MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY

INNOVATION AND TECHNOLOGY TRANSFER POLICY

AUGUST 2020

FOREWORD

Mbeya University of Science and Technology (MUST) is expected to contribute to the social and economic prosperity of Tanzania. MUST is principally concerned with training, research and consultancy services. The vision of the University, which is to become the leading centre of excellence for knowledge, skills and applied education in science and technology puts the university at the centre of Tanzania Development Vision 2025 of achieving a competitive semi-industrial economy capable of delivering middle-income class individuals. As such, MUST transformation necessitated the establishment of Centre for Innovation and Technology Transfer (CITT). To be efficient, CITT needs to pin its performance to all MUST strategic goals. Fundamentally, this is the objective of the MUST Innovation and Technology Transfer Policy. The Policy needs to act as a firm foundation for the proper guidance, steps, activities, definitions, measurements, tools and conditions for the University to generate ideas, incubate, and transfer right technological innovations and traditional knowledge practices from academia, institutions and individuals in Tanzania. The Innovation and Technology Transfer Policy shall apply to all MUST employees, admitted students, private innovators and whoever are involved in innovations in or off MUST campus.

This collaborative Policy is expected to provide trustworthiness, partnering and business power to innovation and technology transfer stakeholders. At large, the policy shall give MUST a chance to effortlessly serve the society and ensure that all tangible and intangible innovative works are rationally and successfully commercialized.

Prof. Aloys N. Mvuma

Vice Chancellor

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LIST OF ABBREVIATIONS AND ACRONYMS

ARC	Academic Research and Consultancy
BM	Bureaucratic Model
CACT	College of Architecture and Construction Technology
CET	College of Engineering and Technology
CITT	Centre for Innovation and Technology Transfer
CMM	Corporate Management Model
CoAST	College of Agricultural Sciences and Technology
CoHST	College of Health Sciences and Technology
CoICT	College of Information and Communication Technology
CoHBS	College of Humanities and Business Studies
CoSTE	College of Science and Technical Education
CVCE	Centre for Virtual and Continuing Education
DAHRM	Directorate of Administration and Human Resources Management
DETS	Directorate of Estates and Technical Services
DF	Directorate of Finance
DLS	Directorate of Library Services
DNC	Directorate of Networking and Computing
DPD	Directorate of Planning and Development
DPSEL	Directorate for Public Services and External Links
DPSRP	Directorate of Postgraduate Studies, Research and Publications
DQA	Directorate of Quality Assurance
DSA	Directorate of Students Affairs
DUS	Directorate of Undergraduate Studies
DVC	Deputy Vice Chancellor
GPSA	Government Procurement Services Agency
HC	Health Centre
IAU	Internal Audit Unit
IECU	Information, Education and Communication Unit
IPR	Intellectual Property Right

ITT	Innovation and Technology Transfer
LU	Legal Unit
MIST	Mbeya Institute of Science and Technology
MRCC	MUST Rukwa Campus College
MUST	Mbeya University of Science and Technology
PE	Personal Emolument
PFA	Planning, Finance and Administration
PMU	Procurement Management Unit
PPRA	Public Procurement Regulatory Authority
VC	Vice Chancellor
MTIP	MUST Technology & Innovation Policy
MIIP	MUST Innovation and Incubation Policy

DEFINITION OF KEY TERMS AND CONCEPTS

MUST CITT considers the following terminologies related to innovation and technology transfer:

(a) Incubation

Refers to nurturing the prospective entrepreneurs to think, develop and transform their creative ideas into a viable and sustainable products, services, activities and businesses.

(b) Innovation

Innovation is the process of translating an idea or invention into a good or service that creates value for which customers will pay. It may be in the form of new or improved products, services, or organizational and managerial measures. In this policy the word is sometimes used to represent innovation, invention and traditional knowledge practice, particularly when written innovator(s).

(c) Idea

Idea is a new suggestion or solution to an existing problem or perceived opportunity.

(d) Idea Generation

Idea generation refers to a process where individuals or teams of employees and other stakeholders create new ideas.

(e) Ideation

Ideation (noun) refers to the formation of new ideas and concepts.

(f) Grassroots Innovation

Grassroots innovation is an innovation from unaided, unqualified, untrained individual innovator from informal sector, who has developed a solution to technical, environmental and socio-economic problem.

(g) Technology Transfer (TT)

It is the process of sharing and commercialization of useful technologies to the Tanzanian society.

(h) Innovation Ecosystem

An "innovation ecosystem" refers to the various actors, activities, and artifacts, institutions, relations, stakeholders and community members or facilities that are critical for inventive, innovative and traditional knowledge practice performance at MUST.

(i) Ethics

Innovation is ethical if it strengthens human dignity, meets basic human needs, and improves participation, freedom, equality, justice, sustainability, integrity, peace and reconciliation.

On the other hand, innovation is unethical, if it weakens these values, violates human dignity, strengthens human greed, increases exclusion, dependency, inequality, injustice, ecological destruction, war, corruption, and destroys lives.

(j) Intellectual Property

Refers to the creative genius of a person or group of persons as manifested in a material product such as a tool, a trademark, an industrial design, a text, a work of art, a piece of music, an artistic performance or any other achievement whose originator is identifiable. It is a property in intangible form such as creative works, inventions, signs and information or any such form distinct from the tangible objects in which it is embedded.

(k) Traditional Knowledge-

The term traditional knowledge refers to the content or substance of knowledge resulting from intellectual activity in a traditional context, and includes the know-how, skills, innovations, practices and learning that form part of

traditional knowledge systems and knowledge embodying traditional lifestyles of indigenous and local communities, or contained in codified knowledge systems passed between generations. It is not limited to any specific technical field and may include agricultural, environmental and medicinal knowledge, and knowledge associated with genetic resources.

(l) Invention

An invention can be a product or process that provides a new way of doing something or offers a new solution to a technical problem.

(m) Patent

A patent is an exclusive right granted for an invention in a given territory for a limited period, generally 20 years; after this period an invention enters into the public domain. For an invention to be patented it must be industrially applicable (useful), new (novel), and of a sufficient "inventive step".

(n) Copyright

Copyright is a legal term describing right given to creators for their literary and artistic works (including computer software). Related rights are granted to performing artists, producers of sound recordings and broadcasting organizations for their radios and television programme. The period of protection is the lifetime of the creator and 50 years after his/her death.

(o) Technology Innovation

Technology innovation means generating new ideas based on technology, capability or knowledge to produce a new tech solution into a viable entity.

(p) Spinouts

Is a start-up company formed on the MUST intellectual property (IP) rights and in which the University holds an equity stake. Not necessarily by the academic inventor, inventor or Traditional Knowledge holder.

CHAPTER ONE

BACKGROUND INFORMATION OF THE UNIVERSITY

1.1   Introduction

The history of Mbeya University of Science and Technology (MUST) dates back from 1986 when Mbeya Technical College (MTC) was established by the Government of Tanzania for the purpose of training Full Technicians at Certificate Level (FTC) under the Russia - Tanzania Training Support. The College existed up to mid-2005 offering programmes in the fields of Architecture, Electrical Engineering, Civil Engineering and Mechanical Engineering. In July 2005, MTC was transformed into a multi-disciplinary Mbeya Institute of Science and Technology (MIST) through the National Council for Technical Education (Mbeya Institute of Science and Technology) Establishment Order, 2004.

The transformation was a Government move towards strengthening the College to become a fully-fledged University. Mbeya Institute of Science and Technology registered a number of achievements including restructuring of FTC programmes to Ordinary Diploma programmes and introduction of Undergraduate Degree programmes which eventually lead to expansion of student enrolment. Following these achievements, on 29th March 2012 after being issued with a Provisional Licence by Tanzania Commission for Universities (TCU), the Institute was transformed to a fully-fledged University namely Mbeya University of Science and Technology (MUST). The University was granted Mbeya University of Science and Technology Charter, 2013 on 20th August 2013.

MUST is endeavouring to lead in science and technology, become a centre of excellence for academics, research and consultancy and puts itself in a position where research results are meant for improving livelihood in the society. In order to develop professional skills in science, engineering, social

sciences and other related fields, MUST has to conduct research that reflect National Research Agenda.

1.2 MUST Vision

The Vision of Mbeya University of Science and Technology is to become the leading centre of excellence for knowledge, skills and applied education in science and technology.

1.3 MUST Mission

The Mission of Mbeya University of Science and Technology is to develop academically, technologically and socially competent students, staff and other stakeholders who will be responsive to the broader needs and challenges of the society specified by:

(a) Facilitating appropriate tuition, practical training and support according to the needs of students and other customers;

(b) Encouraging staff commitment to quality education and services including research, consultancy and innovation;

(c) Fostering lifelong learning, honesty and responsibility;

(d) Promoting an environment conducive to human development; and

(e) Promoting effective entrepreneurship and usage of appropriate technology that meet national and international needs and standards through skills and practical oriented training, research and consultancy.

1.4 Strategic Mandate

Strategic mandate of the university is derived from the phrase "Science and Technology" in its name. This mandate is to provide tertiary and higher education, promote technology development, undertake research and

consultancy, disseminate knowledge and foster relationships with other agencies for development of the nation.

1.5   MUST Motto

Endeavouring to lead in science and technology.

1.6   Situation Analysis

MUST has a couple of units working on innovation, technology, entrepreneurship and industrial linkage matters. However, they are not well coordinated. Staff and Students' innovative ideas remain shelved and sometimes they disappear due to lack of appropriate system to manage them and turn into implementable projects for the benefit of the wider community. Furthermore, at the moment there is no any incubation programme for incubating brilliant and innovative ideas from our students. On top of that, there is neither appropriate means for facilitating the transfer of technologies to market nor means for protecting University Intellectual Property assets. It is in the view that MUST needs to incubate campus and off campus ideas if it is to satisfactorily serve the nation.

On the other hand MUST Management commitment to support the CITT and the implementation of the ITT policy, students, staff and citizens motivated to invention, innovations and traditional knowledge practices, set a positive environment to operationalize the Policy. Challenges like insufficient and unpredictable financial support from the University, deficiency in University existing policies and operational guidelines for innovation and technology transfer and inadequate facilities and international recognition are all taken as starting point for the prosperity of ITT activities a MUST and the nation at large.

1.7 Rationale for Developing the Policy

The vision of MUST is centred on distinction in science and technology. The motto of the University is endeavouring to lead in science and technology. Meaning that the delivery of the core activities of training, research and consultancy activities requires a demonstration of excellence in science and technology to the Tanzanians and the world at large. Despite of the enormous activities, which CITT must perform to facilitate MUST mission, the centre is necessary for the mentoring and commercialisation of the innovations and technologies for the benefits of MUST and the society at large. In essence, branding MUST requires nothing short of establishing the Centre For Innovation And Technology Transfer.

The need for the Policy cannot be overemphasized. The innovation is context dependence. Unless policies are contextually efficient, countries will always benefit less with local technology. In (United Nations Conference On Trade And Development (UNCTAD), 2015) the view is that better policy is needed not only to support for technological learning, innovation capacity and overall competences in business excellence, but also in strengthening the link between local research and innovation and the needs of the community.

1.8 Justification for Developing Policy

The MUST Centre for Innovation and Technology Transfer has the role of facilitating, managing and bringing of innovation, technology, entrepreneurship and business management creativity for fostering the development in Tanzania. Despite of the enormous activities, which MUST perform to facilitate its mission, the Innovation and Technology Transfer Policy is necessary for the following objectives of the University:

(a) To ensure leadership and excellence culture in innovation and technology transfer;

(b) To maintain diversity and equal opportunities for all partners;

(c)   To demonstrate integrity and stewardship of resources;

(d)   To offer training in science and technology, technical education and other training, thus developing a critical mass of highly trained manpower;

(e)   To formulate plans for the promotion, technological development and improvement of the quality of education and training being offered to students and other stakeholders;

(f)   To promote and encourage innovation, initiative and readiness amongst staff and students in their fields of specialization and study;

(g)   To collaborate with other institutions nationally and internationally in the initiation, promotion and conduct of technical education, science and technology programmes; and

(h)   To carry out any other assignments given by the government through its various organs.

CHAPTER TWO

POLICY BACKGROUND

2.1　Introduction

This section describes the Policy scope in a given duration interval of operation. Currently, the focus of the Policy covers industrial era as stipulated in (United Republic of Tanzania (URT), 2016). President Dr. John Pombe Magufuli insists that successful achievement of Vision 2025 objectives requires "Nurturing Industrialization for Economic Transformation and Human Development". Such a process is a long-term endeavour demanding a high level of policy consistency, hard work, discipline, sacrifice and extraordinary commitment to tackling poverty, resolving institutional coordination failures, and addressing challenges, while also forging strong collaboration with potential stakeholders in order to turn Tanzania into a semi industrialized and middle income country. The Policy is needed to facilitate MUST vision and mission. The policy must foster, mentor and commercialize science, innovation and technology at MUST and the society at large if it is to be efficient in facilitating industrialization in Tanzania. Likewise, the Policy needs to cover both academic and non-academic periods of time.

The Policy covers MUST innovation ecosystem. The Policy intends to position MUST academia (students and staff) and MUST non-academia (Public innovators outside MUST) in powerful, sustainable and collaborative advantage of the national innovation ecosystem thus facilitating vertical and horizontal performance of MUST in science, innovation and technology transfer.

2.2　Vision of CITT

To become the leading centre for innovation and technology transfer in the world of science and technology.

2.3   Mission of CITT

The mission of CITT is to provide objectives, guidelines, procedures, and standards in order to manage inventions, entrepreneurship and technology transfer activities by:

(a)   Developing, reviewing and implementing programmes, policies and guidelines in the field of innovation and technology transfer;

(b)   Monitoring and evaluating performance of innovation and technology transfer programmes;

(c)   Facilitating training and mentoring of inventors and innovators through incubation, seminars, workshops and boot camps;

(d)   Supervising research activities in liaison with Directorate of Postgraduate Studies, Research and Publications; and

(e)   Providing consultancy services in liaison with Directorate of Public Services and External Links.

2.4   Goal

To facilitate, supervise and commercialize the development of innovation and technology transfer competence in MUST activities and stakeholders for the excellence in attending the society.

2.5   Objectives of the ITT Policy

2.5.1 Main Objective

To provide declarations, procedures, measurements and guidelines on how MUST will deal with ideation, incubations and transfer of inventions, innovations and technologies from academia, non-academia, individuals, and public and private institutions at different levels of evolvement in Tanzania.

2.5.2 Specific Objectives

This policy is intended to:

(a) Provide guidelines, procedures, control lines, standards and desirable conditions to be followed by the MUST in incubation, innovations, entrepreneurship and business management activities execution;

(b) Outline key roles for MUST and stakeholders in the process of ideation, incubation and technology transfer of inventions, innovations and traditional knowledge practices;

(c) Guide identification, registration, training, mentoring, evaluation, assessment, development, review, facilitation and monitoring of right innovations and technology transfer performance at MUST;

(d) Link MUST CITT performance to internal and external stakeholders;

(e) Give assurance on ownership, protection, fairness and equity, honesty, neutrality, transparency and sustainable innovations development;

(f) Set conditions for efficient and effective implementation and measurement of incubation, innovation, entrepreneurship and technology transfer programmes;

(g) Direct the invention, innovation and technology transfer into MUST, Public and Government priorities, plans and strategic goals;

(h) Establish and ensure the rational and equitable mechanism that MUST and innovators adhere to innovation ethics and intellectual property rights;

(i) Ensure the rational and equitable grounds for selection of right innovative and technological venture for the society benefits;

(j) Give assurance on the generation of real-world, productive and objective ideas;

(k) Establish environment, instruments and systems so that MUST and innovators achieve excellence in incubation, innovations and entrepreneurship;

(l) Establish and ensure efficient and effective sharing and commercialization infrastructure of right technologies and

(m) Ensure efficient and effective productivity environment for innovations and technology transfer and commercialization.

2.6 ITT Policy Philosophy

The Policy must foster, mentor and commercialize science, innovation and technology at MUST and the society at large if it is to be efficient in facilitating industrialization in Tanzania. Likewise, the policy needs to cover both academic and non-academic innovation ecosystem. The Policy intends to position MUST academia (students and staff) and MUST non-academia (Public innovators outside MUST) in powerful, sustainable and collaborative advantage of the national innovation ecosystem. Facilitating both, the vertical and horizontal performance of MUST in science, innovation and technology transfer. To achieve excellence in managing ideation, incubation, invention, innovation and traditional knowledge practices processes, requires empowering the MUST and innovators in order to overcome all the barriers, which include;

(a) Access to finance

(b) Partnership opportunities

(c) Collaboration opportunities

(d) Lack of right Attitude

(e) Information barriers

(f) Inadequacy of Entrepreneurship and Business Management Skills

(g) In adequacy Infrastructures

(h) Related Policies

(i) Lack of multi-sector skills

(j) Networking barrier

Innovation process is complex. According to (UNCTAD, 2019) there is a need to well extend the definition of innovation to cover Organizational, Process and Marketing Innovation. Innovation is a package requiring funds, collaborative

efforts, people, private and public entities. The core function of the Policy is to ensure that MUST stakeholders overcome these challenges and drive the innovation, invention and traditional knowledge practices commitment to excellent, rightly and purposefully problem solving and prevention. The Policy philosophy is founded in:

(a) Establishing valuable and objective grounds of understanding of innovation and technology transfer (ITT) activities and among stakeholders at MUST;

(a) Creating transparency and collaboration among stakeholders;

(b) The excellence and quality culture services and management approaches;

(c) Rational and equitable rights mechanism;

(d) Contracting on value adding, real-world, productive and objective ideas; and

(e) Reliance on the right mind, right people, right facilities, right organizational structure and balanced interests.

2.7   Scope of ITT Policy

The Policy covers MUST innovation ecosystem. MUST CITT considers the following to be important components of the MUST Innovation and Technology Transfer Ecosystem:

(a) MUST
  (i)   MUST Management
  (ii)   MUST Projects, Events, Consultancy and Research Activities
  (iii) MUST Academic Units Activities
  (iv)   MUST CITT Units Activities
  (v)   MUST Non-Academic Units Activities
  (vi)   MUST Rukwa Campus College Unit Activities
  (vii) MUST Rural Technology Park Units Activities
  (viii) MUST Governance (Act, Policies and Regulations)

(b)   MUST Facilities

(c)   MUST Students and Staff

(d)   Schools

(e)   Universities

(f)   Local Innovators

(g)   Public and Private Innovation and entrepreneurship Entities

CHAPTER THREE

POLICY ISSUES, STATEMENTS AND STRATEGIES

3.1   Introduction

This section describes the Policy areas to be focused in this MUST transformational era.

3.2   Policy Issue: MUST Innovation and Technology Terminologies

To create valuable and objective grounds for interpretation of the policy, pointing out key terminologies and their meaning in MUST ITT context is necessary and vital.

3.2.1 Policy statements

To achieve collaborative, consistent, efficient and effective interpretation of terminologies, MUST shall:-

(a)   Propose or approve or add interpretation process or document or priority of the meaning or any necessary terminology explanation for the performance of the innovation and technology transfer process.

(b)   Review the terms and meaning related to the innovation and technology transfer at MUST.

3.2.2 Policy Strategies

To achieve collaborative, consistent, efficient and effective interpretation of terminologies, MUST shall behold the final decision on the interpretation of the ITT terminologies at MUST.

3.3   Policy Issue: Innovation and Technology Transfer Ecosystem

To create the intended innovative value necessary to sustainably transform the ideas and opportunities into fruitful investments, the information integration among stakeholders is vital.

3.3.1 Policy Statements

To acquire the innovation ecosystem value MUST shall:-

(a)   Establish criteria for giving priority in registering and supporting MUST ITT innovation ecosystem components;

(b)   Ensure transparent communication of all projects, inventive, innovative and traditional knowledge practice from all innovation ecosystem stakeholders to MUST ITT information point;

(c)   Prepare innovators programmes to improve understanding of start-up lifecycle and funding process with the key purpose of making meaningful and productive investment engagements;

(d)   Create platforms to allow media and diversified investors and large corporations to efficiently and effectively support innovators from ideation, concept to seed to growth;

(e)   Register all inventive, innovative and traditional knowledge practice projects and activities at all levels;

(f)   Support the efficient and effective functioning of CITT;

(g)   Set the milestones, durations and productivity standards for the invention and innovation and traditional knowledge practices; and

(h)   Provide guidance on the distribution of equity and expenses related to the innovation and technology transfer activities and performance.

3.3.2 Policy Strategies

To acquire the innovation ecosystem value MUST shall establish an information point for MUST ITT activities.

3.4 Policy Issue: MUST Innovation, Technology Transfer and Commercialization

Appropriateness and positive impact of the MUST innovations depends on the relevance, business strength and competitive power in solving and preventing the problems globally and in Tanzanian context at a given time. To achieve the intended innovative value necessary to sustainably generate, incubate and commercialize right ideas into fruitful investments, it is important to have the right management approach, quality culture, the right entrepreneurial and business management skills.

3.4.1 Policy Statements

To manage the innovation ecosystem, MUST shall:-

(a) Demonstrate leadership commitment by participating in MUST students' innovative activities at all innovation lifecycle stages;

(b) Establish internal obligatory customer relationship between CITT (DII and DEBM), MUST Academic Units and MRCC Rural Technology Park.

(c) Establish obligatory customer relationship externally between CITT (DII and DEBM) and Partners;

(d) Prepare innovations output feedback, records and reports tools and techniques;

(e) Create tools, techniques and systems for the efficient and effective assessment, evaluation and monitoring from external and internal customers to evaluate innovations from registration, ideation, incubation, technology transfer and commercialization;

(f) Establish teamwork between inventors, innovators and traditional knowledge holders and investors

(g) Promote award systems for inventors, innovators and traditional knowledge holders; and

(h) Establish market related performance criteria for measuring MUST CITT commercialization success.

3.4.2 Policy Strategies

To manage the innovation ecosystem at MUST, shall:-

(a) Establish entrepreneurship and business management department.
(b) Use customer focus management philosophies.

3.5   Policy Issue: MUST Innovation and Technology Ethics

Intellectual Property (IP) and ethics is at the heart of an innovation (Opoku-Mensah, 2014). Depending on the frame of reference, innovations impacts can be positive, negative, wrong and right. MUST innovations impacts are guided by Tanzanian context of public and humanity interests. To achieve the intended innovative impact value necessary to sustainably generate, incubate and commercialize right ideas into fruitful investments, guaranteeing, safeguarding and facilitating excellence in rights of creativity and innovators prosperity is fundamental.

3.5.1 Policy Statements

To establish and ensure the rational and equitable mechanism that MUST and innovators adhere to innovation ethics and intellectual property rights, MUST shall:

(a) Identify all invention, innovations and traditional knowledge practices that can be transferred and commercialized and protect them accordingly;

(b) Periodically review the existing Intellectual Property Right Policies to harmonize and reflect the existing culture, context and desired equity;

(c) Periodically collect consumers' suggestions on the IPR and ethical matters;

(d) Establish programmes to support the understanding of the IPR and Ethics in invention, innovations and traditional knowledge practices; and

(e) Handle and direct on conflict matters relating to ethics and IPR.

3.5.2 Policy Strategies

To establish and ensure the rational and equitable mechanism that MUST and innovators adhere to innovation ethics and intellectual property rights, MUST shall:

(a) Establish pre-declaration and disclosure tools.
(b) Set programmes to Strengthen IPR understanding

3.6 Policy Issue: MUST Innovation and Technology Transfer Actors Admission

MUST core function is to ensure right inventions, innovations and traditional knowledge ideas are converted into fruitful outputs like commercialisable products, services, companies and investments. Given the scarcity of the resources, differing interests and endless desires among actors, selection and admission of the actors should be done with great care to ensure a maximum opportunity benefits is derived at last.

3.6.1 Policy Statements

To ensure the rational and equitable selection of right innovative and technological venture for the society benefits MUST shall:

(a)   Propose actors to be admitted from intuition, survey and collection of activities and entities;

(b)   Establish conditions for admission to the MUST ITT programmes considering at least the following:

   (i)   Actors admission categories

   (ii)   Departure plan

   (iii) Recommendation from CITT

   (iv)   Approve the admission prior to any proceeding undertaking thereafter.

3.6.2 Policy Strategies:

To ensure the rational and equitable selection of right innovative and technological venture for the society benefits MUST shall:

(a)   Establish incubation and entrepreneurship priorities.

(a)   Establish idea generation trainings and workshops for innovators.

3.7   Policy Issue: Idea Generation

MUST considers ideas to be fundamental for creativity, invention and innovations to succeed. Among others, inventors, innovators and TK holders need technology transfer overview to refine their ideas. As such, ideas need to be continually stimulated, generated, developed, communicated, actualized and protected to and from the real world.

3.7.1 Policy Statements

To guarantee real-world, productive and objective ideas MUST shall:

(a)   Establish the MUST technological priorities in accordance to ministries and National plans;

(b)   Create academic-industrial-financiers collaborative ideation programmes;

(c)   Prepare instruments for provisional protections of ideas;

(d)   Run innovation, entrepreneurship and business training programmes for innovators;

(e)   Facilitate and support ideation objective programmes and efforts; and

(f)   Develop strategies and conditions to ensure full participation of the stakeholders and actors in ideation programmes.

3.7.2 Policy Strategies

To guarantee real-world, productive and objective ideas MUST shall:

(a)   Establish Department of Incubation and Innovation to guide the process.

(b)   Run periodical idea generation trainings and workshops for innovators.

3.8   Policy Issue: Innovation and Entrepreneurship Incubation

Mentoring, nurturing and guiding inventors, innovators and traditional knowledge holders to deliver marketable products, services and investment require right combination of all; the cultural, technical and commercial skills and infrastructures. On the other hand, multi-stakeholders involvement is inevitable, calling upon maneuvering around regulations and different organizations cultures and backgrounds. As such it is important to:

(a)   Prepare and implement Efficient and Effective instruments, tools and programmes for:

(i)   Verification of the efforts for new innovations and knowledge;

(ii)   Supporting strategies to improve the interaction within the innovation ecosystem to enhance effective new technologies generation;

(iii) Providing the right incentives for creative knowledge transformation of innovations into value and commercial success;

(iv) Guiding access to pre-commercialization finances; and

(v) Facilitating creative, inventive, innovative and TK holding documentation.

(b) Create and manage business environment and systems for:

(i) Prepare a road map to attract financial supports for the MUST CITT and innovators;

(ii) Verification of business effective efforts for technologies and knowledge;

(iii) Improving the business interaction in the innovation ecosystem;

(iv) Establishing the right incentives for creative business knowledge to transform innovative ideas into and commercial success;

(v) Accessing financial supports;

(vi) Facilitating incubation, innovation and technology transfer activities; and

(vii) Acquiring legal documentation for fruitful ventures.

3.8.1 Policy Statements

To establish environment, instruments and systems so that MUST and innovators achieve excellence in incubation, innovations and entrepreneurship MUST shall:

(a) Establish standardized efforts to raise fund for the construction of business state-of-art standard infrastructures for incubation, innovation and entrepreneurship activities;

(b) Prepare guides on the incubation, innovation and entrepreneurship activities; and

(c) Approve the costs and fund sharing and distribution basing from participants opinions and MUST resource mobilization policies.

3.8.2 Policy Strategies:

To establish environment, instruments and systems so that MUST and innovators achieve excellence in incubation, innovations and entrepreneurship MUST shall:

(a) Establish CITT infrastructural fund to generate income for the facilities.

(b) Strengthen collaborative efforts with other stakeholders and financiers.

3.9 Policy Issue: Technology Transfer

MUST, like any university is primarily expected to deliver to the graduates abilities and attitudes needed by the society. However, in the process of producing those graduates, useful technologies are generated from universities research and innovative efforts and settings. The trend nowadays is for universities to ensure these technologies are being utilized to the advantage of the society and universities themselves. The process of transforming ideas and concepts into commercially appreciated technologies requires enormous effort, which is beyond MUST capacities as a University. To achieve impactful and sustainably transfer of right technologies to the national, international, public and private actors and needy communities, recruiting and establishing right citizens, facilities and structure that will eliminate the likely time and financial constraints is important.

3.9.1 Policy Statements

To establish and ensure efficient and effective transferring, sharing and commercialization infrastructures for right technologies MUST shall:

(a)   Identify key internal and external producers and customers of the MUST ITT technologies;

(b)   Propose and accept on the innovation and technology transfer activities forming responsibility and obligatory linkage to MUST Rural Technology Park (MRTP);

(c)   Establish programmes to support technological R&D activities through innovations;

(d)   Maintain the database for the investors and partners important performance and capacity records;

(e)   Establish programmes to support the understanding of the patents, licensing, innovators company formation and other commercialization process skills in invention, innovations and traditional knowledge practices;

(f)   Handle and direct on conflict matters relating to technology transfer processes;

(g)   Establish programmes and efforts to attract expertise and financial support for technology transfer outputs and activities;

(h)   Preparing and implementing entrepreneurial activities to support technology transfer efficiency and effectiveness;

(i)   Initiate and implement motivational programmes for the improvement of technology transfer; and

(j)   Guide on the measurement and approval of the technology readiness level.

3.9.2 Policy Strategies

To establish and ensure efficient and effective transferring, sharing and commercialization infrastructures for right technologies MUST shall:

(a)   Establish network with internal and external producers and customers of the MUST ITT technologies;

(b)   Collaborate and utilize the MUST RTP potentials fully; and

(c)   Initiate programmes to create usage of MUST ITT outputs.

3.10 Policy Issue: CITT Personnel Responsibilities

The process of transforming ideas into commercially appreciated technologies requires enormous effort, which involves identifying, tapping and utilizing talent, intellects, endurance, efforts and creativity out of the actors and participants. Such an effort may necessitate the restructuring of the University management to suit the innovation market and purpose. To impart and operationalize the intended energy to the executors and responsibilities, it is important to balance the public and private interests.

3.10.1 Policy Statements

To ensure productivity environment for innovation and technology transfer MUST shall:

(a)   Direct and delegate authoritative power necessary for the performance of the Centre for Innovation and Technology Transfer and its Units;

(b)   Approve the CITT proposed, recommended and accepted innovation and technology transfer personnel and engagement criteria, activities, responsibilities and obligations necessary for the Centre for Innovation and Technology Transfer;

(c)   Oversee, formalize and participate in all matters related to invention, innovation, technology transfer and commercialization at MUST to conform to the University goals;

(d)   Establish and approve motivational scheme for the CITT staff, MUST staff, student innovators and other actors as recommended by CITT;

(e)   Approve, standardize and participate in all activities and collaborative efforts related to innovation and technology transfer matters at MUST and related to MUST society as recommended by CITT; and

(f)   Approve on obligations, disbursement and collection of all financial rights from all activities and collaborative efforts related to innovation and technology transfer matters at MUST and related to MUST society as per CITT recommendations.

3.11 Policy Issue: CITT Tasks Performance

In HDIF Innovation Week 2020 Mbeya edition, it was stressed that mindset change is a key to productive innovation and technology transfer at MUST. It was insisted on the need to be careful on the quality of education and society problems relevance. To ensure effective and efficient means of production in innovations a balanced and excellent combination of scientific, non-scientific, formal and informal resources, systems and ways is important.

3.11.1 Policy Statements

To deliver results efficiently and effectively in innovation, technology transfer and commercialization MUST shall:

(a)   Ensure availability of staff recommended for the performance of the Centre for Innovation and Technology Transfer and its Units;

(b)   Approve on the purchase and use of technologies, equipment, instruments, techniques and skills necessary for the Centre for Innovation and Technology Transfer;

(c)   Approve on the facilities, information flow and programmes to support performance of the Centre for Innovation and Technology Transfer and its Units;

(d)   Propose or approve works performance level measurement for the CITT staff, MUST staff, student innovators and other MUST ITT actors;

(e)   Propose technologies, equipment, techniques and skills in different activities and collaborative efforts related to innovation and technology transfer matters at MUST and related to MUST society; and

(f)   Approve on the CITT proposed skills and rewards rights of all kinds from all activities and collaborative efforts related to innovation and technology transfer matters at MUST and related to MUST society.

3.11.2 Policy Strategies

To deliver results efficiently and effectively in innovation, technology transfer and commercialization MUST shall:

(a)   Establish results oriented instruments for measuring resource productivity;

(b)   Ensure availability of productive resources;

(c)   Set supportive programmes for mindset change and productivity improvement;

(d)   Improve Usage of periodical reports on monitoring and evaluation processes; and

(e)   Effective involvement of stakeholders in evaluation and monitoring of results.

3.12 Policy Issue: CITT Administrative Responsibilities

The course of conforming to guiding plans and actions into commercially appreciated results requires among others, understanding and abiding to policies, objectives, guidelines, procedures, steps and standards. To perform in a timely, balanced and in an efficient way for MUST excellence, contextual and regulatory decision making is crucial.

3.12.1 Policy Statements

To establish guidelines, procedures, steps and standards to facilitate utilization of productive rules, regulations and objectives MUST shall:

(a)   Approve or propose on the organization structure to the relevant MUST authorities, for the performance of the Centre for Innovation and Technology Transfer;

(b)   Approve on the procurement or disposal and usage of technologies, equipment, instruments, techniques and skills necessary for the Centre for Innovation and Technology Transfer and its Units;

(c)   Approve all matters related to improving and facilitating infrastructure, information flow and programmes to support performance of the Centre for Innovation and Technology Transfer and its Units;

(d)   Approve on the recommended criteria, expertise and rewards rights of personnel necessary in higher authorities in all activities and collaborative efforts related to innovation and technology transfer matters at MUST and related to MUST society;

(e)   Coordinate all legal matters and efforts related to innovation and technology transfer matters at MUST and related to MUST society;

(f)   Coordinate on all matters relating to partnership performance on ITT through CITT;

(g)   Direct on all technology transfer matters requiring collaboration between MUST RTP and MUST CITT; and

(h)   Report on the performance and information related to the key stakeholders and partnership to the MUST higher authorities.

3.12.2 Policy Strategies

To establish guidelines, procedures, steps and standards to facilitate utilization of productive rules, regulations and objectives MUST shall:

(a)   Ensure guidelines are consistent with MUST authoritative documents.

(b)   Ensure efficient involvement of stakeholders.

CHAPTER FOUR

POLICY COMMUNICATION AND IMPLEMENTATION

4.1 Introduction

This section provides the declarations designed to reinforce MUST ITT activities, systems and processes in sustainably capturing, implementing and managing inventive, innovative and traditional knowledge practices ideas through their life cycles. It is also designed to underpin the ITT agreed performance level. Currently, the focus of the policy covers ITT establishment era as stipulated in (Mbeya University of Science and Technology (MUST), 2017) and reformation thereafter.

4.2 Organization Structure

In the light of the MUST vision and mission presented above, the central areas of policy ownership and implementation will be CITT. The Innovation and Technology Transfer functions include:

4.2.1 Centre for Innovation and Technology Transfer (CITT)

The CITT shall:

    (a)   Develop, review and implement programmes, policies and guidelines in the field of innovation and technology transfer;

    (b)   Monitor and evaluate performance of innovation and technology transfer programmes;

    (c)   Facilitate training and mentoring of inventors and innovators through incubation, seminars, workshops and boot camps;

    (d)   Supervise research activities in liaison with Directorate of Postgraduate Studies, Research and Publications; and

    (e)   Provide consultancy services in liaison with Directorate of Public Services and External Links.

4.2.2 The Department of Incubation and Innovation

The Department of Incubation and Innovation shall:

(a)   Conduct training and mentoring of inventors and innovators;

(b)   Handle innovators complaints related to innovations and incubation;

(c)   Establish and run innovations and incubation in liaison with other partners;

(d)   Coordinate all matters related to technology transfer;

(e)   Maintain database of innovators;

(f)   Handle all matters related to registration and assessment of students innovation programmes; and

(g)   Coordinate evaluation of performance programmes and keep periodic implementation report of programmes.

4.2.3 The Department Entrepreneurship and Business Management

The Department Entrepreneurship and Business Management shall:

(a)   Conduct training and mentoring of Entrepreneurship and Business Management programmes;

(b)   Develop business plan of innovations;

(c)   Advertising and marketing of innovation products;

(d)   Management and financial advisory;

(e)   Liaise with various experts in innovation and technology transfer world-wide to nurture innovation, entrepreneurship, intellectual property rights and technology evaluation;

(f)   promote Intellectual Property Rights (IPR) awareness at the University level and beyond;

(g)   Maintain database of the Entrepreneur and Business activities;

(h)   Design mechanisms that allow academic staff, graduates and individuals to convert their research outputs and/or business ideas to commercial companies;

<ol type="i" start="9">
Handle all matters related to students Entrepreneurship and Business Management of Institute programmes;
Attract investment in innovation and commercialization of research results by creating funding mechanisms;
Develop and maintain proper students and staff welfare programs;
Coordinate evaluation of performance of staff and programs and keep periodic implementation report of programs; and
Handle students and academic staff complaints related to Department of Entrepreneurship and Business Management programmes.

4.2.4 The Departmental Project Coordinator

Each Academic Department shall have Departmental project coordinators who shall:

(a) Represent CITT activities Director in the relevant department;

(b) Communicate ITT matters from and to the department;

(c) Support students on ITT activities in the department;

(d) Liase with CITT on all matters relating to ITT activities; and

(e) Inform the University on the performance of CITT.

4.2.5 The Community Project Coordinator, who shall:-

There shall be a Community Project Coordinator who shall:

(a) Coordinate ITT matters from and to the Community

(b) Liase with CITT on all matters relating to MUST ITT activities
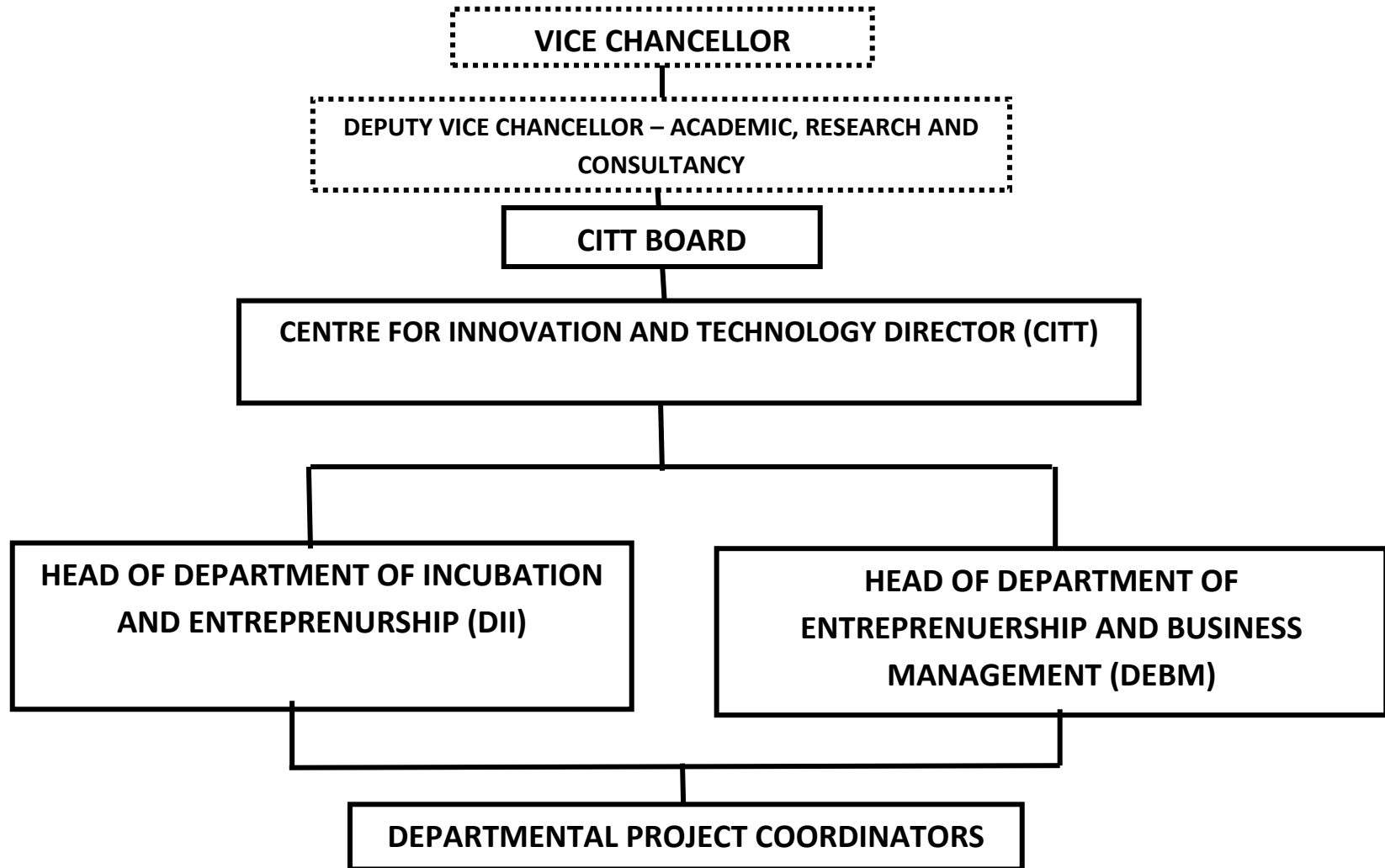
(c) Inform the University on the performance of CITT.

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Figure 1: Organizational Structure for Centre for Innovation and Technology Transfer

4.3 Composition of the CITT Board

There shall be the Centre for Innovation and Technology Transfer Board (CITTB). The CITTB shall be a Senate Committee and shall be responsible for all matters related to the innovation and technology transfer among other issues as they relate to all aspects of University functions. Membership of the CITTB shall be as follows:

Table 1: Composition of the Minimum CITT Board

SN	Position	Role
1	DVC ARC	Chairperson
2	Director of CITT	Secretary
3	Director of Rural Technology Park	Members
4	Director (DPSEL,QA and PSRP)	Members
5	Head of Incubation and Innovation	Members
6	Head of entrepreneurship and Business Management	Members
7	College Representatives (All Colleges)	Member
8	Two incubatees Representatives	Members
9	Two External stakeholders Representatives	Members

4.4 Roles of the CITT Board

The functions of the CITT Board shall:

(a) Oversee the delivery and enhancement of the frameworks, ensuring that it meets internal and external customers' expectations;

(b)   Ensure effective students engagement and representation of student innovations in the MUST performance;

(c)   Maintain and ensure that all unprincipled and erroneous actions are addressed, and support the sharing of good practice;

(d)   Suggest areas for improvement and recommend to higher authorities;

(e)   Acting on recommendation and requests from CITT;

(f)   Bring CITT matters to the attention of the University higher authorities;

(g)   Approve the ITT urgent matters related to:-

    (i)   Department of Innovation and Incubation

    (ii)   Department of Entrepreneurship and Business Management

(h)   Propose and recommend on the objectives, guidelines, procedures, steps and standards related to innovation and technology transfer at MUST; and

(i)   Ensure that activities and procedures conform to MUST CITT policy and MUST Strategic Plan.

4.5   Rights and Obligations/Roles of Stakeholders

4.5.1 Innovators' Rights

In the light of the MUST vision and mission presented above, the innovators rights shall:

(a)   Be as stipulated in the Innovation Technology Transfer (ITT) Operational Procedures and Guidelines;

(b)   Follow interpretation as given by the CITT; and

(c)   Be guided by MUST IPR Policy.

4.5.2 Innovators' Obligations

(a)   Be as stipulated in the Innovation Technology Transfer (ITT) Operational Procedures and Guidelines;

(b)   Follow interpretation as given by the CITT; and

(c)   Be guided by MUST IPR Policy

CHAPTER FIVE

POLICY MONITORING AND EVALUATION

5.1   Introduction

This section provides for the managerial tools and techniques necessary in guiding and directing activities, systems and processes in order to achieve desired performance of MUST ITT. In order to sustainably ensure capturing, implementation and management of inventive, innovative and traditional knowledge practices ideas through their life cycles, clear distinction between monitoring and evaluation efficiency must be articulated in advance. To attain this, MUST ITT policy implementation need to be conditioned and contextualized to go along with all other MUST organs, CITT and Public Organs.

5.2   ITT Performance Monitoring and Evaluation

To facilitate monitoring and evaluation of ITT performance at MUST, the guidelines, procedures, steps and standards need to be valid and reliable.

5.2.1 ITT Performance Monitoring

MUST considers the following to be important for operational ITT Performance Monitoring:-

(a)   Innovation and Entrepreneurship Opertional Procedures and Guidelines;
(b)   Intellectual Property Right Policy; and
(c)   CITT Recommended Guiding Documents.

5.2.2 ITT Performance Evaluation

MUST considers the following to be important for operational ITT Performance Evaluation:-

(a) MUST Management

(b) CITT Units Reports

(c) Intellectual Property Right records

(d) CITT Recommended Reporting Documents

5.2.3 Monitoring and Evaluation Contents

To ensure consistency of guidelines, procedures, steps and standards in achieving desired ITT excellence, the following are hereby stipulated to form the minimum contents :-

(a) Department of Incubation and Innovation (DII) guideline shall cover at least the following

    (i) Eligibility Criteria

    (ii) Application and Presentation

    (iii) Evaluation and Admission

    (iv) Resource Assessment and Allocation

    (v) Services, Infrastructures and Facilities

    (vi) Mandatory Training, Mentorship and Participation

    (vii) Innovation Contractual Matters and Duration

    (viii) Duration and Appraisal Stages Intervals

    (ix) Interest and Conflicts Settlement

    (x) Intellectual Property Ownership and declaration

    (xi) Supporting Fund Rights and Guidelines

    (xii) Costs, Rewards and Fund distribution

    (xiii) Incubation and Innovation Agreements

    (xiv) Technical Performance Reviews

    (xv) Funding Options and CITT Promoters

    (xvi) Patents Matters

    (xvii) Any Other innovation tool Approved by MUST CITT

(b) Department of Entrepreneurship and Business Management (DEBM) guideline shall cover at least:-

(i)   Eligibility Criteria

(ii)   Application and Presentation

(iii)   Evaluation and Admission

(iv)   Entrepreneurs and Company Assessment and Advise

(v)   Technology Transfer Services, Infrastructures and Facilities

(vi)   Mandatory Training, Mentorship and Participation

(vii)   Technology transfer Contractual arrangements

(viii)   Entrepreneurship and Company Appraisal

(ix)   Business Interest and Conflicts Settlement

(x)   Intellectual Property Office quality

(xi)   Supporting Services, Fund Rights and Guidelines

(xii)   Costing and Pricing, Rewards and Fund distribution

(xiii)   Incubation, Technology Transfer and Commercialization Agreements

(xiv)   Market Performance Reviews

(xv)   Business Events and activities

(xvi)   Innovation and Technology Transfer Information Centre Office

(xvii)   Funding Options, Schemes and programs

(xviii)   Patents Matters

(xix)   Any Other instrument Approved by MUST CITT

(c)   Approved Income Distribution standards shall cover at least the following:-

(i)   Related Taxes

(ii)   Executors Proposed and Agreed Expenditure and Rewards amounts and percentages covering at least

- Solicitation
- Proposal
- Execution
- Resource

- Liability and Risk bearing
- Royalty
(iii)   CITT Mandated and Approved reimbursable expenses
(iv)   MUST apportionment
(v)   MUST CITT Proposed and Agreed Reserve rewards
(vi)   Existing Financial Status

5.3   Periodical Evaluation of the Policy

Organs involved in Monitoring and Evaluation shall produce a report of Monitoring and Evaluation as shall be required to do so by MUST. The produced reports will be shared to all stakeholders at all level to get their opinion or views on the progress of the ITT activities. MUST shall be responsible for management of ITT reports and stating of the terms of reference for the reports.

5.4   Evaluation Report

Organs involved in Monitoring and Evaluation shall produce a report of Monitoring and Evaluation as shall be required to do so by MUST. The produced reports will be shared to all stakeholders at all level to get their opinion or views on the progress of the ITT activities.

5.5   Policy Review and amendments

The ITT Policy amendment shall follow the required procedures after identifying the needs. The preparation of policy involves huge effort outlay with the intention to inject great impact to a perceived period. However, change is permanent and so reviewing a policy is also unavoidable if continuous improvement attitude is to be adhered. On the other hand, reviewing grounds must be objective, rational and justifiable, particularly in the face of the society interests.

5.5.1 Major Review and amendments

The ITT Policy is set be subject for major review after three years. To achieve, multidimensional improvement on the reviewed policies process transparency and stakeholders' collaboration is important. To ensure drafting of the more foundational, integrative and productive MUST ITT policy for excellence in innovations and technology transfer and commercialization, MUST through CITT shall:

(a) Formulate a team and propose grounds for policy review to improve guidelines performance;

(b) Collect innovators opinions on the need for review of the policy minor amendments;

(c) Approve the review process of the guidelines

(d) Record the improvements made for the major review incorporation and approval;

(e) Propose team and grounds for policy review to higher authorities;

(f) Propose and Collect opinions on the need for review of the policy and present to the relevant authorities;

(g) Participate in the review process of the policy; and

(h) Propose and Facilitate the policy review process including benchmarking.

5.5.2 Minor Review and Amendments

The ITT Policy is set be subject for minor review after every one year. To achieve, multidimensional improvement on the guidelines and other related monitoring and evaluation tools process transparency and collaboration is important. To ensure capturing of the intended productive improvement in the guidelines of innovations and technology transfer and commercialization, MUST through CITT shall:

(a) Formulate a team and propose grounds for policy review to improve guidelines performance;

(b) Collect innovators opinions on the need for review of the policy minor amendments;

(c) Approve the review process of the guidelines; and

(d) Record the improvements made for the major review incorporation and approval.

5.5.3 Emergent Amendments

The course of ensuring that MUST Innovation and Technology Transfer activities, plans and actions are commercially competitive, involves equally on how the emergent and unforeseen event, occasions and programs are efficiently and effectively handled. To maintain balanced and efficient execution of attentive, burning and necessary issues without distorting MUST ITT activities, provisional and emergent policy amendments frameworks are important. The ITT Policy provides for emergent amendments when deemed critically necessary. To avoid inconsistency and inefficiency in handling provisional, emergency, unforeseen and unplanned occasions and programmes in innovations and technology transfer and commercialization, MUST through CITT shall:

(a) Approve the review process of the policy item

(b) Central in all activities related to settling, planning and execution of the policy issue in question.

(c) Have the right to Propose, Accept or approve the issue in question basing on but not limited to :-

(i) Categorization and Formalization of the issue

(ii) Consideration, proprietary and Ethical Matters

(iii) Quality Assurance and Control

(iv) Information Dissemination to MUST Society

(v) Team Composition

(d) Record the improvements made for the major review incorporation and approval.

BIBLIOGRAPHY

Baloh, P., Desouza, K. C., Papagari, S., & Jha, S. (2009). Crafting organizational innovation processes. *Innovation: Management, Policy & Practice*, S. Volume 11, Issue 1, 6–33.

Dar Es Salaam University College of Education (DUCE). (2012). *Duce Research Policy And Operational Procedures* . Dar Es Salaam: Directorate of Research and Publication-UDSM.

de Morais, J.-C., & Stückelberger, C. (2014). *Innovation Ethics: African and Global Perspectives.* Geneva: Globethics.net and African Innovation Foundation: Globethics.net Global.

Granstrand, O., & Holgersson, M. (2020). Innovationecosystems: A conceptual review and a new definition. *Technovation*, 80-91: https://doi.org/10.1016/j.technovation.2019.102098.

Hayter, C. S., & Link, A. N. (2013). Models and Methods of University Technology Transfer. *Department of Economics Working Paper Series (Working Paper 13-10).* http://bae.uncg.edu/econ/ : University Of Carolina at Greensboro.

Mathernová, K., & Le Bail, F. (2010). *The Smart Guide to Innovation-Based Incubators (IBI)* . https://ec.europa.eu/regional_policy/sources/docoffic/2007/working/innovation_incubator.pdf: European Union.

Mbarara University Of Science and Technology (MUST). (2020). *Center for Innovations and Technology Transfer Launched at MUST*. Von Mbarara University Of Science and Technology: https://www.must.ac.ug/center-for-innovations-and-technology-transfer-launched-at-must/ abgerufen

Mbeya university Of Science and Technology (MUST). (2015). MUST Consultancy Policy. Mbeya, Tanzania: UnPublished.

Mbeya University Of Science and Technology (MUST). (2017). Resource Mobilization Policy. Mbeya, Tanzania: UnPublished.

Mbeya University Of Scince and Technology (MUST). (2014). Information and Commuication Technolog Policy. Mbeya, Tanzania: Unpublished.

Mbeya University Of Scince and Technology (MUST). (2014). Research and Publications Policy. Mbeya, Tanzania: Unpublished.

Mbeya University Of Scince and Technology (MUST). (October 2018). HIV/ AIDS Policy. Mbeya, Tanzania: Unpublished.

Millard, M. (2018). *What Is an Innovation Ecosystem and How Are They Essential for Startups?* Von Mass Challenge-https://masschallenge.org/ (Accessed on 09 April 2020): https://masschallenge.org/article/startup-innovation-ecosystem-explained abgerufen

Ministry of Communication, Sceince and Technology. (2010). The National Research and Development Policy. *The National Research and Development Policy.* Dar Es Salaam, Tanzania: Tanzania Ministry of Communication, Sceince and Technology.

Mitasiunas, J. (2013). *Innovation and Technology Transfer.* Abgerufen am 25. February 2020 von Bonita: http://www.bonita-project.eu/cms_uploads/files/a02innovationtech.pdf

Muhimbili University of Health and Allied Sciences (MUHAS) . (2011). *Research Policy Guidelines.* Dar es Salaam: Directorates of Research-(UDSM).

Opoku-Mensah, A. (2014). The Role of Governmental Institutions in promoting Ethics and Innovations. In J.-C. de Morais, & C. Stückelberger, *Innovation Ethics: African and Global Perspectives* (S. 89-100). Geneva: Globethics.net and African Innovation Foundation: Globethics.net Global.

SIDBI Innovation & Incubation Centre (SIIC). (2020). Von SIDBI Innovation & Incubation Centre (SIIC) Indian Istitute of Technology Kanpur: http://iitk.ac.in/siic/d/ abgerufen

United Nations Conference On Trade And Development (UNCTAD). (2019). A FRAMEWORK for Science, Technology and Innovation Policy Reviews Harnessing innovation for sustainable development. Geneva: United Nations.

University of Dar es Salaam (UDSM). (2016). Entrepreneurship And Innovation Policy And Operational Procedures. Dar es Salaam: University of Dar es Salaam.

University of Dar es Salaam. (2008). UDSM Research Policy And Operational Procedures. Dar es Salaam: Directorete of Reseach & Publications-(UDSM).

University Of Western Cape (UWC). (2020). *Centre For Entrepreneurship And Innovation (CEI).* Von University Of Western Cape (UWC)-Centre For Entrepreneurship And Innovation (CEI): http://entrepreneurship.uwc.ac.za/ abgerufen

World Bank Public Disclosure Authorised. (2010). *Innovation Policy: A Guide for Developing Countries.* Washington DC: World Bank - file:///D:/CITT%20Files/548930PUB0EPI11C10Dislosed061312010.pdf.