

MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY



GUIDELINES FOR INNOVATION AND TECHNOLOGY TRANSFER

FEBRUARY 2024

FOREWORD

Mbeya University of Science and Technology (MUST) is a public university established through the University Act No. 7 of 2005 and the Mbeya University of Science and Technology Charter, 2013 with a vision of becoming the leading centre of excellence for knowledge, skills, and applied education in science and technology. In attaining this vision, MUST established the Centre for Innovation and Technology Transfer (CITT), which is mandated to spearhead innovation activities including coordinating transfer of technologies emanating from innovation activities. In order to fulfil its mandate more effectively, it was deemed necessary to formulate Innovations and Technologies Transfer Guidelines (ITTG).

The ITTG lays out procedures for bringing innovative products and services to market. The ITTG serves as a direction for innovators and the University in its aspiration to transfer entrepreneurial innovations and technologies to the innovation ecosystem (IE).

It is essential that the University transfer technologies to generate income and contribute to solving societal problems. Through technology transfer activities, the University will support national development and growth. The ITTG provides information on one hand on how the University will assist innovators in their efforts to transfer entrepreneurial and innovative outputs and, on the other hand, assist IE in their technological needs.

The University appreciates experts who shared their knowledge to make this ITTG an invaluable tool. Their collective efforts and commitment will surely help technology transfer efforts succeed at the university.

Prof. Aloys N. Mvuma

Vice Chancellor

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LIST OF ABBREVIATIONS

| | |
|-------|--|
| ARC | Academic, Research and Consultancy |
| CITT | Centre for Innovation and Technology Transfer |
| DPSRP | Directorate of Postgraduate Studies, Research and Publications |
| DVC | Deputy Vice Chancellor |
| IE | Innovation Ecosystem |
| IP | Intellectual Property |
| ITT | Innovation and Technology Transfer |
| ITTG | Innovation and Technology Transfer Guidelines |
| MIST | Mbeya Institute of Science and Technology |
| MTC | Mbeya Technical College |
| MUST | Mbeya University of Science and Technology |
| MVP | Minimum Viable Product |
| NDA | Non-Disclosure Agreement |
| PFA | Planning, Finance and Administration |
| TT | Technology Transfer |
| VC | Vice Chancellor |

DEFINITION OF KEY TERMS

The Mbeya University of Science and Technology and the Centre for Innovation and Technology Transfer considers and define the following terms in implementing its ITTG:

Commercial ventures Are institutions or partnership, enterprise that is undertaken with the primary goal of making a profit, generating revenue and financial returns.

Commercialization Process of introducing a new or modified product, service into the market to turn into a commercially viable and profitable venture.

Disclosure Process of making innovators' inventions intellectual property (patent, trade mark, trade secret, potential conflicts of interest) right to be known to the university/other actors within the Innovation Ecosystem in the process of technology transfer.

Equity shares Ownership associated with the stocks or shares in a commercial venture.
(The Equity ownership associated with rights to vote on major company decisions, elect directors, and receive a portion of the company's profits through dividends. Also equity holder is responsible for legal compliance and bear risks of potential financial loss).

Franchising Business arrangement in which one party, known as the franchisor, grants another party, known as the franchisee, the right to operate a business using the franchisor's brand, trademarks, and business model.

| | |
|-----------------------|--|
| Gross income | Total income (investment gains) before subtracting taxes and other deductions. |
| Income | Money or earnings that an entity receives on a regular basis, typically in the form of profits, dividends, or interest. |
| Innovation | <p>Translate an idea or invention into a new or improved products and or services that creates value for commercialization or technology sharing.</p> <p>In this guidelines, the word innovation is sometimes used to represent invention, and traditional knowledge practices particularly when written innovation(s).</p> |
| Innovation Ecosystem | <p>Network of interconnected individuals, institutions, and resources that collectively contribute to the development and dissemination of innovative products, or services within a specific geographic region.</p> <p>It may include (but not limited to) entrepreneurs, innovator(s), government agencies, research institutions, science and technology and innovations companies, universities, startups, small business, accelerators, incubators, and corporate partners.</p> |
| Innovator(s) | An individual or entity introduces new or modified ideas, methods, products, services or process with the goal of adding value of improving existing methods, products, service or processes. |
| Intellectual Property | Describes inventions' works of art and literature, designs, names, symbols, and pictures used in business. Intellectual property is protected by law through patents, |

copyrights, trademarks, trade secrets, and geographical indication which enable the creators or owners to control the use of their creations for a certain period.

| | |
|-----------------------|---|
| IP Disclosure Form | Is a confidential document (for innovative products/services that has possible commercial application) that should be completed by innovator(s) and submitted to the respective organ (the university/any actor in the innovation ecosystem). |
| License | Permission to use an IP right within a defined time, context, market line or territory. |
| Net income | Is the amount of money remaining after subtracting taxes and other expenditures from gross income. It signifies the real profit. |
| Pitching | Act of presenting and defending innovative MVP to partners, potential investors or venture capitalists to gain support, collaboration, and funding for their invention. |
| Royalties | Payments made to the owner or rights holder of IP, such as patents, copyrights, trademarks, or other types of creative works, in exchange for the use or exploitation of that IP. These payments are typically a percentage of the revenue or profits generated from the use of the IP. |
| Sharing of technology | Transfer of technological knowledge, innovations, or solutions from innovator(s) to innovation ecosystem without any financial considerations. |
| Technology | Process of transferring innovative products from |

| | |
|--------------------------|--|
| Transfer | innovator(s) to innovation ecosystem by either commercialization or sharing of technology. |
| Technology transfer form | Document used to facilitate the transfer of technology from one party to another. This process typically involves the transfer of knowledge, skills, processes, or inventions from a research institution, company, or individual (the "transferor") to another entity (the "transferee") for the purpose of further development, commercialization, or utilization. |
| The University | Refers to Mbeya University of Science and Technology. |

CHAPTER ONE

INTRODUCTION

1.1 Background

The history of Mbeya University of Science and Technology (MUST) dates back to 1986, when Mbeya Technical College (MTC) was established. The 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. 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 of 2004. The MIST attained a number of achievements, including the introduction of degree programmes and increased students' enrollment. Following these achievements, on 20th August 2013, MIST was transformed into a fully-fledged university and granted the Mbeya University of Science and Technology Charter.

MUST has a vision of becoming the centre of excellence for science and technology. Following a similar path MUST has the core value of becoming the leading entity in innovation and technology transfer (ITT). In order to attain this goal and fulfill this core value, the university established the centre for Innovation and Technology Transfer (CITT). The CITT is mandated with the duties of overseeing and ensuring effective implementation of the ITT activities between the University, the innovator(s), and the Innovation Ecosystem (IE).

For the CITT to effectively, fairly, and equitably oversee the technology transfer activities within the university, it needs operational tools, and this ITTG is behind the backdrop of this necessity.

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 specifically 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 MUST Core Values

The following values characterize the work and life of the University:

- (a) Leadership in innovation and technology;
- (b) Culture of excellence;
- (c) Diversity and equal opportunities for all;
- (d) Partnerships; and

- (e) Integrity and stewardship of resources.

1.5 Goal of Guidelines

The overarching goal of ITTG is to provide a framework for excellent operationalization of the transferring process of innovation, entrepreneurship and technology produces and services from innovator(s), the university and the innovation ecosystem.

1.6 Objectives of the Guidelines

- (a) To guide and direct the path to innovators, the University and the innovation ecosystem on technology transfer operations;
- (b) To link the University with innovation ecosystem in technologies and innovation transfer activities;
- (c) To set procedures in capacity building of the parties (MUST, innovator(s) and innovation ecosystem) involved in technology transfer;
- (d) To stipulate Univeristy's collaborative efforts in technology transfer activities;
- (e) To guide on proposals in ensuring fair and equitable commercialization welfare distributions; and
- (f) To guide on establishment of the motivational schemes related to innovations and technologies transfer activities.

1.7 Justification of the Guidelines

This ITTG intends to help the University realize its vision of being a center of excellence for science and technology. The guidelines also assist the university in attaining its core value of being a leader in innovations and technology transfer. Moreover, it enables the University and the CITT to implement its Intellectual Property.

Also, the guidelines formulated to ensure the university's science and technology societal impact are being attained from a science and technology perspective through technology sharing. The guideline is also for ensuring fair and efficient technology transfer activities between the innovator(s), the University, and the innovation ecosystem. This will position the University as a reliable partner for collaboration with innovation ecosystem.

Similarly, the technology transfer guideline serves as an incentive tool for innovators by clearly stipulating transparent pathways, establishing connections, and building trust between the innovator(s), the University and the innovation ecosystem.

Moreover, it enables the operationalization of the University's Innovation and Technology Transfer Policy. This is done by addressing policy issues on commercialization and technology transfer of intellectual property and the need to establish a revenue sharing modality.

1.8 Scope of Guidelines

The ITTG considers MUST and Non-MUST communities to be important components of the university's innovation and technology transfer initiatives. It basically addresses technology transfer and commercialization procedures at Mbeya University of Science and Technology.

1.9 Categories of Technology Transfer

The ITTG was formulated to guide the technology transfer activities at the University. The University will transfer technology based on commercialization and technology sharing.

CHAPTER TWO

INNOVATION AND TECHNOLOGY TRANSFER PROCESS

2.1 Introduction

The key objective of the ITTG is to facilitate technology transfer through commercialization and sharing of technology. The operationalization of ITTG is founded within Innovation and Technology Transfer Policy. This is through the CITT with the departments of Incubation and Innovation (DII), Department of Entrepreneurship and Business Management (DEBM), and the Rural Technology Park (RTP).

The CITT is the authorized implementer of the ITTG unless stated otherwise by the mandated authorities related to University. The obligation of the ITTG is to attain technology transfer by commercialization and sharing technology. The operationalization of the ITTG will adhere to the following steps:

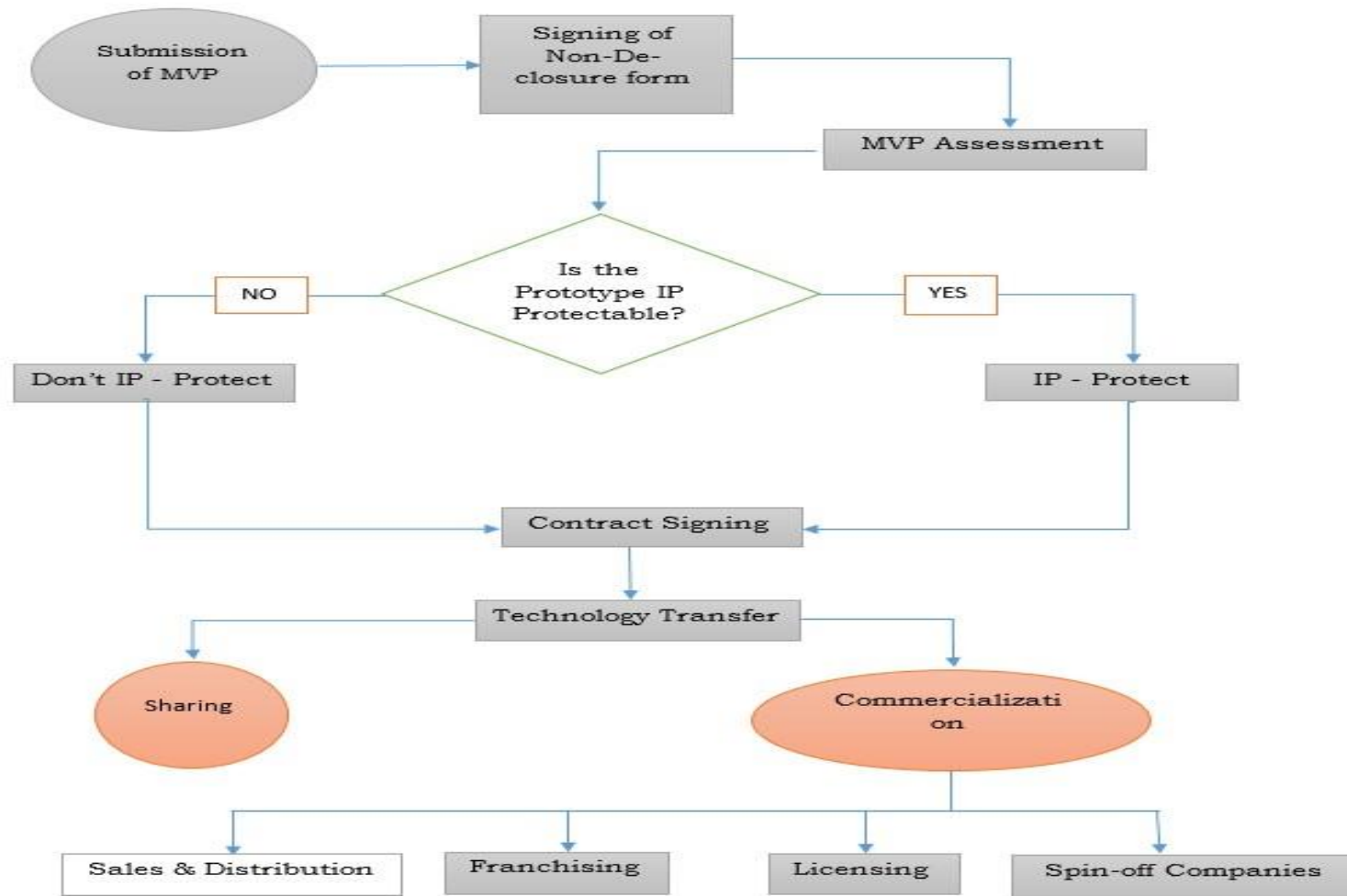


Figure 1: Innovation and Technology Transfer Process
Source: Own Conceptualization

2.2 Innovation and Technology Transfer Process

The innovation and technology transfer process between innovator(s), the University and the IE will adhere to the following procedures:

2.2.1 Submission of Minimum Viable Product

- (a) The innovator(s) is required to submit the Minimum Viable Product (MVP). This will be done by using Minimum Viable Product Submission Form (Annex 1: Minimum Viable Product Submission and Assessment Form).
- (b) There will be a minimum of one call per year in which the innovator(s) will be required to submit MVP.
- (c) After submission there will be an initial screening (at the CITT) to assess if the innovation(s) fulfil minimum entry requirements for signing Non-Disclosure Agreement (NDA) form.

2.2.2 Signing of Non-Disclosure Agreement

- (a) The innovation(s) that meet the minimum entry requirements for signing NDA must sign an NDA by using Non-Disclosure Agreement Form (Annex 2: Non-Disclosure Agreement Form).
- (b) The NDA form forbids either the innovator(s) or the University/and any potential selected actor in the IE from disclosing any data or information pertaining to innovation(s).

2.2.3 Assessment of Minimum Viable Products

- (a) In this step innovator(s) shall pitch his/her MVP to the panelists who are expert in the subject matter (the panel will be determined by the CITT).
- (b) The panel will include, but not limited to market expert, investment expert, commercial venture, academicians, successful alumni, and entrepreneurs.

- (c) The panelists will evaluate the MVP. The evaluation will base on the criteria set out in the MVP assessment (Annex 1: MVP Submission and Assessment Form).
- (d) The innovator(s) will be informed on the results and the final decision of the evaluation on the same event.

2.2.4 Evaluation of Intellectual Property

In this step innovator(s), the University and the innovation ecosystem shall adhere to the University's Intellectual Property Protection Guideline:

- (a) The CITT shall conduct evaluation of the disclosed intellectual property (IP) to determine its potential novelty, utility, and commercial viability. The IP Evaluation Form (Annex 3: IP evaluation form) will be used to evaluate the IP using the criteria illustrated in the IP evaluation form.
- (b) MUST CITT will prepare IP evaluation report and recommendation for protection letter to be submitted to the MUST IP committee for the approval or rejection.
- (c) MUST IP committee will conduct an in-depth evaluation of the disclosed IP, considering factors such as patentability, market potential, risk and utility. MUST IP committee shall make a decision in writing to approve or reject the recommendation for protection submitted by CITT and will issue a committee decision memo.

2.2.5 Signing Technology Transfer Contractual Agreement

After being successful in the pitching process and the invention of IP being protectable or not protectable, the innovator(s) will be required to sign a contract with the University/and any potential selected actor in the innovation

ecosystem. The contract will stipulate key terms and conditions (Annex 4: The Contractual Agreement Form).

2.2.6 Innovation and Technology Transfer

In this stage, the innovator(s), the University and the IE will decide on the appropriate mode of technology transfer after a detailed examination of the best approach and potential benefits. Innovation and technology transfer can either follow a sharing technology or a commercialization approach.

- (a) In the sharing technology approach, the innovator(s), the university, and any potential participating actor in the IE will agree to transfer technology for societal benefits;
- (b) In the commercialization approach, the innovator(s), the university, and any potential participating actor in the IE agree to commercialize the innovation(s) in exchange for possible financial gain. At this stage, the innovator(s), the university, and the IE will also agree on how the financial gain will be distributed.

2.3 Income Distribution

The essence of this part is to develop incentive and benefit sharing guidelines to attract more innovation(s) into commercialization. The income distribution in the context of this ITTG will be based on the specific agreements and arrangements between the parties involved.

2.3.1 Licencing

This is a legal process by which the owner of a technology (licensor) grants permission to another party (licensee) to develop, manufacture, use, market, and/or sell that technology under stipulated licencing terms and conditions. The licencing terms usually show the duration, payment terms, scope (e.g.,

geographical), or any limitations on its use, and provisions for resolving disputes. In Licensing the licensor can benefit from:

- (a) Licensing fees, in which the entity that owns the technology (licensor) may receive licensing fees from the licensee in exchange for the right to exploit the technology commercially. Licensing fees may be a one-time payment or periodic payments;
- (b) Royalties in which the licensor may receive royalties' fees from the licensee. It is typically a percentage (e.g., between 2% and 5%) of the revenue generated by the licensee using the technology. The percentage of the royalties is subject to negotiation between the licensor and licensee.

The amount of licensing fees and royalties is determined by a number of factors including:

- (a) Invention development costs, Licensors may seek to recover their investment in developing the licenced technologies;
- (b) The perceived market value (potential impact on the industry and market demand), of the licenced technology depict licensing fee;
- (c) Unique with significant competitive advantages technology can potentially command high licensing fee;
- (d) The licensing agreement may take account of provisions for renewing the license, and the terms for renewal, this gives room for fee adjustments that are typically negotiated upfront;
- (e) Industry standard for licensing fees in a particular sector or for similar technologies can serve as benchmarks during negotiations;
- (f) If the license is limited to a specific geographic region, the licensing fee may be adjusted accordingly. A global license may attract a higher fee than a regional or country-specific license;

- (g) The length of time for which the license is granted (license term) can impact the fee. Longer-term licenses may result in higher fees due to an extended period of exclusivity for the licensee.

2.3.2 Franchising

(a) This commercialization arrangement is whereby the innovator(s), the university, or participant in the IE, in this case, the franchisor, grants another party (an institution or commercial venture) known as the franchisee the right to operate a business using the franchisor's name, brand, patent, trademarks, and business model. In franchising, the franchisor can benefit from:

- (i) Franchising fees: This is whereby the franchisor typically charges the franchisee an upfront franchise fee for the right to use the technology, business model, and brand. This fee compensates the franchisor for the initial transfer of knowledge and intellectual property.
- (ii) Royalties: Franchising agreements that include ongoing royalty fees, which are a percentage of the franchisee's gross revenue. This fee is paid regularly, such as monthly, quarterly, or yearly, and compensates the franchisor for continued support, use of the technology, and access to ongoing improvements.

The royalty payment is calculated by:

$$\text{Royalty payment} = \text{Sales Revenue} * \text{Royalty rate}$$

Whereby:

Royalty payment: Amount paid to technology owner (Licensor)

Sales Revenue Total revenue generated by the licensee from sales of

products or services incorporating the licensed technology

Royalty Rate: Rate is the agreed-upon percentage of sales revenue that the licensee pays to the licensor as royalties (nomarily ranges between 1% up to 10%).

Royalties give Franchisors option of:

- (a) Charging fees for ongoing technology support, updates, and access to proprietary software or systems that enhance the franchisee's operations;
- (b) To offer additional training programs or consulting services to franchisees for a fee. These services could cover new technologies, operational improvements, or business development strategies.

2.3.3 Sales Revenue

If the technology is used to create products or services that are sold in the market, the income distribution may involve sharing the revenue generated from commercialization.

The sales revenue formula for income distribution from technology transfer depends on the terms of the licensing agreement and the stipulated terms and conditions of arrangement between the licensor (the party owning the technology) and the licensee (the party using the technology). A common way of income distribution from technology transfer by sales revenue method is royalty payment. The royalty payment is typically established as a percentage of the licensee's sales revenue generated from the products or services manufactured or delivered from linceced technology.

The royalty payment is calculated by:

$$\text{Royalty payment} = \text{Sales Revenue} * \text{Royalty rate}$$

Where by:

Royalty payment: Amount paid to technology owner (Licensor)

Sales Revenue: Total revenue generated by the licensee from sales of products or services incorporating the licensed technology

Royalty Rate: Rate is the agreed-upon percentage of sales revenue that the licensee pays to the licensor as royalties (nomarily ranges between 1% up to 10%).

2.3.4 Joint Venture and Partnership

In a joint venture, two or more parties collaborate and contribute resources, expertise, and technology to achieve a common goal and share the resulting profits or losses. In a joint venture, income distribution is determined by the terms of the joint venture agreement, which is built upon:

- (a) The joint venture agreement specifies how profits generated will be distributed among the partners. This distribution can be based on the agreed-upon ownership percentages;
- (b) The terms of the agreement, revenue generated from the sale of products or services incorporating the technology may be shared among the partners in the joint venture in proportion to their ownership stakes/structure with profits distributed according to the agreed-upon ownership percentages.

The following steps show how income distribution may work in technology transfer through a joint venture:

- (a) Contribution assessment: In which each party's contribution to the joint venture, including technology, intellectual property, capital, resources, expertise, etc., should be assessed and valued. This assessment helps determine each party's ownership stake in the joint venture and their entitlement to income;
- (b) Profit-sharing agreement: The parties involved in the joint venture should agree on how profits (or losses) will be shared among them. This agreement could specify fixed percentages, proportional to each party's contribution, or it could be based on other factors such as revenue generated from the technology transferred;
- (c) Joint venture income distribution formula: Once the profit-sharing agreement is established, the formula for income distribution can be determined. A simple formula for income distribution in a joint venture might look like this:

$$\text{Income distribution} = (\text{Total Profit-Operating Expenses}) * \text{Party's Profit Share Percentage}$$

Whereby;

| | |
|----------------------------------|--|
| Total Profits: | The total profits generated by the joint venture |
| Operating Expenses | The expenses incurred in running the joint venture, (technology transfer, research and development, marketing, operations, etc.) |
| Party's Profit Share Percentage: | The percentage of profits allocated to each party based on their agreed-upon share in the joint venture. |

2.3.5 Distribution of Revenue for University Supported Commercialization

Where an invention made by the university staff, student/innovator(s) or by using 100% of the university’s resources is patented and commercialized, the net income will be distributed as follows:

- (a) 100% of the revenue goes to the university until all expenses associated with the invention and IP protection have been reimbursed;
- (b) Thereafter, the net income is shared between the innovator(s) and the University, college, and department based on the following proposed formular:

Table 1: Income Distribution Formular

| Net Income Distribution in Percentage | | | | |
|--|-----------|---------|---------------------|------------------------|
| The University | Innovator | CITT | Innovator’s College | Innovators’ Department |
| 10 | 50 | 20 | 15 | 5 |
| (10-(50)) | (33-50) | (15-67) | (5-40) | (5-20) |

2.4 Other Issues Related to Technology Transfer and Revenue

2.4.1 Material Made Available for Use by the University

Material made available for use by the university in any invention, creation, innovation, discovery, or improvement produced by a creator and enjoying IP protection that the inventor voluntarily makes available for the institution's use without expectation of further compensation. In such a case, the university retains a non-exclusive, royalty-free license to use such material, provided that significant contributions by the inventor are acknowledged. That license does not include the right to exploit the work outside the institution for profit.

2.4.2 Treatment of Licenses for Non-commercial Research, Innovations, and Technologies in the University

Many staff and students experience high costs and practical inconveniences in obtaining permission to use material covered by IP protection for research and teaching. Inventors are therefore encouraged to approach publishers and other persons to whom inventors assign rights in their IP and request a non-exclusive, royalty-free license for their own non-commercial research and teaching, including, where possible, the right of anyone within the university to use that IP for non-commercial research and teaching.

2.4.3 Sponsored Innovation or Project

Whereas the collaborating organizations will look for confidentiality and ownership of a piece of work in so far as they have paid for it, academic researchers will more likely consider it a research grant without constraints attached. Money for sponsored research should not be regarded as free and without conditions.

The benefits for both the sponsor and the university should be recognized in the contract. It is therefore recommended that each institution has a central office with responsibility for managing research and technology transfer

interactions with external organizations, including any exploitation companies set up by the institution, and for ensuring that procedures are internally consented to and in keeping with agreements elsewhere in the research and development institution sector.

2.4.4 Ownership of Equipment

Equipment purchased under a university- or sponsor-funded innovation or technology contract or donated by the collaborating entity shall remain the property of the university on completion of the contract. It is therefore recommended that there be a clause in all contracts defining the ownership of equipment during project completion.

2.4.5 Professional and Product Liability

The matter of which party should bear the liability for work performed in relation to particular projects should be addressed in all contracts. In particular, the terms should be such that the university is absolved from liability within the limits of the law and the universities should not be expected to give indemnities;

Within those permitted limits, the contract should state that the university is not to be held responsible for any consequences of any inaccuracies or omissions (unless resulting from negligence) and that no liability attaches to it for the effects of any product or process that may be produced or adopted by the sponsor, notwithstanding that the formulation of the product or process may be based on the findings of the projects;

Contracts entered into with parties in other countries should, whenever possible, be subject to the national laws of the countries where the institutions are located and should also be made subject to the jurisdiction of those countries' courts, unless an acceptable arbitration clause is included.

2.4.6 Disclaimer

MUST does not guarantee performance of the technology transferred from the MUST Incubation Process. Therefore, MUST or MUST facilities involved shall not be anyhow liable or adversely connected to acts or omissions of the incubation outputs. However, in case of any such result of the incubated output MUST shall be doing all that is possible at its resource disposal, to minimize the harm from any loss including damages and penalties.

2.5 Roles of Stakeholders

For the successful implementation of ITTG, active participation of key stakeholders is of paramount importance. For the effective implementation of ITTG the following stakeholders with their roles are considered to be important;

2.5.1 Roles of the Government

- (a) To allocate funds for innovation activities in the university;
- (b) Implementing measures to protect innovators' rights and provide adequate support services; and
- (c) Facilitating conducive environment for innovator(s)-innovation ecosystem collaboration and partnerships to enhance commercialization and technology transfer.

2.5.2 Roles of the Commission of Science and Technology (COSTECH)

- (a) Overseeing the innovation and technology transfer activities by establishing and enforcing guidelines;
- (b) Ensuring equal level playing field in technology transfer between innovator(s) and the innovation ecosystem; and
- (c) Ensuring all institutions related with science, technology and innovation adheres to pre-established rules, procedures and regulations.

2.5.3 Roles of the University

- (a) Source of new technologies and innovation(s);
- (b) To facilitate commercialization of innovation(s) output;
- (c) To facilitate technology sharing for societal benefits;
- (d) To conduct periodic quality audits and assessments of innovation(s) at the university;
- (e) To ensure adherence of ITTG in the technology transfer activities at the University; and
- (f) To assess the effectiveness of the implementation of ITTG.

2.5.4 Roles of the Centre for Innovation and Technology Transfer

- (a) To effectively communicate the ITTG to stakeholders;
- (b) Overseeing the effective implementation of ITTG;
- (c) Encourage students to participate and engage actively in innovation activities; and
- (d) Ensuring students are aware of available assistance for commercialization and sharing technology.

2.5.5 Roles of Private Companies

- (a) User/buyer of the innovation(s) outputs;
- (b) Recipient of transferred/commercialized innovation(s) output;
- (c) Sponsor innovator(s) in the innovation and technology transfer activities; and
- (d) Enhance collaboration and partnership role to ensure technology transfer.

2.5.6 Roles of Innovators

- (a) Responsible for invention(s);

- (b) Ensure successful technology transfer;
- (c) Adhere the ITTG in the commercialization and technology transfer.

2.5.7 Roles of Lawyers

- (a) Drafting, review and enforcing agreement related to technology transfer;
- (b) Protect the intellectual property rights of the technology being transferred.

2.5.8 Roles of Financial Institutions and Funding Agencies

- (a) Support technology transfer activities through grants and loans;
- (b) Funding the implementation of technology transfers.

2.5.9 Roles of Innovation Ecosystem

- (a) Customers utilizing commercialized/shared technologies;
- (b) Offer potential feedback to improve innovation(s) and technology transfer process.

2.5.10 Roles of Professional Association

- (a) Share best practices; and
- (b) Contribute guidance and foster collaboration within and between innovation ecosystem, innovator(s) and the university.

2.5.11 Roles of Community

- (a) Consumer/beneficiary of the shared technologies;
- (b) Provides valuable feedback to the university.

2.5.12 Roles of Staff

- (a) Persistently align all work done in the University to the core mission of the University in innovation(s);

- (b) Including innovation ideas in their day-to-day teaching research and consultancy activities.

CHAPTER THREE

MONITORING AND EVALUATION

3.1 Introduction

Monitoring and evaluation (M&E) of the ITTG are essential activities in the implementation of the ITTG. The M&E activities help in assessing the effectiveness, efficiency, and impact of the technology transfer initiatives. The M&E will also leave room for continual improvement in the implementation of the ITTG. This chapter describes the M&E plan designed to assess the implementation, impact, and adherence to the ITTG over a period of three years. The university's CITT is responsible for monitoring and evaluating the implementation of MUST's ITTG. To gauge the success of the ITTG, the M&E process will incorporate the following key indicators:

3.2 Monitoring Indicators

3.2.1 Adoption Rate

- (a) Number of innovator(s) and IE aware with the university's ITTG;
- (b) Number of participants in the IE aware with the university's ITTG;
- (c) Number of innovator(s) who successfully commercialize their innovation product guided by this ITTG;
- (d) Number of innovators who successfully share technology guided by procedures stipulated in this ITTG;
- (e) Number of actors in the IE who successfully buy innovation(s) led by university's ITTG; and
- (f) Number and types of communities benefited from the shared technologies steered by the university's ITTG.

3.2.2 Number of the Commercialized Products

- (a) Number of MVP received from innovator(s) for commercialization;

- (b) Number of products that are commercialized from innovator(s) to the innovation ecosystem;
- (c) Number of entrepreneurs who successfully commercialize their innovation(s);
- (d) Number of IP granted for commercialization; and
- (e) Revenue generated.

3.2.2 Number of Technologies that have been Shared

- (a) Number of MVP received from innovator(s) for technology sharing;
- (b) Number of technologies that are successfully shared between MUST/innovator(s) and the innovation ecosystem;
- (c) Number of entrepreneurs/innovator(s) that are successfully sharing their technologies;
- (d) Number of IP (patent, trademarks, copyright and property right) granted to the shared technologies; and
- (e) Number of beneficiaries from the societies.

3.2.4 Number of Collaboration Established

This indicator will be assessed based on the number of collaborations established in the commercialization and technology transfer:

- (a) Number of collaborations established in the commercialization;
- (b) Number of collaborations established in the technology transfer; and
- (c) Number of partnerships and collaborations established in the commercialization and technology transfer.

3.2 Compliance Audit

To ensure fair and equitable commercialization and technology transfer, the compliance level will be measured. This is done by evaluating the degree of adherence to ITTG, aiming to identify areas of non-compliance and implement corrective measures. The audit will be done for implementers, innovators, and the IE through:

- (a) Periodic audits from the quality assurance unit;
- (b) Periodic audits from internal audit; and
- (c) Periodic self assessment from within the CITT.

3.3 Evaluation Mechanisms

Evaluation will involve conducting regular surveys and obtaining stakeholder feedback to assess:

- (a) Awareness;
- (b) Effective implementation;
- (c) Stakeholders satisfaction with the guidelines; and
- (d) Perceived effectiveness of the ITTG.

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ANNEXES

Annex 1: MVP Submission and Assessment Form

MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY CENTER FOR INNOVATION AND TECHNOLOGY TRANSFER

MVP SUBMISSION AND ASSESSMENT FORM

| | | | |
|---|---|---|------------|
| 1 | Project title | | |
| 2 | Team individual name | | |
| 3 | Contact | | |
| | Item to be assessed | Indicator(s) | Score / 10 |
| 4 | MVP description (a) Describe the potential target market | Clarity of the target market | |
| | (b) Describe the potential competitor | Clarity of the potential competitors | |
| | (c) Potential of scalability | Scalability potential | |
| 5 | Problem statement Describe the problem your MVP aims to solve or the need it addresses | Clarity of the problem to be addressed | |
| 6 | Solutions Outline the functionalities of your MVP | Functionality of the MVP | |
| 7 | Key metrics Specify key performance indicators you will use to measure the success of your MVP | Measurability of Key Performance Indicators | |
| | Attainability of key performance Indicators | Attainability of Key Performance Indicators | |

| | | | |
|----|--|---|--|
| 8 | Technology stake State technologies, tools and framework you plan to use in developing your MVP | Listed technologies Vs available technologies | |
| 9 | Timeline Estimated time for the development and launch of MVP, including key milestones | Realistic with respect to innovators' time at the university/time to market | |
| 10 | Resources required (a) Specify resource, | Identified resources Vs Available resources | |
| | Support or collaboration you may need for the successful development and testing of your MVP | Possibility of identified collaboration | |
| 11 | SWOT ANALYSIS Analyze (a) Strength; (b) Weaknesses; (c) Opportunities; (d) Threats/challenges/risks. | Strength of the MVP towards achievement | |
| | | Weaknesses of MVP | |
| | | Opportunities for MVP to flourish | |
| | | Threats/risks associated with MVP | |
| 12 | Additional comments Any other relevant information about your MVP submission | Other relevant information | |
| 13 | Terms and conditions (a) Innovator agrees on IP, confidentiality and comply with competition rule); (b) Innovator agrees on confidentiality and comply with competition rule | Innovators readiness to disclose IP | |
| | | Innovators readiness to comply with competition rule | |

Annex 2: Non Disclosure Agreement Form

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY
CENTER FOR INNOVATION AND TECHNOLOGY TRANSFER**

NON DISCLOSURE AGREEMENT FORM

| | |
|---|---|
| 1 | <p>Parties</p> <p>Disclosing part</p> <p>This agreement is made and entered into as of (day)and between[name of disclosing part] [Address] [City].</p> <p>Receiving part</p> <p>Name of Receiving Party..... [Name of Receiving Part] [Address] [City]. Collectively referred to as the “Parties”</p> |
| 2 | <p>Purpose</p> <p>The disclosing part desires to disclose certain confidential information [the confidential information] to the receiving part for the purpose of [Specify purpose].</p> |
| 3 | <p>Confidential information</p> <p>Confidential information may include, but not limited to proprietary information, trade secrets, technical data, financial information and any other information marked “confidential”</p> |
| 4 | <p>Obligations</p> <ul style="list-style-type: none">(a) The receiving party agrees to keep the confidential information confidential and to take all necessary precautions to prevent unauthorized disclosure;(b) The receiving party shall not use the confidential information for any other purpose than the purpose stated above; |

| | |
|---|--|
| | <p>(c) The receiving party shall not disclose the confidential information to any third party without the prior written consent of the Disclosing Party.</p> |
| 5 | <p>Duration</p> <p>The receiving party's obligations regarding the confidential information shall continue for a period of [specify duration] from the date of disclosure.</p> |
| 6 | <p>Governing law</p> <p>This agreement shall be governed by and constructed in accordance with the laws of the United Republic of Tanzania.</p> |
| 7 | <p>Witnesses</p> <p>In witness whereof, the parties hereto have executed this Non-Disclosure Agreement as of the effective date.</p> <p>Disclosing Party:</p> <p>.....</p> <p>Name and signature</p> <p>Receiving party</p> <p>.....</p> <p>Name and signature</p> |

ANNEX 3: Intellectual Property Assesment Form

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY
CENTER FOR INNOVATION AND TECHNOLOGY TRANSFER**

INTELLECTUAL PROPERTY ASSESMENT FORM

Section A: Evaluation Information

Date of evaluation.....

Evaluation reference number

Section B: Inventor(s) information

(a) Name.....

(b) Mobile phone.....

(c) Emails.....

(a) Name.....

(b) Mobile phone.....

(c) Emails.....

(a) Name.....

(b) Mobile phone.....

(c) Emails.....

Section C: intellectual Property Evaluatuon Criteria

Novelity

- (a) The invention demonstrates a novel and unique concept;
- (b) The invention builds upon existing knowledge but introduces a novel combination or improvement;
- (c) The invention lacks novelty.

Utility

- (a) The invention serves a practical purpose and has a potential application;
- (b) The invention has limited practical utility;
- (c) The invention lacks practical utility.

Commercial Viability

- (a) The invention have potential application and market demand;
- (b) The invention may have limited commercial potential
 - The invention is unlikely to have potential viability.

Overall Assessment

- The invention is highly promising and demonstrates strong potential in terms of novelty, utility and commercial viability;
- The invention have potential but may require further development and refinement;
- The invention may have limited potential and may not be suitable for further development.

4

Section D: Evaluators' comments

.....

.....

.....

.....

5

Section E: Evaluator's recommendations

(a) Recommended for further development (if applicable)

.....

.....

.....

(b) Recommended for protecting the IP (specify recommendations for protection
e.g. patent, filing, trade secrets etc)

(c) Additional remarks (if any)

Section F: Evaluators' information

(a) Name:

(b) Position:

(c) Signature:

(d) Date:

Annex 3: Technology Transfer Contractual Form

**MBEYA UNIVERSITY OF SCIENCE AND TECHNOLOGY
CENTER FOR INNOVATION AND TECHNOLOGY TRANSFER
TECHNOLOGY TRANSFER CONTRACTUAL FORM**

| | |
|---|--|
| 1 | <p>Parties</p> <p>Transferor</p> <p>This contract is made and entered into as of (day)and between [Transferor (provider of technology)] [Address] [City] [email] [Phone].</p> <p>Transferee</p> <p>Name of transferee [Name of Receiver of technology] [Address] [City] [email] [Phone]. Collectively referred to as the “Parties”</p> |
| 2 | <p>Description of technology to be transferred</p> <p>The transferor describe the technology including any</p> <ul style="list-style-type: none">(a) Intellectual property;(b) Proprietary information and know how involved;(c) Application of technology (engineering, mathematics);(d) Problem it solves (individual,business or society);(e) Process and or system |
| 3 | <p>Purpose of technology transfer</p> <p>The transferor should specify the purpose for which the technology is being transferred [Specify purpose of technology transfer].</p> <ul style="list-style-type: none">(a) Improving efficiency;(b) Information processing;(c) Social impact; |

| | |
|---|---|
| | <p>(d) Education and learning</p> <p>(e) Medical advancement</p> |
| 4 | <p>Terms of condition</p> <p>(a) The transferor grants the transferee a [non-exclusive/exclusive] licence to use the technology for the specified purpose;</p> <p>(b) The transferee agrees not to disclose or transfer the technology to any third party without the prior written consent of the Transferor;</p> <p>(c) Any improvement or modification made to the technology by the Transfree shall be the property of the Transferor;</p> <p>(d) Payment modalities e.g the transferee should pay a licencing fees/royalties</p> |
| 5 | <p>Indemnification</p> <p>Provisions specifying how the parties will handle any legal claims arising from the transfer, including indemnification clauses</p> <p>(a) Clarify stipulates responsibilities and liabilities regarding the use of technology;</p> <p>(b) Scope: intellectual property infringement, breach of contract, or violation of laws;</p> <p>(c) Conditions: evidence and time of the claim</p> <p>(d) Insurance requirements (if there is aspecific type of insurance coverage)</p> <p>(e) Survival period</p> |
| 6 | <p>Duration of the contract</p> <p>The transferees' duration of owning an IP shall be clearly stipulated [spegify duration] from the date of signing contract.</p> |
| 7 | <p>Governing law</p> <p>(a) This contract shall be governed by and constructed in accordance with the laws of the United Republic of Tanzania;</p> <p>(b) In resolving any disputes the laws of the United Republic of Tanzania will be applicable.</p> |
| 8 | <p>Breach of a contract</p> <p>(a) Violation of intellectual property rights;</p> |

- (b) Failure to maintain confidentiality as stipulated in the contract;
- (c) If the licensee fails to make the agreed-upon payments for the technology transfer;
- (d) If transferee or transferor becomes insolvent/declare bankruptcy and affects its ability to fulfil the obligation of technology transfer contract;
- (e) Force majeure events, unforeseen events beyond the control of the parties, such as natural disasters, wars, or government actions

9 Witnesses

In witness whereof, the parties hereto have executed this technology transfer contract as of the effective date.

Transferor:

.....

Name and signature

Transferee:

.....

Name and signature

APPROVAL

At its 42nd Meeting held on 12th day of February 2024, the Senate of Mbeya University of Science and Technology RECEIVED, DISCUSSED and APPROVED the Guidelines for Innovation and Technology Transfer.

Prof. Aloys N. Mvuma

CHAIRPERSON

Adv. Lugano Mwakilasa

SECRETARY