



Republic of Zimbabwe



**MINISTRY OF HIGHER AND TERTIARY EDUCATION, INNOVATION AND SCIENCE AND TECHNOLOGY
DEVELOPMENT**

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

IRBM STRATEGIC PLAN 2021 -2025

(REVIEWED 2022)

SECTION A: PROFILE OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY.	4
I) INTRODUCTION	4
II) BACKGROUND	6
1. MDA: NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY VISION STATEMENT	11
2. MDA VOTE NUMBER: GRANT AIDED INSTITUTION	11
3. NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY VISION STATEMENT	11
4. NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY MISSION STATEMENT	11
5. CORE VALUES OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY	11
6. TERMS OF REFERENCE	12
7. OVERALL FUNCTIONS OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY	12
8. DEPARTMENTS AT THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY AND THEIR FUNCTIONS	13
9. STATE ENTERPRISES AND INSTITUTIONS UNDER NUST AND THEIR FUNCTIONS	18
10. ENVIRONMENTAL SCANNING	18
10A PESTLE ANALYSIS	18
10 B. SWOT ANALYSIS	22
11. MDA PROGRAMMES AND OUTCOMES	266
12. POLICIES APPLICABLE FOR THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY	268
13. CLIENT NEEDS/PROBLEMS ANALYSIS	29
14. STAKEHOLDERS ANALYSIS	32
15. STRATEGIES, ASSUMPTIONS, RISKS, AND MITIGATIONS	35
15.1 OUTCOME 1: STRENGTHENED CORPORATE GOVERNANCE AND HUMAN CAPITAL MANAGEMENT	35
15.2 OUTCOME 2 – IMPROVED PROVISION OF INFRASTRUCTURE	44
15.3 OUTCOME 3- ENHANCED FINANCIAL SUPPORT SERVICES	48

15.4	OUTCOME 4: IMPROVED PROGRAMME OFFERINGS, TEACHING AND LEARNING EXPERIENCES	57
15.5	OUTCOME 5: INCREASED QUALITY AND QUANTITY OF RESEARCH THAT IMPACTS ON SOCIETY	55
15.6	OUTCOME 6 – IMPROVED INNOVATIVE RESEARCH AND DEVELOPMENT	62
15.7	OUTCOME 7 – ENHANCED KNOWLEDGE TRANSFER AND TECHNOLOGY FOR INDUSTRIALIZATION	65
	16. PROGRAMME PERFORMANCE FRAMEWORK	70
	16A) OUTCOME PERFORMANCE FRAMEWORK	74
	17. OUTPUTS PERFORMANCE FRAMEWORK	73
	18. PROGRAMME BUDGET	77
	19. HUMAN RESOURCES FOR THE STRATEGIC PERIOD.	82
	20. CONCLUDING REMARKS	83

SECTION A: PROFILE OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

i) Introduction

This document outlines the National University of Science and Technology's Strategic Plan (NUST) for 2021-2025. In developing the strategic roadmap, the University took into cognisance the attendant general environmental factors and the current state of Higher Education as presented in the Ministry of Higher and Tertiary Education, Science and Technology Development's (MHTESTD) Strategic Plan, 2019-2023. The NUST Strategic Plan is premised on the transformative Education 5.0 philosophy and is vertically aligned to the following strategic and broader imperatives:

1. The National University of Science and Technology Mandate;
2. National Key Result Areas;
2. National Priorities;
3. National Vision;
4. National Development Strategy 1; and
5. The Sustainable Development Goals.

The Strategic Plan defines 'who we are, where we are going, how we hope to get there, and how we will know when we are there,' in line with the Ministry's Strategic Plan as well as the Integrated Results Based Management (IRBM) system. The strategic roadmap outlines the three strategic programme pillars that NUST will focus on in the next five years, namely;

a) Governance and Administration

This strategic programme pillar has three strategic outcomes, that is, Strengthened corporate governance and human capital management, Improved provision of infrastructure and Enhanced financial support services.

b) Human Capital Development

This strategic pillar is further fragmented into two strategic outcomes: Improved teaching and learning experiences, and Increased quality and quantity of research that impacts on society.

c) Innovation and Industrialisation

This strategic programme pillar underscores the progression from Education 3.0 to 5.0 given its focus on Innovation and Industrialisation. This strategic programme pillar has two outcomes: Improved innovative research and development, and Enhanced knowledge transfer and technology for industrialisation.

In line with the Integrated Results Based Management system, this strategic blueprint outlines the strategic programme outcomes, the strategies, the assumptions, the attendant risks, and the mitigatory measures to deal effectively with risk. For the purposes of monitoring and evaluation, the Operational Plans of this Strategic Plan shall be reviewed quarterly, and the Strategy itself, annually. The Plan Strategic covers the following sections:

- i) The National Level Contribution;
- ii) The Sectoral Level Contribution;
- iii) Vision, Mission, and Core Values;
- iv) Terms of reference;
- v) The Overall Functions of the National University of Science and Technology;
- vi) Departments at the National University of Science and Technology and their functions;
- vii) State Enterprises and Parastatals, Statutory Bodies and Grant Aided Institutions under NUST and their functions;
- viii) Environmental Scanning;
- ix) Policies Applicable to the National University of Science and Technology;
- x) Client Need Analysis;

- xi) Stakeholder Analysis;
- xii) Strategies, Assumptions, Risks and Assumptions;
- xiii) Programme Performance Framework;
- xiv) Programme Budget;
- xv) Human Resources for Strategic Period; and
- xvi) Other Resource Requirements.

This Strategic Plan will guide and focus the attention and efforts of all stakeholders towards the realisation of the NUST mandate, which is to develop human capital with a bias towards Science, Technology, Engineering, and Mathematics disciplines. Guided by a clear vision and path forward, we are confident that we are going to realise our strategic outcomes against the backdrop of a challenging business landscape that has been worsened by the attendant Covid-19 pandemic. As we move forward based on this strategic roadmap, we are all united by a passionate pursuit of excellence as we contribute towards the modernisation and industrialization of Zimbabwe through education, science, and technology development.

ii) Background

The National University of Science and Technology has its roots in the University of Zimbabwe June 1982 Report as well as the Williams Commission which recommended the establishment of another university to advance knowledge with a special bias towards Science and Technology through teaching, research and learning by nurturing students of the University in a holistic manner. On the 8th of April 1991, NUST opened with 270 students in the 3 Faculties of Commerce, Industrial Technology, and Applied Sciences. The total numbers of people involved on a full-time basis were: 270 students, 28 academic staff, 41 administrators, and 11 support staff.

The National University of Science and Technology has undergone significant change and growth since 1991 and the number of Faculties has increased from 3 in 1991 to 7 Faculties in 2021. The additional Faculties are; Communication and Information Science, The Built Environment, Medicine, and Science and Technology Education

This new Strategic Plan (2021-2025), which is informed by a comprehensive assessment of the environment as well as the evaluation of the institution's performance for the past financial year, is intended to consolidate the gains made since 1991 and provide strategic direction for institutional growth and development for the next five years. Further, the Strategic Plan is the result of a consultative process through a strategic planning workshop involving the NUST Council Chairperson, NUST principal officers, Executive Deans, Directors, heads of support units, and representatives from key units of the institution.

Beyond being a product of internal consultative processes, the Strategic Plan is vertically aligned to broader strategic imperatives such as the Sustainable Development Goals, the National Development Strategy 1, National Priorities and National Key Result Areas, the NUST mandate as well as the Integrated Results Based Management system. Therefore, this strategic blueprint reflects the collective aspirations and interests of our internal and external stakeholders.

This Strategic Plan is going to be implemented on the backdrop of a diversity of environmental challenges and the most conspicuous of them being the attendant Covid-19 pandemic which has resulted in unprecedented challenges for the institution. The institution has shown remarkable resilience against the Covid-19 pandemic and this strategic blueprint is designed to strengthen the institution's resilience capabilities as it embarks on this transformational path towards its desired future.

iii) National Level Contribution: The modernisation and industrialisation of Zimbabwe through education, science, and technology development.

a) National Vision: Towards a prosperous and empowered upper middle-income society with job opportunities and a high quality of life for its citizens by 2030.

b) National Priorities the National University of Science and Technology is contributing to:

	Description of National Priority Area
NPA 1	Cross-cutting enablers (Human Capital Development)
NPA 2	Governance
NPA 3	Social Development
NPA 4	Inclusive Economic Growth

c) National Key Result Areas the National University of Science and Technology is contributing to:

	Description of National Key Result Area
NKRA 1	Institutional Capacity and human capital development
NKRA 2	Good Governance
NKRA 3	Infrastructure Development
NKRA 4	Poverty Reduction
NKRA 5	Safe, secure and peaceful environment
NKRA 6	Sustainable Economic Growth

d) National Outcomes the National University of Science and Technology is contributing to:

	Description of National Outcome
NOUC 1	Enhanced Human Capital Development and Innovation
NOUC 2	Improved governance and national development
NOUC 3	Improved infrastructure development and utilities
NOUC 4	Enhanced industrialisation and digitalisation of the economy
NOUC 5	Increased rate of economic growth and economic stabilization
NOUC6	Improved food security and nutrition

iv) Sectoral Level Contribution:

Sector Name: Education and Training

a) Sectoral Key Results Areas

	Description of Sector Key Result Area
SKRA 1	Education
SKRA 2	Research
SKRA 3	Community Service
SKRA 4	Innovation
SKRA 5	Industrialisation

b) Sectoral Outcomes

	Description of Sectoral Outcome Description
SOUC 1	Enhanced Human Capital Development
SOUC 2	Increased quality and quantity of research that impacts on society
SOUC 3	Improved community and scholarly engagement
SOUC 4	Improved Innovative Research and Development
SOUC 5	Enhanced knowledge transfer and industrialisation

1. MDA: NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY VISION STATEMENT

2. MDA VOTE NUMBER: GRANT AIDED INSTITUTION

3. NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY VISION STATEMENT

The broad aspiration of the National University of Science and Technology, as encapsulated in its vision is:

To be a world class University in science, technology, innovation, entrepreneurship, and business development, spearheading industrialisation locally and beyond.

4. NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY MISSION STATEMENT

The National University of Science and Technology's fundamental purpose and reason for existence as outlined in its mission statement is;

To lead in human capital development for industrial and socio-economic transformation, with a bias towards science, technology, engineering and mathematics (STEM) based solutions.

5. CORE VALUES OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

In pursuance of its vision and mission, the National University of Science and Technology is guided by the following principles.

3.1 Integrity and Honesty

In the delivery of value to our clients, we pursue academic excellence with integrity, honesty, and ethical behaviour.

3.2 Responsibility

We are committed to responsible research and innovation that drives commercialisation and industrialisation

3.3 Mutual respect and Teamwork

We thrive on mutual respect, teamwork, and effective partnerships.

3.4 Passion

We are driven by a passion to fulfil your dream.

6. TERMS OF REFERENCE

In pursuance of our role of contributing to the modernization of Zimbabwe through education, science, and technology development, we are guided by the following terms of reference.

6.1 Heritage-Based Education 5.0 Philosophy

6.2 Zimbabwe Council for Higher Education Act of 2010

6.3 Zimbabwe National Qualifications Framework (2018)

6.4 The National University of Science and Technology Mandate

6.5 National University of Science and Technology Act [Chapter 25:13]

7. OVERALL FUNCTIONS OF THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

The overall functions of the National University of Science and Technology are:

- a) To provide for research and courses of instruction, whether on a full-time time basis, by correspondence or extramurally, and to take such other as may appear necessary and desirable for the advancement and dissemination of knowledge;
- b) To hold examinations and to confer degrees, including honorary degrees, diplomas, certificates, and other awards, upon persons who have followed courses of study approved by the Senate and additionally, or alternatively, satisfied such other requirements as may be determined by the Senate;
- c) To provide courses not leading to degrees, diplomas or certificates, including training for persons wishing to enter the University;
- d) To provide opportunities for staff and students and such other persons as the University may approve to engage in productive activity in the fields of science and technology and any other fields in which the University may from time to time be engaged;
- e) To promote research with emphasis on scientific, technological, industrial and developmental projects, with particular reference to the developmental needs of Zimbabwe;

- f) To institute professorships, lectureships, research fellowships, staff development fellowships and other posts and offices and to make appointments thereto;
- g) To institute and award fellowships, scholarships, bursaries, prize medals, exhibitions, and other distinctions, awards and forms of assistance consistent with its objects;
- h) To erect, equip and maintain laboratories, offices, halls of residence, lecture halls, libraries, museums and other buildings and structures required for the promotion of its projects;
- i) To regulate and provide for the residence of its students and members of staff;
- j) To provide and maintain sports fields and other recreational facilities for its students and members of staff;
- k) To demand and receive such fees as may from time to time be prescribed by or in terms of the Statutes;
- l) To enter into such contracts and to establish such trusts and to such staff as the University may require;
- m) To establish pension, superannuation or provident or other credit fund schemes for the benefit of its staff or any section thereof and into arrangements with the Government or any organization or person for the operation of such schemes;
- n) To acquire any property, moveable or immovable, and to take, accept and hold any property which may become vested in it by way of purchase, exchange, grant, donation, lease, testamentary disposition or otherwise;
- o) To sell, mortgage, let on hire, exchange, donate or otherwise dispose any property held by it;
- p) To invest in land or securities such funds as may be vested in it purpose of endowment, whether for general or specific purposes, such other funds as may not be immediately required expenditure;
- q) To borrow money for any purpose which the Council thinks fit;
- r) To lend money in the form of short-term loans to its staff on terms and conditions approved by the Council;
- s) To do all such acts and things, whether or not incidental to the powers specified in this subsection and whether inside or outside Zimbabwe, as may be requisite in order to further its objects or any of them; and
- t) To incubate new higher and tertiary education institutions with a science and technology emphasis.

8. DEPARTMENTS AT THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY AND THEIR FUNCTIONS

A. **The under-mentioned Administrative Departments will be responsible for the administration, management, and control of functions as stipulated hereunder:**

a) **Vice-Chancellor's Department**

- i) Academic and Administration policy implementation;
- ii) Physical Planning, Works and Estates;
- iii) Communication and Marketing;
- iv) Information and Communication Technology Service;
- v) Internal Audit;
- vi) Research and Innovation Office; and
- vii) Centre for Continuing Education.

b) **Research and Academic Affairs**

- i) Development of academic programmes and research activities that are responsive to the socio-economic development needs of Zimbabwe;
- ii) Promotion of academic linkage programmes and partnerships with other institutions, organisations, and communities;
- iii) Curriculum development and review of teaching and learning programmes in line with the Ministry vision of implementing a Heritage Based Education 5.0;
- iv) Quality assurance in its wider sense which incorporates governance/management, infrastructure, quality of student experience, research and community engagement, while ensuring internal compliance with national and international standards and directions;
- v) Internationalisation of student and staff recruitment, which is an integral part of a modern University; and
- vi) Governance and Compliance issues.

c) **Innovation and Business Development**

- i) Resource mobilisation for the University;
- ii) Provide business development leadership and support;
- iii) Superintends over the establishment of innovation hubs that transform knowledge into wealth; co-ordinates;
- iv) Protects and commercialises research in collaboration with industry, leading to the setting up of industrial hubs and parks;
- v) Management/Corporate governance of the University;
- vi) Quality assurance in its wider sense which incorporates governance/ management, infrastructure, quality of student experience, research and community engagement, while ensuring internal compliance with national and international standards and directions; and
- vii) Internationalisation of student and staff recruitment, which is an integral part of a modern University; Governance and Compliance issues, Risk Identification, and Management.

d) **Registry**

- Formulation, guiding, and implementing University Policies;
- Maintaining and safeguarding University Records;
- Providing Secretariat services to various University Committees;
- Providing hygienic Services;
- Providing Training and Development of staff;
- Human Resource Management;
- Legal issues;
- Security; and
- Students Affairs

e) **Bursar's**

- Accounting for and safeguarding University's finances and assets.

f) **Library**

- Support of teaching, learning, and research through the provision of Information Resources.

B. The following Departments (Faculties) will carry out Research, Teaching, and Community engagement in the areas of specialisations listed there under:

a) **Faculty of Applied Sciences**

- Applied Biology and Biochemistry,
- Applied Chemistry,
- Computer Science,
- Applied Mathematics,
- Applied Physics,
- Operation Research and Statistics,
- Sports Science and Coaching,
- Environmental Science and Health,
- Forest Resources and Wildlife Management.

b) **Faculty of The Built Environment**

- Architecture,
- Landscape Architecture and Urban Design
- Quantity Surveying.

c) **Faculty of Commerce**

- Accounting,

- Banking,
 - Business Management,
 - Finance,
 - Marketing,
 - Institute of Development Studies,
 - Insurance and Actuarial Science, and
 - Graduate School of Business.
- d) **Faculty of Communication and Information Science**
- Journalism and Media Studies,
 - Library and Information Science,
 - Publishing Studies, and
 - Records and Archives Management.
- e) **Faculty of Industrial Technology**
- Chemical Engineering,
 - Civil and Water Engineering,
 - Electronic Engineering,
 - Industrial and Manufacturing Engineering, and
 - Textile Technology.
- f) **Faculty of Medicine**
- Medicine,
 - Surgery,
 - Pediatrics,

- Obstetrics and Gynaecology,
- Pathology,
- Community Medicine,
- Clinical Pharmacology and Biochemistry,
- Nursing Sciences,
- Anatomy and Physiology,
- Social Behavioural Sciences, and
- Psychiatry.

g) **Faculty of Science and Technology Education**

- Art, Design and Technology Education,
- Science, Mathematics and Technology Education, and
- Technical and Engineering Education and Training.

9. STATE ENTERPRISES AND INSTITUTIONS UNDER NUST AND THEIR FUNCTIONS

- NUST Press,
- NUST Farm,
- NUST SEP,
- NUST SEC,
- Applied Genetic Testing Centre, and
- NUST Technopark Enterprises (Pvt) Ltd

10. ENVIRONMENTAL SCANNING

This Strategic Plan was informed by a comprehensive assessment of the internal and external assessment of the environment in terms of

PESTLE and SWOT Analysis as presented below.

10a Pestle Analysis

An analysis of the macro-environmental factors that could impact NUST`s strategic initiatives and operational plans was undertaken using the Political, Economic, Social, Technological, Legal, and Environmental (PESTLE) framework was undertaken. A summary of the PESTLE analysis is presented in the table 10.1.

Table 10.1 PESTLE Analysis of the National University of Science and Technology

		Impact	Time-Period		
			Short-term	Medium-term	Long-term
	O/T	H / M /L			
Political					
Devolution of power to promote investment	O	M	✓		

Central Government Commitment to support NUST infrastructure development	O	H			✓
Accessibility of government officials	O	H		✓	
Sanctions	T	H		✓	
Economic Factors					
Exchange Rate Disparities	T	H		✓	
Multi-currency system	O	M		✓	
Foreign currency shortages	T	H		✓	
High interest rates	T	H		✓	
Increasing inflation	T	H		✓	
Reduction in disposable incomes	T	H		✓	
High demand for tertiary education	O	H			✓
Socio-Cultural Factors					
High rate of unemployment and underemployment	T	H		✓	
Interest from alumni	O	H			✓
Massification of education	T	H		✓	
Shortage of critical skills (Brain Drain)	T	H		✓	
Substance abuse	T	H		✓	

High stress levels	T	H		✓	
Poor culture of philanthropy	O	H			✓
Society that values education	O	H			✓
Technological Factors					
Unreliable Power Supplies	T	H		✓	
Availability of ICTs and other technologies	O	H			✓
High Rate of Technological Change	O	H			✓
Off-patent manufacturing	O	H		✓	
High cost of Software	T	H		✓	
Unreliable Internet Connectivity	T	H		✓	
Legal Factors					
National ICT Policy	T	H		✓	
Compliance to Statutory Requirements (e.g Procurement and Disposal of Public Assets Act [Chapter 22:23])	T	H		✓	
Constitution of Zimbabwe Amendment (#20)	O	H		✓	
ZIMCHE Act [Chapter, 25:27]	O	H		✓	
NUST Act [1990]	O	H			✓
Zimbabwe National Code on Corporate Governance	O	H		✓	

Patent Act, [Chapter 26:03]	O	H			✓
Labour Act [Chapter 28]	O	H		✓	
Public Finance Management Act [Chapter 22:19]	T	H		✓	
Environmental Management Act [Chapter 20:27]	T	H		✓	
Local Authority By-laws	O	M	✓		
Environmental Factors					
		1.	2.		
EMA Requirements	T	H		✓	
Climate Change	T	M			✓
Covid-19 Pandemic	T and O	H		✓	

10 b. SWOT Analysis

The external and internal analyses conducted above culminated in a SWOT analysis. SWOT is an acronym that stands for Strengths and Weaknesses (as internal strategic factors) and Opportunities and Threats (as external strategic factors). The SWOT analysis was undertaken not only in order to identify NUST’s distinctive competencies, the particular capabilities and resources it possesses, and the superior way in which they are used, but also in identifying opportunities that the University is not currently able to take advantage of due to the prevailing macroeconomic conditions. The results of the SWOT Analysis are shown in Table 4 where each SWOT factor is rated in terms of its importance or impact as *major*, *moderate* or *minor*.

TABLE 10.2: A SUMMARY OF National University of Science and Technology SWOT Analysis

STRENGTHS	MAJOR	MODERATE	3. MIOR
Committed Management	✓		4. N
Open lines of communication	✓		5.
Readily accessible principal officers	✓		6.
Availability of land	✓		7.
Available expertise within Faculties		✓	8.
Availability of underground water	✓		9.
Good academic reputation	✓		10.
A strong and well-established NUST brand	✓		11.
Innovation hubs dedicated to supporting innovation	✓		12.
A unit dedicated to innovation and business development	✓		13.
WEAKNESSES			
Inadequate infrastructure (teaching space, laboratories, workshops,	✓	14.	15.

ICT, water reticulation)			
Inadequate Financial Resources	✓	16.	17.
Unreliable ICTS network	✓		18.
Bureaucratic procedures	✓		19.
The slow pace in implementation to take advantage of opportunities	✓		20.
Poor research culture	✓		21.
Inability to translate research into viable products and projects	✓		22.
Insufficient capacitation through training and development programmes			✓
Low number of Professors for mentorship	✓		23.
Industrially inexperienced staff		✓	24.
OPPORTUNITIES			
Availability of possible research and other grants from external stakeholders		✓	25.
Accessibility of government officials and enabling policies for PPPs and JVCs		✓	26.
Central government commitment to support NUST infrastructure development.	✓	27.	28.
Government policy inclination towards infrastructure development	✓	29.	30.

Goodwill from stakeholders such as the Bulawayo City Council	✓	31.	32.
Increasing demand for higher education both locally and internationally	✓	33.	34.
Technological innovations and possibilities for e-learning platforms	✓	35.	36.
Strong and influential alumni in industry and commerce	✓	37.	38.
THREATS			
Covid-19 Pandemic	✓	39.	40.
Sanctions	✓	41.	42.
Unreliable power supplies	✓	43.	44.
High taxes and import duties	✓	45.	46.
Exchange rate disparities	✓	47.	48.
Foreign currency shortages	✓	49.	50.
High interest rates	✓	51.	52.
Unreliable water supplies	✓	53.	54.
Climate change	✓	55.	
Massification of education and limited scholarly development opportunities		56.	✓
High competition among universities including duplication of NUST programmes			✓

Reduced Disposable Incomes	✓	57.	58.
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11. MDA PROGRAMMES AND OUTCOMES

The following is a presentation of our programmes and the envisaged outcomes based on the successful implementation of our strategies.

Table 11.1 Programme outcomes

NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY									
IRBM STRATEGIC PLAN 2021-2025									
11. MDA PROGRAMMES AND OUTCOMES:									
Prog Ref	Programme Name	Programme Outcomes	Weight	Responsible Department	Contributing MDAs/Other Partners	Type of Contribution	Sector Outcome Ref	National Outcome Ref	SDG Ref
1	Governance and Administration	1.Strengthened corporate governance and human capital management		Registry	MHT EIST D	Policy guidance	1,2 3, 4, 5	1, 2, 3	4 & 5
		2.Improved provision of infrastructure		PPWE	MHT EIST D; MLGPWNH; MoFED	Funding; Works			
		3.Enhanced financial support services		Bursary	MHT EIST D; MoFED	Funding			
2	Human Capital Development	4.Improved teaching and learning experiences		Faculties; CCE	MHT EIST D; ZIMCHE	Programme accreditation; policy guidance	1, 2, 3, 4	1, 2, 3	4, 5 & 9
		5.Increased quality and quantity of research that impacts on society		Faculties; RIO	MHT EIST D; ZIMCHE; RCZ; Other Universities	Policy guidance; Funding; Collaborations	2, 3, 4	1, 2, 3	
3	Innovation and Industrialisation	6.Improved Innovative Research and Development 7.Enhanced knowledge transfer and technology for industrialisation		IBD, Faculties	MHT EIST D; Industry & Commerce	Policy guidance; Funding; partnerships	3, 4, 5	1, 2, 3	4, 5 & 9

12. POLICIES APPLICABLE FOR THE NATIONAL UNIVERSITY OF SCIENCE AND TECHNOLOGY

The following are the policies applicable to NUST as aligned and guided by the policies of the parent ministry and the Government of Zimbabwe.

Table 12.1 Policies Applicable for the National University of Science and Technology

	External Policy	Programme Ref	Internal Policy	Programme Ref
1.	The Constitution of Zimbabwe	1,2,3	Financial Regulations	1,2,3
2.	Vision 2030	1,2,3	Research Board Guidelines	2,3
3.	NDS1	1, 2,3	Intellectual Property Policy	1,2,3
4.	Ministry Strategic Plan	1, 2,3	Training and Staff Development Policy	1,2,3
5.	NUST Act	1,2,3	ICTS user account policy	1,2,3
6.	Labour Act	1,2,3	Policy on Harassment	1,2,3
7.	Public Finance Management Act	1,2,3	Communication Policy	1,2,3
8.	Income Tax Act	1,2,3	Transport Policy	1,2,3
9.	Health Professions Act	1,2,3	Telephone usage Policy	1,2,3

	External Policy	Programme Ref	Internal Policy	Programme Ref
10.	Environmental Management Authority Act	1,2,3	Email Policy	1,2,3
11.	Research Act	1,2,3	NUST 'Technopark' incubation Policy	1,2,3
12.	Health and Safety Act	1,2,3	Employment Policy	1,2,3
13.	Pensions and Providence Fund Act	1,2	Admission Policy	2
14.	Public Procurement and Disposal of Public Assets Act	1,2,3	NUST Library Policy	1,2,3
15.	Finance Act	1,2,3	Ordinance 30	2
16.	National Gender Act	1,2,3	Ordinance 28	1,2
17.	National Libraries and Documentation Services Act	1,2,3	Ordinance 25	1,2
18.	Copyright and Neighbouring Rights Act	1,2,3	Faculty Governance Ordinance	1,2
19.	Dialogue on Shelter and Zimbabwe Homeless Peoples Federation	2,3	Records Managements Policy	1,2,3

	External Policy	Programme Ref	Internal Policy	Programme Ref
20.	Zimbabwe National Policy for Information and Communication Technology	1,2,3	Maintenance Policy	1,2,3
21.	Public Entities Corporate Governance Act	1,2,3	Contracts Circular of 2021	1,2,3
22.	National Archives of Zimbabwe Act	1,2,3	Vehicle Policy	1,2,3
23.	Legal Practitioners Act	1,2	Employee Dependants' Tuition Fees Exemption Policy	1,2,3
24.			Remuneration Policy	1,2,3
25.			Performance Management Policy	1,2,3

13. CLIENT NEEDS/PROBLEMS ANALYSIS

Tabulated below is an analysis of the needs and problems of the National University of Science and Technology clients.

Table 13.1 Client Needs/Problems Analysis

Direct Clients	Needs	Extent (Magnitude/seriousness)	Problems	Extent (Magnitude/seriousness)
1. Students	<ul style="list-style-type: none"> - Knowledge & technical skills - Entrepreneurial skills - Adequate infrastructure 	<p>H</p> <p>H</p> <p>H</p>	<ul style="list-style-type: none"> - Accommodation shortage - Lecture rooms shortage - Laboratories shortage 	<p>H</p> <p>H</p> <p>H</p>

	<ul style="list-style-type: none"> - Committed Staff - Funding 	<p>H H</p>	<ul style="list-style-type: none"> - Library facilities shortage - ICT Infrastructure inadequacy - Sports and recreation facility inadequacy - Furniture shortage 	<p>H H H M</p>
2. Staff	<ul style="list-style-type: none"> - Competitive Remuneration - Timely disbursement - Focused committed students - High entry points - State of the art facilities - Clean Environment - Good Public Relations - Job Security - Continuous Job-related training - Relevant higher qualifications 	<p>H H H M H H H H H H H</p>	<ul style="list-style-type: none"> - Failure to attract highly qualified staff - Turnover of staff with special skills - Inadequate infrastructure 	<p>H H H</p>
3.				
4. Industry and Commerce	<ul style="list-style-type: none"> - Competent skilled human capital - Curriculum 	H	<ul style="list-style-type: none"> - Inadequately skilled human capital - Critical skills 	<p>M H</p>

	aligned to technology advancement -problem-driven research and development programmes	H H	shortage - Lack of funds for modern research and development	H
5. Other Universities and Affiliates	- Expertise in STEM - Successful incubation of STEM Colleges -Increased research collaborations -Increased number of graduates from affiliate institutions	H H M H	- Inadequate science and technology research laboratories and equipment - Inadequate skills base in technical colleges	H H H
6. External Funders and Donors	-Long term developmental programmes that are STEM based. - Accountability and good governance systems	H M	- Inadequate monitoring and evaluation systems - Delays in submitting projects progress reports -Lack of long-term developmental grants - Frequent changes in local developmental policies - Unfavourable international relations	M M M H H
7. Customers	- Quality products	H	- Loss of business due to poor service delivery	H

14. STAKEHOLDERS ANALYSIS

The following is an analysis of the direct stakeholders of the National University of Science and Technology in terms of the magnitude of their demands and expectations.

Table 14.1 Analysis of National University of Science and Technology Stakeholders

Direct Stakeholders	Demands/ Expectations	Extent (<i>Magnitude/seriousness</i>)
1. MHTEISTD	1. Adherence to mandate 2. Innovation and Technology transfer 3. Research output 4. Increased linkage between academia and industry 5. Generation of multiple income streams 6. Professionals with STEM skills 7. Number of commercial ventures being generated 8. Graduates with entrepreneurial skills 9. Compliance to statutes 10. Implementation of Education 5.0	H H H H H H H H H H
2. ZIMCHE	1. Adherence to higher education sector regulations 2. Adherence to quality assurance standards	H H
3. University Council	1. Quality service delivery 2. Adherence to mandate	H H

	3. High visibility of the university 4. Accountability	H H
5. University Senate	1. Adherence to policies 2. Effective communication 3. Academic excellence 4. Uniformity of operations 5. Accountability Professionalism	H H H H H H
6. Scholarship providers	1. Quality graduates 2. Accountability	H H
7. Financiers / Partners	1. Accountability 2. Transparency and integrity	H H
8. Industry & Commerce Associations (Member-based Organisations)	1. Competent graduates 2. Innovative graduates 3. Research output 4. Ethical graduates	H H H H
9. Local authorities	1. Problem- solving graduates 2. Competent graduates 3. Innovative graduates	H H H
4. Parents	1. Committed Lecturers 2. Employable graduates 3. Professionalism from university staff	H H H
4. Other Universities	1. Collaboration and networks 2. Fair competition	H M

5. Affiliate and Associate colleges	<ol style="list-style-type: none"> 1. Assistance in expert knowledge 2. Guidance 3. Recognition 	<p>H</p> <p>H</p> <p>H</p>
3. Other Government Ministries	<ol style="list-style-type: none"> 1. Expertise 2. Professionalism 3. Cooperation 4. Research outputs 	<p>H</p> <p>H</p> <p>H</p> <p>H</p>
3. Parastatals	<ol style="list-style-type: none"> 1. Expertise 2. Professionalism 3. Cooperation 	<p>H</p> <p>H</p> <p>H</p>
14. Students Representative Council	<ol style="list-style-type: none"> 1. Quality service delivery 2. Competent and dedicated lecturers 3. Efficient systems 4. Fair treatment by lecturers 	<p>H</p> <p>H</p> <p>H</p> <p>H</p>
15. Staff Associations	<ol style="list-style-type: none"> 1. Competitive remuneration 2. Attractive conditions of service 3. Conducive work environment 4. Availability of resources 5. Fair treatment 	<p>H</p> <p>H</p> <p>H</p> <p>H</p> <p>H</p>

5. STRATEGIES, ASSUMPTIONS, RISKS, AND MITIGATIONS

The following is a presentation of the strategies, assumptions, risks, and mitigation measures that are at the core of the National University of Science and Technology Strategic Plan (2021 – 2025). These strategies, assumptions, risks, and mitigation measures are designed to achieve the desired outcomes under the three strategic programme pillars.

15.1 Outcome 1: Strengthened corporate governance and human capital management

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Governance Administration				
Outcome 1: Strengthened corporate governance and human capital management				
Year 2021/2022	▪ Develop new policies	Cooperation from all relevant stakeholders	Resistance to the new policies by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Review existing policies	Cooperation from all relevant stakeholders	Resistance to the policy reviews by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Improve access to NUST policies and procedures through electronic record management	Availability of resources	Failure to fully understand the system	Training to ensure understanding and competency to use the system
	▪ Develop and register code of conduct	▪ Acceptance of the new code of conduct by all relevant stakeholders.	Resistance to the new code by some internal stakeholders	Involve all internal stakeholders in the development of the new code of conduct. Employ change management best practices.

<ul style="list-style-type: none"> Develop corporate governance charter 	<ul style="list-style-type: none"> Acceptance of the new corporate governance charter by all relevant stakeholders. 	Resistance to the new code by some internal stakeholders	Involve all internal stakeholders in the development of the new code of conduct. <ul style="list-style-type: none"> Employ change management best practices.
<ul style="list-style-type: none"> Conduct corporate governance training workshop for councillors 	<ul style="list-style-type: none"> Commitment and cooperation from councillors 	<ul style="list-style-type: none"> Poor attendance by councillors. Covid-19 restrictions on meetings. 	<ul style="list-style-type: none"> Blended training model to improve attendance and mitigate against Covid-19 restrictions on meetings.
<ul style="list-style-type: none"> Conduct training on academic governance 	<ul style="list-style-type: none"> Commitment and cooperation from relevant staff members 	<ul style="list-style-type: none"> Poor attendance by targeted staff members. Covid-19 restrictions on meetings. 	Blended training model to improve attendance and mitigate against Covid-19 restrictions on meetings.
<ul style="list-style-type: none"> Compliance with the NUST Act and other relevant statutes 	<ul style="list-style-type: none"> Cooperation from all departments 	Non-Cooperation from all departments	<ul style="list-style-type: none"> Strick enforcement of the NUST Act and other statutes Appropriate disciplinary action for non-compliance.
Undertake a skills audit	All the information required will be provided timeously	Staff members may not quickly submit the required information	Work collaboratively with departmental heads to ensure timely submission by members of staff
Develop an annual staff statistics report	Cooperation from all departments	Staff members may not quickly submit the required information	Identify focal people who will be responsible for providing the information

Recruit and retain qualified and experienced human capital.	Employee reward packages will be competitive enough to ensure continuance commitment from employees.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
Develop and train qualified and experienced human capital.	The university will be able to retain the developed human capital.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
Develop a staff succession plan.	The initiative will be timeously implemented.	Delays in implementation due to those responsible being busy with other work responsibilities.	Expedite the implementation of the initiative.
Develop a staff retirement plan	That staff members will be receptive to the plan	Resistance from retirees to the plan	Conduct training sessions and early engagement with prospective retirees

	Develop motivational programmes for staff	Motivational initiatives will be based on the total reward approach for the best results.	Resources constrain in the implementation of the total reward approach	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
Budget year – 2023	▪ Develop new policies	Cooperation from all relevant stakeholders	Resistance to the new policies by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Review existing policies	Cooperation from all relevant stakeholders	Resistance to the policy reviews by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Compliance with NUST Act and other relevant statues	Cooperation from all departments	Non- Cooperation from all departments	<ul style="list-style-type: none"> ▪ Strick enforcement of the NUST Act and other statutes ▪ Appropriate disciplinary action for non-compliance.
	Undertake a skills audit	All the information required will be provided timeously	Staff members may not quickly submit the required information	Work collaboratively with departmental heads to ensure timely submission by members of staff

	Develop an annual staff statistics report	Cooperation from all departments	Staff members may not quickly submit the required information	Identify focal people who will be responsible for providing the information
	Recruit and retain qualified and experienced human capital.	Employee reward packages will be competitive enough to ensure continuance commitment from employees.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Develop and train qualified and experienced human capital.	The university will be able to retain the developed human capital.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Develop a staff succession plan.	The initiative will be timeously implemented.	Delays in implementation due to those responsible being busy with other work responsibilities.	Expedite the implementation of the initiative.

	Develop a Retirement Planning programme	That staff members will be receptive to the plan	Resource constraints	Engage partners and raise funds
	Develop motivational programmes for staff	Motivational initiatives will be based on the total reward approach for the best results.	Resources constrain implementation of total reward approach	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
<i>2-3 Years</i>	▪ Develop new policies	Cooperation from all relevant stakeholders	Resistance to the new policies by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Review existing policies	Cooperation from all relevant stakeholders	Resistance to the policy reviews by some internal stakeholders	Involve all internal stakeholders in the development of the new policies
	▪ Conduct corporate governance training workshop for councillors	▪ Commitment and cooperation from councillors	<ul style="list-style-type: none"> ▪ Poor attendance by councillors. ▪ Covid-19 restrictions on meetings. 	▪ Blended training model to improve attendance and mitigate against Covid-19 restrictions on meetings.
	▪ Conduct training on academic governance	▪ Commitment and cooperation from relevant staff members	<ul style="list-style-type: none"> ▪ Poor attendance by targeted staff members. ▪ Covid-19 restrictions on meetings. 	Blended training model to improve attendance and mitigate against Covid-19 restrictions on meetings.

	<ul style="list-style-type: none"> Compliance with the NUST Act and other relevant statutes 	<ul style="list-style-type: none"> Cooperation from all departments 	Non- Cooperation from all departments	<ul style="list-style-type: none"> Strick enforcement of the NUST Act and other statutes Appropriate disciplinary action for non-compliance.
	Undertake a skills audit	All the information required will be provided timeously	Staff members may not quickly submit the required information	Work collaboratively with departmental heads to ensure timely submission by members of staff
	Develop an annual staff statistics report	Cooperation from all departments	Staff members may not quickly submit the required information	Identify focal people who will be responsible for providing the information
	Recruit and retain qualified and experienced human capital.	Employee reward packages will be competitive enough to ensure continuance commitment from employees.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> Request for increased salary budgetary allocation from the government. Grow university revenue in order to increase the resources available to provide competitive reward packages.

	Develop and train qualified and experienced human capital.	The university will be able to retain the developed human capital.	Risk of high voluntary turnover if reward packages are not competitive.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Develop a staff succession plan.	The initiative will be timeously implemented.	Delays in implementation due to those responsible being busy with other work responsibilities.	Expedite the implementation of the initiative.
	Develop motivational programmes for staff	Motivational initiatives will be based on the total reward approach for the best results.	Resources constrain in the implementation of the total reward approach	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.

15.2 Outcome 2 – Improved Provision of Infrastructure

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Governance and Administration				
Outcome 2: Improved provision of infrastructure				
2021/2022	Engage in fundraising and other resource mobilisation activities to get funds for completion of all unfinished building projects as well as to provide additional infrastructure for teaching and learning, research as well as student residencies.	The fundraising activities will be successful in relation to raising the required funds.	Funds raised might be inadequate to support infrastructure development plans.	Engage the government to cover funding gaps.
	Negotiate PPPs and JVCs with potential partners in order to enhance the University's capacity to provide the required infrastructure through synergistic partnerships.	Negotiations will be successful Negotiations will be completed within a reasonable time frame.	Parties might take time to agree and produce binding contracts. Changes in the macro-economic environment might affect PPPs and JVCs	Expedite conclusion and implementation of partnership agreements.
	Recruitment of professional staff to drive the implementation of infrastructure projects	The University will be able to retain the professional staff	Failure to retain the key staff driving infrastructure projects	Need to improve staff retention strategies Use consultants where professional expertise is urgently needed

Identify and engage funding partners to support university farm infrastructure needs	Funding partners willing to enter into agreements Negotiations will be completed within a reasonable time frame	Parties might take time to agree and produce binding contracts and agreements.	Expedite conclusion and implementation of partnership agreements.
Automation of ERP processes on the ERP system	The initiative will be implemented with urgency	Slow implementation might affect strategic initiative	Capacitate ICTs Department so that it can speedily implement the automation initiative
Purchase of computing equipment for laboratories	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model.
Equip the NUST data center	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model.
Setup Uninterrupted Power Supply for the Data Centre	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model.
Setup Converged Networking Infrastructure	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model.
Automation of Processes on NAVISION	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized given the operational importance of the NAVISION system.

	Revamp and upgrade sewer and water reticulation system	Sufficient budgetary support	Delay in implementation because of resource constraints	Resource Mobilization
	Repair campus road network	The initiative will be implemented with urgency	Slow implementation might affect strategic initiative	Capacitate Works Department so that it can speedily implement automation initiative
Budget year (2023)	Engage in fundraising and other resource mobilisation activities to get funds for completion of all unfinished building projects as well as to provide additional infrastructure for teaching and learning, research and student residencies.	The fundraising activities will be successful in relation to raising the required funds.	Funds raised might be inadequate to support infrastructure development plans.	Engage the government to cover funding gaps.
	Solar Power Generation Plant	Sufficient Budgetary Support	Resource Constraints	Engage Clean Energy Partners
	Negotiate PPPs, JVCs, BOTs, and BOOTs with potential partners to in order to enhance the university's capacity to provide the required infrastructure through synergistic partnerships.	Negotiations will be successful Negotiations will be completed within a reasonable period.	Parties might take time to agree and produce binding contracts. Changes in the macro-economic environment might affect PPPs and JVCs	Expedite conclusion and implementation of partnership agreements.
	Identify and engage funding partners to support university farm infrastructure needs	Funding partners willing to enter into agreements Negotiations will be completed within a reasonable time frame	Parties might take time to agree and produce binding contract agreements.	Expedite conclusion and implementation of partnership agreements.
	Purchase of computing equipment for laboratories	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritised in light of Education 5.0

	Setup Uninterrupted Power Supply for the Data Centre-Phase 2	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative(s) should be prioritised in light of the blending learning model.
	Equip the NUST data centre	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative(s) should be prioritised in light of blending learning model.
	Setup Converged Networking Infrastructure	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative(s) should be prioritised in light of blending learning model.
2-3 Years	Engage in fundraising and other resource mobilisation activities to get funds for the completion of all unfinished building projects as well as to provide additional infrastructure for teaching and learning, research as well as student residencies.	Engage in fundraising and other resource mobilisation activities to get funds for the completion of all unfinished building projects as well as to provide additional infrastructure for teaching and learning, research and student residencies.	The fundraising activities will be successful in relation to raising the required funds.	Funds raised might be inadequate to support infrastructure development plans.
	Negotiate PPPs and JVCs with potential partners in order to enhance the University's capacity to provide the required infrastructure through synergistic partnerships.	Negotiate PPPs and JVCs with potential partners to in order to enhance the University's capacity to provide the required infrastructure through synergistic partnerships.	Negotiations will be successful Negotiations will be completed within a reasonable time frame.	Parties might take time to agree and produce binding contracts. Changes in the macro-economic environment might affect PPPs and JVCs
	Identify and engage funding partners to support university farm infrastructure needs	Funding partners willing to enter into agreements Negotiations will be completed within a reasonable time frame	Parties might take time to agree and produce binding contracts and agreements.	Expedite conclusion and implementation of partnership agreements.

15.3 Outcome 3 – Enhanced Financial Support services

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Governance and Administration				
Outcome 3: Enhanced Financial Support services				
Budget Year (2022)	Develop debt recovery systems	The debt recovery systems will be effective	Money may be recovered after losing value given inflationary pressures.	Use value capture systems that minimise debts.
	Facilitate access to student loan schemes	Students are willing to take up loans	High interest rates might affect take-up of loans.	Negotiate concessionary interest rates for the students.
	Implement cost-cutting measures	There are areas where costs can be sustainably cut without impacting negatively on outputs.	Resistance to the cost-cutting initiatives.	Use change management best practices in implementing the cost-cutting initiatives.
	Procure at the minimum possible costs	Such a procurement philosophy will not affect quality.	Risk of purchasing poor quality goods or services.	Flexibility needed to be built into the purchasing philosophy so that cost and quality are balanced.
	Set up internal Control Systems	The control systems will be effective	Excessive controls might add unnecessary layers of bureaucracy.	Flexibility should be built into the control systems so that their objectives are achieved without causing service delays to other stakeholders.

	Provide efficient service to students and other clients.	Automation of university ERP systems will help enhance service quality.	Delays in automating ERP systems might affect service quality.	Expedite the implementation of business process re-engineering initiatives that will improve Bursary service quality.
2-3 Years	Facilitate access to student loan schemes	Students are willing to take up the loans	High interest rates might affect take-up of the loans.	Negotiate concessionary interest rates for the students.
	Implement cost cutting measures	There are areas where costs can be sustainably cut without impacting negatively on outputs.	Resistance to the cost-cutting initiatives.	Use change management best practices in implementing the cost-cutting initiatives.
	Procure at minimum possible costs	Such a procurement philosophy will not affect quality.	Risk of purchasing poor quality goods or services.	Flexibility needed to be built into the purchasing philosophy so that cost and quality are balanced.
	Provide efficient service to students and other clients.	Automation of university ERP systems will help enhance service quality.	Delays in automating ERP systems might affect service quality.	Expedite the implementation of business process re-engineering initiatives that will improve Bursary service quality.
4-5 Years	Facilitate access to student loan schemes	Students are willing to take up the loans	High interest rates might affect take-up of the loans.	Negotiate concessionary interest rates for the students.
	Implement cost-cutting measures	There are areas where costs can be sustainably cut without impacting negatively on outputs.	Resistance to the cost-cutting initiatives.	Use change management best practices in implementing the cost-cutting initiatives.

	Procure at the minimum possible costs	Such a procurement philosophy will not affect quality.	Risk of purchasing poor quality goods or services.	Flexibility needed to be built into the purchasing philosophy so that cost and quality are balanced.
	To ensure an efficient service to students and other clients.	Automation of university ERP systems will help enhance service quality.	Delays in automating ERP systems might affect service quality.	Expedite the implementation of business process re-engineering initiatives that will improve Bursary service quality.

15.4 Outcome 4: Improved programme offerings, teaching, and learning experiences

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Human Capital Development				
Outcome 4: Improved programme offerings, teaching and learning experiences.				
Budget Year (2023)	Recruit and retain academic staff	<ul style="list-style-type: none"> ▪ Non-monetary retention strategies will be effective. ▪ Availability of resources to provide competitive compensation packages. ▪ Sufficient budgetary support from the central government. 	<ul style="list-style-type: none"> ▪ Voluntary turnover of academic staff may persist due to low levels of rewards. ▪ Budget pressures 	<ul style="list-style-type: none"> ▪ Lobby for increased budgetary allocation from the government for staff welfare ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.

	Purchase ICT resources	Sufficient budgetary support	Delay in the implementation	Strategic initiative should be prioritized in light of the blended learning model.
	Complete the campus library project	Project completion will be expedited.	Might be affected by the slow implementation.	Identify a project champion to expedite the implementation.
	Expand library physical spaces, by developing branch libraries.	Space will be quickly identified for the branch libraries.	Renting library space is expensive.	Expand on library virtual spaces and make e-resources off campus more accessible
	Expand library virtual spaces	Initiative will be quickly implemented in light of the blended learning model.	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritised in light of blending learning model.
	Develop new programmes	Curriculum of new programmes will be as unique as possible for marketability.	Distinctiveness of the new programmes might be affected by MBKs regulations.	Use available MBKs provisions to distinguish the programmes
	Establish new Departments that evolve into Faculties / Schools	Sufficient budgetary support	Implementation delays	Improved coordination
	Craft regulations that allow cross-faculty degree programmes	Cooperation amongst the faculties	Slow implementation might affect strategic initiative	Improved coordination

	Identify, develop and offer new online programmes as well as MOOCs at undergraduate and postgraduate level.	-Availability of supporting ICT infrastructure - ZIMCHE will approve new programmes	Cyber security	Develop/acquire requisite security software
	Market penetration strategies to increase enrolment of local students	A lot of untapped demand in the local market	Inflexible delivery lecture models might affect market response.	Need to rely on the blended learning approach to increase local demand.
	Market development strategies to increase enrolment of international students	A lot of untapped demand in foreign countries	Fees for foreign students might be too high thus affecting the number of applications from foreign students.	Fees for foreign students should be set reasonably taking into account with price-elasticity of demand
2-3 Years	Recruit and retain academic staff	<ul style="list-style-type: none"> ▪ Retention strategies will be effective. ▪ Availability of resources to provide competitive compensation packages. ▪ Sufficient budgetary support from the central government. 	<ul style="list-style-type: none"> ▪ Voluntary turnover of academic staff may persist due to low levels of rewards. ▪ Inadequate resources to provide competitive reward packages. ▪ Budgetary support from the central government might not be enough to ensure the provision of competitive reward packages to staff. 	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Purchase more computers.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model.

Purchase and subscribe for appropriate software for programmes	Availability of foreign currency to purchase and subscribe for the required software.	Foreign currency may not be adequate to purchase and subscribe for the required software.	Increase the number of foreign students so foreign currency should be generated to fund important requirements such as software.
Complete the campus library project	Project completion will be expedited.	Might be affected by slow implementation that has characterised many institutional projects	Identify a project champion to expedite the implementation.
Develop new programmes	Curriculum of new programmes will be as unique as possible for marketability.	Distinctiveness of the new programmes might be affected by MBKs regulations.	Use available MBKs provisions to distinguish the programmes
Establish new Departments that evolve into Faculties / Schools	Sufficient budgetary support	Implementation delays due to resource constraints	Such strategic initiatives should be prioritized given the strategic importance of growth to the university.
Craft regulations that allow cross-faculty degree programmes	The initiative will be implemented with urgency	Slow implementation might affect strategic initiative	Such strategic initiatives should be prioritized given their potential in enhancing cross-faculty collaborative research.
Identify, develop and offer new online programmes at the undergraduate level.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints and other potentially militating factors.	Strategic initiatives should be prioritized in light of blending learning model given the attendant Covid-19 risks.
Identify, develop and offer new online programmes at postgraduate level.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints and other potentially militating factors.	Strategic initiatives should be prioritised in light of blending learning model given the attendant Covid-19 risks.

	Identify, develop and offer MOOCS	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritized in light of blending learning model given the attendant Covid-19 risks.
	Market penetration strategies to increase enrolment of local students	A lot of untapped demand in the local market	Inflexible delivery lecture models might affect market response.	Need to rely on the blended learning approach to increase local demand.
	Market development strategies to increase enrolment of international students	A lot of untapped demand in foreign countries	Fees for foreign students might be too high thus affecting a number of applications from foreign students.	Fees for foreign students should be set reasonably taking into account price-elasticity of demand
4-5 Years	Recruit and retain academic staff	<ul style="list-style-type: none"> ▪ Retention strategies will be effective. ▪ Availability of resources to provide competitive compensation packages. ▪ Sufficient budgetary support from the central government. 	<ul style="list-style-type: none"> ▪ Voluntary turnover of academic staff may persist due to low levels of rewards. ▪ Inadequate resources to provide competitive reward packages. ▪ Budgetary support from the central government might not be enough to ensure the provision of competitive reward packages to staff. 	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Purchase more computers.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritised in light of blending learning model.

Purchase and subscribe for appropriate software for programmes	Availability of foreign currency to purchase and subscribe for the required software.	Foreign currency may not be adequate to purchase and subscribe for the required software.	Increase the number of foreign students so foreign currency should be generated to fund important requirements such as software.
Complete the campus library project	Project completion will be expedited.	Might be affected by a slow implementation that has characterised many institutional projects	Identify a project champion to expedite the implementation.
Develop new programmes	Curriculum of new programmes will be as unique as possible for marketability.	Distinctiveness of the new programmes might be affected by MBKs regulations.	Use available MBKs provisions to distinguish the programmes
Establish new Departments that evolve into Faculties / Schools	Sufficient budgetary support	Implementation delays due to resource constraints	Such strategic initiatives should be prioritised given the strategic importance of growth to the university.
Craft regulations that allow cross-faculty degree programmes	The initiative will be implemented with urgency	Slow implementation might affect strategic initiative	Such strategic initiatives should be prioritised given their potential in enhancing cross-faculty collaborative research.
Identify, develop and offer new online programmes at the undergraduate level.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints and other potentially militating factors.	Strategic initiatives should be prioritised in light of blending learning model given the attendant Covid-19 risks.
Identify, develop and offer new online programmes at postgraduate level.	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints and other potentially militating n factors.	Strategic initiatives should be prioritised in light of blending learning model given the attendant Covid-19 risks.

	Identify, develop and offer MOOCs	Sufficient budgetary support	Delay in the implementation of initiative because of resource constraints	Strategic initiative should be prioritised in light of blending learning model given the attendant Covid-19 risks.
	Market penetration strategies to increase enrolment of local students	A lot of untapped demand in the local market	Inflexible delivery lecture models might affect market response.	Need to rely on the blended learning approach to increase local demand.
	Market development strategies to increase enrolment of international students	A lot of untapped demand in foreign countries	Fees for foreign students might be too high thus affecting a number of applications from foreign students.	Fees for foreign students should be set reasonably taking into account with price-elasticity of demand

15.5 Outcome 5: Increased quality and quantity of research that impacts on society

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Human Capital Development				
Outcome 5: Increased quality and quantity of research that impacts on society				
Budget Year	Identify research funding opportunities.	Many research funding opportunities are available	A lot of academic staff members lack guidance in relation to research opportunities	Need to attract professors who can mentor academic staff on research issues
	Conduct research seminars.	Cooperation from all stakeholders	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.

	Increase the number of professors and research fellows.	The institution is able to attract and retain professors and research fellows.	The relatively uncompetitive reward packages create challenges in relation to the attraction and retention of valuable human capital.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Undertake collaborative research supported by MOUs with partnering organisations	Various organisations are willing to partner with the institution given its strong brand.	Attendant problem of slow implementation of activities.	Expedite the negotiations so that a binding MOU is consummated quickly.
	Increase the number of academic staff holding PhDs	Availability of resources to support staff development initiatives.	Resource constraints an attendant challenge pursuant to the initiative.	Resource mobilisation and MOUs with foreign and local universities whereby there are synergistic collaborations on staff development.
	Train academic staff to develop effective grant proposals	Cooperation and commitment from the academic staff	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.
	Publish research output	Availability of funds to pay article processing fees.	Resources constraints may affect the amount of research output that is published.	Mobilise more resources and channel a significant amount of the resources towards supporting research.

	Establish an Institutional Repository Policy	The policies will improve the amount of research output deposited into the Institutional Repository	Effectiveness might be affected by inadequate consultation of key stakeholders.	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve quality of the policy
	Increase the amount of research output deposited into the Institutional Repository (IR)	Researchers are satisfied with the provisions of the institutional repository.	Lack of satisfaction with IR policy provisions may reduce the amount of research output deposited into the Institutional Repository (IR)	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve quality of the policy
2-3 Years	Identify research funding opportunities.	Many research funding opportunities are available	A lot of academic staff members lack guidance in relation to research opportunities	Need to attract professors who can mentor academic staff on research issues
	Hold research seminars	Cooperation from all stakeholders	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.

	Increase the number of professors and research fellows	The institution is able to attract and retain professors and research fellows.	The relatively uncompetitive reward packages create challenges in relation to the attraction and retention of valuable human capital.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.
	Undertake collaborative research supported by MoUs with partnering organisations	Various organisations are willing to partner with the institution given its strong brand.	Attendant problem of slow implementation of activities.	Expedite the negotiations so that a binding MOU is consummated quickly.
	Increase the number of academic staff holding PhDs	Availability of resources to support staff development initiatives.	Resource constraints are an attendant challenge pursuant to the initiative.	Resource mobilisation and MOUs with foreign and local universities whereby there are synergistic collaborations on staff development.
	Train academic staff to develop effective grant proposals	Cooperation and commitment from the academic staff	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.
	Publish research output	Availability of funds to pay article processing fees.	Resources constraints may affect the amount of research output that is published.	Mobilise more resources and channel a significant amount of the resources towards supporting research.

	Increase the amount of research output deposited into the Institutional Repository (IR)	Researchers are satisfied with the provisions of the institutional repository.	Lack of satisfaction with IR policy provisions may reduce the amount of research output deposited into the Institutional Repository (IR)	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve quality of the policy
4-5 Years	Identify research funding opportunities.	Many research funding opportunities are available	A lot of academic staff members lack guidance in relation to research opportunities	Need to attract professors who can mentor academic staff on research issues
	Hold research seminars	Cooperation from all stakeholders	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.
	Increase the number of professors and research fellows.	The institution is able to attract and retain professors and research fellows.	The relatively uncompetitive reward packages create challenges in relation to the attraction and retention of valuable human capital.	<ul style="list-style-type: none"> ▪ Request for increased salary budgetary allocation from the government. ▪ Grow university revenue in order to increase the resources available to provide competitive reward packages.

	Undertake collaborative research supported by MOUs with partnering organisations	Various organisations are willing to partner the institution given its strong brand.	Attendant problem of slow implementation of activities.	Expedite the negotiations so that a binding MOU is consummated quickly.
	Increase the number of academic staff holding PhDs	Availability of resources to support staff development initiatives.	Resource constraints are an attendant challenge pursuant to the initiative.	Resource mobilization and MOUs with foreign and local universities whereby there are synergistic collaborations on staff development.
	Train academic staff to develop effective grant proposals	Cooperation and commitment from the academic staff	Possibility of low attendance by academic staff given busy schedules	Use various online and print media platforms to disseminate information Schedule seminars when the targeted people are least busy.
	Publish research output	Availability of funds to pay article processing fees.	Resources constraints may affect the amount of research output that is published.	Mobilise more resources and channel a significant amount of the resources towards supporting research.
	Increase the amount of research output deposited into the Institutional Repository (IR)	Researchers are satisfied with the provisions of the institutional repository.	Lack of satisfaction with IR policy provisions may reduce the amount of research output deposited into the Institutional Repository (IR)	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve the quality of the policy

15.6 Outcome 6 – Improved Innovative Research and Development

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Innovation and Industrialization				
Outcome 6: Improved innovative research and development				
Budget Year (2022)	Develop and implement a policy for the innovation transfer system	The policy will be effective pursuant to its objectives.	Effectiveness might be affected by inadequate consultation of key stakeholders.	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve the quality of the policy
	Set up a scheme to incentivize innovation	The incentives used will have valence.,	Valence of the incentives may be affected by failure to consult researchers on the incentives they value.	Need to consult the researchers to ensure that the incentive schemes are based on what rewards are worthy to the researchers.
	Hold awareness programs for researchers and students	The awareness programmes will be effective.	Timing of awareness programmes might reduce levels of participation.	Schedule the awareness programmes at the most appropriate time taking into account the university calendar.
	Capacitate university researchers in order to improve innovation	The institution has the means to capacitate the researchers.	Resource constraints have a dilutive effect on the capacity of the institution to capacitate the researchers.	Partnering with other organisations who can complement the university in capacitating the researchers.

	Establish and maintain a database of research generated in the Faculties by staff	Researchers will be agreeable to the terms and conditions or policy guidelines relating to putting their research outputs in the database.	Unfair terms and conditions / policy guidelines in relation to putting research output in the database.	Need to develop a fair policy / terms and conditions in relation to using the database.
	Sponsor life-size prototype development for projects with potential	Sufficient budgetary support	Resource constraints can affect the number of prototype developments sponsored.	Resource mobilisation or partnerships with well-resourced organisations.
	Increase the number of patents in-licensed and out-licensed by the University	Innovators understand IP principles.	Patents have a life span of 20 years and slow implementation may result in the patent expiring without the organisation benefiting much from it.	Disseminate information about IP principles and practices so that the university can realise the best out of its patents.
	Increase research outputs from Faculties	The Faculties are capacitated to increase the research output.	Resources constraints can be militating pursuant to increasing the research output.	Work with Faculties to source research grants to support applied research.
	University-wide expo to showcase innovative projects	The expo will be effective.	Timing of expo might reduce levels of participation.	Schedule the expo at the most appropriate time taking into account the university calendar.
2-3 Years	Hold awareness programs for researchers and students	The awareness programmes will be effective.	Timing of awareness programmes might reduce levels of participation.	Schedule the awareness programmes at the most appropriate time taking into account the university calendar.

	Capacitate University researchers in order to improve innovation	The institution has the means to capacitate the researchers.	Resource constraints have a dilutive effect on the capacity of the institution to capacitate the researchers.	Partnering with other organisations that can complement the university in capacitating the researchers.
	Sponsor life-size prototype development for projects with potential	Sufficient budgetary support	Resource constraints can affect the number of prototype developments sponsored.	Resource mobilization or partnerships with well-resourced organisations.
	Increase the number of Patents in-licensed and out-licensed by the University	Innovators understand IP principles.	Patents have a life span of 20 years and slow implementation may result in the patent expiring without the organisation benefiting much from it.	Disseminate information about IP principles and practices so that the university can realise the best out its patents.
	Increase research out-puts from Faculties	The Faculties are capacitated to increase the research output.	Resources constraints can be militating pursuant to increasing the research output.	Work with Faculties to source research grants to support applied research.
4-5 Years	Hold awareness programs for researchers and students	The awareness programmes will be effective.	Timing of awareness programmes might reduce levels of participation.	Schedule the awareness programmes at the most appropriate time taking into account the university calendar.
	Capacitate University researchers in order to improve innovation	The institution has the means to capacitate the researchers.	Resource constraints have a dilutive effect on the capacity of the institution to capacitate the researchers.	Partnering with other organisations who can complement the university in capacitating the researchers.

	Maintain a database of research generated in the Faculties by staff	Researchers will be agreeable to the terms and conditions or policy guidelines relating to putting their research outputs in the database.	Unfair terms and conditions / policy guidelines in relation to putting research output in the database.	Need to develop a fair policy / terms and conditions in relation to using the database
	Sponsor life-size prototype development for projects with potential	Sufficient budgetary support	Resource constraints can affect the number of prototype developments sponsored.	Resource mobilisation or partnerships with well-resourced organisations.
	Increase the number of Patents in-licensed and out-licensed by the University	Innovators to understand IP principles.	Patents have a life span of 20 years and slow implementation may result in the patent expiring without the organisation benefiting much from it.	Disseminate information about IP principles and practices so that the university can realise the best out of its patents.
	Increase research outputs from Faculties	The Faculties are capacitated to increase the research output.	Resources constraints can be militating pursuant to increasing the research output.	Work with Faculties to source research grants to support applied research.
	Maintain a database of research generated in the Faculties by staff			

15.7 Outcome 7 – Enhanced knowledge transfer and technology for industrialisation

Period	Strategies	Assumptions	Risks	Mitigations
Programme: Innovation and Industrialisation				
Outcome 7: Enhanced knowledge transfer and technology for industrialisation				
Budget Year	Recruit key staff for business development office	The university will be able to retain the professional staff	Failure to retain the key staff driving infrastructure projects	Need to improve staff retention strategies Use consultants where professional expertise is urgently needed
	Develop policies for business development office	The policies will improve unit effectiveness	Effectiveness might be affected by inadequate consultation of key stakeholders.	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve quality of the policy
	Apply, register, and operationalize new ventures.	A Comprehensive assessment will be undertaken to ensure scarce resources are not wasted on ventures that are likely to fail.	Probability of new venture failure	Best practices should be followed to reduce probability of new venture failure.
	Finalise the University Farm business plan	The business plan finalisation will be treated with urgency.	Poor implementation might affect the achievement of objectives.	Proficient execution should be emphasised once the plan is complete.

Encourage staff, students, alumni, and public to develop start-up projects.	The share of returns to developers of start-up projects are good enough for them to bring their projects.	Low share of returns to project developers might discourage them from bringing their projects.	Policies should ensure that developers of start-up projects get a reasonable return once the project becomes viable.
Allocate funds for startup projects.	Funds will be sufficient given funding requirements	Funding constraints if many projects are conceived.	Resource mobilisation to ensure adequate funding for start-up projects.
Raise awareness on the IP processes	Stakeholders will find time to attend IP processes awareness workshops	Many internal stakeholders might not find time to attend workshops given their busy schedules.	Use online platforms and various print media of communication to reach many people.
Review the NUST Consultancy Policy with a view to increase the number of consultancy projects undertaken at NUST	Policy review will improve its effectiveness.	Effectiveness might be affected by inadequate consultation of key stakeholders.	Need to consult relevant stakeholders to ensure policy buy-in as well as to improve the quality of the policy.
Encourage staff and students to conduct consultancy work	The share of returns from the consultancy partnerships will be fair enough to assure the continuity of the business relationship.	An unfair share of returns from the consultancy may affect the continuity of the business relationship.	Policies should ensure that those doing consultancy get a fair share of the returns.

	Finalise contracts for Solar Energy Projects	Projects will be implemented urgently.	Implementation delays given attendant militating factors like resource constraints.	Projects should be prioritised in terms of time and resources given their strategic importance on the backdrop of power shortages.
	Spearhead Construction of factory shells	Projects will be implemented urgently.	Implementation delays given attendant militating factors like resource constraints.	Project should be prioritised in terms of time and resources given their strategic importance of industrialization under the heritage-based education 5.0
	Spearhead the construction of industrial parks through PPPs and JVCs	Projects will be implemented urgently.	Implementation delays given attendant militating factors like resource constraints.	Projects should be prioritized in terms of time and resources given their strategic importance
2-3 Years	Encourage staff, students, alumni and public to develop start up projects.	The share of returns to developers of start-up projects are good enough for them to bring their projects.	Low share of returns to project developers might discourage them from bringing their projects.	Policies should ensure that developers of the start-up projects get reasonable returns once the project becomes viable.

	Allocate funds for start-up projects.	Funds will be sufficient given funding requirements	Funding constraints if many projects are conceived.	Resource mobilisation to ensure adequate funding for start-up projects.
	Raise awareness on the IP processes.	Stakeholders will find time to attend IP processes awareness workshops	Many internal stakeholders might not find time to attend workshops given their busy schedules.	Use online platforms and various print media of communication to reach many people.
	Encourage staff and students to conduct consultancy work			
	Spearhead the construction of industrial parks through PPPs and JVCs	Projects will be implemented urgently.	Implementation delays given attendant militating factors like resource constraints.	Projects should be prioritized in terms of time and resources given their strategic importance
	Encourage staff and students to conduct consultancy work	The share of returns from the consultancy partnerships will be fair enough to assure the continuity of the business relationship.	An unfair share of returns from the consultancy may affect the continuity of the business relationship.	Policies should ensure that those doing consultancy get a fair share of the returns.

4-5 Years	Encourage staff, students, alumni, and the public to develop start-up projects.	The share of returns to developers of start-up projects are good enough for them to bring their projects.	Low share of returns to project developers might discourage them from bringing their projects.	Policies should ensure that developers of the start of projects get reasonable returns once the project becomes viable.
	Allocate funds for start-up projects.	Funds will be sufficient giving funding requirements	Funding constraints if many projects are conceived.	Resource mobilization to ensure adequate funding for start-up projects.
	Raise awareness on the IP processes.	Stakeholders will find time to attend IP processes awareness workshops	Many internal stakeholders might not find time to attend workshops given their busy schedules.	Use online platforms and various print media of communication to reach many people.
	Encourage staff and students to conduct consultancy work	The share of returns from the consultancy partnerships will be fair enough to assure the continuity of the business relationship.	Unfair share of returns from the consultancy may affect the continuity of the business relationship.	Policies should ensure that those doing consultancy get a fair share of the returns.
	Spearhead the construction of industrial parks through PPPs and JVCs	Projects will be implemented urgently.	Implementation delays given attendant militating factors like resource constraints.	Projects should be prioritised in terms of time and resources given their strategic importance

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SECTION B: PERFORMANCE FRAMEWORK FOR THE MDA

16. PROGRAMME PERFORMANCE FRAMEWORK

Presented below is the programme performance framework in terms of outcomes.

16a) Outcome Performance Framework

Results Based Budgeting (RBB) Technical Guidelines

16a. OUTCOME PERFORMANCE FRAMEWORK:

Ref	Outcome Description	Key Performance Indicator (KPI)	Measure	Baseline		TARGETS									
						2021		2022		2023		2024		2025	
				Value	Year	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #1: Governance and Administration															
1	Strengthened corporate governance and human capital management	Compliance with all applicable legislation, policies and regulations	%	100		100		100		100		100		100	
		Vacancy rate	%	27	2020	15		10		5					
2	Improved provision of infrastructure	Completion of building projects	%	52.60%					62.6		72		83		
		Availability of Office and teaching space	%	52.6%		32.1		54.1		67.7		55.7		71.4	
		Capacity utilisation of the farm	%	5%		40		60		100					
		Solar generation plant set up	%					5		10		50		95	
		Availability of ICT services	%	40%		60		100							
		Automation of processes (ERP)	%	40%		60		100							
3	Enhanced financial support services	Revenue Collection per annum	%	35%	2020	40		45		50					
		Cost to revenue ratios	%	98%	2020	95		80%		80%		80%		80%	
		Procurement compliance	%	70%	2021	100%		100%		100%		100%		100%	
		Timous production of audited financial statements	%	40%	2021	100%		100%		100%		100%		100%	
Ref	Outcome Description	Key Performance Indicator (KPI)	Measure	Baseline		TARGETS									
						2021		2022		2023		2024		2025	
				Value	Year	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #2: Human Capital Development															
		Access to library resources	%	55%	2021	60%		60%		65%		75%		85%	
		Students with upper-second and better	%							30%		30%		30%	
		New Skills in the market	#							8		10		12	
		Attraction rate of Local students	#	12,100	2021	14,600		15,000		18,000		21,000		24,000	
		Attraction rate of International students	%	0.44%	2021	0.50%		0.60%		0.80%		1%		1%	
5	Increased quality and quantity of research that impacts upon society	Percentage access to new research	%						60%		70%		80%		
		Adoption rate of research solutions	%						2%		4%		8%		
Ref	Outcome Description	Key Performance Indicator (KPI)	Measure	Baseline		TARGETS									
						2021		2022		2023		2024		2025	
				Value	Year	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog 3: Innovation and Industrialisation															
6	Improved innovative research and development	Level of Change in revenue generated from innovations.	#	230,000	2022			300,000		400,000		800,000.00		1,200,000.00	
		Rate of product development and services	#	4	2022			6		6		7		8	
7	Enhanced knowledge and technology transfer for industrialisation	level of commercialisation of innovations	#	1	2022			4		6		9		12	
		Level of employment creation	#	24	2022			24		24		27		30	
		Level of Uptake of IP by businesses	#	0	2022			2		3		4		6	
		Consultancy income generated	#	98,000	2022			100,000		200,000		400,000		600,000	

17. OUTPUTS PERFORMANCE FRAMEWORK

Presented below is the programme performance framework in terms of outputs.

17. OUTPUTS PERFORMANCE FRAMEWORK:

No. & Prog Code	Outputs	5 Year Target	Baseline		Previous Year		Current Year		Targets					
			Value	Year	2021		2022		2023		2024		2025	
					Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #1: Governance and Administration														
Outcome 1 - Strengthened corporate governance and human capital management														
OP1.1.	Council meetings held		3	2020	4		4		4		4		4	
OP1.2.	Policies reviewed				7		7		7		7		0	
OP1.3.	New policies developed		10	2020			As Req		10		As Req		As Req	
OP1.4.	Corporate governance audit conducted		0	2020			1		1		1		1	
OP1.5.	Code of conduct registered		0	2020			1		1		n/a		n/a	
OP1.6	Skills Audit conducted		0				1		1		1		1	
OP1.7	Policy on Letting out University Facilities developed		0						100%		n/a		n/a	
OP1.8	Electronic Repository Policy developed		0				1		1		n/a		n/a	

Results Based Budgeting (RBB) Technical Guidelines

No. & Prog Code	Outputs	5 Year Target	Baseline		Previous Year		Current Year		Targets					
			Value	Year	2021		2022		2023		2024		2025	
					Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #1: Governance and Administration														
Outcome 2 - Improved provision of infrastructure														
OP2.1	Campus Services Centre completed		65%	2020	85%		85%		100%					
OP2.2	IT & Learning Resource Centre completed		55%	2020	85%		65%		60%		85%		100%	
OP2.3	Chemical Engineering Building completed		75%	2020	100%		85%		85%		85%		85%	
OP2.4	Chemistry Building completed		70%	2020	100%		85%		85%		85%		85%	
OP2.5	Technovention Centre Completed		3%	2020	50%		50%		95%		100%			
OP2.6	Student Residences completed		20%	2020	70%		100%		40%					
OP2.7	Central Stores completed		80%	2020	85%		85%		85%		85%		85%	
OP2.8	DNA LAB completed						45%		0%					
OP2.9	Factory Shells completed						100%		95%		100%			
OP2.10	Specialist Teaching Hospital completed						50%		100%					
OP2.11	School of Health Sciences completed						10%		15%		35%		50%	
OP2.12	Sports Complex completed						10%		20%		35%		50%	
OP2.13	Faculty of The Built Environment completed						10%		20%		35%		50%	
OP2.14	Faculty of Communication and Information Science completed						10%		20%		35%		50%	
OP2.15	ERP processes on the ERP system automated						40%		100%					
OP2.16	Data Centre Equipped						80%		100%					
OP2.17	Bursary systems automated						40%		100%					
OP2.18	Academic processes automated						60%		100%					

No. & Prog Code	Outputs	5 Year Target	Baseline		Previous Year		Current Year		Targets					
			Value	Year	2021		2022		2023		2024		2025	
					Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #2: Human Capital Development														
Outcome 4 - Improved programme offerings, teaching and learning experiences														
OP4.1	Teaching & learning software procured		15	2021	15		21		21		22		22	
OP4.2	Library resources utilised								60		70		80	
OP4.3	New faculties established		1	2021	1		1		1		1		1	
OP4.4	PhD graduates produced		2	2020	8		10		10		12		14	
OP4.5	STEM graduates produced		1537	2020	1683		1850		2426		2940		3430	
OP4.6	Local students enrolled		1717	2020					2000		2400		2880	
OP4.7	International students enrolled		30	2020					100		120		144	
Outcome 5 - Increased quality and quantity of research that impacts upon society														
OP5.1	Publications produced		150	2020	217		230		500		520		540	
OP5.2	Compliance with publication guidelines								100%		100%		100%	
OP5.3	Research conferences hosted		4	2020					8		9		9	
OP5.4	Community projects undertaken		31	2020	31				40		40		40	

No. & Prog Code	Outputs	5 Year Target	Baseline		Previous Year		Current Year		Targets					
			Value	Year	2021		2022		2023		2024		2025	
					Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV	Tgt	ALV
Prog #3: Innovation and Industrialisation														
Outcome 6 - Improved Innovative Research and Development														
OP6.1	Technology Transfer Office operationalised		5%	2020			20%		100%		100%		100%	
OP6.2	Viable innovations identified		2	2020			6		7		20		30	
OP6.3	Innovation Prototypes developed		1	2020			6		7		10		20	
OP6.4	IPs registered		0	2020			4		4		4		6	
OP6.5	Consultancy projects registered		2	2020			25		25		30		60	
OP6.6	Research EXPOs held		1	2020			3		3		3		3	
OP6.7	Revenue generated from ventures		30,000	2020			300,000.00		400,000		800,000		1 200,000	
OP6.8	Employment created from ventures		3	2020			24		80		104		128	
Prog #3: Innovation and Industrialisation														
Outcome 7 - Enhanced knowledge and technology transfer for industrialisation														
OP7.1	Business Development (BD) offices set up		5%	2020			20%		100%		100%		100%	
OP7.2	Business ventures registered		1	2020			3		4		6		6	
OP7.3	Start-ups operationalised		0	2020			4		4		4		4	

18. PROGRAMME BUDGET

Presented below is the programme budget.

18. Programme Budget

Programme		Programme Outputs	Budget Last Year (2020)	Budget Current Year (2021)	Budget Year 1 2022	Budget Year 2 2023	Budget Year 3 2024	Budget Year 4 2025
Programme 1 1) Governance and Administration	Sub-Prog 1. Council	Policies developed	401,048	3,110,861	4,677,855	18 137 148	5,389,567	
		Policies reviewed	100,262	777,715	1,169,464	4 534 285	1,347,391	
		Self evaluations	200,524	1,555,430	2,338,927	12 167 770	2,694,782	
		Training programmes conducted	300,786	2,333,146	2,139,595	13 961 266	4,042,175	
	Sub-Prog 2 VC Office	NUST community informed	6,362,114	58,604,580	122,384,751	269 872 560	101,532,435	

	Percentage and ranking of NUST improved	25,448,455	234,418,318	122,300,210	133 000 000	406,129,736	
	Infrastructure developed	263,330,410	658,326,025.00	868,335,628	64 960 000 000		
Sub-Prog 3 Registrar	NUST contracts correctly implemented	300,000	2,296,540	5,580,380	32 000 000	3,978,756	
	NUST policies implemented	1,851,006	15,929,701	23,894,552	92 874 400	27,598,207	
	Qualified staff recruited	175,831	263,747	1,243,969	36 800 000	456,942	
	Staff Trained	1,865,105	16,160,000	14,819,417	96 699 505	27,997,200	
	Hygienic services provided	281,663	2,000,000	11,293,384	68 107 200	3,465,000	
	Staff accommodation provided	677,782	3,384,480	552,508	5,330,556	5,863,612	

	Security services provided	1,005,762	3,519,451	16,434,592	5,543,135	6,097,449	
	Catering services provided		12 586 508	18,879,762	19,823,750	21,806,125	
	University records accessed		350,000	525,000	551,250	606,375	
	Students enrolled	439,995	6,733,389	28,944,079	10,605,088	11,665,596	
	Examination sessions conducted	4,287,579	18,176,580	36,637,197	28,628,114	31,490,925	
	Student welfare provided	436,132	2,962,400	4,443,600	4,665,780	5,132,358	
Sub-Prog 4 Bursar	Financial reports submitted	3,542,892	7,714,818	61,705,379	12,150,838	13,365,922	

		Management reports submitted	1,417,157	3,085,927	24,682,150	4,860,335	5,346,369	
		Annual Budget Finalised	2,125,735	4,628,891	37,023,228	7,290,503	8,019,554	
	Sub-Prog 5 Librarian	Online service provision enhanced	692,860	6,411,400	10,327,183	10,097,955	11,107,751	
		Information literacy skills conducted	144,442	2,710,019	4,365,171	4,268,280	4,695,108	
		e-resources training conducted	144,442	2,710,019	4,365,171	4,268,280	4,695,108	
		Print and electronic books acquired	207,708	1,800,088	13,208,598	2,835,139	3,118,652	
		Student computers acquired	200,000	564,027	846,041	888,343	977,177	
Total Programme Budget								
Programme 2	Sub-Prog 1.							
2) Human	Applied							

Capital Development	Sciences and Engineering		2,914,778	105,616,660	158,424,990	166,346,240	182,980,863	
	Sub-Prog 2 Business Sciences & Communication Technology		944,729	37,198,734	55,798,101	58,588,006	64,446,807	
	Sub-Prog 3 Centre for Continuing Education		487,141	2,705,400	7,828,638	4,261,005	4,687,106	
Total Programme Budget								
Programme 3 Innovation & Industrialisation	Sub-Prog 1. Research, Innovation & Internalisation		1,213,961	11,042,972	16,564,458	17,392,681	19,131,949	
	Sub-Prog 2 Business Development			60,000,000	90,000,000	94,500,000	103,950,000	
	Sub-Prog 3							
Total Programme Budget								
TOTAL MDA BUDGET								

19. HUMAN RESOURCES FOR THE STRATEGIC PERIOD

Presented below are the human capital requirements in relation to the implementation of the strategic plan.

Table 19.1 **Human Resource Requirements for the Strategic Period**

No.	Category	Programme 1	Programme 2	Programme 3	University Total Personnel Requirements By Category
1	Top Management	17	11	2	30
2	Middle Management	42	7	-	49
3	Supervisory Management	15	54	-	69
4	Operational and Support staff	377	670	6	1053
5	Total	451	742	8	1201

20 CONCLUDING REMARKS

This is the strategic roadmap that will define the strategic direction and the institutional growth and development of the National University of Science and Technology for the next four years. The Strategic Plan is going to be implemented against the backdrop of a diversity of environmental challenges and the most conspicuous of them being the attendant Covid-19 pandemic which has resulted in unprecedented challenges for the institution. The institution has shown remarkable resilience against Covid-19 and this strategic blueprint is designed to strengthen the institution's resilience capabilities as it embarks on this transformational path towards its desired future. Most importantly, the National University of Science and Technology would like to express its gratitude to the Chancellor of the university (His Excellency, Dr. E. D Mnangagwa), the Minister of Higher and Tertiary Education, Innovation, Science and Technology Development (Professor A. Murwira), the Permanent Secretary of the Ministry Higher and Tertiary Education, Innovation, Science and Technology Development (Professor F. Tagwira), the Chairperson of the National University of Science and Technology council (Engineer A. Mabhena) for the leadership and assurance of support as far as the implementation of our Strategic Plan as concerned. We are grateful for their leadership and support as we move forward towards our desired future.