revenue) and the cash flow projections on how the funds will be spent during 2023 and the following years (expenditure). As funds will not necessarily be spent in the year received/ funded/ budgeted, there needs to be transfers from previous years. This budget also includes other non-recurrent project expenditure on deferred maintenance and new capital projects funded from reserves.

13. **Transfer from reserves** reflect the funding of projects from reserves.

14. **Non-Council funded income and expenditure** represent activities that include research, engagement, projects etc. that are controlled via funds. It is assumed that all revenue generated is expensed

NELSON MANDELA UNIVERSITY
CONSOLIDATED INCOME STATEMENT

	2022	2023	2024	2025
	Forecast	Forecasted Budget	Forecasted Budget	Forecasted Budget
INCOME	2 414 372 262	2 578 150 749	2 711 881 244	2 875 719 957
SUBSIDY	1 311 902 839	1 316 179 479	1 359 989 913	1 433 213 062
FEES	1 037 795 117	1 178 385 696	1 260 869 920	1 343 284 088
Teaching	907 616 462	966 540 211	1 033 359 571	1 104 031 442
Residences	130 178 655	211 845 486	227 510 349	239 252 647
OTHER INCOME	64 674 306	83 585 574	91 021 412	99 222 808
EXPENDITURE	2 398 234 907	2 566 292 637	2 708 749 016	2 854 985 019
STRATEGIC ALLOCATIONS	71 201 031	70 901 030	74 446 082	81 890 690
SALARIES	1 524 927 605	1 607 914 936	1 687 049 020	1 770 298 922
SUPPLIES AND SERVICES	651 944 362	712 058 257	770 168 166	824 002 908
PROVISIONS	107 459 133	112 628 410	115 225 959	117 853 386
Depreciation	96 855 704	100 677 431	102 677 431	104 677 431
Accumulative Leave	10 603 429	11 950 979	12 548 528	13 175 955
FINANCE COSTS	26 328 526	45 765 941	45 516 689	45 249 738
OTHER OPERATIONS	16 374 250	17 024 063	16 343 100	15 689 376
Post-retirement benefits	16 374 250	17 024 063	16 343 100	15 689 376
SURPLUS/(DEFICIT) from OPERATIONS	16 137 356	11 858 112	3 132 228	20 734 938

NELSON MANDELA UNIVERSITY
CONSOLIDATED INCOME STATEMENT

	2022	2023	2024	2025
	Forecast	**Forecasted Budget**	**Forecasted Budget**	**Forecasted Budget**
SURPLUS/(DEFICIT) from OPERATIONS C/F	16 137 356	11 858 112	3 132 228	20 734 938
INVESTMENT INCOME	138 438 998	211 107 258	212 730 092	216 287 771
LESS : SPECIFIC PROVISIONS	75 919 292	91 677 930	86 381 166	85 738 254
Escalation - Efficiency Funded Projects	10 919 292	11 677 930	6 381 166	5 738 254
Transfer to reserves	65 000 000	80 000 000	80 000 000	80 000 000
SURPLUS/(DEFICIT) from OPERATIONS & INVESTMENT INCOME	78 657 062	131 287 440	129 481 154	151 284 455
NON RECURRENT INCOME	-	-	-	-
DHET / Donor Grants - Efficiency funding	-	-	-	-
NON RECURRENT EXPENDITURE	419 944 311	415 837 602	90 000 000	80 000 000
Deferred maintenance / projects funded from reserves	126 391 032	204 211 542	80 000 000	80 000 000
Efficiency Funding	293 553 280	211 626 060	10 000 000	-
TRANSFER FROM EFFICIENCY FUNDED RESERVES	293 553 280	211 626 060	10 000 000	-
TRANSFER FROM RESERVES	126 391 032	204 211 542	80 000 000	80 000 000
		-		
SURPLUS/(DEFICIT) (COUNCIL FUNDS)	78 657 062	131 287 440	129 481 154	151 284 455
NON COUNCIL FUNDED SURPLUS / (DEFICIT)	-	-	-	-
Income	450 076 420	718 594 038	754 523 739	792 249 926
Expenditure	450 076 420	718 594 038	754 523 739	792 249 926
		-		
SURPLUS/(DEFICIT) (ALL FUNDS)	78 657 062	131 287 440	129 481 154	151 284 455

CASH FLOW PROJECTIONS 2023 - 2025

Cash Flow projections of revenue and expenditure for year 2023 - 2025 (3 years)

	2023	2024	2025
Opening Bank balance	**100 342 710**	**100 000 000**	**100 000 000**
Income (A)	**4 948 836 734**	**5 144 682 578**	**5 355 983 042**
Subsidy	1 315 166 000	1 315 166 000	1 315 166 000
Tuition & residence fees	1 747 135 479	1 833 618 685	1 925 299 619
Fee shortfall subsidy			
Earmarked grants			
Investment Income	211 107 258	212 730 092	216 287 771
Other Income	1 675 427 997	1 783 167 801	1 899 229 652
Expenses (B)	**4 902 640 726**	**5 101 529 176**	**5 324 546 134**
Staff Costs	1 660 297 622	1 748 633 970	1 836 065 669
Other Expenses (operational & capital)	3 242 343 103	3 352 895 205	3 488 480 465
Inflow/(Outflow) (A-B)	**46 196 008**	**43 153 402**	**31 436 908**
Bank Balance before transfer from earmarked investments	**146 538 718**	**143 153 403**	**131 436 908**
Transfer from/(to) earmarked investments	**-46 538 718**	**-43 153 403**	**-31 436 908**
Closing Bank balance	**100 000 000**	**100 000 000**	**100 000 000**

REPORT ON RISK EXPOSURE ASSESSMENT AND MANAGEMENT

Nelson Mandela University's Enterprise Risk Management Framework (ERM) has been developed towards constructing a consistent foundation for a risk – based approach towards managing University Strategic Priorities. The Risk Management Policy outlines the foundation and approach to Risk Management in support of the University's Strategic Priorities and its commitment to thoughtful consideration and integration of Risk in strategic planning and decision making. The University Risk Management policy complements other university internal controls and is the foundation of the Risk Management Framework which has been implemented at the University.

The following structures exist to support oversight and monitoring of the implementation of the Risk Management Framework:

The **Audit and Risk Committee**, on behalf of Council is to:

- Review relevant institutional risks, treatment plans and emerging risks.
- Review the adequacy and effectiveness of the University's Risk Management Framework.
- Review and recommend changes to the University's risk profile and established risk categories for the approval of Council.

The **Management Committee** is to:

- Review risks, establish and update the institutional mitigation and treatment approach for all risks.
- Establish the direction and strategies to align risk management and monitoring with the University's risk appetite.
- Review the results of risk assessments that have been carried out by academic, professional and support service departments.
- Review the efficiency and effectiveness of mitigations and coverage of risk exposures.

The **Risk Management Committee** is to:

- Support the Management Committee in the implementation of risk management practices within all academic, professional and support service departments.
- Recommend a suitable risk appetite to the Management Committee.
- Conduct an initial review of Institutional Risks and respond to any additional requests for clarification or status updates by oversight committees.
- Receive and consider recommendation and compliance reports from other functional structures, and ad hoc task groups.
- Serve as a platform that will support the Risk Champions.

Risk Management Maturity

Mandela University is committed to a risk-aware culture and during the year completed a Risk Maturity Assessment to confirm areas of risk management which that have been embedded and those which require further enhancement.

Institutional Risk Approach

The University's approach to risk management is based on ISO 31000 Risk Management Framework. An annual risk assessment workshop was conducted during the year to identify key institutional risks. These are refined, responded to, and monitored throughout the year in consultation with academic, professional and support service departments, and relevant governance structures indicated above. Key institutional risks associated with strategic objectives are summarised as follows:

Strategic Objectives	Risk Event	Inherent Risk Rating	Residual Risk Rating
1. Liberate human potential through humanising, innovative lifelong learning experiences that prepare graduates to be socially conscious, responsible global citizens who serve the public good.	1.1. Deficiencies in the progress of institutional responses to sustain inclusive and differentiated academic support to students and staff.	12	6
	1.2. Quality and mix of academic programmes are not enhanced to maintain relevant curricular and co-curricular interventions, to improve graduate employability, entrepreneurship, and responsible citizenship.	12	11
2. Pursue impactful, pioneering research, innovation, and internationalisation to address grand societal challenges and promote sustainable futures.	2.1. Deficiencies in capacity and enabling infrastructure to realise institutional research themes.	12	8
	2.2. Deficiencies in capacity to galvanise strategic partnerships and deepen internationalisation.	12	8

Strategic Objectives	Risk Event	Inherent Risk Rating	Residual Risk Rating
3. Engage with all publics in equalising partnerships to co-create transformative, contextually responsive solutions in pursuit of social justice and equality.	3.1. Slow pace of integration of transformation principles across the University.	12	10
	3.2. Uneven pace in the advancement of the core mandate of engagement and its impact against the philosophy of convergence.	9	9
4. Catalyse dynamic, student centric approaches and practices that provide life-changing student experiences within and beyond the classroom.	4.1. Insufficient University support mechanisms to provide enabling psychosocial responses for student success.	12	10
5. Embrace ethical governance and leadership approaches and practices that embody the values of the University and seek to promote service before self.	5.1. Deficiencies in the application of good governance protocols, practices, and legislative directives.	8	3
	5.2. Inconsistent adherence to behavioural standards as reflected in the institutional code of ethical behaviour.	12	8
6. Foster an inclusive, values-driven institutional culture to position the University as an employer of choice for talented and empowered employees.	6.1. Deficient Talent Management strategy and plan.	16	10
	6.2. Inability to foster a positive institutional culture to attract and retain employees.	12	8
7. Create and sustain an enabling innovation ecosystem where students and employees can collaboratively engage with external partners to co-create discoveries that advance the frontiers of knowledge and promote the public good.	7.1. Insufficient integration of innovation and entrepreneurship initiatives across entities within the University.	9	5
8. Improve efficiencies and value creation through digitalisation, integrated systems, agile service delivery, and modernised infrastructure.	8.1. Safety and security might be compromised due to deficiencies in methods, security technology, and skilled security personnel.	20	15

Strategic Objectives	Risk Event	Inherent Risk Rating	Residual Risk Rating
	8.2. Inability to efficiently advance, execute and/or support the University's strategic priorities due to sub-optimal deployment of secure ICT infrastructure and systems.	12	10
	8.3. Water and energy insecurity may impact on University priorities.	16	12
	8.4. Ageing infrastructure and deficiencies in accessibility for disabled staff and students.	12	11
9. Promote long-term sustainability through strategy-aligned resource mobilisation and responsible stewardship.	9.1. Reduction in existing sources of revenue.	16	12
	9.2. Resource allocation and budgeting insufficiently aligned to strategic priorities.	12	10
	9.3. Escalating student debt exposure for missing middle and students who are no longer funded by NSFAS.	16	10
	9.4. Long term sustainability of the student funding model.	16	14
	9.5. Student throughput targets may not be achieved.	12	10
	9.6. Compliance and regulatory challenges which could impact negatively on the University's ability to generate sufficient revenue.	12	7
	9.7. Escalating costs due to expanding internal environment and inflation.	12	8
	9.8. Sustainability of self-funding entities and business models, B-BBEE verification of the University.	16	10

Through the iterative process of monitoring, review, communication and consulting, risk exposures will be subject to review in 2023.

Ms Rene van Wyk
Chairperson: Audit and Risk Committee

Professor Sibongile Muthwa
Vice-Chancellor

CONCLUSION

In line with its vision and mission, Mandela University has been systematically increasing access to higher education for first generation students from socio-economically disadvantaged backgrounds, particularly those from schools in quintiles one to three, which are the most deprived. Various interventions have been designed and implemented by the University to promote inclusive student access for success.

The 2023 to 2025 Mid-Term Enrolment Plan, as well as recent data trends, have been carefully considered in setting targets for the 2023 academic year, The University experienced an unexpected high increase in first-time entering students in 2022 (8 706), which was the main cause of the steep increase (10.3%) in enrolments. This resulted in an increase of the student: staff ratio from 27: 1 in 2021 to 30:1 in 2022 and posed challenges for our transport systems, available student accommodation, and academic staff workloads. For this reason, the first-time entering target for 2023 has been set much lower 7 185 than the current 8 706 to ensure that the University can continue to provide a quality learning and teaching experience to all students.

The percentage of male students at both undergraduate and postgraduate level is declining and the University is targeting a more gender balanced student profile in future. Male students are also considerably less academically successful than female students and the University plans to investigate this phenomenon, along with the academic performance gap between African and White students, to develop strategies to improve success rates in a targeted manner.

The rapid growth in headcount enrolments in foundation programmes reflects an increased proportion of incoming students from Quintile 1-3 schools, which are the most resource deprived. However, this is a positive trend since these programmes lay a strong foundation for students to succeed in their studies. The higher success rates in 2020 (85%) and 2021 (83%) compared to previous years is pleasing to note since this will also lead to improved throughput rates and increases in graduate outputs. Another encouraging trend is the increased percentage of first-time entering students that are retained from one year to the next.

Concerning trends that will be closely monitored include the non-achievement of targets in postgraduate enrolments and graduate outputs, which are largely related to the sharp decline in international enrolments due to the COVID-19 pandemic, as well as financial constraints for previously NSFAS-funded undergraduate students wishing to pursue postgraduate studies. In view of this, the University has set lower targets for postgraduate enrolments in the 2023 to 2025 Mid-Term Enrolment Plan than those previously set in the original enrolment plan. However, the University is currently investing significantly in improving postgraduate and international enrolments through a range of interventions

designed and implemented under the auspices of the cross-functional Enrolment Management Committee. On a positive note, there was an improvement in the percentage of permanent academic staff with doctoral degrees from 46% in 2020 to 47% in 2021 and 2022, which will translate into a slight improvement in postgraduate supervisory capacity and research outputs.

The demographic profile of both academic and PASS staff is moving rapidly towards being more representative through concerted efforts to achieve employment equity targets. The qualification profile of African academic staff is also improving (i.e., 40% with doctoral degrees in 2021 increasing to 42% in 2022).

The University is in the process of strengthening the University's capacity to support flexible, technology-rich educational delivery through widening access to mobile devices and data connectivity for students and employees. This had to be accelerated during the COVID-19 pandemic with the rapid transition to emergency remote learning. This is reflected in the rapid increase in the activity rates of student and staff on the learning management system (Moodle) over the period 2019 to 2022. This is projected to progressively increase into the future as the University continues to embrace the lessons learnt during the pandemic.

The University is increasing its student housing capacity both on campus and in accredited accommodation off campus. Research has shown that students who live in student accommodation on campus achieve better academic outcomes during their degree. This especially so for first-time entering students who face the challenge of bridging the gap between high school and higher education. New student accommodation with 972 beds on the North Campus in Summerstrand is currently under construction and is expected to be completed by March 2023.

Financial indicators for 2021 show that the University has maintained a relatively healthy financial position. However, student debt worsened during the pandemic, and needs attention, as does the mobilisation of third-stream income. The higher education sector, as with the broader national and international economy, will be under significant financial pressure in the foreseeable future. A transversal task team has been established by executive management to develop strategies to promote the future sustainability of the University. This will ensure that, in the medium- to long-term, recurrent cost structures are financed from revenue streams excluding finance income. Added to this, the University pursues responsible resource stewardship and greening strategies to enhance environmental sustainability. Various interventions are underway to reduce our carbon footprint within a context of climate change and resource scarcity. These include the implementation of a renewable energy strategy through solar-photovoltaic installations on campuses, strategies to reduce electricity and water usage, and reductions in reprographics and waste to landfill.

The global COVID-19 pandemic has placed tremendous pressure on our students, staff, and external communities over the past two years. We salute their grit and resilience. This volatile landscape makes our Vision 2030 strategic intentions even more pressing as we seek to contribute to the co-creation of a more socially just and sustainable future for all. To achieve this, Mandela University will implement wide-ranging and multi-dimensional strategic interventions that enhance student access to life-changing educational opportunities, and increase student success, in alignment with our mission as a comprehensive university.

The University continues to place our shared humanity at the centre of our decisions and actions to ensure that we are optimally positioned to navigate the unpredictability of our immediate and longer-term future as a collective. This will stand us in good stead to meaningfully contribute towards promoting the public good and creating a better world for all. We also express our gratitude to the Nelson Mandela University Council members for their judicious stewardship and unwavering support as we collectively transition towards 2023.