UNIVERSITY OF MPUMALANGA

RESEARCH & INNOVATION STRATEGY

ADVANCING EXCELLENCE AND IMPACT

A strategy for achieving Vision 2030's priorities for research and innovation.

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1. INTRODUCTION

– In a world that is characterised by rapid change and interconnectedness, universities have to respond to global challenges and societal needs and contribute to economic and social development. **The University of Mpumalanga (UMP) recognises that its role extends beyond traditional education. By focusing on strategic research and innovation priorities, UMP not only positions itself as a relevant player in an increasingly competitive landscape, but also aims to make a lasting and meaningful impact on society, industry, and the global knowledge economy.**

– **The interconnectedness of the three traditional mandates of a university, and that of UMP – teaching and learning, research, and engagement – are interconnected and crucial for the University's success and societal impact.** They are related through their shared goal of advancing knowledge and benefiting society.

– Since its establishment in 2013 as a new post-independence university in South Africa and the first university in Mpumalanga, **UMP has made significant strides in creating a supportive and stimulating environment for staff and students, empowering them to realise their potential in teaching and learning, research and innovation, and engagement.** UMP has surpassed expectations, earning recognition as a role model for how to establish a university.

– The UMP strategic plan–Vision 2022– adopted in 2015, reflected the University's commitment to building a strong research and innovation foundation by highlighting research and knowledge generation as one of the strategic focus areas. Despite the impact of the COVID-19 pandemic, UMP not only met but exceeded its research targets, achieving significant recognition with awards such as the NRF Excelleration Award for South African Research Institutions, the NRF CEO's Special Recognition Awards and numerous awards for individual researchers.

– In 2023, UMP demonstrated its commitment to strengthening research leadership by inaugurating the portfolio of Deputy Vice-Chancellor Research, Innovation and Internationalisation, sharpening the focus on advancing UMP's research agenda, promoting innovation, and fostering international collaborations to achieve research excellence and maximise research impact.

– Building on the successes of Vision 2022, UMP's new strategic plan—Vision 2030—articulates an ambition **to be an African university leading in creating opportunities for sustainable development through innovation**. The mission is to provide high-quality educational and training opportunities that foster holistic student development through teaching, research, and engagement in collaboration with strategic partners. The core values are central to the mission—excellence, integrity, diversity, collaboration, adaptability, relevance, and inspiration.

– Vision 2030 prioritises research and innovation as key strategic areas to ensure that UMP cultivates an institutional environment that is conducive to high-impact scholarship through teaching and learning, and research and innovation. It also prioritises the positioning of UMP as an engaged institution through collaborative and mutually beneficial partnerships. Partnerships and engagements are important enablers of research and innovation. **The institutional vision, mission and priorities serve as key drivers for the Research and Innovation Strategy (the Strategy)**.

– A strong focus on internationalisation enhances the Strategy, with innovation and thought leadership, global reach and visibility, and Pan-African impact as high-level outcomes. **Key focus areas such as quality and impactful research-informed teaching and learning, useful and impactful engagement, strategic partnerships and cross-cutting interdisciplinary research supports the internationalisation efforts.**

– The Strategy provides aspirational goals and a supportive framework to achieve the priorities outlined in Vision 2030, advancing UMP towards research excellence and increased impact. Through this Strategy, UMP is dedicated to harnessing its strengths to foster impactful, multi-, inter- and transdisciplinarity, and globally relevant research that transforms the institution, empowers communities, and drives sustainable development.
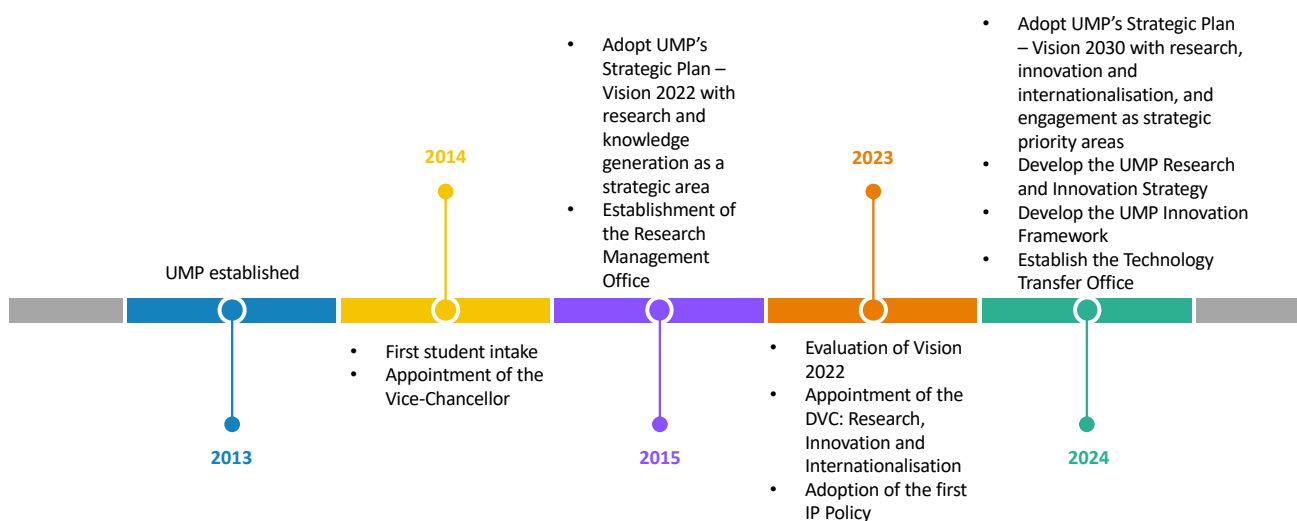
Figure 1: Milestones that facilitated the evolution of research and innovation at UMP

2. GUIDING PRINCIPLES UNDERPINNING THE STRATEGY

The Strategy is built upon a set of principles to guide action towards research excellence in all its dimensions, informed by the Values of the University of Mpumalanga, which are Excellence, Diversity, Relevance, Integrity, Collaboration, Adaptability, and Inspiration

2.1 Impact and sustainability

UMP's Research and Innovation Strategy is centered around conducting research that makes a measurable, positive impact on society. Strategic coherence with developments in national, regional, continental, and global policy frameworks, enables a proactive response to emerging and future challenges and opportunities.

Guiding agendas include:

– The *National Development Plan (NDP) 2030*: Highlights the role of knowledge and innovation in promoting inclusive economic growth, improving healthcare and education, and reducing poverty and inequality. It establishes targets for higher education, including PhD delivery (academic staff), student enrolment, throughput, and the proportion of postgraduate students and doctoral graduates.

- The *2019 White Paper for Science, Technology, and Innovation (STI)*: Emphasises inclusivity, transformation, and partnerships, focusing on policy coherence, human capability development, knowledge expansion, innovation performance and increased investment to enhance the National System of Innovation.

- The *2021 Decadal Plan for STI 2021*: Drives the priorities of the *White Paper*. It prioritises addressing social challenges through knowledge and digital innovation for sustainable socio-economic development, highlighting climate change, future proofing education and skills development, re-industrialisation, health, and energy innovation.

- The *African Union Agenda 2063*: Recognises STI as key drivers for sustainable development, industrialisation, and socioeconomic transformation.

- The *Science, Technology, and Innovation Strategy for Africa (STISA-2024)*: Aligns with *Agenda 2063*, promoting STI to address Africa's developmental challenges, particularly in health, energy, environment, and ICT.

- The *United Nations Agenda 2030* and its *Sustainable Development Goals (SDGs):* Provides a global framework to address pressing challenges like poverty, inequality, climate change, environmental degradation, and peace and justice. All UMP's Institutional Research Themes (IRTs) align with one or more of the SDGs.

UMP will also uphold research quality, excellence and impact through rigorous peer review and through carefully selected global ranking systems relevant to UMP's ambition.

2.2   Whole-of-organisation approach

Research, innovation and internationalisation underpins every facet of the University. This principle emphasises a culture of integration where faculties, support divisions, administrative units, teams, and individuals cohesively align their actions to ensure that research efforts align with UMP's strategic goals.

The success of UMP's research initiatives is informed by the important role of faculties. UMP is committed to creating an enabling environment where faculties contribute to shaping and advancing research. This includes providing academic staff with the necessary tools, funding, infrastructure, and support.

Recognising the complexity of global challenges, UMP emphasises multi-, inter- and transdisciplinary research approaches that break down academic silos and drive solutions to global sustainability challenges.

2.3   Inter-related systems

Various institutional components—such as academic, administrative, and support systems—should be interconnected, for the University to optimise research systems and processes and enhance synergy for seamless collaboration, efficient resource allocation, and integrated decision-making. To meet the dynamic needs of researchers, support divisions—such as the Research Office, the Technology Transfer Office, Library and information Services, Postgraduate Studies, Engagement and Planning, Finance, Human Resources, Marketing and Communication, and ICT—will have to strengthen collaborative efforts and operate with agility to provide timely, flexible and efficient support.

2.4   Continuous landscape scanning and opportunity identification

Through continuous landscape scanning emerging trends, challenges, and opportunities can be identified to stay ahead of developments in research, innovation, and internationalisation. This proactive approach ensures that the Strategy remains adaptive and responsive to changes and new opportunities in the evolving research environment.

2.5   Benchmarking and syntheses of experiences and good practice

The Strategy builds on lessons learned from its early experiences, including the evaluation of Vision 2022 and the CHE review in 2023, and integrates insights from regular external benchmarking. By comparing itself to leading universities, UMP can accelerate research excellence through the adoption of effective practices and processes that are globally recognised yet contextually relevant.

Benchmarking fosters a culture of continuous improvement and innovation, assisting UMP to identify performance gaps, opportunities for competitive differentiation, and potential partners.

3.   CROSS-CUTTING ENABLING PRIORITIES

The Strategy will focus on **specific cross-cutting priorities** that address UMP's strategic objectives for research and innovation while building the foundational capabilities and resources needed to achieve the objectives. These cross-cutting enabling priorities focus on fostering a conducive research environment, building relationships and partnerships and financial sustainability.

3.1   Strengthen an enabling environment conducive to high impact scholarship, research and innovation

UMP is committed to building a barrier-free research environment which empowers staff and students to fulfil their research and innovation ambitions. By 2030, the University aims to establish a prevailing research and innovation culture, develop research excellence in selected priority areas, and build robust support systems. Strategic perspectives of this cross-cutting priority includes:

–   Recognising the unique needs of each level—from postgraduate students to early career researchers to established research leaders—UMP strives to create a tailored, supportive environment that fosters growth. Key support mechanisms for researcher development will include training, mentorship, and access to essential resources, and empowering researchers to pursue innovative ideas. Early exposure to research, at the undergraduate level, will also be integral to accelerating the development of research talent. While diverse research interests are valued, capacity development efforts will focus on advancing UMP's strategic areas, such as the Institutional Research Themes (IRTs).

–   The policies and business processes that support activities of research are critical enablers for success and advancement, and should enable reduced administrative burdens on academics through effective research support; access to research funding and effective support for grants management; research compliance, ethics and integrity; effective governance structures and research-related policies; research information and data management; research communication; and innovation, technology transfer and commercialisation.

– Providing modern research facilities, laboratories, and equipment, managed by skilled professionals and supported with strategic planning enables innovative research. UMP will also support access to digital infrastructure, such as high-speed internet, data and information management systems, research databases and other eResearch tools. The UMP Library plays a pivotal role in supporting access to competitive, cutting-edge resources, including e-books, databases, and materials that empower researchers to stay at the forefront of their fields. The Library will promote open access publishing accompanied by training to students and academics to navigate pitfalls such as predatory publishers and safeguarding intellectual property.

– Research support must be workable, efficient and effective. Such support will better position researchers to secure funding, enter into partnerships, engage with communities, capitalise on research opportunities, and undertake ethical and impactful work. UMP sees the value in continuously developing the research support systems, enhancing the competence of research and innovation support staff, and identifying gaps in research and innovation support services. To this end, a Technology Transfer Office has been established.

By cultivating this enabling environment, UMP aims to attract and retain the best talent, allowing teaching and learning, research and innovation, and engagement to thrive.

3.2 Develop productive relationships and partnerships for excellence and additionality

UMP aspires to be a research-informed university recognised for its responsiveness to societal needs. This goal will be supported by productive, collaborative, and mutually beneficial partnerships at local, regional, national, and international levels. For UMP, a cornerstone of all research collaborations is mutual respect and equality, grounded in internationally accepted standards of authorship and research integrity.

Partnerships offer access to strategic resources such as specialised facilities, expertise, mentorship, and funding that may otherwise be unavailable. They facilitate knowledge transfer and commercialisation, ensuring that UMP research addresses real-world needs. This strengthens UMP's position as an engaged institution and enhances its recognition and reputation. As the University expands its influence, attracting top talent, securing additional funding, and unlocking further collaborative opportunities will advance the vision of being a research-informed and engaged university.

Collaborations can emerge organically through individual researchers working together on projects and supervising students, or they can be initiated through formal institutional agreements. The most effective outcomes often occur when these approaches converge, with institutional agreements creating space for individual collaborations to flourish. While strategic partnerships will be a priority, UMP also values spontaneous collaborations that arise for specific projects.

Guided by the principles of Internationalisation, UMP will sharpen its focus on fostering international collaborations and partnerships.

3.3 Ensure financial sustainability through increased revenue, and diversification of funding sources

The success of the Strategy hinges on effectively mobilising funding for and from research and innovation. Achieving this requires a steady flow of information about grant and contract opportunities,

as well as the development of strategic alliances that bring together diverse skills and expertise to strengthen partnerships for funding opportunities.

The Strategy recognises that securing funding goes beyond identifying opportunities; it also requires robust support for applicants. This includes governance and financial control frameworks that can stand up to international scrutiny, systems, tools, advice, and expertise to support the grant funding process. The focus will be on:

4. STRATEGIC GOAL AND OBJECTIVES

The overarching goal of the Strategy is to:

Position UMP as a rapidly emerging research-informed university in South Africa with local relevance, regional impact and global recognition.

This goal aims to elevate the University's profile, attract top talent, and drive meaningful contributions to society through impactful research and innovation.

The Strategy is rooted in the following interrelated, mutually reinforcing **strategic objectives** that are guided by Vision 2030, the goal of the Strategy and the cross-cutting enabling priorities. The indicative activities and indicators for the identified strategies are summarised in Section 6.

4.1 Strengthen Institutional Research Themes (IRTs) with sustained reputation for innovation, relevance and research and teaching linkages

UMP's IRTs (Figure 2) are strategically aligned with its vision and mission, focusing on areas of national and global relevance. Each IRT is linked to one or more of the Sustainable Development Goals (SDGs). This alignment allows UMP to track its contributions to make an impact on these global goals.

Through the IRTs UMP can develop internationally recognised expertise, concentrate resources effectively, address major challenges, create avenues for multidisciplinary collaboration and funding, promote innovation and reinforce the critical link between research and teaching.

Effective management and resourcing of IRTs are essential to their success.

This objective emphasises the development of IRTs and other strategic research areas that drive impactful research, strengthen connections with teaching, engagement and innovation, and enhance the University's reputation and contribution to knowledge and society.

Information Communication and Technology for Development	Youth Development and Empowerment	Environmental and Socio-economic Sustainability	Postharvest Management and Food Security	Biodiversity Conservation and Development	Early Childhood Development, Education and Training	Ethics and Governance
Focus on easy adoption and use of ICT resources to improve people's daily lives. This theme aligns with revolving technological trends in the era of the Fourth Industrial Revolution.	Focus on the 'Big Five' of youth development: quality education, accelerated skills development, employability and entrepreneurship, health and wellness, and expanding national youth service.	Focus on the intersection of development and the environment, exploring how their relationship can drive economic growth, reduce poverty and inequality, while also promoting environmental health and sustainability.	Focus on issues of scale of production, storage, processing and value adding.	Focus on both fundamental and applied research in the fields of biodiversity conservation and the sustainable development and use of natural resources.	Focus on factors affecting a child's development and functioning. These can be studied retrospectively or to better prepare the child and stakeholders, helping to ensure optimal development during formative years in a rapidly changing educational landscape.	Focus on the critical roles of leadership, ethics, and governance in socio-economic development, aiming to identify and recommend models that can inspire positive change across various sectors of South African society.
Sub-theme: • ICT for Education and Social Development	**Sub-themes:** • Graduate Employability • Entrepreneurship • Youth Wellbeing	**Sub-themes:** • Poverty Reduction and Economic Development • Environmental Sustainability	**Sub-themes:** • Household Food Security and Poverty • Post-harvest Integrated Pest Management	**Sub-themes:** • Invertebrate biodiversity conservation (cross into agri-systems) • Vertebrate biodiversity (including human-wildlife conflict) • Botanical diversity and indigenous knowledge systems	**Sub-themes:** • Language and Literacy Development in Multilingual Contexts • Aligning Teacher Education and Training with the Evolving Demands of Society in Response to the Fourth Industrial Revolution	**Sub-themes:** • Ethical and Moral Leadership • Ethics and Governance
SDG 1-15	SDG 4, 5, 8, 10	SDG 6, 11, 12, 13, 14, 15	SDG 1, 3,	SDG 14, 15	SDG 3, 4, 5, 8	SDG 1-17

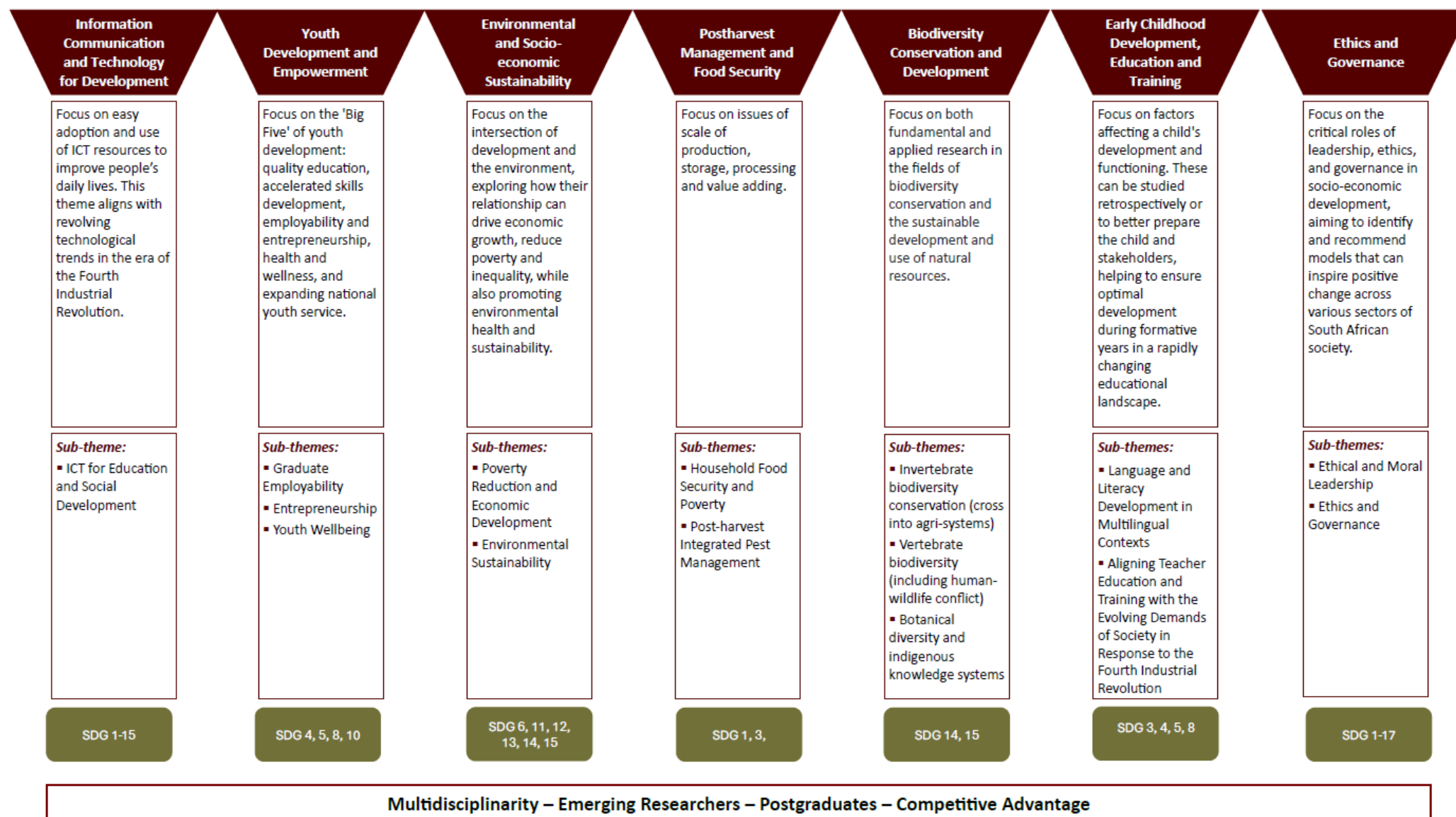**Multidisciplinarity – Emerging Researchers – Postgraduates – Competitive Advantage**

Figure 2: UMP's Institutional Research Themes

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4.2 Develop a well prepared corps of next-generation researchers through supportive approaches to postgraduate training and early career staff development

UMP will support researchers at every stage of their careers. From nurturing postgraduate students to advancing early career and emerging researchers to empowering established researchers. This support is vital to sustaining research and innovation. A steady influx of new talent is crucial for maintaining the momentum in academic inquiry and innovation, as well as preserving and advancing knowledge and expertise.

Engaging researchers across career stages broadens participation and enriches the research environment, creating a diverse community better equipped to address complex challenges and drive impactful discoveries. Recognising that researchers have different support needs at various stages, UMP is dedicated to equipping the next generation with the essential skills and opportunities to become active researchers and future leaders in their fields.

To further strengthen the researcher pipeline, UMP aims to attract high-quality students at all levels who can contribute to its research community. This includes fostering a stronger research-teaching link at the undergraduate level, internationalising recruitment efforts, and implementing administrative and marketing strategies to attract and support postgraduate students, postdoctoral fellows, and research fellows.

This objective will position the institution as a nurturing environment for research, establishing a solid foundation for sustainable research and innovation.

4.3 Build a critical mass of motivated and inspiring research leaders and mentors who are well-supported by research services

The quality and impact of UMP research is highly dependent on both individual and collective leadership in areas of strength. UMP will invest in both emerging and established talent. This includes cultivating promising researchers within the institution and strategically recruiting research leaders from outside. To support this goal, flexible recruitment policies will be essential to attract and retain expertise in priority areas. Maintaining a strong cohort of active researchers is pivotal for UMP to solidify its position as an emerging research-informed institution.

UMP will also foster a mentorship culture and a collaborative environment, enabling non-hierarchical interactions between emerging researchers and established leaders to encourage reflection and constructive debate. Special focus will be given to IRTs and other priority areas to address critical expertise needs and create a thriving community of experienced and emerging research leaders and mentors.

Overall, this objective will contribute to building a critical mass of productive researchers and research leaders, establishing a foundation for a sustained research culture and research excellence.

4.4 Drive accelerated research growth by leveraging top-tier expertise to contribute to priority areas and other high-impact issues

Strategic partnerships will align with UMP's existing research strengths and IRTs to attract top global talent. Senior Research Fellowships and Visiting Professorships have been identified as a means to broaden the existing research base and accelerate research growth. Bringing in top-tier experts for short-

term engagements will enrich research and innovation and teaching endeavours, strengthen international networks and collaborations, and add valuable global perspectives.

This objective will increase research productivity, quality, and impact, leading to greater recognition, stronger research partnerships, increased funding opportunities, and meaningful contributions to solving critical global and societal challenges.

4.5 Establish flexible, efficient governance and management systems that prioritise continuous improvement, accountability, and swift decision-making

Locally and globally, the higher education landscape is changing, offering particular opportunities and challenges to research management. A research-informed institution requires not only a steadfast commitment from its leadership, but also governance and management systems that effectively support and drive research excellence. The University executive and senior management are committed to carrying forward the notion of a research-informed university in all their functions.

To position research and innovation as the fibre at the core of the University mission, governance and management frameworks must be agile and responsive, adapting continuously to the fast-evolving research environment.

This objective will support the strengthening of an enabling research environment with a streamlined and adaptive governance and management framework that enhances the University's ability to respond swiftly to research opportunities, ensures transparency and accountability in decision-making, and supports continuous improvement. These strategies will also support risk management and the responsible conduct of research in a funding environment with increasingly complex legislative and compliance requirements. This will foster a research environment that is agile, effective, and aligned with institutional goals, ultimately driving higher research productivity, innovation, and strategic impact.

4.6 Achieve steady growth in technological and social innovations that contribute to development and financial sustainability

UMP's approach to innovation embraces contributions from all disciplines, recognising that impactful research can lead to both technological and social advancements. Innovation is not solely about commercialising new knowledge; it is also about the effective application of research ideas and methods to create tangible societal benefits.

UMP also places emphasis on entrepreneurship, highlighting the importance of opportunity identification, business development, self-employment and venture creation. Students, researchers, and innovators are encouraged to embody an entrepreneurial mindset—seizing opportunities that drive knowledge creation and the design of new products and services, while also contributing to regional socio-economic transformation.

In addressing global challenges, public and societal engagement in research becomes crucial. UMP is committed to maintaining a strong culture of research impact and supporting researchers in their engagement with stakeholders. This will enable the delivery of practical value from research, addressing social, economic, environmental, and political challenges. UMP will continue to build partnerships with communities and industry, both locally, and nationally and internationally, to ensure that its research translates into impactful products and services.

This objective will support an entrepreneurial and innovation ecosystem that strengthens the University's impact on societal and economic development, enhances its reputation for research-driven solutions, and ensures a sustainable revenue stream to support ongoing and future research and innovation initiatives. Over time, UMP should become known as an academic knowledge partner that can foster, drive and successfully implement social and technological innovations.

5.   RESEARCH AND INNOVATION STRATEGY FRAMEWORK

The Strategy Framework is presented in Figure 3.

VISION 2030
An African university leading in creating opportunities for sustainable development through innovation

GOAL OF THE R&I STRATEGY
Position UMP as a rapidly emerging research-informed university in South Africa with local relevance, regional impact and global recognition

High-level outcomes
● Enhanced R&I positioning, reputation and competitive advantage ● Attract and retain R&I talent ● Meaningful contributions to society through impactful R&I
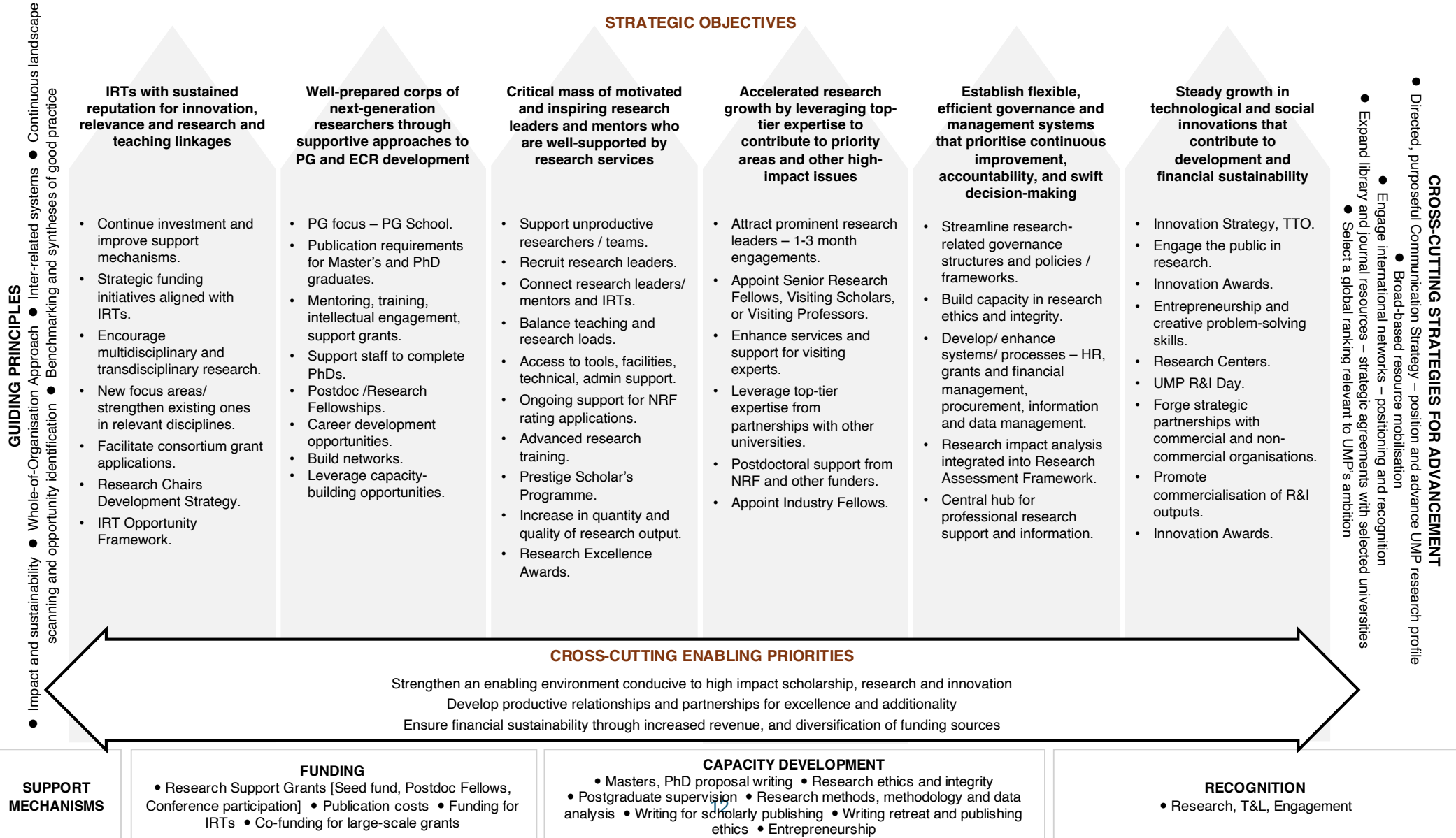
STRATEGIC OBJECTIVES

GUIDING PRINCIPLES
● Continuous landscape scanning and opportunity identification ● Inter-related systems ● Whole-of-Organisation Approach ● Benchmarking and syntheses of good practice ● Impact and sustainability

IRTs with sustained reputation for innovation, relevance and research and teaching linkages	Well-prepared corps of next-generation researchers through supportive approaches to PG and ECR development	Critical mass of motivated and inspiring research leaders and mentors who are well-supported by research services	Accelerated research growth by leveraging top-tier expertise to contribute to priority areas and other high-impact issues	Establish flexible, efficient governance and management systems that prioritise continuous improvement, accountability, and swift decision-making	Steady growth in technological and social innovations that contribute to development and financial sustainability
• Continue investment and improve support mechanisms. • Strategic funding initiatives aligned with IRTs. • Encourage multidisciplinary and transdisciplinary research. • New focus areas/ strengthen existing ones in relevant disciplines. • Facilitate consortium grant applications. • Research Chairs Development Strategy. • IRT Opportunity Framework.	• PG focus – PG School. • Publication requirements for Master's and PhD graduates. • Mentoring, training, intellectual engagement, support grants. • Support staff to complete PhDs. • Postdoc /Research Fellowships. • Career development opportunities. • Build networks. • Leverage capacity-building opportunities.	• Support unproductive researchers / teams. • Recruit research leaders. • Connect research leaders/ mentors and IRTs. • Balance teaching and research loads. • Access to tools, facilities, technical, admin support. • Ongoing support for NRF rating applications. • Advanced research training. • Prestige Scholar's Programme. • Increase in quantity and quality of research output. • Research Excellence Awards.	• Attract prominent research leaders – 1-3 month engagements. • Appoint Senior Research Fellows, Visiting Scholars, or Visiting Professors. • Enhance services and support for visiting experts. • Leverage top-tier expertise from partnerships with other universities. • Postdoctoral support from NRF and other funders. • Appoint Industry Fellows.	• Streamline research-related governance structures and policies / frameworks. • Build capacity in research ethics and integrity. • Develop/ enhance systems/ processes – HR, grants and financial management, procurement, information and data management. • Research impact analysis integrated into Research Assessment Framework. • Central hub for professional research support and information.	• Innovation Strategy, TTO. • Engage the public in research. • Innovation Awards. • Entrepreneurship and creative problem-solving skills. • Research Centers. • UMP R&I Day. • Forge strategic partnerships with commercial and non-commercial organisations. • Promote commercialisation of R&I outputs. • Innovation Awards.

CROSS-CUTTING STRATEGIES FOR ADVANCEMENT
● Directed, purposeful Communication Strategy – position and advance UMP research profile ● Broad-based resource mobilisation ● Engage international networks – positioning and recognition ● Expand library and journal resources – strategic agreements with selected universities ● Select a global ranking relevant to UMP's ambition

CROSS-CUTTING ENABLING PRIORITIES
Strengthen an enabling environment conducive to high impact scholarship, research and innovation
Develop productive relationships and partnerships for excellence and additionality
Ensure financial sustainability through increased revenue, and diversification of funding sources

SUPPORT MECHANISMS	FUNDING	CAPACITY DEVELOPMENT	RECOGNITION
	• Research Support Grants [Seed fund, Postdoc Fellows, Conference participation] • Publication costs • Funding for IRTs • Co-funding for large-scale grants	● Masters, PhD proposal writing ● Research ethics and integrity ● Postgraduate supervision ● Research methods, methodology and data analysis ● Writing for scholarly publishing ● Writing retreat and publishing ethics ● Entrepreneurship	● Research, T&L, Engagement

Figure 3: UMP's R&I Strategy Framework

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6.   MANAGEMENT, MONITORING AND EVALUATION

The Strategy and its concomitant Implementation Plan will provide the framework and guidance for tailor-made faculty and (where appropriate) school research action plans, which will be reviewed annually to ensure progress towards shared goals. The Strategy will also evolve through ongoing consultation, staying responsive to the needs and ideas of the entire university community, so it remains a reflection of the collective vision and aspirations for research and innovation excellence.

Effective monitoring and evaluation are essential for ensuring the Strategy remains responsive and impactful. This section outlines indicative key performance indicators (KPIs) and targets for tracking progress, evaluating outcomes, and capturing insights that enhance decision-making and continuous improvement across our research and innovation endeavours.

Strategy Objectives	Indicative Activities/ KPIs /Targets	
Strengthen IRTs with sustained reputation for innovation, relevance and research and teaching linkages	– Dedicated funding for IRTs. – Increase in IRTs research productivity. – Increase in the relevance and impact of research. – New focus areas established in critical areas such as OneHealth, JET, African Thought, Biotechnology, etc. – Research Chair development strategy implemented. – Increase in the number of externally funded Research Chairs. – 6 Engagement activities annually, of which 2 are aligned with strategic research areas.	– 50% of academic staff and 40% of students involved in engagement activities.At least one co-funded Industry Chair (e.g. with the Agricultural Research Council (ARC) or a local agro-industry) and one UNESCO Chair. – Each IRT linked to prominent research and funding partners and has formal links to other Research Chairs and research groups. – Opportunity Framework for IRTs maintained.
Develop a well prepared corps of next-generation researchers through supportive approaches to postgraduate training and early career staff development	– Postgraduate School and Undergraduate Research Hub established. – Year-on-year increase in postgraduate enrolment. – Research Mentorship Programme for undergraduate and postgraduate students established. – 1 publishable article produced by Masters and 2 by PhD graduates. – 60% of postgraduate students participate in Information Literacy training sessions annually. – Postdoctoral Fellows Programme and a Research Fellowship Programme established. – Increase in the number of international postgraduate students and international postdoctoral fellows. – Training workshops and mentoring offered to postgraduate students, postdoctoral fellows and early career/ emerging researchers.	– Training offered on postgraduate supervision. – 20 Postdoctoral Fellows involved in research per year. – Annual UMP Research Day hosted. – 8 research seminars and colloquia held annually. – 30% of academic staff have Master's degrees and 60% have PhDs. – 5 Research Fellows per IRT involved annually, each offering mentorship to early career researchers and postgraduate students. – Number of support grants provided to postgraduate students, postdoctoral fellows and early career/ emerging researchers. – Increase in the proportion of students and staff involved in research and innovation projects.
Build a critical mass of motivated and inspiring research leaders and mentors who are well-supported by research services	– Overall increase in research productivity. – Academic staff dedicate at least 20% of their time to research activities. – Funding leveraged to support dedicated writing and publication time. – Researchers have access to appropriate infrastructure and equipment, including efficient technical support. – Increase in the number of NRF rated researchers to a target of 35. – Prestige Scholars' Programme established. – A 40-unit annual increase in research output units.	– Funding leveraged to conduct advanced research training workshops. – 70% of articles published in DHET accredited journals. – 30% of articles published in journals listed in international indices (ISI/IBSS). – 80% of research outputs are produced by permanent academic staff holding PhDs. – Annual Research Excellence Awards implemented. – Number of nominations submitted for national and international recognition and awards.
Drive accelerated research growth by leveraging top-tier expertise to contribute	– Senior Research Fellowship / Visiting Professors Programme implemented. – 18 International Scholars hosted at UMP.	– Increase in productive and active partnership agreements that are aligned with the IRTs. – Increase in mentorship capacity. – New international collaborations and partnerships established.

to priority areas and other high-impact issues	– Increase in the number of successful international grants applications. – Participate in new strategic research networks. – A database of experts within the University developed and maintained. – Increase in the participation in and contributions to selected international science and university networks. – 15 partnerships with Higher Education Institutions in Africa. – 15 local and 20 national partnerships with a diverse range of strategic stakeholders.	– 30 international partnerships North/South and South/South with diverse range of strategic stakeholders. – 8% of staff members and 2% of students participating in international partnerships. – Increase in ratio of publications with international co-authors. – 30% of staff participating in international conferences. – Increased number of multidisciplinary and collaborative projects.More funding available to support postdoctoral fellows. – Increase in the number of industry partnerships.
Establish flexible, efficient governance and management systems that prioritise continuous improvement, accountability, and swift decision-making	– Enhanced strategic approach to research and innovation governance and planning at institutional and faculty level. – Number of existing research-related policies/ frameworks reviewed and updated for better coherence. – Number of new research-related policies/ frameworks developed/ implemented including the development and implementation of a Research Data Management Framework. – Training conducted on research ethics and integrity.	– Efficient and effective finance and purchasing support for research. – Efficient and effective HR support for research. – Efficient and effective Library and Information Services support. – Research impact analysis integrated into the research assessment framework. – Capacity and skills of staff in the relevant research, innovation and internationalisation offices strengthened.
Achieve steady growth in technological and social innovations that contribute to development and financial sustainability	– Innovation Framework approved and implemented. – Technology Transfer Office operationalised. – Engage the public in research through social media, storytelling and public lectures. – Number of workshops facilitated on innovation and entrepreneurship to equip students and staff with essential skills. – 20% of UMP students participate in entrepreneurship activities. – 20% of staff and students engage in creative problem-solving skills. – Annual UMP Research and Innovation Day hosted. – A Fund-Leverage Partnership Framework developed and implemented. – Increase in external research and innovation income. – Increase in the percentage of external income from sources other than the NRF. – Increase in the recovery of direct and indirect research costs through grants and contracts.	– 3 Research Centers established. – 15 disclosures recorded. – 10 positive search reports from provisional patent applications. – 5 research products/ processes/ services that have potential to be commercialised. – Increase in venture capital investment. – Number of impact case studies prepared. – Annual Innovation Awards implemented. – Innovation outputs considered in performance criteria. Increase in the number of consortium applications submitted for international funding opportunities. – Increase in the submission and success rate of international funding applications. – 50% annual success rate of research funding applications. – 10% annual increase of grant income from external funding agencies. – 10% annual increase of contract research income.