



UNIVERSITY OF ZULULAND

STRATEGY

for

DEVELOPING RESEARCH AND INNOVATION

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POLICY STATEMENT

This document sets out a strategy for developing research and research capacity, as well as innovation, at the University of Zululand.

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	Research Ethics Policy
	Plagiarism Policy
	Higher Degrees Policy

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DEFINITIONS AND ABBREVIATIONS

DHET	Department of Higher Education and Training
DST	Department of Science and Technology
NIPMO	National Intellectual Property Management Office
NRF	National Research Foundation
RDG	Research Development Grant that the DHET provides to UNIZULU SARCHI South African Research Chairs Initiative, a project administered by the NRF
TIA	Technology Innovation Agency
UNIZULU	University of Zululand
UT	University of Technology

SECTION A: STRATEGY

INTRODUCTION

The University of Zululand is committed to the promotion of research as a core university activity and the building of research capacity. Its research strategy recognizes the need for research to address local, regional and national and international needs. It seeks ways to engage in a critical dialogue with partners to build research in areas which complement the University's historical niche as an African university, whilst ensuring internationally recognized excellence.

The University of Zululand's vision is to be a leading comprehensive university providing quality education with a mission to produce globally competitive graduates, relevant for the human capital needs of the country, by providing quality education which upholds high standards of research and academic excellence. Within this context, the University's Strategic Plan 2016 - 2020 states one of its goals as being to conduct research appropriate to a comprehensive university. It wishes to be recognised as a leading institution in Applied Research.

The University considers research to be an integral part of its mission and strives to develop and maintain a sound academic environment that is conducive for research and innovation. It expects academic staff to undertake research and to supervise postgraduate students and accordingly needs to ensure that staff have the necessary qualifications, skills and attributes to supervise, to conduct ethical research and to produce quality research outputs that are relevant and which impact on the South African society generally, and in particular, the region in which the University is situated. This strategy document sets out the University's strategy for developing research and innovation within the Institution.

The research conducted by the university aligns to the Vision, Mission and Values of the institution which facilitates and develops a research culture of excellence at individual, group, Faculty and research associated entity levels defined and enhanced by:

- Conceptual and operational support that ensures the integration of teaching, learning and community engagement in order to deliver on research that facilitates the development of a new generation researchers, educators and innovators
- The rewarding of excellence, and,
- Research practices that are nationally and internationally benchmarked in order to:
 - Promote critical engagement and the production of knowledge
 - Research that is relevant and responsive and that can provide leadership to society
 - Research that is innovative and problem solving by providing insights into the best paths for development
 - Research that is inspiring and role modeling enriching
 - Research that is formative
 - Research that is transformative

Having stated the above, our **Values** that underpin the above are:

- *Ethically* conducted research
- *Transparency* in what we doing

- *Fairness* to researchers
- *Equity* in line with national priorities
- Facilitation of *quality*
- *Academic freedom*
- *Commitment* to facilitating research
- *Accountability* for our work

The University's research strategy operates at a number of interlinking levels that promote in an integrated way the development of a culture of scholarly excellence and sustainability through research strategies that focus on the fundamental aspects of scholarly practices.

1. *The research strategy embeds itself at the "bottom end" of the scholarly process. It is achieved through processes that facilitate research methodology curricula renewal, applied research practices and through integrated community engagement initiatives as basic and advanced teaching, learning, research and community engagement experiences*
2. *It continues to support the well established areas of excellence and to facilitate the growth of these research nodes as areas of inter and trans-disciplinarity opportunities*
3. *It aims to identify new research foci of excellence and facilitate the development and support of those areas in alignment with the University's strategic research objectives*
4. *The research strategy is facilitated by an enabling and rewarding research context supported by human capacity development, internationally bench marked quality assurance practices and networks as well as by professionally facilitated and administrative support systems, processes and policies.*

CONTEXT

The University is located in the Province of KwaZulu-Natal and is the only higher education institution north of the uThukhela River. The region provides diverse research opportunities: the University is in close proximity to poor people, rural people, commercial farmers, an industrial hub, a world heritage site and two countries. The University is therefore uniquely placed to provide both theoretical and applied research that is relevant to society in a variety of ways. Its comprehensive status and location should more overtly shape the institutional research agenda.

Research remains a fundamental pillar of a comprehensive university's academic activity and such status does not diminish or restrict the obligation to conduct research. Instead comprehensiveness opens doors and provides opportunities to conduct both fundamental and applied research.

It is a known fact comprehensive universities are in a position to bring together academics and researchers with a variety of ways of conceptualizing and approaching problems in a wide range of fields. The potential exists to create extremely rich and fruitful environments in which research can extend, where the capacity exists, from basic or fundamental work to direct responses to practical problems. Such environments could provide postgraduate students and staff with unique possibilities and experiences.

The research context at the University of Zululand is currently characterized by a number of **key constraints** which all impact in a negative way on the research productivity and profile of the

This includes the level and number of staff qualifications; Research productivity; Post-graduate outputs; Staff / Student Ratios

Staff qualifications

According to the DHET, the percentage of staff in the university sector with formal doctoral qualifications is 38.6%. It is generally asserted that institutional research output is both quantitatively and qualitatively linked to the number of staff with doctoral qualifications.

DHET statistics indeed support

such assertions, with staff at the universities with the highest per capita output having an average of 55.1% doctoral qualifications and 28.8% with Master's qualifications, those in the middle cluster having 42.3% and 33.4% respectively, while staff in the lowest per capita output cluster have 19.1% and 39.8% respectively.

UNIZULU lies in the middle of the low-output cluster. At UNIZULU the percentage of permanent academic staff with doctoral qualifications in 2012 was 26.5% and those with Master's qualifications 39.9%. (This shows a decline from 2010 when the percentages were 33.6% and 38.34% respectively.) This also means that a third of our academic staff members (33.4%) do not have the minimum qualification deemed suitable for academic activity in general, let alone a more specialized activity such as research. The UNIZULU research development plan must therefore not only align itself with the national priority of improving doctoral qualifications, but it must also seek to reduce the component of permanent academic staff who do not have at least a Master's degree.²

Research productivity

The University's total number of accredited publication units between 2005 and 2012 are as follows:

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
44.2	59.72	46.6	65.15	74.35	66.66	69.3	72.91		

As from 2008 the average yearly increase in output has been 3%, compared to an average of 10% for the higher education sector.

The University's per capita output in respect of accredited publications for the period 2005 to 2012 are as follows:

2005	2006	2007	2008	2009	2010	2011	2012	2013	2014
0.20	0.26	0.20	0.27	0.30	0.12	0.26	0.24		

As from 2008 the per capita figures have declined -3% per annum, compared to an average increase of 21% for the higher education sector.

A worrying indicator, however, is that research productivity at UNIZULU is poor. A comparison of seven similarly-placed universities (4 UTs and 3 comprehensives) indicates that all except UNIZULU had a higher per capita output in 2012 than in 2010, and some substantially so.

Of this group, UNIZULU had the second-highest percentage of staff with doctoral degrees and was third-best placed in the category of staff with both doctoral and Master's degrees. The figures not only indicate that UNIZULU's internal productivity was stagnant, while other universities increased their productivity, but also that other universities can achieve similar per capita outputs with fewer qualified staff. This could point to (a) an unsuitable institutional research climate and/or culture; and/or (b) to a lack of individual research capacity, confidence and/or inclination.

Postgraduate outputs

The weighted per capita postgraduate output⁴ at UNIZULU for 2012 was 0.43. This translates into 0.15 Master's and 0.09 doctoral graduates per permanent academic staff member. Historically, the weighted per capita postgraduate output figures are:

2007	2008	2009	2010	2011	2012
0.24	0.15	0.22	0.43	0.38	0.43

Per faculty, the weighted per capita postgraduate output showed little variance between 2010 and 2012, although there seems to have been a recent increase in activity in the Faculty of Commerce, Administration and Law. The yearly figures are:⁵

	2007	2008	2009	2010	2011	2012
Arts	0.03	0.03	0.02	0.03	0.05	0.06
CAL	0.06	0.05	0.05	0.09	0.13	0.16
Education	0.04	0.04	0.03	0.04	0.06	0.08
Sci & Agr	0.03	0.03	0.02	0.03	0.05	0.06

Although there is an upward trajectory in all faculties, the figures indicate very low postgraduate activity, especially in the Faculty of Science and Agriculture where traditionally postgraduate activity is higher than in other faculties. As with research output, these poor figures could point to (a) an unsuitable institutional climate and/or culture in respect of postgraduate studies; and (b) to a lack of individual supervision capacity, confidence and/or inclination.

Staff/student ratios

There are sufficient indications that staff research output is linked to academic staff/student ratios. According to the DHET, the universities with

⁴ The postgraduate weighted output is based upon the funding units generated through research Master's and doctoral graduates (Master = 1 unit and Doctor = 3 units).

⁵ These figures indicate the per capita output of permanent and longer-term contract staff members, and are therefore slightly different from the DHET figures.

the highest per capita output in 2012 and those in the middle group had an average staff/student ratio of 31.35 and 31.02 respectively. Those in the low-output group had a ratio of 44.84. UNIZULU's staff/student ratio was 55.14, which placed it in 20th position of the 23 universities.

While there are additional factors that impact on research output, the conclusion regarding the effect of adverse staff/student ratios is similarly borne out if comparisons are made within the Institution, albeit that the method of calculation is not the same as that of the DHET.⁶ Institutional data for 2013 and 2013 indicate:

FACULTY	RATIO 2013	PUBLICATION OUTPUT 2012	PER CAPITA PUBLICATION OUTPUT 2012
Science and Agriculture	33	37.01	0.43
Arts	61	24.42	0.30
Education	101	3.2	0.05
Commerce, Administration and	110	2.5	0.08

There is a clear need for fundamental structural human resource and enrolment intervention to address the staff/student ratios if a sustainable research environment is to be developed.

GUIDING PRINCIPLES AND STRATEGIC OBJECTIVES

The university must be research-based. Research not only contributes to societal development, but it also improves teaching and learning, thus enhancing students' academic experiences and their graduate qualities.

Research development should be undertaken in a systemic and holistic fashion and, at the very least, attention should be given to the following strategic objectives:

- **Enhancing an enabling and scholarly research environment**
- **An enabling environment enhancing measureable excellence, quality assurance and the provision of incentives / rewards**
- **To create and manage a suitable policy environment for research and innovation**
- **To create inter-disciplinary and trans-disciplinary Research Niche Areas (RNAs)**
- **To stimulate collaborative international projects**
- **To improve the number of the University's patent registrations and to increase the**

number of project that have resulted in entrepreneurial and innovative endeavors

- To stimulate community engaged collaborative projects with research stakeholders, including local communities, industry and the South African Science System
- Building scholarly skills to enhance critical human resources towards research capacity development
- Effective research administration and management of research policies and budgets
- Develop associated research entities and support
- Develop associated research entities, project research and support

Although it is acceptable to target certain areas for development so as to build flagship entities and programmes, research development programmes must be available, without favour or prejudice to all academic departments and staff.

To develop a culture of integrity and excellence and ensuring that researchers produce work of acceptable quality. Quality assurance must underpin the developmental objectives.

Development must have a strong transformative component, that empowers and results in lasting transferable skills, not only short-term gains. An important aim must be to develop the next generation of independent researchers of quality.

OBJECTIVES AND ACTION PLANS

Enhancing an enabling and the scholarly research environment:

This research objective is in the first instance underpinned by the creation, fostering and growth of a research culture that is supported by curricula that are innovative, responsive, formative and transformative and that form and integrated teaching, learning and community engagement whole.

This is supported by research methodologies and by theoretical and conceptual qualities benchmarked against the best practices that manifest in the lecturing, tutoring and community engagement space.

Action Plans and targets:

- This starts at both the under-graduate and Honours levels. Core aspects of research methodology and fundamental theoretical modules must be included in all syllabi and curricula. Curricula renewal in this respect is a continuous requirement that should be done formally in a three year cycle for all programmes

Strategic Objective:					
Action	Measures	Who	When	Target	Outcome/s
Understand current situation	Analysis of undergrad curricula i.r.o RM/RD	Siyanda NM GDW	Jan – July 2017	All faculties	Get overall status of research curricula across the board

- Research activities must be built into all assignments, presentations and debates at undergraduate and Honours levels. Requiring students for example to consult research data bases and to require evidence of such access could be one way to foster at an early stage the value of knowledge in dealing with problems, or the construction of meaning. Departments can use a differentiated approach depending on their unique context.

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Understand course activities & deliverables	Analyze course guide; interview HoD's & Students	Siyanda NM	Jan – July 2017	All faculties	Insight on how the offering contributes to research capacity development

- In addition to the fundamental aspects of research students must be taught to apply research as a problem intervention, problem analysis, problem evaluation, problem solving and thus knowledge production and innovative process. This should be done through assignments, tasks and other appropriate practices including engaging with communities regarding their needs and understanding of their own problems.

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Linked to the above bullet & table					

- Compulsory introductory research methodology modules in all programmes of a minimum of 16 credits must be taught in the third year of a three year qualification. This must be followed up by 32 credited bearing modules at the Honours level. All course work Master's programmes must include an advance research methodology module of at least 16 credits.

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Update curriculum i.r.o RM/RD	Motivate for reculiculation; Faculty & Univ Committee system approval system	NM Siyanda GDW	Jan 2018	All faculties	Arrive at a module with an ideal credit value across academic levels

- The value of community engagement as an integral part of the core teaching, learning and research responsibilities must be incorporated in assignments, tasks and projects starting at the under-graduate level. Awareness of this value should be demonstrated by involving communities in for example problem identification and community needs analysis. This practice should be continued at the post-graduate levels.

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Understand current situation	Analysis of undergrad curricula i.r.o Community Engagement	Siyanda NM GDW	Jan – July 2017	All faculties	Get overall status of research curricula across the board

This would allow for a balanced approach between applied or fundamental research that is a core quality of a comprehensive university

Target 2020: Fully implemented and reviewed every four years

Building student research capacity and postgraduate attributes

The process for improving student research capacity should begin preferably at undergraduate level, but at least at the Honours level.

Action plans and targets:

- Postgraduate training initiatives should include Honors students, in recognition of the fact that these students provide the pool from which Master's and ultimately doctoral students are drawn.

Strategic Objective: Research Capacity Development for Honors

Action	Measures	Who	When	Target	Outcome/s
Develop standardized Honors programme, with research capacity development as core	Analyze existing initiatives; Interview deputy deans; Bench-marking process	Zinhle NM	Jan-June 2017	All faculties	Develop a pool research competent Honors graduates

- Attention must be given improving the quality of the Honours programmes and to retain Honours students in the system. Particular focus should be placed on the nature and quality of Honours Research Papers.

Strategic Objective: Research Capacity Development for Honors

Action	Measures	Who	When	Target	Outcome/s
Linked to bullet & table above					

- As part of the **student retention strategy**, selected Honors students could be given three-year bursaries so that they can plan at an early stage to proceed into Master's studies.
[Linked to bullet & table above]
- A **skills development programme** for postgraduate students must be instituted. Focus areas will include, understanding and use of statistical packages, planning postgraduate research work, research ethics, writing skills, presentation of data, etc, to lay and specialist audiences, and harvesting publications from a thesis or dissertation.

Strategic Objective: Research Skills Development for Honors

Action	Measures	Who	When	Target	Outcome/s
Initiate a skills development programme for PG students; Development a progress tracking mechanism for students	Needs analysis (covering research design, methodology, data analysis, supervision, etc)	Zinhle NM	Jan – Nov, 2017	All faculties	Improved confidence of PG students; Increased throughput rates; Increased proposal acceptance rate

- The University must develop compulsory **induction courses** for postgraduate students that would assist them in coping with postgraduate research. This must happen once a year

Strategic Objective: PG Induction

Action	Measures	Who	When	Target	Outcome/s
Develop a centralized format (bi-annually) Develop content; Benchmark;	Consult Dep.Deans & supervisors; Discussion with Registrar (enrollment) Advertise over e-mail & posters; Revise times/day of week	Research office, led by Siyanda	Jan-March 2017 Induction Sem1: March; Sem2: July	All faculties	Well informed & prepared students; Enabling environment to do PG work; Improved confidence & sense of belonging.

- Postgraduate students must be encouraged to present papers at conferences, first at national and thereafter at international conferences; but in each instance the paper must first be presented internally within the faculty and/or the department.

Strategic Objective: Encouraging PG students to present in research conferences

Action	Measures	Who	When	Target	Outcome/s
Inform PG of conference opportunities; Sensitize supervisors to alert their students;	Funding availability; Policy conditions & criteria; Authentic evidence (proof)	Daniela	Jan 2017 – ongoing...	M & D candidates across all faculties	Grow research culture; Increase publication outputs

- Master's and Doctoral students must be required to publish with their supervisors one article, and doctoral students two articles, during their studies, without which they cannot graduate. The University must develop a writing programme specifically designed to assist students and their supervisors in this regard.

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
[get clarity on student/supervisor writing collaboration]; Assist supervisor & student with programme on how to write for publication; Do workshops on writing for accredited journals	Find & analyze recent senate resolution; Identify prospective writers; Comply with policy requirements;	Siyanda NM	Jan 2017 onwards: ongoing...	All PG students & supervisors	Increase SASPE research outputs; Grow the culture of research; Increase contribution to the generation of new scientific knowledge

An enabling research environment including supportive infrastructure, and research leadership guidance

To maintain, develop and improve an enabling environment that is supportive of the research mission of the University through the provision of infrastructure and research leadership development. The instrumentation and development of infrastructure should be done in collaboration with the Faculties, Centres and Institutes as part of a multi-pronged institutional project. The belief is that environments that are in this regard supported by enabling

infrastructure lead to greater research output potential, greater quality and the facilitation research leadership guidance.

Action Plan:

- Provide support to Faculties, Institutes and Centres to develop and to align their strategic research plans with the University's strategic research objectives

Strategic Objective: Aligning Faculty strategies with institutional research Strategy

Action	Measures	Who	When	Target	Outcome/s
Ensure alignment of faculty research strategies with institutional strategy	Get institutional research accepted by Council; Consultations to commence with faculties	GDW; Research Office	Jan 2017 onwards	Institutional	Enhance quality & research outputs; Enhance collaborations; Align research with institutional strategic objectives

- Support to Faculties to develop an equipment replacement and instrumentation policy

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Draft policy (developed)	Discuss policy draft with stakeholders; Set up faculty systems & Processes	GDW NM	Oct 2016 to July 2017	To have a complete instrumentation policy	Improve research output; Control over the acquisition of research instruments; Generate income through rentals of the equipment

- To liaise very closely with the Directors of the Centre of Rural Development (CRD), and the UniZulu Science Centre (USC)

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Meet Directors of CRD & USC; do an audit of all Centres' accredited research	Understand (Analyze) agenda of the centre	GDW NM Dean (GK)	Jan – Feb 2017	Establish constant contact (bi-annually)	Increase accredited research outputs; Direct & alignment of the centres with institutional research objectives

output of the past 3 years; set research output targets per centre;					

- Establish at least one Research Centre per Faculty.

Strategic Objective: Establishing Research Centres

Action	Measures	Who	When	Target	Outcome/s
Feasibility needs analysis; Discuss with faculty leadership	Bench marking; Explore strategic focus & fit for each faculty;	GDW NM	Jan 2017, onwards (ongoing)	All faculties	Improve research outputs; Improve research culture & research foci; Improve research funding chances; Improve collaborations with industry, community & government

- Sort out the nomenclature of Centres, Institutes and Units and their research missions

Strategic Objective:

Action	Measures	Who	When	Target	Outcome/s
Defining & understanding missions of existing centres	Compare best practices & internationally accepted missions of such entities	GDW; Research Office	Jan 2017 onwards	All existing centres	Align missions will acceptable practices; Improve research outputs

Target: 2020

Supportive Research Infrastructure

The supportive infrastructure for research and post graduate studies needs to be substantially enhanced particularly with regard to computers, instrumentation and library usage.

Action Plan:

- To develop the post graduate resource centre with additional dedicated computers and the provision of data analysis software

Strategic Objective: Develop PG Resource Centre

Action	Measures	Who	When	Target	Outcome/s
Outline need & format of the centre; Investigate feasibility of the centre;	Benchmark; Interact with stakeholders such as PG students & Post-Docs on needs	Siyanda; Nikki; NM; Daniela;	Jan 2017, onwards	All PG & Post Docs	Conducive research culture; Space to interact; Improve student life experiences; Improve research output & throughputs
Advice & workshops on survey research, both quantitative and qualitative (reflective), e.g. base line studies		Zinhle;			
Advice & workshops on survey instrument development, quantitative & qualitative, focus groups etc. Sampling & sampling techniques Data preparation, analysis, interpretation & presentation Synthesis development		Nikki			

Use & application of statistical analysis software such as SPSS The use and application of software for qualitative research analysis such as NUDIST, Nvivo, etc.					
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- Promote effective use of a PG commons in the Library and in each Faculty

Strategic Objective: Promote use of PG Commons (Library)

Action	Measures	Who	When	Target	Outcome/s
Understand status & purpose of existing space; Understand needs of PG students;	Discuss with Director of Library; Interview PG students about their experiences	Siyanda; Nikki; NM; Daniela;	Jan 2017, onwards	Library space for all PG students	Conducive research culture; Space to interact; Improve student life experiences

- Greater use of Library's information and training services needs to be encouraged.

Strategic Objective: Promote use of Library Information & Training Services

Action	Measures	Who	When	Target	Outcome/s
Promote library information & training services	Meeting director of the library on collaborations; Interview service recipients (PG students & staff)	Zinhle; NM	Jan 2017, onwards	Library space for all PG students	Conducive research culture; Space to interact; Improve student life experiences

Target 2018: An audit to be completed on the state, quality and accessibility of post-graduate research infrastructure and the phased implementation of a master plan. This is to be done in consultation with Faculties.

Dedicated Research Resource Centre

In addition to all the capacity building initiatives there needs to be a dedicated research resource centre that could provide expertise on a number of research operational matters, such as.

Targets: 2020

The Library and ICT provision

A sustainable research environment is premised on a well-provisioned and well functioning library and a supportive and integrated ICT system that secures interconnectivity in the most effective way.

Action plans:

- Contribute to the development of an integrated ICT support for research policy

Strategic Objective: Input Towards Integrated ICT Support Policy

Action	Measures	Who	When	Target	Outcome/s
Meeting with ICT Director;	Address issues of database needs; attendance registers; online registrations; electronic assessment processes for M&D Projects; Effective use of ITS database systems for research administration	GDW; Zinhle; NM	Jan 2017, onwards	Integrated ICT research strategy	Improve operations through effective electronic tools

Target: 2018

To uphold and promote academic Freedom

A universal aspect that underpins research is academic freedom. Universities have been defined by their ability to rigorously and in an uncompromising way interact with ideas, practices and the complexities of societies.

The developmental and transformative challenges of the South African context make the practices of research in the space of academic freedom one of the most treasured qualities of a scholarly context. The humanizing of research and research pedagogy underpin academic freedom in this respect in order to contribute to a better quality of life for all. The dissemination of such ideas and knowledge should be managed strategically.

In order to promote this the following is aimed at:

Action Plan and targets:

- Two colloquiums and two key note addresses should be held annually per faculty

Strategic Objective: Colloquia; Key Notes & Honorary Addresses

Action	Measures	Who	When	Target	Outcome/s
Plan for the introduction of colloquia & Key note address; Liaise with faculties of rotating honorary addresses between themselves	Benchmark; Consult with faculties focus & topics	Zinhle; NM; GDW; Faculties; CMD; Security	Jan 2017, onwards	1 keynote per semester; 1 colloquium per semester; 1 Honorary address in every 4 th year.	Conducive research culture; Improve student life experiences

- Six Inaugural addresses for full professors per annum

Strategic Objective: Inaugural Address for full Professor

Action	Measures	Who	When	Target	Outcome/s
Plan for the introduction of inaugural addresses	Benchmark; Consult with faculties focus & the registrar	Registrar; GDW; NM	Jan 2017, onwards	1 inaugural address per quota	Conducive research culture; Recognition for a scholarly achievement

- One international conference per Faculty every three years

Strategic Objective: Encourage international Conferences on campus

Action	Measures	Who	When	Target	Outcome/s
Promote hosting international conferences	Benchmark; Consult with faculties focus	NM; Daniela; Faculties	Jan 2017, onwards	1 every 3 years – per faculty	Improve research culture; improve outputs; Improve international linkages

- Four Post-graduate student colloquiums per annum per faculty

Strategic Objective: Promote PG Colloquia

Action	Measures	Who	When	Target	Outcome/s
Plan for the introduction of PG colloquia	Benchmark; Guidance consultation with PG Association & faculties	Dean of Students; NM	Jan 2017, onwards	4 colloquia per academic year	Conducive research culture; Promote academic freedom

- To publish two research Bulletins per year on research activities

Strategic Objective: Publish Bi-Annual Research Bulletins & Annual Research Report

Action	Measures	Who	When	Target	Outcome/s
Plan for the introduction of annual research bulletins & Annual Research Report	Benchmark; Consult with faculties & CMD	NM Nikki; Siyanda CMD	Jan 2017, onwards	2 per annum	Conducive research culture; Recognition for a scholarly achievement

- One research month each year

Strategic Objective: improve Potency of Research Awareness Month

Action	Measures	Who	When	Target	Outcome/s
Review programme for this annual event	Consult with; Library; Faculties & Research Community	Zinhle; Research office; Library; Faculties	Every September; 1 month annually	Research Community	Promote research culture; Share knowledge & Expertise

Target 2020: Fully operational

An enabling environment enhancing measureable excellence, quality assurance and the provision of incentives / rewards

Increasing the number and range of accredited research outputs

Research should emanate in outputs of various kinds. Only in this way can it contribute in permanent ways to the development of knowledge.

Basic research produces results that can be disseminated, primarily through presentations at conferences, through publications in journals and in books, but also through media publications.

Strategic research contributes to a broad base of knowledge that helps solve recognised or anticipated problems.

Applied research is directed at specific practical aims or objectives, whose results are intended to be valid for single or limited numbers of products, operations, methods or systems.

Irrespective of the nature of the research, overall, research findings should inform teaching and learning at both undergraduate and postgraduate levels.

With UNIZULU being a comprehensive institution, researchers are able to conduct research across the spectrum.

Publications in outlets that are not accredited may serve a developmental function and may also be the most appropriate way to disseminate research to the non-academic society as part of the institutional objective to produce relevant research.

An accredited publication must be a prerequisite for a research Master's and doctoral graduation.

Encourage publications in international, and high impact journals as opposed to national, accredited journals.

This is based on best practice outputs that are targeted and measureable against national and international benchmarks.

Quality assurance in terms of nationally and internationally scholarly sanctions, refereed and peer review processes form an integral part of this objective. Citation indexes such as the ISI index also play an important benchmark role in this respect. The University of Zululand requires from its academics to be research active with an average accredited output of 1 unit on average per Faculty member per year. The Department of Education's benchmark is 1.421 accredited outputs per annum per academic.

Action plans and targets:

The following parameters are taken into account when institutions' accredited research output are analysed and measured. It is used to do comparative analyses of the performance of universities across the sector of Higher Education

- The number of funding units generated by outputs in accredited research journals
- The number of funding units generated by academic books
- The number of funding units generated by conference papers published in the proceedings of accredited conferences

- The number of outputs published in international journals
- The number of funding units generated by each discipline
- Academic staff members' per capita research output
- The number of research Master's graduates
- The number of doctoral graduates
- Academic staff members' per capita postgraduate output
- The number of patents generated
- The number of projects that have been commercialized
- Creative outputs

Targets 2020: see addendum⁶ Annexure A contains specific research development targets for the Institution for 2014—2019.

Accredited output according to The Department of Higher Education and Training is calculated as follows:

An accredited article:	1 unit or proportionally shared
MA, MSc, M.Com etc.:	1 unit or proportionally shared
Doctoral, PhD:	3 units or proportionally shared
Refereed proceeding:	0,5 units
Book fully reviewed:	up to 10 units
Chapter(s) fully reviewed:	a portion of 5 units
Patents:	
Cultural outputs:	

In addition to the accredited research output the University will be aiming to:

Action Plans and targets:

- Increase the number of researchers who enjoy national and international standing (Rated researchers). Target: 3 newly rated researchers per year
- Increase the number of researchers that access national and international funding opportunities. Target: 6 researchers per year
- Increase the number of PhD and MA candidates that successfully complete their studies by 10% annually in the required period of three and two years respectively
- Increase the number of academic staff with PhD qualifications by 3 per faculty per year
- Develop at least one new node of excellence (Research Niche Areas) for each Faculty
- Review and evaluate Research Niche Areas five yearly for productivity and excellence to ensure ongoing quality assurance and relevance such as through six monthly reports
- Supervision of Master's and Doctoral candidates evaluations on a six monthly basis
- Integrate the Faculty Research and Higher Degrees Committees into an aligned quality assurance and research promotion system
- Integrate the Post-graduate studies activities through the development of a range of post-graduate processes, procedures and policies that facilitate quality assurance at all levels across the system
- This includes such matters as:
 - Supervisor training for all supervisors such as the SPS programme
 - Research proposal writing for all Post-graduate students
 - Research project management for all researchers
 - Academic writing workshops for all emerging researchers and Post-graduate students

- Comprehensive research methodology training for all merging researchers

To create and manage a suitable policy environment for research and innovation

Action plan and targets:

A number of research informed policies assist to manage and direct research at the University. Some policies are being developed whilst others are being reviewed and refined. These policies and their implementation must be monitored and evaluated annually.

Action Plan and targets:

- To revisit the Research Incentive Policy three yearly with the view to adjusting the monetary value of the incentives as per accredited output
- To manage a Research Ethics policy and its conditions in line with the Act
- To manage plagiarism policy in conjunction with relevant Committee and the Department of Human Resources
- To manage the Intellectual Property Rights Policy
- To establish a Senate Innovation and Tech Transfer Committee to promote innovation and tech transfer
- To manage the post-graduate policy
- To manage the Research Awards policy
- To monitor the implementation of the Research output policy and its targets
- To manage the conference Attendance Support Policy, national and international
- To manage the staff development policy
- To develop an instrumentation policy in collaboration with the relevant Faculties
- To develop an integrated research uptake policy

Target 2020: To continuously assess, monitor and redraft research policies where necessary.

To create inter-disciplinary and trans-disciplinary Research Niche Areas (RNAs)

Action plans and targets:

RNA's are university endorsed research programmes with programme leaders who head a team of researchers each with individual projects. These are essentially the principle areas of research which the University wishes to support as their flagship areas and will be used to build a critical mass of researchers. These RNAs are to promote inter and trans-disciplinary research opportunities of the highest qualities

Some, but not all of these, may be endorsed and funded externally. Others may be created with University supported and other funds. But university provided seed funding must be provided for a period of five years to enable RNAs to get off the ground.

Action Plans and targets:

- New Research Niche Areas to be established with a minimum of one RNA per Faculty build on the principles of excellence, capacity, novelty and potential
- Build multidisciplinary and trans-disciplinary programmes with the emphasis on the integration of knowledge fields and community contexts

- To develop the establishment of Research Niche Area proposals through internal and externally based peer review processes
- To secure Senate support and funding.
- To develop two types of Research Niche Areas, namely a developing and a developed category with differentiated research output targets per Faculty
- To determine **accredited research output targets**

Developed Research Niche Areas:

Faculties of Science and Agriculture and the Faculty of Arts

Accredited Papers: Minimum of 15 to 20 per year
 Postgraduates: Doctoral: Minimum 15 over five years
 Master's: Minimum 40 over five years
 Hons: Minimum of 80 over five years
 Postdocs: Minimum of 10 over five years

Developing Research Niche Areas:

Faculties of Science and Agriculture and the Faculty of Arts

Accredited Papers: Minimum of 12 to 18 per year
 Postgraduates: Doctoral: Minimum 10 over five years
 Master's: Minimum 20 over five years
 Hons: Minimum of 60 over five years
 Postdocs: Minimum of 8 over five years

Developing Research Niche Area:

Faculties of Commerce, Administration and Law and the Faculty of Education

Accredited Papers: Minimum of 8 to 12 per year
 Postgraduates: Doctoral; Minimum 6 over five years
 Master's: Minimum 10 over five years
 Postdocs: Minimum of 3 over five years

Target 2018: Launch of RNAs and fully operational in 2020

To stimulate collaborative international projects

Action plans and targets:

A key priority for universities is their international standing regarding research collaboration and knowledge production that has been produced and benchmarked against the best practices. Building an international profile through a range of activities such as the attendance

of conferences, reciprocal international lecturing opportunities through exchange agreements, post-doctoral fellowships, exchange of post-graduate students and the measuring and benchmarking of our own research outputs against international standards would be important. Setting up innovative networks in the African context would be a priority.

Action Plans and targets:

- Attend conferences and read papers of which at least one must be international according to the policy conditions
- Setting up two collaborative research projects per faculty
- Exchange of at least two research fellows per faculty
- Exchange of at least two post-graduate students per faculty
- At least two Post-doc fellowship per faculty with international relations
- Establish at least two exchange agreements with Universities, SADC, Africa, etc. per faculty per year
- Revitalize exciting exchange agreements, and renew if possible
- Join at least two international research networks per Department
- Invite international scholars to take part in locally organized conferences
- Manage international examiners for PhDs according assessment policy
- Establish at least one research partnerships with International institutions per faculty per year
- To develop a research Internationalization plan for Faculties/ Centres / Institutes
- Establish an international office to enhance international research collaboration in an integrated way

Target 2020: Fully operational

To stimulate community engaged collaborative projects with research stakeholders, including local communities, industry and the South African Science System

Action plans and targets:

All research activities will incorporate demonstrable outputs and actions as part of the collaborative process, such as the formal sharing and dissemination of research results, the provision of support, etc. with these partners in order to enhance beneficitation beyond the proverbial class room or laboratory context. Community engagement is a central aspect of beneficitation of this nature.

Action Plans and targets:

- To establish a fully functional Community Engagement Centre
- To develop in consultation with local communities an engagement Memorandum of understanding with local communities around Kwadlangezwa and R Richardsbay, including industrial, commercial and agriculture based stakeholders
- To establish an intermediary inclusive innovative platform to facilitate and manage community engagement based research
- The auditing and consolidation of existing partnerships
- Increase the number of strategic research partnerships in addition to the Research Niche Areas, sponsored chairs, and collaborative initiatives
- Develop around each Research Niche Areas a network of capacity nodes that can function as areas of academic and research growth and excellence with the view to improving the pool of researchers.
 - Partnerships with local communities to enhance community engagement
 - Partnerships with the local, provincial and national government departments
 - Expand the collaboration with international research institutions and researchers

- Establish MOUs with relevant Provincial State Departments such as Agriculture, Education, Health etc. authorities
- Establish a regional research and innovation platform with Industry and Government
- Expand and manage relationships with National Research Bodies such as NRF, HSRC, MRC, ARC, CSIR, WRC, etc.
- Expand the Tech Transfer and Innovation function in the Research Office and strengthen the corporation with the Regional Tech Transfer office
- Solicit funding from International Research Bodies such as Ford Foundation, Kellogg Foundation, DIFFID, Erasmus Mundus, etc. to enhance research capacity building
- Expand collaborative research with Universities: Regional, National and International
- To expand and to build the universities international research linkages profile through collaborative research projects, invitations to scholars e.g. post-doctoral fellows, visits, conferences and research networks, post-graduate examinations and research opportunities that are mutually beneficial.

Target 2020: To have comprehensive stakeholder relationship management plan in place with a strong emphasis on building networks with local communities, the national innovative system as well as a strong emphasis on building networks with international stakeholders such as research institutes, universities, and donor organizations.

Target: 2020

To improve the number of the University's patent registrations and to increase the number of project that have resulted in entrepreneurial and innovative endeavours

Action plans and targets:

- To manage the scouting process for Intellectual Property Rights through research proposal evaluations at Faculty level
- To provide at least two awareness and training workshops per year for researchers regarding patent registrations
- To ensure that IP is protected as per the policies
- To enhance social innovations and entrepreneurial practices through two training workshops per annum
- To increase the number of projects that have resulted in entrepreneurial outputs by 5% per year
- To actively solicit TIA funding for at least 4 projects per annum

Building scholarly skills to enhance critical human resources towards research capacity development

Improve the human resource situation, or at least alleviate some of the research pressures emanating from a shortage of resources

Action Plans and targets:

- To fill all senior academic vacancies in departments
- To evaluate the financial implications for the filling of all academic positions with HR

- To recruit at least 40 Post-doctoral fellows to alleviate academic support
- To recruit Adjunct-Professors and research fellows to alleviate teaching and supervision needs

The development of priority research capacity is another crucial aspect of the strategy. Here the emphasis is on South African researchers. This is done in accordance with the National Development Plan objectives.

Action Plan and targets:

- Grow our own timber should be stated by identifying and investing through bursary provisions and other support in at least 5 young researchers per Faculty started at the Honours level, progressing to Master's and eventually Doctoral levels
- Faculties must include this practice as part of their student recruitment and young researcher policies. A contractual multi-tier arrangement to commit such a candidate to Honours, Master's and PhD studies should be possible.
- To identify young academics that show great potential as researchers and invest in mentoring and research support. At least 5 young academics per Faculty
- In this respect black African women researchers form the highest priority. The NRF's Thuthuka project should be tapped into. Scholastic merit should always be the guiding principle in the support of quality research.
- The support of priority skills development should also form part of an institutional staff development, recruitment and retention strategy

Target 2020: To identify and to support 25 young black South African researchers for additional research support through bursaries and training in order to address the need to develop scarce skills. Young black women to be the prime focus but not exclusively so given the critical need to develop all researchers.

To improve academic qualifications and core scholarly skills of staff – specifically the percentage of staff members with doctoral degrees, but also to reduce the number of staff members who have neither Master's nor doctoral degrees

Action plans and targets:

- To request HR for an staff profiling audit to determine the qualifications of all academic staff in faculties, full time and part time
- To manage the emerging researcher policy and target the support for black woman researchers
- To monitor the use of sabbatical leave and ensure that it is used effectively with clearly stated scholarly development objectives
- To set an annual 10% increase target on all staff members with qualifications lower than a Doctoral qualification to improve their qualifications
- To work towards a Master's as minimum qualification for an academic appointment
- To establish a mentorship programme for emerging researchers
- To establish a statistical and qualitative data analysis function in the research office that

can provide ongoing training

- To assist experienced researchers in improving their impact on society
- To provide ten skills development training workshops in terms of all aspects related to all types of research orientations for example research design training for quantitative and qualitative research, including the following aspects:
 - Research proposal development
 - Grant application workshops
 - Research Ethics
 - Supervision training
 - Academic writing
 - Research methodology training
 - Academic career planning
 - To obtain and/or improve their NRF ratings of researchers
 - Project management training

To build research capacity at postgraduate level and to improve the graduate attributes of postgraduates by including them in research and other professional development activities for staff

Action plans and targets:

- To establish an institutional post-graduate forum as well as faculty based post-graduate fora
- To provide ten skills development training workshops in terms of all aspects related to all types of research orientations for example research design training for quantitative and qualitative research, such as:
 - Data analysis: quantitative and qualitative
 - Research proposal development
 - Grant application workshops
 - Research Ethics
 - Supervision training
 - Academic writing
 - Research methodology
 - Academic career planning
 - Project management

A supportive Post-graduate Academic Environment

Capacity building at this level forms a crucial part in the development of research output sustainability. It forms in many ways the bedrock of research.

Action Plan:

- To develop a Post-graduate Studies directorate
- To develop a proposal for the establishment of a Postgraduate Studies Directorate and to get Senate approval
- The Directorate will take charge of inter alia the following tasks such as:

- Setting up the structure and governance
- Registration and administration issues;
- Supervision;
- Research and Higher Degree Committee functions in relation to Masters and Doctoral students;
- Student governance structures;
- Examinations;
- International students;
- Residences and accommodation

Human Resources capacity developments

The University must address the structural human resources issues so that the foundation can be laid for a sustainable research environment.

Improve the human resource situation, or at least alleviate some of the research pressures emanating from a shortage of resources

Action Plans and targets:

- To fill all senior academic vacancies in departments
- To evaluate the financial implications for the filling of all academic positions with HR
- To recruit at least 40 Post-doctoral fellows to alleviate academic support
- To recruit Adjunct-Professors and research fellows to alleviate teaching and supervision needs
- To introduce a mentorship programme
- A structured plan should be developed to creating new posts in those departments which have the potential to improve their publication and/or postgraduate outputs
- Academic leadership must be developed in every department and the objective must be to make more senior appointments than junior ones
- Where academic staff are appointed on contract, the appointments at senior lecturer and professorial levels should be for a minimum period of five years to enable staff to develop a research trajectory, to supervise postgraduate students and to make use of NRF funding opportunities
- The University must sustain its disciplined approach to student enrolment as a method of controlling staff/student ratios and contributing towards developing a sustainable research environment.
- A supportive developmental and productivity-based financial regime should be established, together with a coherent incentive/reward and recognition system which recognises achievers as well those who are progressing well in their research careers.
- Departmental staffing structures must be strengthened to ensure that there is suitable research leadership to promote and guide research and postgraduate supervision at departmental level.
- Appoint at least one full Professor in each Department
- Ensure that upward progression is possible for deserving academic staff members
- Each department and faculty must formulate operational research and research development plans, including the development of postgraduate studies, with clear targets and measures of success.

- In line with the University's community engagement mission and its stated quest for institutional relevance, departments should prioritise projects in which community and industry partners are involved.
- An intermediary platform must be developed based on the principles of an engaged university as a key partner supported by the quintuple helix approach
- The Institution should establish full-time Research Professor and/or Research Associate positions on the University's staffing structure, spread across all faculties.

Improving staff qualifications and research capacity

At the university the plan for improving the capacity of researchers should have three components: (a) improving staff qualifications, (b) improving individual research capacity, and (c) improving individual postgraduate supervision capacity.

Action plans and targets:

- In line with DHET stipulations, the Development Grant (DG) funds will be allocated to a programme targeted to improve staff qualifications, at both Doctoral and Master's level.
- Two categories of academic staff will be targeted: (a) those who have already made some progress towards their Master's and doctoral degrees and who are expected to submit their work for examination within twelve (12) months; and
- (b) those who are at a mid-stage but find it difficult to progress because of work pressures. Such persons will be assisted, firstly, by granting them special study leave for up to twelve (12) months (for those in a position to graduate) and up to six (6) months (for those who need a stimulus); secondly, by allocating RDF funds to the home department to pay for a leave substitute; and thirdly, to assist with funding any other related costs.
- DG funds will also be allocated to assist staff members who take up opportunities to study towards postgraduate degrees at other institutions and who require assistance in preserving staff benefits such as medical aid contributions.
- The University will offer academic staff opportunities to attain formal, accredited qualifications in the research and research-related spheres.

Effective research administration and management of research policies and budgets

To ensure an effective research and post-graduate management system for both oversight, administrative and strategic planning and strategic planning purposes

The Research office is the focal point of all research administration and record keeping. Research support depends on effective and efficient administrative and policy management practices which would enable the office to do researcher profiling through record keeping and the analysis of data. The Research office also has a strategic function which must be performed in support of the institutional research objectives in a proactive fashion

Action Plan:

- Financial management of the research and operational budgets is a daily responsibility
- To actively take part in the annual research budget process. To annually before the submission of the budget have a joint research budget discussion meeting with Deans and relevant stakeholders in order to align research budgets vis-à-vis the institutional research objectives
- To develop a three or five year budget planning cycle for systematic and sustained support to research projects since research in many ways is conducted over longer term periods
- Record keeping and adhering to institutional policy directives are observed carefully by all units in the Research office
- To monitor and evaluate the allocation and spending of research money in relation to the strategic objectives
- To manage and monitor funding received from organizations such as the TIA, ARC, WRC, HSRC and NRF's financial research support such as bursaries, project funding, post-doctoral support, research development, capacity development and money for research chairs strategically in line with research objectives
- To embark on focused / dedicated third stream income fund-raising with for example: NRF, DST, EU, FAO, etc.
- Liaising with science councils annually
- To facilitate ethics clearance certificate assistance
- To collect, collate and submit accredited output to the DHET by 15 May of each year
- Identify in collaboration with academics at an early stage students that can be earmarked for post-graduate studies and commit them through a three tier scholarship approach to embark on Honours, Master's and PhD studies
- To promote the principles of participatory management with a professional commitment to the tasks at hand
- To have two weekly staff meetings
- To initiate new job grading and work study analyses with the assistance of the Human Resources Department
- To review with each Faculty the role and function of the research representatives such as the Deputy Deans of Research and Internationalisation or coordinators, the Research and Higher Degrees Committees, etc.
- To establish and maintain a research project and research output database, a post graduate database and a funding database so as to facilitate Faculty decision making and monitor the throughput of post graduates.
- Establish and manage an integrated research management data base and provide data analysis as required. This cuts across all the units in the research office
- Manage a data base system which would assist to do an analysis of research monies invested in order to determine returns on investments such as:
 - the throughput rates of post-graduate students,
 - the number of accredited publications as a result of funded conference papers,

- the accredited research outputs of post-doctoral fellows, Adjunct-professors and to compare the monies spent to strategic institutional research goals
- the per capita research output per Faculty and institution
- To create and manage a dynamic research website for researchers, funding and research management
- To initiate, in line with the Research Niche Areas, strong networks with other institutions within and outside South Africa

Target 2018: Fully operational in all aspects

Develop associated research entities, project research and support

University Research Chairs

Research Chairs are externally funded posts for senior staff whose activities are primarily dedicated to research.

Action Plan:

- Apply to establish one externally funded Chair per Faculty
- Apply for SARCHI chairs as per call and secure at least two such chairs
- Create new research chairs in relation to niche areas with demonstrable and commendable research outputs and capacity

Target 2018: To have at least one internally funded research chair per faculty and one externally funded chair in addition to the existing research chairs per Faculty

To have at least three externally funded research chairs in addition to the existing research chairs per Faculty

Research Post-doctoral candidates / fellows

Post-doctoral candidates form an integral part of the research capacity and research output strategy of the University. They receive a payment package of R240 000 per annum.

Action Plan:

- To identify a need in each of the 4 faculties for a post-doctoral candidates and set a target of at least 10 per Faculty
- To advertise annually for the filling of such posts
- To keep post-doctoral candidates to at least three accredited research output units per annum

Target 2018: To have at least one post-doctoral fellow in a strategically identified area in a Faculty, Research Centre, Institute or Unit that publishes at least three accredited articles per annum

Research Adjunct Professors

Adjunct professors have university contracts for limited time-on-tasks. They can be usefully used to supervise post-graduate students and run research projects. They receive incentives for research outputs if they publish under the university's name.

Action Plan:

- Support Faculties to identify all Adjunct Professors and review research activities and outputs. Revise list with a view to building research capacity

- Keep Research Adjunct Professors to at least three accredited articles per annual

Target 2018: To have at least four Research Adjunct Professor in strategically identified areas in a Faculty, Research Centre, Institute or Unit that publishes at least two accredited articles per annum.

University Research Projects

The heart of the research of the University is expressed at the individual research project level. Some of these will be part of the faculties and Research Centres but others are individual projects, with post graduate students.

Individual projects take different forms:

- Research agency funded projects;
- University funded seed projects;
- Commissioned or contract funded projects.

Each of these requires different strategic interventions.

Action Plans and targets:

Agency funded

- Increase the number and spread of funded projects to all faculties
- Increase source of funding e.g. MRC, EU, Foundations, such as First Rand, Ford, etc

University funded

- More careful identification and support of seed projects and bridging funding
- Support for trans disciplinary and green fields research projects in line with the university objectives

Contract funded

- Re-look at policy for distribution of research income
- Stronger monitoring of contracts and focus of commissioned work in relation to core curriculum and research foci.
- Stronger linkages within our niches with national and local government, business and communities to be preferred research contractors

Target 2018: To have done an audit on all research projects in terms of accredited research output as well as in terms of financial support provided and to identify areas of under-performance as well as areas of excellence. This should provide an opportunity for intervention and where possible continued support

SECTION B: PROCEDURES

IMPLEMENTATION AND OVERSIGHT RESPONSIBILITIES

The project owner of this strategy document is the Deputy Vice-Chancellor Research and Innovation, who shall ensure that its provisions are implemented and that it is presented for revision and review at the appropriate time.

The Senate Research Committee shall oversee compliance, while Senate has overarching

oversight responsibility.

POLICY REVIEW

- Council shall review this strategy document on a three-yearly cycle.
- On recommendation of the Senate Research Committee, Senate may review and amend Section B at any time, in which event the amendments take effect on the date of the Senate approval.
- The policy owner may review and amend annexures to this document at any time.
- Nothing in this clause shall prevent Council from reviewing this document at any time prior to the stipulated three-year cycle, in which event a new cycle shall commence from the date of such review.

REFERENCES

DHET *Ministerial Statement on University Funding: 2014/15 and 2015/16* (November 2013)

DHET *Policy and Procedures for Measurement of Research Output of Public Higher Education Institutions* (June 2003, updated 2012), GG No 36102, 1 February 2013

DHET – Various research output reports

Trish Gibbon *Creating Comprehensive Universities* (2002)

UNIZULU *Strategic Plan for Research Development* (Draft 3) (undated)

ANNEXURE A: UNIZULU RESEARCH TARGETS: 2014 to 2019

			Targets 2014 to 2019							Target Ranges
Category	2012 Actual		2014	2015	2016	2017	2018	2019	Increase	
Total research publication output units	72.91	EP* Adjusted	80 98	98 115	115 132	132 147	142 163	150 180	77 107	Between 150-180 by 2019 Sector position: From 20/23 to 18/23
Percentage international journals	64%		66%	68%	70%	72%	74%	76%	2%	Annual increase 2%
Annual growth in accredited research		EP Adjusted		23% 17%	17% 15%	15% 11%	8% 11%	6% 10%	11% 14%	Annual increase 11%-14%
Per capita output for publications	0.24	Adjusted	0.25 0.3	0.30 0.35	0.34 0.42	0.39 0.50	0.41 0.55	0.43 0.60	9% 14%	Annual increase 9%-14% Sector position: From 17/23 to 15/23
Research Master's output	45	EP	60	65	70	75	85	95	11%	Annual increase 11%
Doctoral output	28	EP	25	28	32	38	45	50	9%	Annual increase 9%
Weighted per capita output postgraduates	0.42	EP Adjusted	0.43 0.51	0.44 0.55	0.51 0.64	0.55 0.69	0.64 0.80	0.69 1.00	7% 13%	Annual increase 7%-13%
Weighted per capita output publication and PG	0.66	Adjusted	0.68 0.81	0.74 0.9	0.85 1.06	0.94 1.19	1.05 1.35	1.12 1.6	8% 13%	Annual increase 8%-13% Sector position: From 14/23 to 13/23
Percentage permanent staff with doctoral	27%	EP Adjusted	31% 29%	33% 30%	34% 31%	35% 33%	36% 34%	37% 35%	5% 4%	Annual increase 4%-5% Sector position: From 15/23 to 14/23
Percentage permanent staff with Master's	40%	EP	45% 45%	45% 45%	46% 46%	47% 46%	48% 47%	49% 48%	3% 3%	Annual increase 3% Realistic target: 45%
Percentage permanent staff with no Master's/doctor	34%	EP	23% 26%	21% 25%	19% 23%	18% 21%	16% 19%	14% 17%	-12% -10%	Annual decrease of 8%-11% Realistic target: 15-20%%

(*EP = Enrolment Plan)