ZIMBABWE

STRATEGIC PLAN 2019 - 2023

EDUCATION 5.0 ◉ HERITAGE ◉ INNOVATION ◉ INDUSTRIALISATION

MINISTRY OF HIGHER AND TERTIARY EDUCATION, SCIENCE AND TECHNOLOGY DEVELOPMENT

THE MODERNISATION & INDUSTRIALISATION
OF ZIMBABWE THROUGH EDUCATION, SCIENCE & TECHNOLOGY DEVELOPMENT

THE DOCTRINE

The Modernisation & Industrialisation of Zimbabwe through Education, Science and Technology Development

ZIMBABWE

Ministry of Higher and Tertiary Education,
Science and Technology Development

STRATEGIC PLAN
2019 - 2023

FOREWORD BY THE HONOURABLE MINISTER

Hon. Prof. dr. A. Murwira

The nation relies upon its Heritage, that is, its flora, its fauna, its water, its minerals and the quality of its human resources. Thus, the economic performance of a nation is largely a reflection of its Higher and Tertiary Education (HTE) sector. To this end, the performance of the Higher and Tertiary Education sector is critical in facilitating Government's Vision of transforming Zimbabwe into an upper middle-income economy by 2030.

The Ministry's 2019-2023 Strategic Plan is a promise to deliver a competitive, industrialised and modernised Zimbabwe through heritage based higher and tertiary education science and technology development. Our heritage based philosophy shall use cutting-edge, competitive, universal scientific and technological knowledge from anywhere in the world but applied on the local environment for purposes of producing relevant goods and services.

As we march forward, we refuse to be defined by someone else's vision of what is possible but by our own vision. Thus, our vision 2030 of becoming an upper middle-income economy shall be possible through pragmatic optimism and the capacity to shake off negative energy.

HTE must have predictable order, transparent in itself in order to earn trust from the outside. HTE must produce Consumables in form of either Goods or Services, hence conceptualisation of doctrine of Education 5.0: 1. Teaching 2. Research 3. Community Service 4. Innovation 5. Industrialisation. Teaching shall use the local environment, making technology simple and be understood for concepts can be expressed in any language.

The Strategic Plan creates a re-aligned but highly focused higher and tertiary education, science and technology development system, which provides a healthy relationship with

its clients and stakeholders. The 2019-2023 Strategic Plan is a practical plan. I therefore exhort all staff and stakeholders not only to reflect on the strategies, but also to deliver on the strategies of the Ministry to embrace Government's thrust for a new work culture premised upon servant leadership, humility, honesty, integrity and productivity. These values are espoused in the Strategic Plan. Our staff should be change agents, never shying away from exploring new ways of doing business. The era of slothfulness, red tape and incompetence cannot be tolerated anymore.

I am delighted to present the Ministry of Higher and Tertiary Education, Science and Technology Development 2019-2023 Strategic Plan and commit it to the hands of all doers.

Hon. Prof, dr. Amon Murwira
Minister of Higher and Tertiary Education, Science and Technology Development

STATEMENT BY THE PERMANENT SECRETARY

Prof. F. Tagwira

The Minister of Higher and Tertiary Education, Science and Technology Development Prof. Amon Murwira enunciated the concept of Heritage based Higher Education, Science and Technology Development in an effort to make sure our education is relevant to the realities and resource endowments of the country. He also developed a strategy to make sure our education produces goods and services by changing higher education from having three missions, 3.0 (teaching, research and community service) to five missions, 5.0 (teaching, research, community service, innovation and industrialisation). Our higher and tertiary education institutions must play an active role in national development and should help provide the essential knowledge needed for industrialisation and economic development of the country. The national vision 2030 and the Transitional Stabilisation Program emphasise the need to make Higher and Tertiary Education more relevant to the economic transformation of the country. In line with this thrust the Ministry of Higher and Tertiary Education, Science and Technology Development is going through a transition that will see its programs and activities become more relevant to the development of Zimbabwe.

Our Higher and Tertiary Institutions must become primary tools for national development. They must produce graduates who can think scientifically, analyse problems objectively, and apply facts learnt in class to problems in society. We expect them to be repositories of knowledge, expertise and generators of human capital needed to solve pressing development issues. We also expect them to be engines of development through the production of knowledge and technological innovations for socio-economic development of our country.

Research has shown strong association between higher education participation rates and levels of development. India has succeeded by making use of its elite education institutions

and exploiting ICTs for economic development. Our Higher Education Institutions will help our nation to make a more rapid transition to upper middle income economy by 2030.

This Strategic Plan is meant to ensure our Higher and Tertiary Education, Science and Technology Development is relevant to the development needs of the nation as espoused in the transitional stabilisation program and the national vision 2030 and also responds to the changing environment in which the Ministry operates. The plan will help in realigning the Ministry to its overall mandate and is a forward looking aspirational road map for the Ministry's future. The Strategic Plan is a framework and guide, regarding where to invest Ministry's resources (time, effort and money). The plan clearly defines who we are as an institution, where we are going, how we hope to get there and how we will tell if we have arrived. The plan is a "living document" and guide to decision making that will change over time.

It gives me pleasure as an Accounting Officer of the Ministry of Higher and Tertiary Education, Science and Technology Development to rally the Ministry staff and resources in the Implementation of the Strategic Plan 2019 – 2023.

Prof Fanuel Tagwira
Permanent Secretary
Ministry of Higher and Tertiary Education, Science and Technology Development

CONTENTS

ANNEXURES

ACRONYMS

HEXCO	Higher Education Examinations Council
HTE	Higher and Tertiary Education
HTEIs	Higher and Tertiary Education Institutions
KRA	Key Result Areas
MTB	Management Training Bureau
NAMACO	National Manpower Advisory Council
NBA	National Biotechnology Authority
NSTI	National Science Technology Innovation
PSIP	Public Service Investment Programme
TSP	Transitional Stabilisation Programme
ZCHPC	Zimbabwe Centre for High Performance Computing
ZIMCHE	Zimbabwe Council for Higher Education
ZIMDEF	Zimbabwe Manpower Development Fund
ZNCSA	Zimbabwe National Critical Skills Audit
ZINGSA	Zimbabwe National Geospatial and Space Agency
ZNQF	ZIMBABWE National Qualifications Framework
MoFED	Ministry of Finance and Economic Development
MoLGPWNH	Local Government, Public Works and National Housing
MoFAIT	Ministry of Foreign Affairs and International Trade
MoPSLSW	Ministry of Public Service, Labour and Social Welfare
MoIC	Ministry of Industry and Commerce
MoPSE	Ministry of Primary and Secondary Education
MoICTCS	Ministry of Information Communication Technology & Courier Services
MoYSAR	Ministry of Youth, Sport, Arts and Recreation
MoHCC	Ministry of Health and Child Care
MoWACSMED	Ministry of Women Affairs, Community Small and Medium Enterprise Development

1. EXECUTIVE SUMMARY

The Strategic Plan, 2019-2023 provides an overview of the Ministry's strategic trajectory for the next five years. It sets out the vision, mission, key result areas (KRAs) and strategic objectives of the Ministry, programmes and projects as well as the implementation and monitoring mechanisms. TheStrategic Plan's guiding implementation philosophy is heritage based Education, Science and Technology anchored on two pillars: (1)Higher and Tertiary Education (HTE) 5.0 and (2)Science and Technology Development systems tailored to advance delivery of goods and services for industrialising and modernising the economy by 2030.

The Doctrine for the Modernisation and Industrialisation of Zimbabwe through Education, Science and Technology Development demonstrates that knowledge that does not result in goods and services is not relevant at this stage of our development. The Strategic Plan, therefore, creates a functional nexus between industry and educational outcomes such as knowledge and skill. Our education system has traditionally not resulted in any direct creation of industries, due to a palpably ingrained disconnect between knowledge outcomes and the broader socio-economic environment. In this regard, our Education, Science and Technology Development is now being reconfigured to systematically cause industry innovation. Implicit in this architecture, is that two additional missions have been incorporated to the three traditional missions of our Higher and Tertiary Education, namely, teaching, research and community service (consultancy), the so-called HTE 3.0. The two additional missions are Innovation and Industrialisation which has resulted in the Ministry's HTE 5.0. This is central to the creation of a productive higher and tertiary education system that has a clear pathway from knowledge production gained through research and teaching to innovation and industrialisation in a continuously iterative and self-improving process.

Overarching Philosophy

The Ministry will support industrialisation and modernisation based upon a philosophy of Heritage Based Development through the use of cutting edge, competitive knowledge and skills from anywhere in the world but applied on the local environment for purposes of producing relevant goods and services. In this paradigm, there is a departure from overt and covert concentration on exotic domains devoid of local practical use. Gone are the days when engineers design roofs based on snowpack in a Zimbabwean context when snow has the remotest chance of occurring. Focus on the universality of science with local application is henceforth critical.

2. BACKGROUND

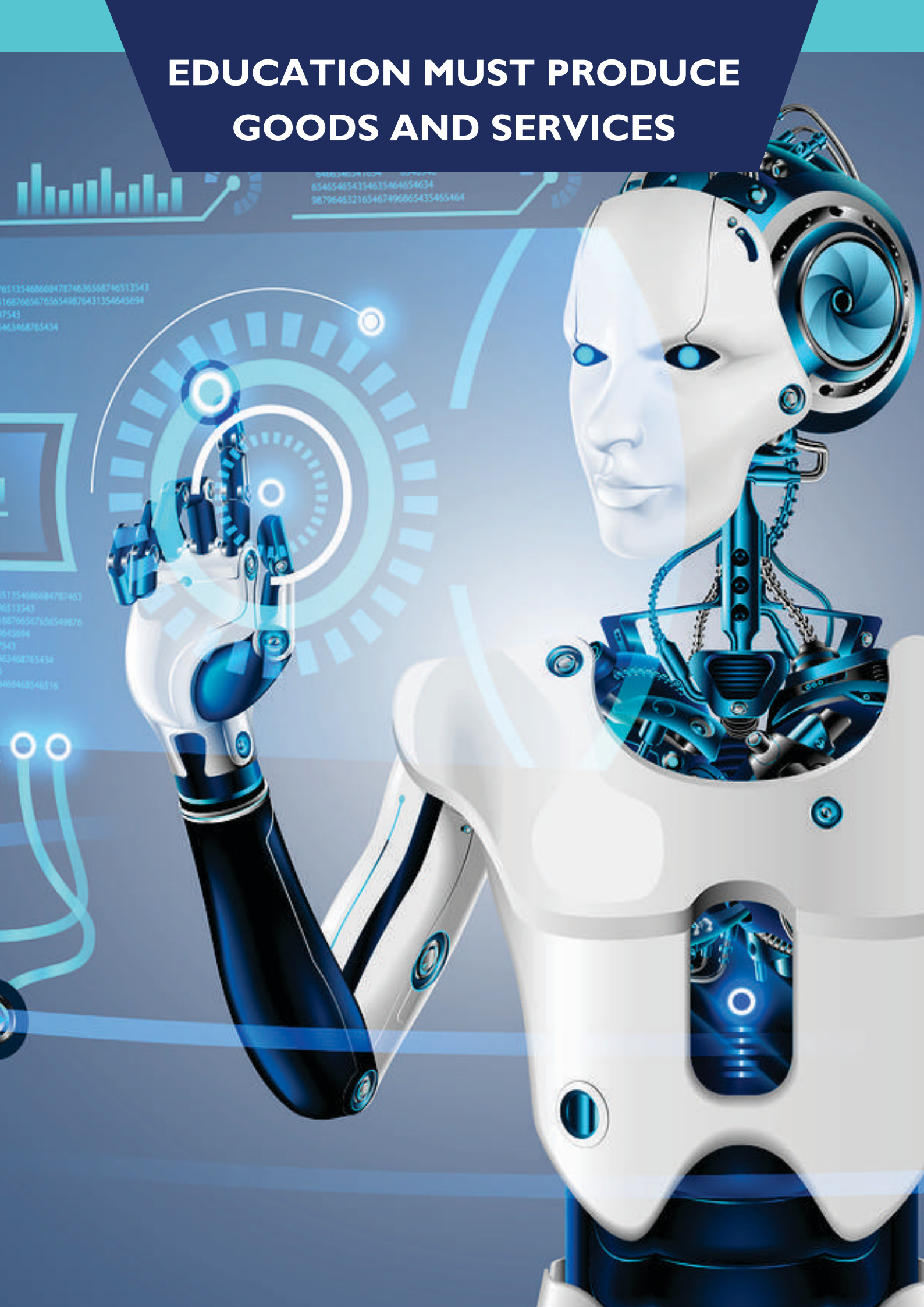
The Ministry is responsible for: (1) Higher and Tertiary Education and (2) Science and Technology development, as well as (3) their linkage to deliver a competitive, industrialised and modernised Zimbabwe using a heritage based philosophy.

This Strategic Plan document highlights the projected five year plan for the Ministry through a guiding Philosophy of Education 5.0 and Industrialisation giving the principles that will be guiding our higher and tertiary education, science and technology system. This document derives from cabinet approved programmes between December 2017 to date, His Excellency's inauguration speeches of 24 November 2017 and 26 August 2018, as well as State Of The Nation Addresses of 20 December 2017 and 20 September 2018 respectively, which highlighted a new development thrust anchored on scientific innovations. The underlying principle is that, Education which does not produce high quality goods and services is not relevant at all. Our Science shall be driven by the National Science Technology Innovation System (NSTI). The product of our science and technology shall be Innovation and Industrialisation. The overall implementation strategy to Education 5.0 and for Science and Technology development is a Programmatic approach.

The Ministry is implementing Education 5.0; teaching, research, community service, innovation and industrialisation to move the nation forward towards attaining the status of a middle-income economy by 2030. The Ministry is determined to deliver a heritage based human capital development, capitalising on Zimbabwe's comparative advantage of human and natural resource endowments. The Strategic Plan focuses on four thematic goals: Education 5.0; Science and Technology Research and Development; Industrial Collaborations; and Governance and Talent Development. Strategies to achieve these four thematic goals are detailed in this document.

The Constitution of Zimbabwe Amendment (No.20) Act of 2013 Section 27(1) states that the State must take all practical measures to promote Higher and Tertiary Education. In that respect, The Ministry's activities shall be guided by **The Doctrine Policy Document of 2018** and the following legislative policies: Manpower Planning and Development Act Chapter [28:02] of 2001 and its related Statutory Instruments, Zimbabwe Council for Higher Education Act of 2010, Zimbabwe National Qualifications Framework of 2018 and related statutory instruments 132,133 and 137, National Critical Skills Audit of 2018, the Research Act of 1986, National Biotechnology Act Chapter [14:31] of 2006, the Zimbabwe National Geospatial and Space Agency (ZINGSA) Constitution of 2018 and the Second Science ,Technology and Innovation Policy of 2012. The Ministry through the National Manpower Advisory Council, envisages to uphold good corporate governance and collaborate with industry and commerce, development partners, implementing Ministries and sectors within its Higher and Tertiary Education, Science and Technology Development Coordination role. The Ministry shall ensure that all its legislative policies are amended to align with the provisions of the Constitution of Zimbabwe in order to uphold good corporate governance practices.

EDUCATION MUST PRODUCE GOODS AND SERVICES



HIGHER AND TERTIARY EDUCATION

THE MINISTRY

SCIENCE AND TECHNOLOGY DEVELOPMENT

3. THE MINISTRY

In order to ensure that the Ministry of Higher and Tertiary Education, Science and Technology Development (MHTESTD) is fit for purpose, it is strategically organised into Departments, Statutory Bodies and Agencies.

The Ministry has 3 (three) departments and a statutory body (ZIMCHE) responsible for Educational programmes; 1. Higher Education Programmes, 2. Tertiary Education Programmes, 3. Quality Assurance and Standards Department responsible for amongst other activities promoting, monitoring and regulating quality in Technical and Vocational Education Training (TVET) programmes. In order to support Science and Technology Development, the ministry has a Research Development and Innovation (RDI) Department as well as the Projects and Technology Transfer (PTT) Department. Amongst other functions, the RDI department is responsible for identifying, coordinating and prioritising Research and Development (R&D) activities in Zimbabwe. The PTT department functions include promoting Intellectual Property (IP) Asset growth as well as undertaking Science and Technology (S&T) policy promotion and advocacy programmes.

The MHTESTD has a department dedicated for the coordination and monitoring of UNESCO activities; Zimbabwe National Commission for UNESCO (ZIMNATCOM). The administrative support matters of the ministry are catered for through the following departments 1. Finance and Administration 2. Human Resources 3. Public Relations 4. Procurement 5. Internal Audit 6. Information Communication Technology. An additional department shall be added to conduct human capital and skills audits.

The Legal Services Department amongst other duties provides legal advice on legal issues pertaining to the day-to-day administration of the ministry. The ministry also has oversight of 1. State and Non State Universities, 2. State and Private Teacher Training Colleges, 3. State and Private Industrial Training Colleges, 4. State Polytechnics and Private TVET institutions. 5. Statutory Bodies; National Biotechnology Authority (NBA), Zimbabwe Council for Higher Education (ZIMCHE), Zimbabwe National Geospatial and Space Agency (ZINGSA), Zimbabwe Manpower Development Fund (ZIMDEF), National Manpower Advisory Council (NAMACO). 6. Agencies; Verify Engineering, Finealt Engineering Private Limited, Management Training Bureau, Zimbabwe Centre for High Performance Computing (ZCHPC).

**See Annexure 13 for the detailed listing of Departments, Statutory Bodies, Agencies of the MHTESTD.*

4. VISION, MISSION AND VALUES

In the 2019-2023 Strategic Plan, the Ministry shall be guided by the Transitional Stabilisation Programme over October 2018 to December 2020, which contains and expresses the aspirations of the people of Zimbabwe and draws its policy thrust from Vision 2030.

Vision 2030 seeks to transform Zimbabwe into an upper middle-income economy with a capita gross income of between US$3 500 and US$5 000 in real terms by 2030. The Vision also seeks, inter-alia, to raise employment rates upwards, not only in the formal sector, but also covering the SME sector, to guarantee national food security, affordable, competitive and accessible education, health services and infrastructure development as well as to progressively reduce poverty rate, to levels, consistent with upper middle income economies.

The Ministry will contribute to Vision 2030 through the provision and delivery of goods and services through a Heritage Based Education, Science and Technology Development. It will address skills needs of our knowledge economy by providing an enabling environment for research, development, innovation, technology transfer, adaptation, adoption, commercialisation and business enterprise development. Establishment of Innovation hubs, Industrial and Technology Parks will be critical in this Strategic Plan.

2.1 VISION

A heritage based higher and tertiary education, science and technology development for a competitive, industrialised and modernised Zimbabwe by 2030

2.2 MISSION

To develop and deliver a knowledgeable and skilled human capital through higher and tertiary education 5.0*, science and technology development using a heritage based philosophy, for the production of quality goods and services

Education 5.0*: Teaching, Research, Community Service, Innovation and Industry

2.3 VALUES

The Ministry is guided by the following values:

I) Integrity
ii) Humility
iii) Innovation
iv) Productivity
v) Servant Leadership

Heritage based Higher Education, Science and Technology

MULTIPLE LENS ANALYSIS

ENVIRONMENTAL SCAN

5. SCANNING THE ENVIRONMENT

The MHTESTD is operating in an environment where there is high literacy level (96%) whilst the skills level are low (38%). There are skills surplus in Business and Commerce (121%). The gap between Literacy levels and Skills levels is 56%. The environment is characterised by instances where similar degrees have different content hence discord in qualifications. There are same degrees with different contents hence discord in qualifications. There is no clear path and philosophy for meaningful industrialisation from HTE, therefore bad conceptualisation of the purpose and context of HTE in the Economy. University rankings are also low.

Government is committed to ensuring that our education has predictable order and is transparent to itself in order to be trusted by the outside world. The aim is to improve rankings for our HTEIs. To achieve this, the ministry is implementing the Zimbabwe National Qualifications Framework through Statutory Instruments; SI 132, SI 133 and SI 137 of 2018. The Human Capital Planning and Skills Development department being established shall focus on addressing critical skills shortages in all sectors of the economy.

In order to deliver a competitive, industrialised and modernised Zimbabwe, the Ministry has adopted two additional missions that is Innovation and Industrialisation effectively reorienting Education 3.0 (teaching, research and community service) to Education 5.0. (teaching, research, community service, innovation, industrialisation). Education 3.0. is designed to produce research articles and materials for teaching and consultancy. It is not necessarily designed to produce goods and services. Education 5.0 is designed to produce goods and services. Government is committed to create jobs, and improve the standard of life of Zimbabweans through encouraging technology transfer at Innovation Hubs and production at the Industrial Parks.

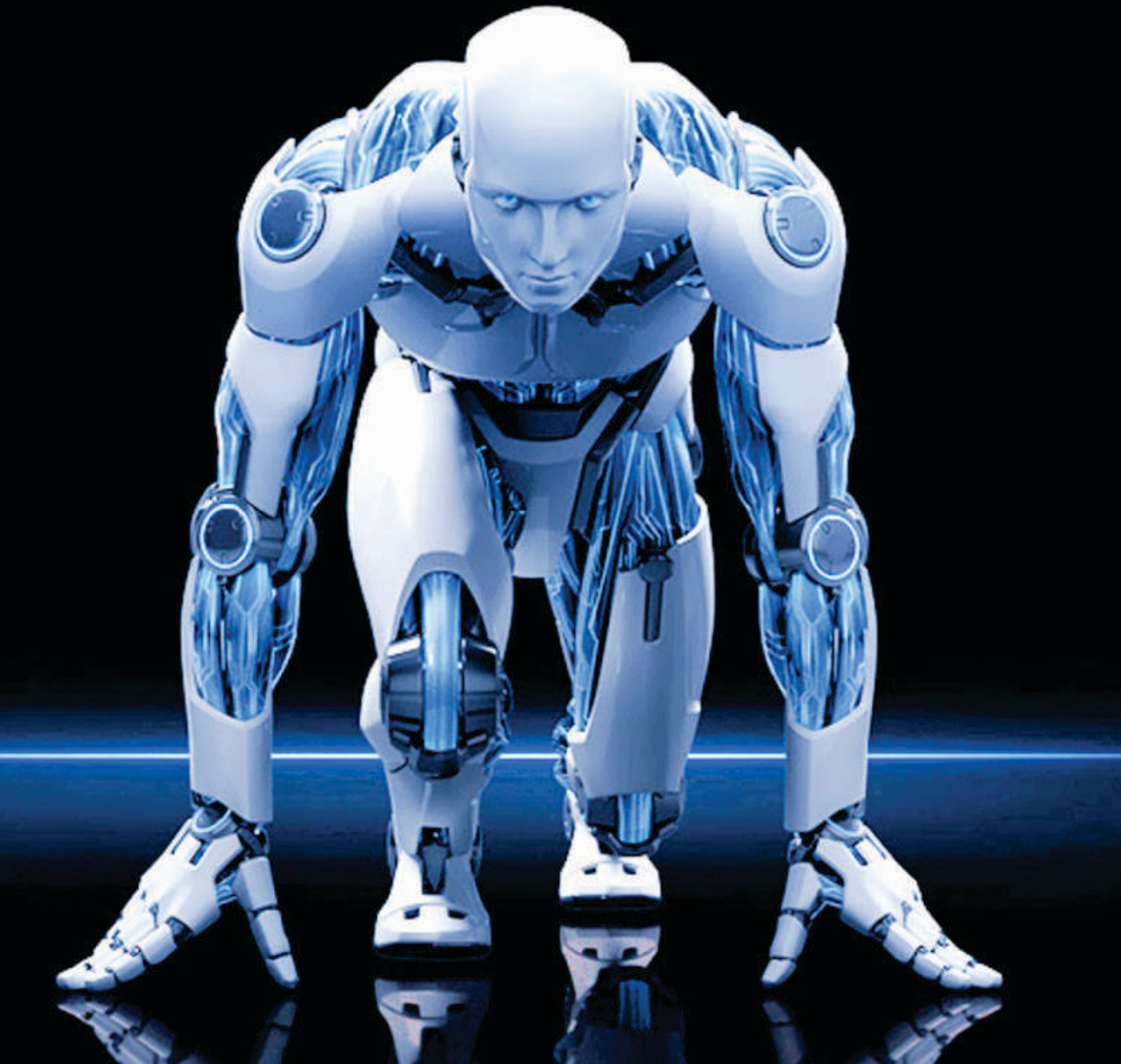
Government understands the plight of students who are failing to pay their outstanding fees and has therefore introduced the **Higher and Tertiary Educational Loan Support Facility**. Furthermore, the ministry is working on strategies of resource mobilisation to enable improved staff retention and focused strategic research. Specifically, Government has committed 1% of GDP towards research. In addition, Government is working on strategies of developing internationally competitive physical infrastructure (University Towns and Cities) for Higher and Tertiary Education Institutions to facilitate a conducive teaching, learning and living environment in HTEIs.

**See Annexure I for the detailed environmental scan.*

GOALS & STRATEGIES

2019 - 2023

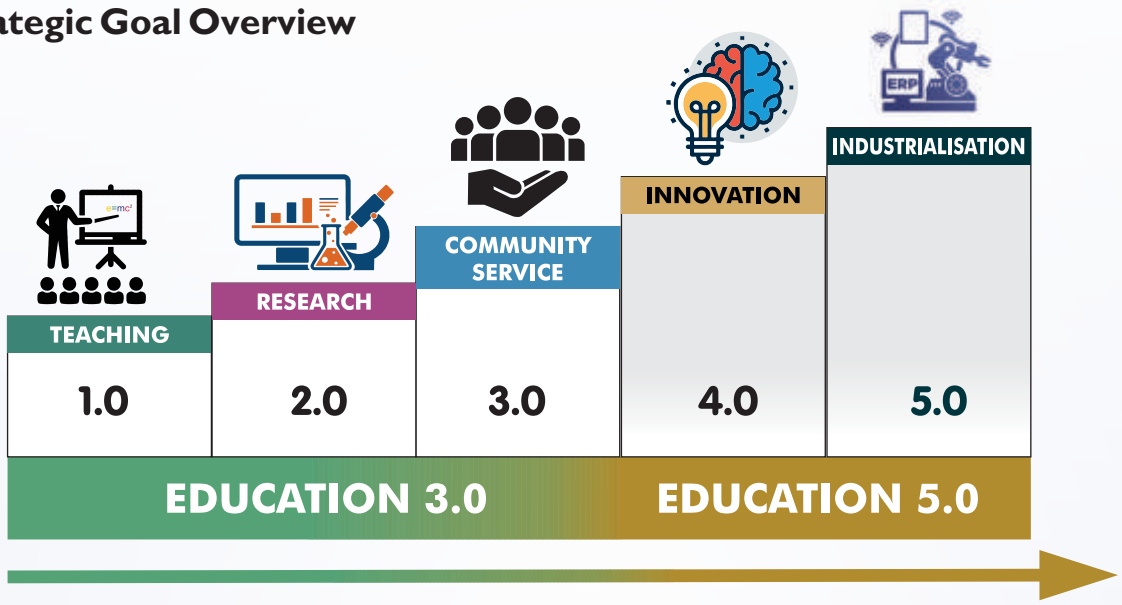
- EDUCATION 5.0
- SCIENCE & TECHNOLOGY DEVELOPMENT
- INNOVATION & INDUSTRIALISATION
- GOVERNANCE & PUBLIC RELATIONS



EDUCATION 5.0

6. STRATEGIC GOAL 1: A HIGHER AND TERTIARY EDUCATION SYSTEM THAT PRODUCES GOODS AND SERVICES

Strategic Goal Overview



The Ministry aims to develop and deliver a Higher and Tertiary Education system that generates knowledge, which results in Goods and Services. Previously, education in Zimbabwe has not resulted in any meaningful direct development of industries. The future of technology in Zimbabwe and Africa requires us to move away from just being consumers to active participants in issues related to technology development and transfer as well as production of goods and services. Industries do not just happen but are a consequence of a systematic implementation of scientific and technological heritage based innovations to modernise and industrialise the nation.

6.1 **Strategic Objective 1:** Reconfigure Higher and Tertiary Education from Education 3.0 to Education 5.0 to produce goods and services

Strategic Objective Overview

Belvedere Technical Teachers College

Traditionally Higher and Tertiary Education (HTE) in Zimbabwe has three missions, i.e., teaching, research and community service (consultancy), the so called HTE 3.0. HTE 3.0.is designed to produce research articles and materials for teaching and consultancy. It is not designed to produce goods and services. Therefore, in order to produce an education that results in goods and services movement to Education 5.0 is critical. Innovation and Industrialisation are critical additional missions for Education 5.0. HTE 5.0 does produce goods and services. Thus, the HTE 5.0 is a guiding pillar in our philosophy of a productive HTE system.. HTE 5.0 provides a pathway from knowledge production that is gained by research and teaching to industrialisation via the innovation route and vice versa.

Focus on the universality of science but with local application is critical. This is the Heritage based education and development philosophy that the Ministry shall use to spearhead the modernisation and industrialisation agenda for Zimbabwe, i.e., locally relevant knowledge. Thus, our philosophy of Heritage Based Science and Technology Development, uses cutting edge competitive knowledge from anywhere in the world but applied on the local environment for purposes of producing relevant goods and services.

Strategies

- Set clear timelines for adoption of *2 (two) additional missions (Innovation and Industrialisation);
- Establish Heritage related Technology Institutes; and
- Avail incentives that encourage heritage based research development and innovation.

See more details under Science and Technology Development Goals and Strategies

Higher and Tertiary Education workshop activities

7. STRATEGIC GOAL 2: STRONG EDUCATIONAL PROGRAMMES SUPPORTED BY MODERN PHYSICAL, PROMOTIONS AND FINANCIAL INFRASTRUCTURE

Goal Overview

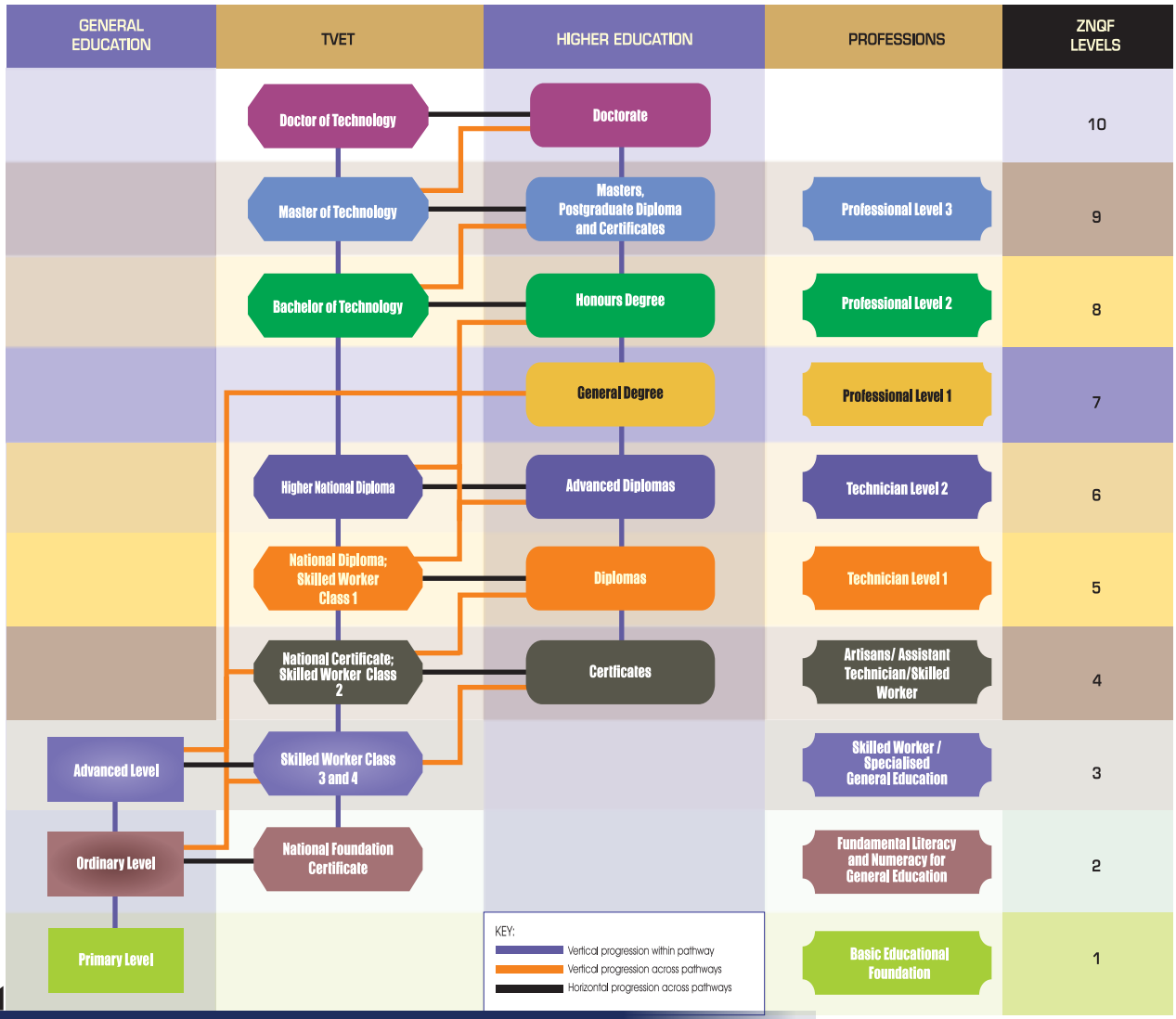
For our education system to continue being relevant to the demands of the economy, it must maintain a high level of responsiveness to the demands of the market. The motive is to continue producing graduates through a seamless world class system of education that matches global best practise. Good promotions, physical and financial infrastructure will cultivate an inspiring environment for nurturing our students.

Industrial Park Architectural Design

7.1 Strategic Objective 1. To educate graduates for the 21st Century market with strong academic qualifications and strong employability skills.

Strategic Objective Overview

The Ministry has developed a harmonised and standardised National Qualifications Framework programme that meets Regional and International standards. The Zimbabwe National Qualifications Framework represents a national effort at integrating education into a unified structure with clear pathways. The ZNQF will facilitate the transfer of credits and free movement of learners between various institutions within or outside Zimbabwe through vertical as well as horizontal progression pathways. Vertical Progression shall allow Recognition of Prior Learning, which eliminates unnecessary repetition and duplication of material familiar to the students. Horizontal comparability of education and training qualifications shall align all qualifications through the development of Minimum Bodies of Knowledge (MBKs), for all qualifications. The ZNQF makes Minimum Bodies of Knowledge, Qualification Standards and Skills Proficiency Schedules mandatory for all qualifications across the educational sectors in Zimbabwe. The ZNQF is implemented within subject/programme/trade panels administered by the **Zimbabwe Council for Higher Education (ZIMCHE)** and the **Directorate of Quality Assurance and Standards (QAS)**.



Zimbabwe National Qualifications Framework

Strategies

- Develop and Implement the Zimbabwe National Qualifications Framework (ZNQF);
- Implement ZNQF Statutory Instruments SI 132, SI 133, SI 137 and SI 140 of 2018;
- Conduct National Critical Skills Audits;
- Implement programmes addressing outcomes of the National Critical Skills Audits;
- Review and redirect curriculum towards producing graduates with relevant knowledge, attitudes and skills;
- Promote, register, monitor and regulate quality in HTEIs as stipulated in the Manpower Planning and Development Act [28:02] 1995 and the ZIMCHE Act [25:27] 2006; and
- Strengthen administration of TVET assessments including trade tests, apprenticeship training and national examinations.

7.2 Strategic Objective 2. To standardise expected competencies of staff in HTEIs in order to harmonise the academic promotion procedures

Strategic Objective Overview

In the past there was no harmonised promotions progression pathway in HTEIs as

promotion ordinances were defined differently amongst Institutional Acts. Standardised promotions and elevations to position grades amongst staff in Higher and Tertiary education institutions removes disparities in promotions criteria from one institution to another. This makes HTEI promotions transparent and internationally trustworthy and competitive.

Strategies

- Develop standardised promotions procedures for HTEI;
- Review and harmonise promotions ordinances and manuals; and
- Monitor and Evaluate implementation of the harmonised promotions ordinances and manuals.

7.3 Strategic Objective 3. Facilitate a conducive teaching, learning and living environment through the provision of internationally competitive physical infrastructure (University Towns and Cities) for HTEIs.

Strategic Objective Overview

University of Zimbabwe Innovation Hub

The delivery of HTEI infrastructure using the Public Service Investment Programme (PSIP) projects has not managed to achieve the expected outcome. The construction of new HTEI assets has tended to cost more, taking longer than expected due to inadequacies of the PSIP system. The Government of Zimbabwe has therefore directed transferring of all former PSIP projects into BOT arrangements as well as encouraging Private Public

Partnerships in HTEI infrastructure development in order to deliver an inspiring environment for our students and staff.

Strategies

- Engage investors to develop state of the art infrastructure for Higher and Tertiary institutions
- Implement Public, Private Partnerships (PPPs), Build Operate and Transfer (BOT), Build Own Operate and Transfer (BOOT) arrangements to develop University Towns, University Cities and Colleges, modern accommodation infrastructure, shopping malls in universities, wi-fi as well as innovation hubs.
- Refurbish and retool workshops, laboratories and libraries for HTEIs

7.4 Strategic Objective 4. Develop financial instruments that improve student access to HTEIs.

Strategic Objective Overview

Financial Instruments

The Government of Zimbabwe realised the need to provide a sustainable funding mechanism for students, one that maximises quality without overburdening the student/parent or guardian. The MHTESTD has engaged Reserve Bank of Zimbabwe, Banks as well as local and International Financial Institutions to work out modalities for Higher and Tertiary Education Student Loan Support Facility to address the plight of students.

Strategies

- Establish financial instruments to manage risk associated with failure to repay the HTE Student Loan Facility.
- Encourage and facilitate participation of more Local and International financial institutions to fund the HTE Student Loan Facility
- Direct HTEIs to facilitate student access to the HTE Student Loan Facility

7.5 Strategic Objective 5. To be the preferred International destination for Higher and Tertiary Education, Science and Technology Development.

Strategic Objective Overview

Midlands State University Campus

The ability to attract international students and participate in the world economy is critical. In response to the effect of globalisation, HTEIs should operate on an increasingly international basis. We must use our advantage of high literacy to bring in Foreign Direct Investment through offering high quality education that has a product and service orientation. HTEIs should be increasingly Revenue Centres and not Cost Centres for government. The MHTESTD shall assist in the recruitment of foreign students.

Strategies

- Initiate and implement the Study in Zimbabwe programme through PPPs, QAS and ZIMCHE;
- Initiate review of student visa requirements;
- Develop and implement international student exchange programme;
- Reconfigure the Management Training Bureau to facilitate International student language training before enrolment into HTEIs; and
- Establishment International recruiting offices in collaboration with the Zimbabwe Ministry of Foreign affairs.


THE FUTURE
IS HERE

SCIENCE AND TECHNOLOGY DEVELOPMENT

8. STRATEGIC GOAL 3: HERITAGE BASED HIGHER AND TERTIARY EDUCATION SCIENCE AND TECHNOLOGY DEVELOPMENT THAT PRODUCES QUALITY GOODS AND SERVICES

Strategic Goal Overview

Proposed innovation hub design

Following the urgent call by His Excellency, The President of the Republic of Zimbabwe Cde E. D. Mnangagwa to rapidly transform and modernise the economy through technology-based interventions in line with global best practices, the Ministry shall undertake to establish science parks/innovation hubs at all state universities as well as Industrial Parks in all the 10 provinces of the country – a facility that is new to the HTEIs. This endeavour will provide the necessary infrastructure to nurture the translation of knowledge generated by universities through R&D into goods and services contributing to sustained socio-economic transformation and accelerated growth. Lessons on this initiative are drawn from demonstrated rapid industrialising countries such as of Republic of Korea, China, Malaysia, Brazil and many others. Under phase one of this this programme, six science parks/innovation hubs were established at selected state universities including University of Zimbabwe (UZ), Chinhoyi University of Technology (CUT), Harare Institute of Technology (HIT), Midlands State University (MSU), Zimbabwe National Defence University (ZNDU) and National University of Science and Technology (NUST). Phase two will cover the rest of State Universities. Industrial Parks linked to Higher and Tertiary Institutions shall be established in all Provinces of the country, subsequently creating Spin-Off Industries which will transform the Ministry from being a cost centre to being largely a multibillion dollar revenue generating centre.

8.1 Strategic Objective 1: Strengthen societal impact of research based public sector consultancy by HTEIs to ensure research of High Scientific Quality and impact nationally and Internationally.

Strategic Objective Overview

New born screening for genetic disorders

This programme nurtures **Research Based Public Sector Consultancy**. This involves conducting research and providing advisory service of the highest quality to current and future societal challenges. The aim is to strengthen the research base underpinning the public sector consultancy and therefore increase competitiveness. In this programme Genomic Technologies will be used to address national health delivery challenges in the safe and effective treatment of HIV, new-born screening for inherited diseases, forensic DNA for crime investigation, justice and national security as well as applied in research in cattle reproductive technologies for the improvement and restocking of national herd. The Cattle Reproductive Technologies Research Programme will significantly contribute to national food security and enhancing the country's regional and international competitiveness in beef production through increasing the use of cattle reproductive technologies that will improve national cattle breeds and aid the restocking of the national herd.

Strategies

- Develop higher and tertiary education, science and technology projects through an explicit approach where programmes aim at defined end products, to avoid confusion and tangents;
- Establish a national Genomics Technologies Programme coordinated through the National Biotechnology Authority and its Joint Venture partner(s);
- Ensure allocation of funding from the 1% GDP for Research and Development; and
- Establish science and technology Spin-Off companies in all provinces.

8.2 Strategic Objective 2: Develop disruptive innovative capacities in HTEIS to harness new ideas that translate to high quality goods and services;

Strategic Objective Overview

Zimbabwe Centre for High Performance Computing

The programme will see the usage of the High-Performance Computing (HPC) Programme to significantly contribute to economic development of the country through the use of Higher Performance Computing Technologies in solving problems and deriving benefits from opportunities existing in the economic sectors of the country. The Ministry is expanding the current HPC capacity six-fold in order to develop disruptive innovative capacities in HTEIs and support economic development programmes, among the many possible interventions that the HPC can make, science and technology research, agricultural and mining research, manufacturing aided engineering, weather and climate predictions and forecasting, life sciences, defence and security, financial modelling, and running government programmes. Zimbabwe can leapfrog development through leveraging on the high-end research capabilities in its economic sectors that are aided by the HPC to facilitate tangible economic benefits. All the leading global modern economies leverage on HPC to derive high-tech solutions in resource exploration and exploitation, goods manufacturing, offering high-tech services to their people, agriculture and health domain.

Strategies

- Incubate knowledge based growth oriented enterprises by establishing Innovation Hubs in all state universities and Institutions of Higher Learning;
- Complete the value chain to process the ideas from innovation hubs into finished products for the market by establishing Industrial Parks in all provinces;
- Develop the usage of Virtual and Augmented Reality Technology capacity through Joint Ventures; and
- Improve linkages between HTEIs, ZCHPC and industry in the utilisation of innovations and inventions through establishment of joint Spin-Off companies.

8.3 Strategic Objective 3: Strengthen the learning and application of science through the support of science teachers, science learning facilities;

Strategic Objective Overview

Higher and Tertiary Education science facilities

The objective is to capacitate at least 1000 science graduates with teaching pedagogy and methodologies and equip 10 Science laboratories. Currently, the ministry produces an average of 700 Science teachers per year. The nation would require an excess of 5 000-science teachers in the next five years. To meet this target, there is need to introduce secondary school Science courses in some of the primary teacher's colleges that have infrastructure and resources to cater for secondary teacher education in sciences. The secondary teacher's colleges would require additional infrastructure and resources to increase enrolments in Science subjects, hence the need to engage the primary teacher's colleges. The identified primary teacher's colleges are expected to enrol an additional 300 students to cater for the deficit. It is against this background that there is need to introduce secondary school teacher courses in primary teacher's colleges to increase the number of students in teacher's colleges that should train in the teaching of Science and mathematics.

Strategies

- Refurbish and retool workshops, laboratories and libraries for higher and tertiary education institutions;
- Expand Higher and Tertiary Education Institutions Infrastructure for Science Technology Engineering and Mathematics (STEM) students through Public Private Partnerships (PPPs) and Joint Ventures; and
- Increase recruitment of lecturers in the STEM disciplines including highly specialised emerging technology skills areas;

Programmatic Approach with an end product in sight

8.4 Strategic Objective 4: Develop Information communication technologies that support research and development for the modernisation and industrialisation of the economy

Strategic Objective Overview

It is important to develop innovative ways of bringing scientific and technological contributions to all aspects of life. Rapid advances have taken place through the use of ICTs, therefore research is required to keep abreast with the rapid developments and make effective use of the knowledge available.

Strategies

- Develop Virtual and Augmented Reality Centre;
- Expand and restructure HPC for effectiveness;
- Strengthen research into the creation of IT platforms for innovative deployment of data and knowledge for use in various sectors of the economy;
- Promote national competence for computer hardware, software engineering and cyber security;
- Develop and Implement a ministry ICT policy; and
- Coordinate ICT programmes for the ministry and its HTEIs.

8.5 Strategic Objective 5: Develop and implement a policy on adoption and adaptation of emerging technologies for the industrialisation and modernisation of Zimbabwe.

Strategic Objective Overview

New advances in Science and Technology bring about technologies that can be exploited substantially in virtually all sectors of the economy. It is therefore necessary to provide for adoption and adaptation of the new emerging technologies as and when they are appropriate. Emerging technologies in disciplines of biotechnology, ICTs, Space Sciences and Nanotechnology have already started influencing global economic systems and it is important for the Ministry to have robust skills development strategies in these areas.

Strategies

- Create policies and educate professionals to manage emerging technologies;
- Learn and utilise emerging technologies for the industrialisation and modernisation of the economy; and
- Design and create an agile human capital and professional landscape for Zimbabwe that is fit for the needs of the 21st century through NAMACO.

INNOVATION & INDUSTRIALISATION

ZINGSA AERO SPACE SPIN-OFF INDUSTRIES

UNMANNED
AERIAL VEHICLE
MANUFACTURING

INNOVATION & INDUSTRIALISATION

STATE UNIVERSITY
INDUSTRIAL PARK DESIGN

9. STRATEGIC GOAL 4: INDUSTRIALISED ECONOMY THAT PRODUCES QUALITY GOODS & SERVICES THROUGH HTEIs

Strategic Goal Overview

Coal to Liquid Fuel Plant

The goal seeks to strengthen innovation and industrial collaboration between private sector and HTEIs. Industrial and innovation collaboration is an increasing activity in HTEIs. The focus on direct research collaboration and knowledge transfer through innovation and scientific research development.

The goal focuses on providing the country with alternative forms of sustainable energy through carrying out research and development work on alternative sources of liquid fuels, focusing mainly on abundant local resources such as coal and coal bed methane gas. Furthermore, the goal also seeks to use the local iron ore resources to produce steel, which is in demand on the local and international markets

9.1 Strategic Objective 1: Develop and manage a mechanism for registering Intellectual Property

Strategic Objective Overview

The objective seeks to promote the registration of Intellectual Property Rights in the Ministry's HTEIs. Intellectual property rights will be used effectively to facilitate successful innovation. Gauging the importance of IP in innovation by merely focusing on patents as an input and or output of innovation does not justify the significant role played by IPs. A Ministry IPR policy will provide access to financing and technical facilities. In addition, IP will provide a strong negotiation position for entering into and maintaining research collaborations and commercialisation partnerships.

Strategies:

- Develop a ministry Intellectual Property Policy;
- Establish a committee to advocate and promote IP to safeguard research outcomes; and
- Capacity develop HTEIs personnel on IPR

9.2 Strategic Objective 2: Focus on Science and Technology interaction with industry to develop and support Spin-Off Industries for commercialised scientific research and development outputs;

Strategic Objective Overview

Production of Unmanned Autonomous Vehicles (UAVs)

The focus is on applying science and technology to advance the delivery of goods and services aimed at industrialising and modernising Zimbabwe. The establishment of the Zimbabwe National Geospatial and Space Agency (ZINGSA) streamlines aerospace and outer space use, through providing a regulatory framework as well as coordination and collaboration of Space activities with other nations. The Agency shall design and conduct research and development initiatives that promote advances in Geospatial Science and Earth Observation, Space Science, Space engineering, Aeronautical Engineering, Astronautical Engineering, Satellite Communication Systems, Global Navigations Satellite Systems (GNSS), Land Positioning Systems, Unmanned Aerial Vehicles (UAVs) and Launch Satellites.

Strategies

- Establish national strategic institutions: including ZINGSA, Heritage Technology Institute and the Genomics Technology Institute and all their related spin-off industries;
- Conduct regular Sectoral Skills Surveys every three years and National Critical Skills Audits every five years; and
- Capacitate Verify Engineering to translate its bankable coal to liquid fuels project into a multibillion dollar commercial entity through Joint Ventures.

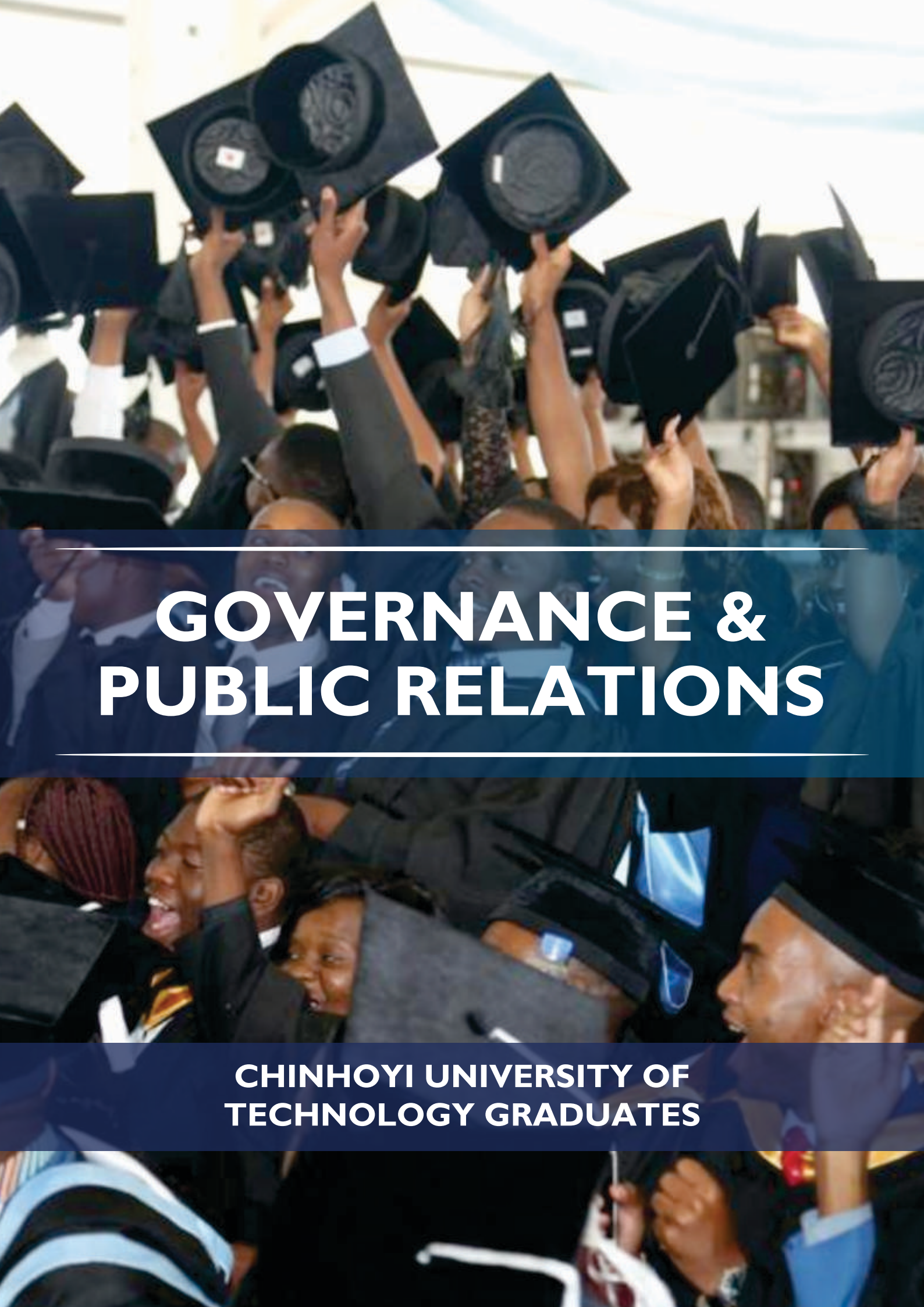
9.3 Strategic Objective 3: Establish strong partnerships with private sector.

Strategic Objective Overview

Science and Technology aims to be the preferred partner for industrial collaboration and substantially increase its activities with industries at a national and regional level. This involves a change of the ministry HTEIs profile/ visibility to external partners as well as the establishment of strong contacts and collaborative projects with industries.

Strategies

- Establish the Heritage Technology Institutes for Scientific Research and Development that results in the value addition and beneficiation of the nation's natural endowment;
- Capacitate NAMACO to improve linkages between industry and HTEIs for a vibrant, relevant and sustainable higher and tertiary education system; and
- Implement the National Science and Technology Innovation System (NSTIS) to promote Research and Development for modernisation and industrialisation.



GOVERNANCE & PUBLIC RELATIONS

CHINHOYI UNIVERSITY OF TECHNOLOGY GRADUATES

GOVERNANCE & PUBLIC RELATIONS

10. STRATEGIC GOAL 5: ROBUST GOVERNANCE STRUCTURES FOR THE MODERNISATION AND INDUSTRIALISATION OF ZIMBABWE THROUGH HTEIs

Strategic Goal Overview

Commissioning of University Councils

This programme aims at developing and promoting a robust governance infrastructure in the ministry and its parastatal institutions. This programme's vision is to attract and develop top level researchers and professionals in all areas and to provide best possible opportunities to develop HTEIs ideas and potential in a global setting. This will be achieved through the establishment of councils/ boards and instituting sound financial management systems in all Ministry Parastatals and institutions of higher and tertiary education.

10.1 Strategic Objective 1: Reconfiguration of the Ministry to deliver a Higher and Tertiary Education, Science and Technology Development that meet the needs of the 21st Century.

Strategic Objective Overview:

In an endeavor to remain relevant and fit for purpose the Ministry conducted a National Critical skills Audit in 2018 and one important recommendation that came out was the need for continuous skills audit at sector level every three years and national skills audits every five years. In order to achieve this it was also indicated that there was need for the Ministry to restructure and remain relevant by introducing a department responsible for skills development and human capital planning. The National Critical skills Audit of 2018 preceded quality interventions, and also highlighted inefficiencies in the organizational structure that could impede quality training, research planning and development.

The 21st Century has ushered in Technological Innovations that have affected everyone's work processes, materials and other factors that influence the ease of doing business, hence the need to consistently review and restructure to keep up with the times. The Ministry is not immune to a such technology-centric changes hence the need to frequently reconstitute Ministry Councils and Boards as part of business process engineering exercises that involve redesigning the Ministry programmes processes, to maximize potential and value add, while minimizing everything else. Failure to do so may result in the Ministry systems and procedures turning obsolete and discordant with the times.

Strategies

- Establish effective Councils or Boards and institutional sound financial management systems in all Ministry parastatals and HTEIs;
- Capacity develop Higher and Tertiary Education, Science and Technoloy Development personnel on the Public Procument and Disposal of Public Assets Act;
- Implement the Public Procument and Disposal of Public Assets Act;
- Use collaboration nodes systematically in PhD student and post doctoral recruitment for ministry parastatals and HTEIs;
- Establish Human Capital, Planning and Skills Development Department;
- Establish an Investment Committee that coordinates all investment activities in the ministry and its HTEIs;
- Establish an Investment engagement framework; and
- Strengthen Investments operationalisation Committee chaired by the Legal Department.

10.2 Strategic Objective 2: Enhance productivity through recruiting and retaining competent staff as well as upholding the Ministry's co-values.

Strategic Objective Overview:

In order for The Ministry to remain focused and effective it should unequivocally ensure that its HTEIs, Agencies and Statutory Bodies recruit and retain top talent competent staff. To be able to accomplish this, the Ministry shall cultivate meritocracies in its HTEIs. This means hiring and promoting the best individuals based on their talents alone. International best practice notes that progressive-minded organizations have made formal instruments or frameworks for guaranteeing that workers are judged exclusively by their efforts, skills, abilities, and performance, paying little to literally no heed to sex, race, class, or nationality. The Ministry has taken major steps to demonstrate its sense of duty regarding meritocracy by implementing performance reward systems for its Councils/ Boards and general employees through implementing the Programmatic Approach that has end products in sight monitored through the Integrated Results Based Management System (IRBM).

Strategies

- Operationalise the Ministry Promotions Infrastructure Framework to ensure promotions and elevations to position grades amongst HTEIs lecturing staff are standardised;
- Fund human capital development for HTEIs staff to ensure professionalization of staff; and
- Enhance productivity through upholding meritocracy in Higher and Tertiary Education, Science and Technology Development.

10.3 Strategic Objective 3: Strengthen visibility of the Ministry programmes and its HTEIs to enhance productivity and accountability.

Strategic Objective Overview:

The Ministry has developed disruptive innovative strategies to promote and advocate for its priority programmes. The Ministry strongly believes it is in its best interests to let people know about its programmes.

Because high visibility benefits the Ministry and its HTEIs. The Ministry shall capacity develop personnel to be skilled at communicating the Ministry's programmes. Increasing Ministry visibility generates reward and recognition for deserving teams. As the Ministry moves away from largely being a social service cost centre, to being a multi million dollar revenue generating sector, it endeavors to sell itself as a valuable resource.

As Hernez-Broome says, self-promotion is a key component to any organization's effectiveness and long-term success.

Strategies

- Develop an effective communication strategy for the Ministry;
- Establish effective promotion and advocacy instruments to competitively disseminate Ministry set priority targets and promote successful research outcomes, goods and services;
- Ensure Ministry participates at national, regional and international education and training, science and technology conferences, exhibitions and symposia to publicize successful research outcomes, Ministry programmes and attract local and foreign partners and students;
- Enhance visibility of Ministry research outcomes and programmes through conventional and contemporary electronic media platforms in order to foster and strengthen collaborations;
- Conduct Intellectual Property awareness campaigns to capacitate HTEIs and communities on how to safeguard research outcomes, goods and services; and
- Publicize Audited yearly returns of Ministry's HTEIs, Agencies and Statutory bodies to enhance accountability.

10.4 Strategic Objective 4: Strengthen Information Management capabilities for efficient management of the Ministry and HTEIs.

Strategic Objective Overview

The rising ubiquity of Information and Communication Technology has given wings to scholars, educators, and allied staff in a multitude of ways. Software in HTEIs has empowered them to uplift their communities through the use of technology related activities in the world of education. Information Communication Technology systems have and will continue to impact society at global, local and personal levels. The benefits of increased productivity and efficiencies in HTEIs due to ICTs cannot be overemphasized. There is no doubt that rapid technological advances are changing the nature of work in HTEIs. This includes but not limited to just Ministry personnel job descriptions, but the way they are completed, who the Ministry works with, the systems that manage the work and how the Ministry plans for the future. The Ministry therefore intends to invest more in digital fluency and ICT literacy. An ICT Policy is to be developed that covers all digitalization aspects of the Ministry and it's HTEIs in line with international best practice. Latest technologies can sprout novel education activities in addition to enhancing existing education systems.

Strategies:

- Establish a higher and tertiary education information management system for efficient delivery of services and accountability;
- Establish committee that coordinates development and implementation of HTE Information Management System;
- Capacity develop HTEIs personnel to use the HTEIMS;
- Adopt low cost technologies particularly open source solutions in developing the Ministry information management system.

ANNEXURES

ANNEXURES

1. ENVIRONMENTAL SCAN

1.1 Multiple Lens Analysis

	STRENGTHS	WEAKNESSES	OPPORTUNITIES	THREATS
Political	• The Zimbabwean Government has political will that provides a conducive environment for efficiency and effectiveness • There is a conducive environment for human capital development that is qualified, skilled, competent and experienced and have relevant skills for the country • Basic Infrastructure is available in the Ministry • The Zimbabwean Government has political will that provides a conducive environment for negotiation	• Inadequate resources for staff retention, especially in emerging specialized areas resulting in high staff turnover	• The thrust for increasing access to higher and tertiary education enables Zimbabwe to increase critical mass of relevantly trained graduates in deficit areas • Existence of effective linkages between industry and training institutions	Inability to retain skilled human capital may result in human resources shortages in the country
Economic	Ministry also focuses on higher and tertiary education that produces goods and services	There is limited funding for research, technology development and human capital development	Establishment of innovation hubs and industrial parks leads to industrialization and modernization of the country	Decline of industry means students will not get appropriate internship
Social	• There exists multiple institutions covering various mandates in teacher training, technical and vocational education and training, and university education to absorb most of the post "O" & "A" level students • The Zimbabwean people value education and this helps in achieving the country's vision 2030	• For some disciplines/courses, institutions have low numbers of Professors and PhD staff compared to the target • Lack of a sustainable educational funding schemes for students who need financial assistance	Higher and Tertiary Education will result in the production of competent and knowledge human resources with relevant skills to ensure Zimbabwe is a middle income economy by 2030	• Prohibitive remuneration which could deter the recruitment of competent and skilled personnel • Impact of programmes may not be realized due to absence of a strong monitoring and evaluation system
Technological	There exists multiple institutions covering various mandates in teacher training, technical and vocational education and training, and university education	• There is lack of adequate, modern and appropriate technology for teaching and research • Shortage of key staff required to drive a knowledge economy due to brain drain	Existing infrastructure for emerging technologies is available to promote skills training and development, science, technology and innovation for production of goods and services	Obsolete equipment may hinder global competitiveness in relation to other countries
Legal	There are enabling legislation/statutes for the Ministry to perform its mandate	Lack of commitment and consistence in the implementation of legislation/statutes	Existence of enabling policy environment and legal framework for the implementation of programme	Regulations of fees increases deter the strategic plan of institutions
Ecological	Institutions are located in appropriate and conducive climates as per their mandates	Implementation of programmes that do not solve or meet the problems and needs of the immediate communities	Room for international partnerships (Bi-lateral & Multi-Lateral) enabling collaborative research and development	Irrelevance of some graduates nationally, regionally and internationally
Governance	There are appropriate statutes for governance of all institutions and agencies	Inconsistence in the management of institutions	Good governance results in peace & stability in the country	If not properly implemented some statutes might become impediments to the Government's TSP

2. KEY RESULT AREAS

No.	Key Result Area	Weightage	Responsible Department/s	Sector KRA Reference	Linkages to Macro Priorities (Reference and Description)	SDG Reference
KRA1	Human Capital Development	60%	HEP, HR, TEP, QAS, ZIMNATCOM, FINANCE AND ADMINISTRATION	Service sector	Maintain and broaden access to education by investing in the upgrading of infrastructure and additional new facilities	3, 4, 5, 6,7, 8, 9 and 16
KRA2	Science and Technology Development	40%	RDI, PTT, ZIMNATCOM, ICT, TEP, HEP, QAS	Productive Sector	Investing in education as a key poverty reduction strategy and a vehicle for producing a skilled and capable workforce to greatly assist in the production agenda	

Science & Technology Human Capital Development

3. CLIENTS' AND STAKEHOLDER ANALYSIS

3.1 Internal and External Clients

Internal Clients	Needs/Problems	Extent
1. **Students**	**Needs** • Quality education and training • Certification **Problems** • Lack of financial support • Inadequate accommodation • Inadequate learning facilities • Limited attachment opportunities	All students need quality education and proper certification
2. **Researchers/Academics**	**Needs** • Funding • Research facilities • Enabling policies • Collaboration & Fellowships • IP Protection **Problems** • Lack of funding • Lack of facilities • Lack of current technologies • Lack of proper linkages between researchers and industry	50% of the researchers/academics need continuous
3. **School leavers**	**Needs** Access to training Funding **Problems** Entry requirements	10% of school leavers seek our services

Bio-Technology Researcher

3. CLIENTS' AND STAKEHOLDER ANALYSIS CONT'

3.1 Internal and External Clients

Internal Clients	Needs/Problems	Extent
4. **Industry and Commerce**	**Needs** • Relevant skills • New technologies • Linkages with training institutions • Innovations and inventions • Assessment and Certification • Qualification confirmations **Problems** • Lack of relevant technologies • Skills flight • Mismatch between training and industry requirements	62% deficiency in the skills gap
5. **Public Institutions**	• Policies -internal • Budget support -internal • Guidance	100% of public institutions require policies and budget support
6. **Government ministries**	Skilled manpower	Only 38% critical skills available
7. **Potential Investors**	• Relevant skills labour • Bankable innovations and projects	• 62% deficiency in the skills gap • 38% critical skills
8. **Private Institutions**	**Needs** • Registration • Regulation • Accreditation • Policy guidance **Problems** • Insufficient knowledge of registration requirements • Compliance with regulatory requirements	70% of private institutions have knowledge on registration and compliance requirements
9. **Scientists/Inventors**	**Needs** • Policy framework • Funding • Protection of IP • Skills and enabling environment • Mentorship **Problems** • Insufficient funding • Absence of industrial parks • Weak linkages between industries and academia.	• 50% need continuous funding. • 100% need access to industrial parks and linkages with industries.
EXTERNAL CLIENTS	**Needs/Problems**	**Extent**
1. State Institutions (HTEIs)	• Budgetary support • Policy guidance • Human resources • Technical support services	All HTEIs need continuous budget support and technical support services
2. Parastatals	• Budgetary support • Policy guidance • Human resources • Technical support services	All need continuous budget support and technical support services
3. Ministry Management	Ministerial support	**Continuous and when required**
4. Ministry staff	• Capacity building • Policy direction • Budgetary support • Departmental collaboration	Continuous

3.2 Stakeholders

Stakeholders	Demands/ Expectations	Extent
1. **Professional bodies (CIS,**	• Trained personnel • Quality curricula • Compliance to quality standards	Continuous
2. **Civil society**	• Policy • Compliance to good corporate governance	Timeously
3. **NGOs**	• Regulations • (Operating guidelines)	Annually
4. **PSC**	• Recruitment • Staff establishment eg statistics on report employment posts • Qualified human capital	Daily Weekly Monthly
5. **OPC**	Implementation of government programmes & reports	Weekly Monthly
6. **Industry and Commerce**	• Relevant human capital • Relevant curricula	62% deficiency in the skills gap 38% critical skills
7. **Cooperating partners UNICEF, SADC,UNESCO**	• Compliance to agreed positions • Periodic reports • Collaborative linkages	Continuous and as per request
8. **Other Government Ministries**	• Periodically support policy formulations • Collaborative linkages • Harmonisation and standardisation of qualifications	Continuous and as per request
9. **Parliament Of Zimbabwe**	• Reports • Updates on utilisation of funds from Treasury	Quarterly/as required

Civil Society

4. Policy Requirements:

	External	KRA Ref		Internal	KRA Ref
1.	Vision 2030	1 and 2	1.	National Biotechnology Act [2006]	2
2.	Transitional Stabilisation Program 2018-2020	1 and 2	2.	All Statutory Instruments subsidiary to all Acts administered by the Ministry	1
3.	SADC Protocol on Science, Technology and Innovation	2	3.	2-5-2 Teacher Training Model, 3-3-3 Teacher Training Model,	1
4.	Sustainable Development Goals (SDGs)	1 and 2	4.	Income Generation and Production Policy	1
5.	Research Act 1986 [rev 1988 and 1998]	1 and 2	5.	Policy on HIV and AIDS at the workplace	1
6.	Presidential Commission of Inquiry into Education and Training [1999]	1 and 2	6.	Manpower Planning and Development Act *[Chapter 28:02]*	1
7.	SADC Protocol on Education and Training [1997]	2	7.	Strategic Plan 2018 - 2023	1and 2
8.	Statutory Instrument 1 of 2000 as amended	1	8.	Department of Teacher Education Handbook	1
9.	Public Finance Management Act 2009 [Chapter 22:19]	1 and 2	9.	2nd National Science and Technology Policy	2
10.	Treasury Instructions	1 and 2	10.	Ministerial Doctrine of 2018	1and 2
11.	Continental Education Strategy for Africa [CESA 2016 - 2025]	1 and 2	11.	State Universities Acts	1and 2
12.	Malabo Declaration of 2014	1 and 2	12.	Zimbabwe Council for Higher Education Act *[Chapter 25:27]*	1
13.	CAADP Pillar 4	1 and 2	13.	Accounting Officer's manual.	1 and 2
14.	Public Procurement and Disposal of Public Assets Act *[Chapter 22:23]*	1 and 2	14.	ZINGSA Constitution of 2018	2
15.	Joint Venture Act *[Chapter 22:22]*	1 and 2	15	Non-State University Charters	1 and 2
16.	AU Agenda 2063	1 and 2	16	Statutory Instrument 132 of 2018	1 and 2
17.	SADC RISDP 2016- 2020	1 and 2	17	Statutory Instrument 133 of 2018	1 and 2
18.	Education 2030 framework	1 and 2	18	Statutory Instrument 137 of 2018	1 and 2
19.	Marrakesh VIP treaty (WIPO Treaty for visually impaired)	2	19	Statutory Instrument 140 of 2018	1 and 2
20.	Science & Technology Innovation Strategy for Africa (STISA) 2024.	2			
21.	National ICT policy of 2018	1 and 2			

5. Preliminary Outcomes

No.	Outcome	Weightage	Deliverables	Responsible Department/s	Cross Linkages	KRA Reference	Macro Priorities Ref.
1.	Increased critical mass of trained graduates in deficit areas	20 %	Competent, skilled and quality graduands with relevant skills	HEP, TEP, QAS	MoPSE, MoFEP, ZIMSTAT	1	Stimulation of growth and creation of employment
2.	Graduates with relevant knowledge & skills	15 %	Skilled graduates	HEP, TEP, QAS	MoFED, MoPSE, MoPSLSW, MoIC, MoICTCS, Industry	1	Economic stabilisation
3.	Increased contribution to industrial development & national service delivery	15 %	Competent and skilled graduates Innovations	HEP, TEP, QAS, RDI, PTT	MoFEP, MoIC, MoIC, ARIPO / WIPO, Research Institutions,	1 and 2	Fiscal consolidation
4.	Increased visibility of institutions of higher and tertiary education	15 %	Employable quality graduates Spin-off companies from HTEIs	HEP, TEP, QAS, HEP, TEP, QAS, RDI, PTT, HR	MoFED, MoFAIT, MoIPBS	1 and 2	Stimulation of growth and creation of employment
5.	Improved linkages between industry and Higher and Tertiary Education institutions in the utilisation of innovations and inventions	15 %	Industrial Parks Spin-off companies through collaboration between HTEIs and industry Patents	RDI, PTT	MoIC, MoWCSMED, Research institutions	2	Economic stabilisation
6.	Increased relevant Skilled Manpower	10 %	Small to Medium Enterprises Revived industry	HEP, TEP, QAS	• MoFED, MoIC, MoPSE, MoWACSMED	1	Stimulation of growth and creation of employment
7.	Improved welfare of Higher and Tertiary students	10 %	Employment creation Graduates getting decent jobs	HEP, TEP	MoFED, MoLGPWNH,	1	Stimulation of growth and creation of employment

6. Strategies, Assumptions And Risks

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development **Outcome:** Increased critical mass of trained graduates in deficit areas				
Budget Year	• Increase enrolment of students • Increase recruitment of lecturers in deficit areas • Refurbishment and retooling of laboratories • Upgrade libraries	• Budgetary support by Treasury • Uplift of recruitment freeze	• Changes in macro-economic factors (political, economic, social, technological, environmental, legal and governance) (PESTLEG)	Supportive government policies to be put in place
2-3 years	• Expand accommodation for students through PPPs & Joint Ventures • Expansion of workshops	• Budgetary support by Treasury • Uplift of recruitment freeze • Availability of willing and able partners to enter into Joint Ventures	Changes in macro-economic factors (political, economic, social, technological, environmental. legal and governance) (PESTLEG)	Expedite conclusion of binding agreements with partners
4-5 years	• Expand accommodation for students through PPPs & Joint Ventures • Expansion of workshops	• Budgetary support by Treasury • Uplift of recruitment freeze • Availability of willing and able partners to enter into Joint Ventures	Changes in macro-economic factors (political, economic, social, technological, environmental. legal and governance) (PESTLEG)	Expedite conclusion of binding agreements with partners

Seke Teachers College Graduates

6. Strategies, Assumptions And Risks

Hydraulic Engineering Expert

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development **Outcome:** Graduates with relevant knowledge & skills				
Budget Year	Review and redirect the curriculum towards producing graduates with relevant knowledge, attitudes & skills	Adequate infrastructure for staff and students	Brain drain	• Periodic review of conditions of service for lecturers • M&E of the strategies put in place
2-3 years	Review and redirect the curriculum towards producing graduates with relevant knowledge, attitudes & skills	Adequate infrastructure for staff and students	Brain drain	• Periodic review of conditions of service for lecturers • M&E of the strategies put in place
4-5 years	Review and redirect the curriculum towards producing graduates with relevant knowledge & skills	Adequate infrastructure for staff and students	Brain drain	• Periodic review of conditions of service for lecturers • M&E of the strategies put in place

6. Strategies, Assumptions And Risks Cont'

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development **Outcome:** Increased contribution to industrial development & national service delivery				
Budget Year	• Availing incentives that encourage research • Rewards for research that results in bankable research projects	Most research will produce prototypes or relevant IP	There may be no takers for the prototypes	Produce in industrial parks
2-3 years	• Availing incentives that encourage research • Rewards for research that results in bankable research projects	Most research will produce prototypes or relevant IP	There may be no takers for the prototypes	Produce in industrial parks
4-5 years	• Availing incentives that encourage research • Rewards for research that results in bankable research projects	Most research will produce prototypes or relevant IP	There may be no takers for the prototypes	Produce in industrial parks

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital development **Outcome:** Increased visibility of institutions of higher and tertiary education				
Budget Year	• Vigorously Promote and publicise successful research outcomes, the researcher and the institution • Incentivise research in targeted areas	Researches being carried out are relevant to societal needs	IP theft	• Timeously register IP of research outcomes • Improvement in management systems
2-3 years	• Vigorously Promote and publicise successful research outcomes, the researcher and the institution • Incentivise research in targeted areas	Researches being carried out are relevant to societal needs	IP theft	• Vigorously Promote and publicise successful research outcomes, the researcher and the institution • Incentivise research in targeted areas
4-5 years	• Vigorously Promote and publicise successful research outcomes, the researcher and the institution • Incentivise research in targeted areas	Researches being carried out are relevant to societal needs	IP theft	• Vigorously Promote and publicise successful research outcomes, the researcher and the institution • Incentivise research in targeted areas

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: HUMAN CAPITAL DEVELOPMENT **Outcome:** Improved linkages between industry and Higher and Tertiary Education institutions in the utilisation of innovations and inventions				
Budget Year	Lobby for allocation of funding from the 1% GDP for research and development; Establish innovation hubs and	• GoZ to honour pledge • Supportive policy environment for R & D. Institutions will embrace	Economic Instability; Quality of researchers	Out source for funds from development partners; research chairs Rigorous

6. Strategies, Assumptions And Risks Cont'

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: HUMAN CAPITAL DEVELOPMENT				
Outcome: Improved linkages between industry and Higher and Tertiary Education institutions in the utilisation of innovations and inventions				
	industrial parks	the concept	and researches	assessment/testing mechanisms
	Intensive IPR awareness	Critical mass of IP experts; ARIPO, WIPO support.	Absence of funding for awareness programmes	Seek alternative source of funding
2-3 years	Establish innovation hubs and industrial parks	Institutions will embrace the concept	Quality of researchers and researches	Rigorous assessment/testing mechanisms
	Intensive IPR awareness	Critical mass of IP experts; ARIPO, WIPO support.	Absence of funding for awareness programmes	Seek alternative source of funding
4-5 years	Establish innovation hubs and industrial parks	Institutions will embrace the concept	Quality of researchers and researches	Rigorous assessment/testing mechanisms
	Intensive IPR awareness	Critical mass of IP experts; ARIPO, WIPO support.	Absence of funding for awareness programmes	Seek alternative source of funding

Beverage Manufacturing Industry

6. Strategies, Assumptions And Risks Cont'

Retooling of Engineering Workshops in HTEIs

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development				
Outcome: Increased Skilled Manpower				
Budget Year	Improved infrastructure	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Retooling	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Student Funding	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Facilitation and recruitment of external experts for critical and unique areas	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Capacity development in critical skills	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
2-3 years	Capacity development in critical skills	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Retooling	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Student Funding	• Sufficient budgetary support	• Delay of disbursements of	Resource Mobilisation

6. Strategies, Assumptions And Risks Cont'

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development				
Outcome: Increased Skilled Manpower				
		• Stable macro-economic environment	funds • Market Failure	
4-5 years	Facilitation and recruitment of external experts for critical and unique areas	• Sufficient budgetary support • Stable macro-economic environment	• Delay of disbursements of funds • Market Failure	Resource Mobilisation
	Offer regionally bench marked salaries to attract experts	Experts are keen to work in Zimbabwe	Inadequate budgetary support.	Resource mobilisation and building relationships
	Bilateral/Multilateral agreements with development partners	Continued cordial relations	Change of International policies	

Industrial Manufacturing Engineering Industry Experts

6. Strategies, Assumptions And Risks Cont'

Improved Student Spaces in HTEIs

Period	Strategies	Assumptions	Risks	Mitigatory factors
Key Result Area: Human Capital Development **Outcome: Improved welfare of Higher and Tertiary students**				
Budget Year	Improve access through funding support for students. Improve students spaces (accommodation, recreation, medical, transport, catering, lecture rooms)	Partners are willing to enter into arrangements (financial institutions) Partners willing to enter into BOT/BOOT arrangements	• High interest rates beyond the reach of many. • High default rate Untenable macro-economic conditions.	Negotiating with financial institutions for affordable interest rates Implementing Joint Ventures for infrastructure development
2-3 years	Improve access through funding support for students. Improve students spaces (accommodation, recreation, medical, transport, catering, lecture rooms)	Partners are willing to enter into arrangements (financial institutions Partners willing to enter into BOT/BOOT arrangements	• High interest rates beyond the reach of many. • High default rate Untenable macro-economic conditions.	Negotiating with financial institutions for affordable interest rates Implementing Joint Ventures for infrastructure development
4-5 years	Improve access through funding support for students. Improve students spaces (accommodation, recreation, medical, transport, catering, lecture rooms)	Partners are willing to enter into arrangements (financial institutions Partners willing to enter into BOT/BOOT arrangements	High interest rates beyond the reach of many. High default rate Untenable macro-economic conditions.	Negotiating with financial institutions for affordable interest rates Implementing Joint Ventures for infrastructure development

7. Strategic Results Chain, Monitoring and Evaluation Framework

7.1 Impact Plan

	Impact Description	Impact Indicator	Measurement Unit/Criterion (%, no. rate)	Target					Allowable Variance	Cross Linkages	Outcome Reference	KRA Reference
				2019	2020	2021	2022	2023				
1	IMPROVED STANDARD OF LIVING	GDP per capita Contribution	%	3%	5%	6%	8%	10%	+/- 10%	MoFEP, MoWACSMED	1, 2	1, 2
		GDP per capita	no						+/- 10%	MoFEP, MoWASMED	3	1, 2
		Life Expectancy	no	65	66	68	69	70	+/- 10%	MoFEP, MoHC, MPSLSW	2, 7	1, 2
		Poverty Datum Line	no ($)	552	610	620	660	668	+/- 10%	MoFED, MoITC	3, 6	1, 2
		Formal Unemployment Rate	%						+/- 10%	MoLSW, MoFEP, ZIMSTAT	6	1, 2
		Net Exports	%						+/- 10%	MoFEP, , MoIC, MoFAIT, MoWASMED	5	1, 2
2	ECONOMIC GROWTH	GDP Contribution	%	1%	2%	2.3%	3%	4%	+/- 10%	MoFEP, MoITC, Research Institutions, Industry, ARIPO/WIPO	3	1, 2
		GNI Contribution	%	1%	2%	2.3%	3%	4%	+/- 10%	MoFED, MoITC	4	1, 2

7.2 Impact Plan

Impact Reference		Outcome Description	Outcome Indicator	Measurement Unit/ Criterion(%, no. rate,)	Baseline	Target					Allowable Variance	Output Reference	KRA Reference
					2018	2019	2020	2021	2022	2023			
IMP1	1	Increased critical mass of trained graduates in deficit areas	Bankable projects per Institution per year	Number	0	1	2	3	4	5	+/-5%	7	1&2
			prototypes/ patents per Institution per Year	Number	3	4	5	6	7	8	+/-5%	4	2
			Mobility tracer statistics for graduates per year	Number	5000	5 125	5 253	5 384	5 518	5 655	+/-5%	10	1
			Spin offs companies per year	Number	2	2	2	3	3	3	+/-5%	15	2
			Royalties and Licences received per year	Number	0	1	2	3	4	5	+/-5%	8	2
IMP2	2	Graduates with relevant knowledge & skills	Mobility tracer statistics for graduates per year	Numbers	5000	5 125	5 253	5 384	5 518	5 655	+/-5%	10	1
			Spin offs companies per year	Number	2	2	2	3	3	3	+/-5%	15	2
			Royalties and Licenses received per year	Number	0	1	2	3	4	5	+/-5%	8	2
IMP3	3	Increased contribution to industrial development & national service delivery	Absorption by Industry and Commerce per year	Percentage	24%	25%	28%	30%	34%	40%	+/-5%	14	1
			Enterprises Developed per year	Number	0	1	2	3	4	5	+/-5%	6	2
			Converted Prototypes into usable products at Industrial Parks per year	Number	3	4	5	6	7	8	+/-5%	15	2
			skilled graduates	Number	37551	39560	42328	46570	50622	55380	+/-5%	5	1
			registered patents	number	11(HIT, Kwekwe, MSU)	12	14	16	18	20	+/-5%	4	2
			commercialized patents	number	2	4	6	8	10	12	+/-5%	4	2
IMP4	4	Increased visibility of institutions of higher and tertiary education	Ranking in Africa	number	1 University in top 100	2	4	5	8	12	+/-5%	18	1&2
			Internationalisation	% of foreign students % of foreign teaching	1%	1.5%	3%	5%	7%	10%	+/-5%	18	2
	5	Improved linkages between	Partnership Agreements	number	6	10	14	18	22	26	+/-5%	3	1&2

7.2 Impact Plan

Impact Reference		Outcome Description	Outcome Indicator	Measurement Unit/ Criterion(%, no. rate,)	Baseline	Target					Allowable Variance	Output Reference	KRA Reference
					2018	2019	2020	2021	2022	2023			
IMP4	5	industry and Higher and Tertiary Education institutions in the utilisation of innovations and inventions	Technology transfer	number of transfers	2	4	6	10	16	18	+/-5%	15	2
	6	Increased relevant Skilled Manpower	Absorption by Industry and Commerce per year	%	20%	25%	27%	28%	29%	30%	+/-5%	1	1
			Enterprises Developed per year	Number	0	1	2	3	4	5	+/-5%	2	1
			Converted Prototypes into usable products at Industrial Parks per year	Number	3	4	5	6	7	8	+/-5%	15	2
			Mobility tracer statistics for skilled workers per year	Number	5000	5 125	5 253	5384	5 518	5 726	+/-5%	10	1
	7	Improved welfare of Higher and Tertiary students	Constructed hostels	Number	5	8	9	10	11	13	+/-5%	20	1

Industrial Park Architectural Design

8. Resources Outputs Plan

Ref. (1)	Program Outputs (2)	Budget Allocation 2018	Budget Estimate 2019	Budget Estimate 2020	Budget Estimate 2021	Budget Estimate 2022	Budget Estimate 2023
1.	Skilled Graduates						
2.	Fit for purpose graduates						
3.	Access to high quality research and development						
4.	Registered patents, prototypes and publications						
5.	Relevant skilled Manpower						
6.	Physical infrastructure sector						
7.	Specific developmental projects						
8.	Patents publications						
9.	Registered private institutions						
10.	Skilled graduates						
11.	Research conducted						
12.	number of school leavers enrolled						
13.	filled posts						
14.	availed human resources						
15.	Commercialised research						
16.	Disbursement of grants joint ventures						
17.	Prototypes Industrial parks established						
18.	Increased capacity utilisation						
19.	Laboratories Lecturer room						
20.	Hostels refurbished/ constructed						
21.	Retooled workshop						
22.	Cutting edge equipment						
23.	Laboratories established						
	Total						

9. Summary of Budget by Programme:

Ref. (1)	Department (2)	Expenditure 2018	Approved Budget 2019	Budget Estimate 2020	Budget Estimate 2021	Budget Estimate 2022	Budget Estimate 2023
1.	Policy And Administration	2 751 273	6 433 321				
2.	Skills Training and Development	203 553 902	924 998 715				
3.	Stem for Industralisation	18 772 818	93 328 235				
	Total						

16. Summary of Budget by Category of Expenditure:

Ref. (1)	Expenditure Classification (2)	Total Approved Budget (Previous Year)	Actual Expenditure (Previous Year)	Approved Budget (Current Year) 2019	Budget Estimate 2020	Budget Estimate 2021	Budget Estimate 2021	Budget Estimate 2022	Budget Estimate 2023
1.	Employment Cost	51 275 000	18 219 066	124 083 000					
2.	Goods and services	51 813 000	1 170 659	24 824 371					
3.	Maintenance	342 000	170 542	1 200 266					
4.	Current transfers	218 869 000	184 980 992	248 620 001					
5.	ICT requirements	77 000	21 125	423 832					
6.	Acquisition of furniture & Equipment	0	0	0					
7.	Acquisition of fixed capital assets	21 021 000	10 086 000	74 013 791					
8.	Capital transfers	34 394 000	10 450 734	152 428 915					
	Total	377 791 000	225 099 118	625 594 176					

10. Summary of Human Resources Estimates

Ref. (1)	Department (2)	Total Establishment Approved	Projected Establishment 2019	Projected Establishment 2020	Projected Establishment 2021	Projected Establishment 2022	Projected Establishment 2023
1.							
2.							
3.							
4.							
5.							
	Total	**4639**	**4639**	**4685**	**4685**	**5040**	**5040**

11. TERMS OF REFERENCE (Indicate sources of authority/mandate)

i) Constitution of Zimbabwe Amendment (No. 20) Act of 2013

ii) Manpower Planning and Development Act of 1984 [Chapter 28:02] revised (1996)

iii) Zimbabwe Council of Higher Education Act [Chapter 25:27]

iv) National Biotechnology Act [Chapter 14:31]

v) University of Zimbabwe Act [Chapter 25:16]

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

vii) Chinhoyi University of Technology Act [Chapter 25:13]

viii) Zimbabwe Open University Act [Chapter 25:20]

ix) Midlands State University Act [Chapter 25:21]

x) Bindura University of Science and Technology Act [Chapter 25:22]

xi) Harare Institute of Technology Act [Chapter 25:26]

xii) Great Zimbabwe University Act [Chapter 25:24]

xiii) Lupane State University Act [Chapter 25:25]

xiv) Gwanda State University Act [Chapter 25:30]

xv) Marondera University of Agricultural Sciences and Technology Act [Chapter 25:29]

xvi) Manicaland State University of Applied Sciences Act [Chapter 25:31]

xvii) Pan African Minerals University of Science and Technology Act [Chapter 25:33]

12. OVERALL FUNCTIONS

i) Co-ordinate higher and tertiary education, science and technology and innovation policy planning review, formulation, and implementation to meet the transformational agenda;

ii) Develop policies and programmes for human capital development through higher and tertiary education for the country's transformational needs;

iii) Facilitate establishment of bilateral and multilateral collaborative research and development programmes;

iv) Co-ordinate and report on International agreements/programmes and obligations;

v) Coordinate institutions for scientific research and development, innovation and industrial parks initiative in all sectors;

vi) Facilitate access to higher and tertiary education and training;

vii) Promote, monitor and regulate quality in higher and tertiary education programmes;

viii) Monitor all Technical and Vocational Education Training programmes including registration, accreditation, qualification assessments and operations of Independent Technical and Vocational Education and Training Institutions;

ix) Coordinate and regulate Technical and Vocational Education Training (TVET) through the provision of relevant and responsive curricula, validation systems quality assurance systems, reliable examinations, trade tests, skills upgrade and apprenticeship training;

x) Coordinate and regulate Teacher Education through the provision of relevant and responsive curricular, validation systems, quality assurance systems, reliable examinations;

xi) Coordinate mainstreaming of cross cutting projects/programmes in Science, Technology, Engineering and Mathematics;

xii) Develop, implement and co-ordinate Zimbabwe national qualifications framework;

xiii) Conduct periodic national skills audits;

xiv) Conduct science, technology and innovation indicators audits;

xv) Implement higher and tertiary education infrastructure and business development programmes;

xvi) Develop spin-off science and technology and other companies; and

xvii) Protect and manage intellectual property rights arising out of innovation initiatives in higher and tertiary, science and technology institutions.

13. DEPARTMENTS IN THE MINISTRY AND THEIR FUNCTIONS

13.1 TERTIARY EDUCATION PROGRAMMES (TEP)

i) Plan, develop and implement policies for the production of competent, skilled and quality human capital in Tertiary Education Institutions (TEIs);
ii) Strengthen the capacity to design, plan and manage Tertiary Education in a rapidly changing world;
iii) Promote science and technology development in TEIs;
iv) Promote gender equality and equity, and gender mainstreaming in TEIs;
v) Increase HIV and AIDS awareness and prevention, and life skills education in institutions; and
vi) Promote culture, sport and recreation in TEIs.

Masvingo Polytechnic Graduates

13.2 HIGHER EDUCATION PROGRAMMES (HEP)

i) Coordinate the harmonisation of Higher Education through Zimbabwe Council of Higher Education (ZIMCHE);

ii) Facilitate the appointment of University Councils/Boards and attend meetings to provide policy guidelines;

iii) Facilitate the appointment of Personnel to designated posts, (Vice Chancellor, Pro Vice Chancellor, Registrar, Bursar and Librarian) in Universities;

iv) Facilitate the recruitment of foreign students through the study in Zimbabwe initiative;

v) Review and advise on the conditions of service for university staff;

vi) Participate in the drafting of universities budgets and endorse state universities wage bills for onwards submission to Treasury;

vii) Coordinate universities graduation ceremonies, compile the graduation statistics and coordinate students' welfare and national events; and

viii) Monitor the infrastructure development projects in universities.

Proposed University Industrial Park Design

13.3 QUALITY ASSURANCE AND STANDARDS (QAS)

I) Promote, monitor and regulate quality in Technical and Vocational Education Training (TVET) programmes;

ii) Register and monitor Public and Independent Technical and Vocational Education and Training Institutions;

iii) Accredit TVET Programmes and assess foreign and local TVET qualifications;

iv) Coordinate and regulate TVET through the provision of relevant and responsive curricula, validation systems, quality assurance systems, reliable examinations, trade tests, skills upgrades and apprenticeship training;

v) Register TVET qualifications on the Zimbabwe National Qualification Framework;

vi) Administer public Higher Examinations Council (HEXCO) examinations; and

vii) Administer Apprenticeship Training Programmes.

High quality industrial Maintenance by Apprentices

13.4 RESEARCH DEVELOPMENT AND INNOVATION (RDI)

i) Identify, coordinate and prioritize Research and Development (R&D) activities in the country;
ii) Mobilise resources and coordinate effective commercialization of R&D results;
iii) Lead the process of technology development including indigenous knowledge technologies;
iv) Promote development and optimal usage of facilities and human resources capital in the country and in the Diaspora;
v) Promote quality and efficiency in Science, Technology and Innovation through maintaining an effective and up to date RDI database for Zimbabwe; and
vi) Promotion of emerging technologies and systems.

Production of higher quality products for export through Research and Innovation

13.5 PROJECTS AND TECHNOLOGY TRANSFER (PTT)

i) Develop Ministry and Institutional Intellectual Property Rights (IPR) Policy framework;
ii) Develop and formalize Industry/academic linkages;
iii) Promote Intellectual Property (IP) Asset growth for national competitiveness
iv) Facilitate the establishment of Technology Transfer Offices (TTOs) and National Technology Transfer Centre (NTTC) - clearing house mechanism;
v) Facilitate effective implementation IP Asset portfolio management;
vi) Design and implement policies aimed at improving effective revenue generation through uptake by industry of registered start-ups; and
vii) Undertake S&T policy promotion and advocacy programmes- RIOSET, STS Forum Japan, SASF Pretoria.

Commercialisation of Research Products through Industrial Parks

13.6 ZIMBABWE NATIONAL COMMISSION FOR UNESCO (ZIMNATCOM)

i) Resource mobilization for the UNESCO areas of competency
ii) Co-ordination and monitoring of UNESCO activities
iii) Information dissemination on UNESCO Programmes

13.7 FINANCE AND ADMINISTRATION (FIN&ADMIN)

i) Mobilize financial resources for the Ministry;
ii) Provide goods and services to the Ministry's departments;
iii) Account and report on financial resources received and generated by the Ministry; and
iv) Maintain and account Ministry assets.

13.8 HUMAN RESOURCES (HR)

i) Provide human resources planning and the appointment of suitable personnel for the Ministry;
ii) Formulate the employment costs budget and manage the Ministry's wage bill;
iii) Monitor and evaluate implementation of performance management;
iv) Maintain staff discipline and harmonious Industrial relations throughout the Ministry;
v) Coordinate the human resources development in order to improve members' performances and competences; and
vi) Monitor the workplace health and safety of members and coordinate measures aimed at fighting HIV/AIDS at the workplace in order to maintain a healthy staff compliment.

Human Resources Planning

13.9 PUBLIC RELATIONS UNIT (PR)

i) Promotion and advocacy;
ii) Events co-ordination;
iii) Monitor the press; and
iv) Co-ordination of information dissemination

Performing consultancy and advisory services related to governance

13.10 AUDIT UNIT

i) Performing consultancy and advisory services related to governance, risk management and control as appropriate for the Ministry;
ii) Evaluating the economic, effectiveness and efficiency on acquisition and usage of resources;
iii) Evaluating the systems established to ensure compliance with policies, plans, procedures, laws and regulations which could have significant impact on the Ministry;
iv) Evaluating specific operations as requested by management through conducting special and fraud investigations;
v) Evaluating new projects and assessing risk exposures hindering the achievement of the desired objectives; and
vi) Monitoring financial administration and coordinating audit committee meetings.

13.11 Information Communication Technology (ICT) UNIT

i) Provide ICT planning for the Ministry, (Hardware and Software) support to all officers;
ii) Maintain and Monitor the Ministry's connectivity system;
iii) Maintain, monitor and administer all Ministry websites, social media platforms and systems that includes institutions;
iv) Oversee the implementation of all Ministry's ICT projects;
v) Provide and coordinate Higher and Tertiary Education Management Information System (HTEMIS) Solution for the Ministry; and
vi) Liaise with ICT Service Providers and Vendors.

Provide ICT (Hardware and Software) Support.

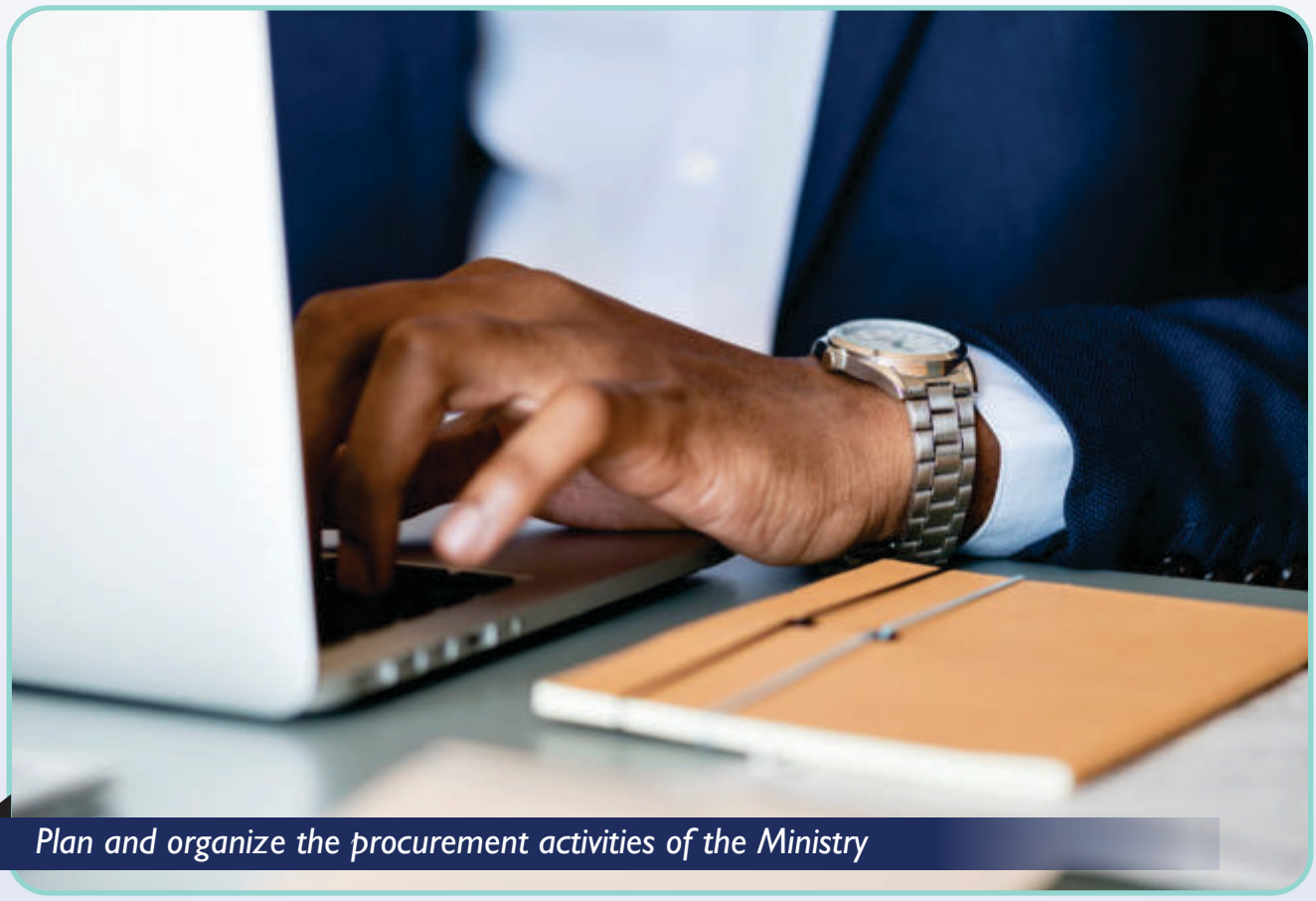
13.12 LEGAL SERVICES UNIT

i) Provide legal advice to the Ministry on all legal issues pertaining to the day to day administration of the Ministry;
ii) Review policy and legislation;
iii) Negotiate and prepare international and local agreements as well as preparing regional and international agreements/treaties and protocols for the accession, adoption and ratification;
iv) Prepare legal documents and Cabinet papers in respect of Acts administered by the Ministry;
v) Prepare court papers and represent the Ministry in Court in consultation with the Attorney General; and
vi) Advise disciplinary authorities in the Ministry on Disciplinary procedures and regulations as well as assisting disciplinary committees on interpretation of disciplinary processes and regulations.

Provide legal advice to the Ministry on all legal issues

13.13 PROCUREMENT UNIT (PMU)

i) Plan and organize the procurement activities of the Ministry in compliance with the Public Procurement and Disposal of Public Assets Act;
ii) Securing the adoption of the appropriate method of procurement, and preparing bidding documents in compliance with provisions in or under this Act for the design of contract specifications and the evaluation criteria, and preparing bid notices and short-lists;
iii) Manage procurement processes including pre-bid meetings, clarification and the receipt and opening of bids and supervise the Ministry's evaluation committee in accordance with the Public Procurement and Disposal of Public Assets Act;
iv) Superintend over the preparation of evaluation reports including contract award recommendations in accordance with the Public Procurement and Disposal of Public Assets Act;
v) Supervise the preparation of contract documents and oversee their management; and
vi) Submit procurement and evaluation reports to the Accounting Officer.

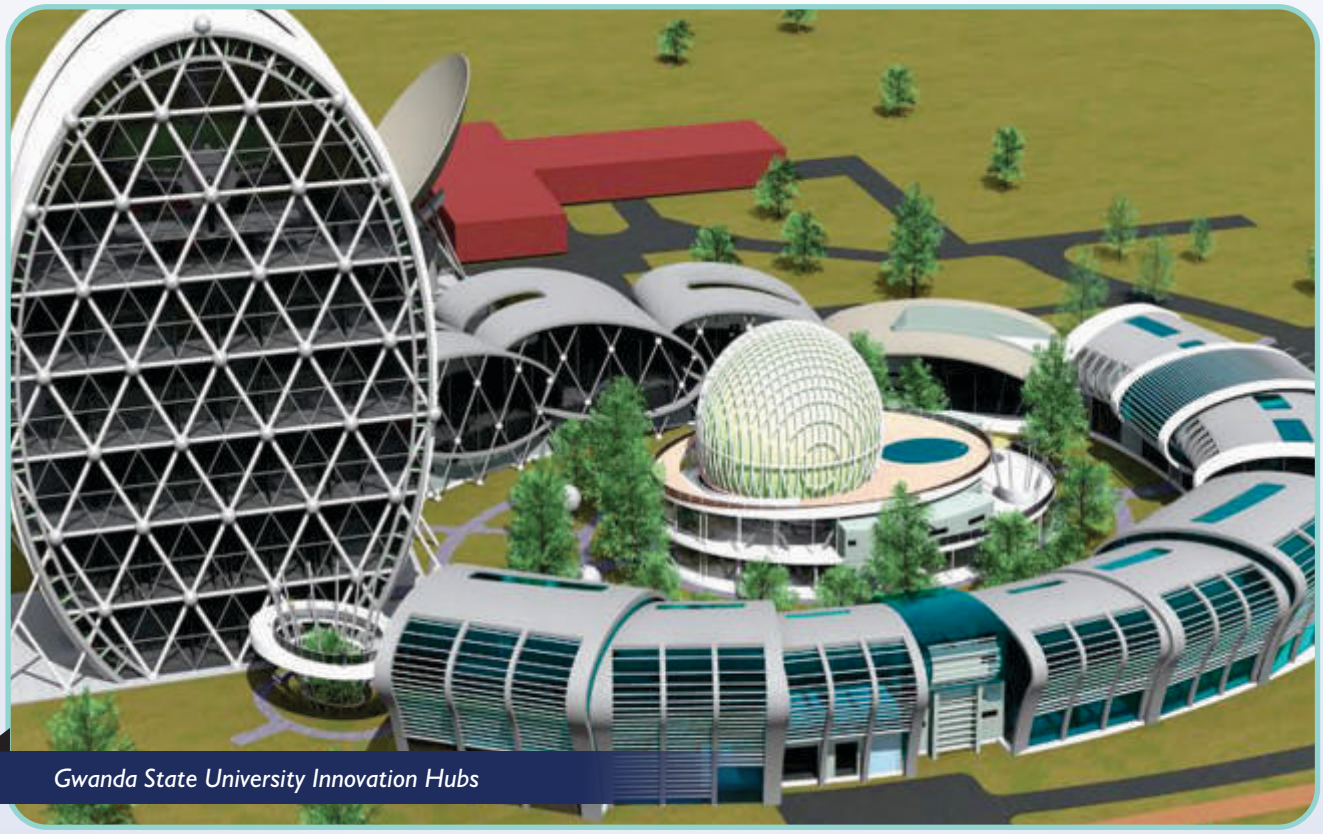


Plan and organize the procurement activities of the Ministry

14. STATE ENTERPRISES AND PARASTATALS, STATUTORY BODIES AND GRANT AIDED INSTITUTIONS UNDER THE MINISTRY

14.1 STATE UNIVERSITIES

i) Bindura University of Science Education
ii) Chinhoyi University of Technology
iii) Great Zimbabwe University
iv) Gwanda State University
v) Harare Institute of Technology
vi) Lupane State University
vii) Manicaland State University of Applied Sciences
viii) Marondera University of Agricultural Sciences and Technology
ix) Midlands State University
x) National University of Science and Technology
xi) Pan African Minerals University of Science and Technology
xii) University of Zimbabwe
xiii) Zimbabwe National Defence University
xiv) Zimbabwe Open University



Gwanda State University Innovation Hubs

14.2 NON-STATE UNIVERSITIES

i) Africa University
ii) Arrupe Jesuit University
iii) Catholic University in Zimbabwe
iv) Reformed Church University
v) Solusi University
vi) Women's University in Africa
vii) Zimbabwe Ezekiel Guti University

14.3 STATE TEACHERS COLLEGES

i) Belvedere Technical Teachers College
ii) Hillside Teachers College
iii) Madziwa Teachers College
iv) Masvingo Teachers College
v) Morgan Zintec
vi) Mutare Teachers
vii) Marymount Teachers College
viii) Mkoba Teachers College
ix) Seke Teachers College
x) United College of Education

Gwanda State University Designs for Library

14.4 PRIVATE TEACHERS COLLEGES

i) Bondolfi Teachers College
ii) Morgenster Teachers College
iii) Nyadire Teachers College

14.5 POLYTECHNICS

i) Bulawayo Polytechnic
ii) Gweru Polytechnic
iii) Harare Polytechnic
iv) J. M. Nkomo Polytechnic
v) Kwekwe Polytechnic
vi) Kushinga Phikelela Polytechnic
vii) Masvingo Polytechnic
viii) Mutare Polytechnic

14.6 STATE INDUSTRIAL TRAINING COLLEGES (ITC)

i) Westgate ITC
ii) Msasa ITC
iii) Bulawayo School of Tourism and Hospitality

14.7 PRIVATE INDUSTRIAL TRAINING COLLEGES

i) Mupfure Self Help College
ii) St Peters Kubatana
iii) Danhiko Project

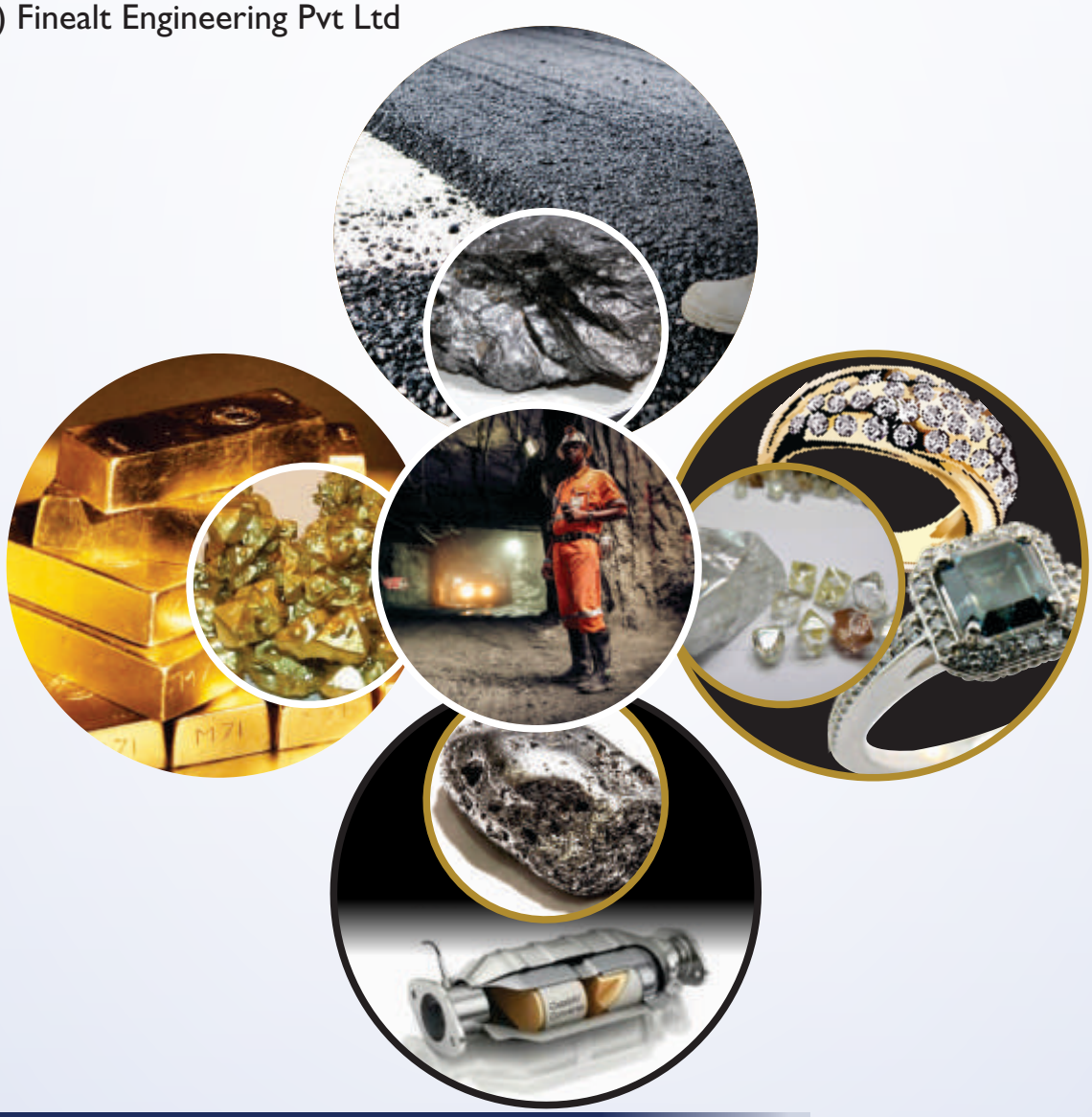
Gwanda State University Designs for Industrial Parks

14.8 STATUTORY BODIES

i) National Biotechnology Authority (NBA)
ii) Zimbabwe Council for Higher Education (ZIMCHE)
iii) Zimbabwe Manpower Development Fund (ZIMDEF)
iv) National Manpower Advisory Council (NAMACO)
v) Zimbabwe National Geospatial & Space Agency (ZINGSA)

14.9 Agencies

i) Verify Engineering
ii) Management Training Bureau
iii) Zimbabwe Centre for High Performance Computing (ZCHPC)
iv) Finealt Engineering Pvt Ltd



ZIMBABWE

Ministry of Higher and Tertiary Education,
Science and Technology Development

STRATEGIC PLAN
2019 - 2023

ZIMBABWE

Ministry of Higher and Tertiary Education,
Science and Technology Development

STRATEGIC PLAN
2019 - 2023

THE DOCTRINE

The Modernisation & Industrialisation of Zimbabwe through Education, Science and Technology Development

ZIMBABWE

STRATEGIC PLAN 2019 - 2023

EDUCATION 5.0 ◉ HERITAGE ◉ INNOVATION ◉ INDUSTRIALISATION

MINISTRY OF HIGHER AND TERTIARY EDUCATION, SCIENCE AND TECHNOLOGY DEVELOPMENT

The Modernisation & Industrialisation of Zimbabwe through Education, Science and Technology Development