

UNIVERSITY RESEARCH AND INNOVATION STRATEGY 2019 -2023

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1. INTRODUCTION

- 1.1 The Botswana Open University (BOU) is inspired by a desire to be a globally recognised open university through the provision of technology-enhanced open and distance learning and cutting edge research and innovation. In pursuit of its desire, BOU has developed the University *Strategic Plan 2019 2023* which underscores the need to promote research and innovation. The *University Research and Innovation Strategy 2019-2023* is designed to support the University's strategic intent to be recognised for relevant research and societal impact. This Strategy has been informed by a range of imperatives both internal and external to BOU. It acknowledges the transformation from a College to a University and the expectations regarding the latter when it comes to research, innovation and scholarship. It is also informed by *Vision 2036*, the *Regional Indicative Strategic Development Plan 2015 -2020*, the *Africa Agenda 2063* and the United Nations' Sustainable Development Goals *Agenda 2030*.
- 1.2 The formal launch of the University in December 2017 is taken as the baseline for measuring research and innovation. Research and innovation will be measured at three levels: outputs, outcomes and societal impact. Critical for this strategy is the implementation of the objective of the *University Research* and *Innovation Policy* "to promote a culture of research and innovation across the institution". The Strategy proposes to do this by focusing on six objectives and five priority research areas. The commitment to this undertaking will take time and will entail the mobilisation of resources to enable the University to create a conducive research and innovation environment.

2. PURPOSE

The purpose of this Strategy is to provide an implementation plan for the *University Research and Innovation Policy* in the period 2019-2023 and the basis for resource mobilisation.

3. STRATEGIC OBJECTIVES

The Strategy has the following objectives:

- a. To implement policies and standards guiding the conduct of research and innovation;
- b. To build the capacity and capability of staff and students for excellence in research, innovation and scholarship;
- c. To promote a culture of research and innovation across the University;
- d. To enhance the institution's national and international profile through scholarship and thought leadership;
- e. To establish research partnerships with local institutions and stakeholders and with international organisations and institutions;
- f. To develop and implement a viable strategy for research funding and allocation.

The above strategic objectives will be achieved through the prioritisation of funding for research and innovation which focuses on the 2019-2023 Priority Research Areas.

4. THE 2019 – 2023 PRIORITY RESEARCH AREAS

- 4.1 The University Research and Innovation Strategy 2019-2023 seeks to develop an institutional culture that values the conduct and communication of research, innovation and scholarship by focusing on five priority interdisciplinary research areas:
 - a. Technology-Enhanced Learning and Open and Distance Learning.
 - b. Indigenous Knowledge Systems and the Creative Economy.
 - c. Employability, Entrepreneurship and Innovation.
 - d. Governance, Leadership and the Knowledge Society.
 - e. Climate Change and Environmental Sustainability.
- 4.2 Alongside the University's Priority Research Areas, it is expected that Schools and Departments (and eventually Centres and Institutes) will develop their own specific research agendas. Appendix 1 shows the indicative research agendas of the Schools.

5. STRATEGY IMPLEMENTATION MATRIX

Strategic Objective 1: Implement and review policies and standards guiding the conduct of research and innovation				
Results		Actions	Indicator	Responsibility
Outcome	Output			
Research and innovation policies and standards applied effectively across the institution	Policies and standards guiding the conduct of research and innovation formulated and reviewed	Develop and review research and innovation policies and standards	Approved policies and standards circulated for staff and student use	University Research and Innovation Committee; Director, Centre for Research and Innovation; and Deans of Schools

Strategic Objective 2: Build capacity of staff and students for excellence in research and innovation				
Results	Quitnut	Actions	Indicator	Responsibility
Outcome	Output			
Staff and students apply methodological rigour and contribute to increased quality research and innovation outcomes	Quality research projects, reports, thesis/dissertations, journal articles, book chapters, monographs etc.	Facilitate staff and students' capacity building in various components of research and knowledge creation Track staff and students' research output	100% of graduate students and academic staff trained Database indicating staff and students' research output	University Research and Innovation Committee; Director, Centre for Research and Innovation; and Deans of Schools

Strategic Objective 3:	Promote a culture of research and innovation across the
institution	

Ilts Actions Indicator		Responsibility	
Output			
Research publications, conference papers, keynote	Include research in individual PMS contracts of relevant staff	Publications in reputable refereed journals	University Research and Innovation Committee; Director, Centre
speeches inaugural/ public lectures etc. and documented	Commission collaborative research	A record of the number of research output and innovations	for Research and Innovation; and Deans of Schools
innovations	Encourage the undertaking of tracer and impact studies	Tracer studies	
	Profile and reward scholars for exceptional research and	Profiles of outstanding scholars	
	Research publications, conference papers, keynote speeches inaugural/ public lectures etc. and documented	Research publications, conference papers, keynote speeches inaugural/ public lectures etc. and documented innovations Encourage the undertaking of tracer and impact studies Profile and reward scholars for exceptional	Research publications, conference papers, keynote speeches inaugural/ public lectures etc. and documented innovations Encourage the undertaking of tracer and impact studies Publications in reputable refereed journals A record of the number of research output and innovations Tracer studies Profile and reward scholars for exceptional research and

<u>Strategic Objective 4:</u> Enhance the institution's national and international profile through scholarship and thought leadership

Results		Actions	Indicator	Responsibility
Outcome	Output			
BOU's	Inter-disciplinary	Mobilise local and	BOU inter-	University
national &	Online Journal	international	disciplinary	Research and
international	publication	contributors for	journal	Innovation
profile through		BOUs online	published	Committee;
scholarship		journal		Director, Centre
and thought				for Research and
leadership	BOU high impact	Organise BOU's	National &	Innovation; and
enhanced	national &	high impact	international	Deans of
	International	national &	forums and	Schools
	forums and	international forums	conferences	
	conferences	and conferences	conducted	

Strategic Objective 5:	Establish research partnerships with local institutions
and stakeholders, an	d with international organisations and institutions

Results		Actions		Indicator	Responsibility
Outcome		Output			
Increased resea networking and collaboration nationally and internationally	rch	MoUs & MoAs	Review existing partnerships and explore possibility for collaborative research & short term attachments	Number of MoUs & MoAs	University Research and Innovation Committee; Director, Centre for Research and Innovation;
		Completed research studies	Undertake collaborative research projects with local and international partners	Number of collaborative research projects, short-term attachments	Deans of Schools; and Director, Partnerships and Business Development
			Bid for research projects and consultancies	Number of funded projects and consultancies undertaken	

Strategic Objective 6:	Develop and implement a	viable strategy for research
funding and allocation		

Results		Actions	Indicator	Responsibility
Outcome	Output			
Impact on	Strategy for	Develop a research	Research funding	University
BOU's	research	funding strategy and	and allocation	Research and
research	funding and	allocation procedure	strategy	Innovation
priority	allocation		document	Committee;
research				Director, Centre for
areas realised	Research funds	Conduct grant	Staff trained in	Research and
through	generated and	proposal training for	grant proposal	Innovation; and
internal and	allocated	staff	writing and	Deans of Schools
external	according to		consulting	
funding	priority research			
	areas		Number of grants awarded	

Train staff on the theory and practice of consultancy	Number of consultancies conducted	
Encourage staff to write winning grant proposals and to engage in consultancies	Amount in Pula generated from consultancy levies	

6. IMPLEMENTATION

The roles and responsibilities for the implementation of the *University Research* and *Innovation Strategy 2019-2023* are as follows:

- a. The University's most senior research and innovation policy and coordination body is the University Research and Innovation Committee which provides oversight for the Strategy and submits an annual report on its implementation to Senate.
- b. The Centre for Research and Innovation provides the secretariat to the University Research and Innovation Committee and provides research management services to the University. It is responsible for promoting, coordinating and monitoring the Strategy.
- c. Deans of Schools are responsible for encouraging and supporting initiatives that will implement the Strategy.

7. REVIEW

The Strategy will be reviewed every three years or earlier as necessary.

APPENDIX 1 – INDICATIVE RESEARCH AGENDAS OF SCHOOLS

School of Education

- Teacher Education and Professional Development for Inclusion
- Curriculum Design and Development for the ODL Context
- Instructional Design and Production in the ODL Context
- Online Strategies for Effective Teaching and Learning
- Lifelong Learners for Global Competitiveness
- ODL and Equity of Access and Success in Tertiary Education
- Impact and Benefits of ODL in Development

School of Business and Management

- Accounting and Finance
- Innovation Management
- Economics
- Development and Growth
- Entrepreneurship
- Organisation
- Marketing
- Strategic Management
- Tourism

School of Social Sciences

- Gender Issues
- Indigenous Knowledge Systems
- Poverty
- Youth Development
- Health
- Governance
- Climate Change

School of Science and Technology

- STEM Education and the 4th Industrial Revolution
- Computational/Artificial Intelligence and Information Systems:
 - a. Data Structures and Algorithms
 - b. BioInformatics
 - c. Databases and Information Management
 - d. Internet of Things
 - e. Machine Learning
 - f. Big Data and Data Analytics
 - g. Cloud Computing
- ICT Networking Infrastructure and Systems Development:
 - a. Computer Networks
 - b. e-Government
 - c. Health Informatics
 - d. Cyber-security, privacy and ethics of IS
 - e. Social Media
- Science and Technology Teaching and Learning:
 - a. Instructional Technology
- Science and Indigenous Knowledge Systems,
- Global Warming and its Socio Economic Impact
- Environmental Technology
- Engineering and the Built Environment
- Strategic IT/IS Management