MUAST

MARONDERA UNIVERSITY
OF AGRICULTURAL SCIENCES AND TECHNOLOGY

SEN14/7/2023

INTELLECTUAL PROPERTY POLICY

Reference number	MUAST_IPP01
Policy owner	Vice Chancellor
Policy administrator	Intellectual Property Manager
Status	Draft
Approved by	Senate
Date of approval	
Review date	August 2027
Web address of this policy	http://www.muast.ac.zw

Table of Contents

Preamble

The Government of Zimbabwe has set a Vision for the nation to become an upper middle-income economy by 2030. Through the implementation of Education 5.0, universities have become important to the modernisation and industrialisation of the country. Universities, by combining critical thinking, creative thinking, innovativeness and an entrepreneurial mind-set to the technological knowhow, can provide national economy impacting industrial solutions. Marondera University of Agricultural Sciences and Technology (MUAST) is committed to contributing to the nation's Vision 2030 and beyond through integrity, accountability and rigour in innovation and industrialisation. This IP policy, therefore, establishes a general framework for the conduct of Intellectual Property to achieve innovation and industrialisation and should be interpreted in a manner that is consistent with the vision of the University: *a leading academic institution in the provision of technology-driven sustainable agricultural solutions and entrepreneurship at national and international level*, and that of the Government of Zimbabwe: " *to achieve an Empowered and Prosperous Upper Middle-Income Society by 2030*".

In terms of Section 31(3) of the Marondera University of Agricultural Sciences and Technology Act [Chapter 25:29] of 2015, the Council of the Marondera University of Agricultural Sciences and Technology, with the approval of the Minister of Higher and Tertiary Education, Science, Innovation, and Technology Development, makes the following IP Policy:

MUAST is a modern and unique institution of higher learning established through an Act (Chapter 25:29) of Parliament in 2015. The University is driven by the vision to be a leading global centre of excellence in the provision of technology driven sustainable green agricultural solutions". Underpinned by its unique CORE VALUES: Excellence, Diversity, Innovation, Ethics and Ubuntu; the University aims at producing globally acceptable and competent graduates grounded in agricultural, entrepreneurial and technological skills through excellence in teaching, research and extension services, innovation and industrialisation

Historical Background

The Act of Marondera University of Agricultural Sciences and Technology was promulgated in 2015. The University was declared an independent institution in August 2017 following its incubation by the University of Zimbabwe since 2012. It started its academic activities at the Dozmery Campus since 2013. The University opened another Campus at the Cold Storage Commission (CSC) Complex in 2018 and another at UMC in 2021 with a view to increase the Institution's visibility and aggressively market its unique academic brand. The University has

started the construction of its own World-class main Marondera Campus at Cloverhill Farm, approximately 5 km from Marondera Town. This is fundamentally aimed at turning Marondera into a University town as well as enabling all business people to consider the University as an important factor

Vision

To be a leading academic institution in the provision of technology driven sustainable agricultural solutions and entrepreneurship at national and international level.

Mission

Producing competent skilled and knowledgeable graduates, transforming agricultural communities and industries through innovative teaching and learning, research, university service and innovation and industrialization.

Our Values

- Excellence
- Diversity
- Innovation
- Ethics
- Ubuntu
- Sustainability
- Integrity

1. ARTICLE 1 - PREFACE

Article 1.2 - Objectives of an Intellectual Property (IP) Policy

i. To encourage research, scholarship and a spirit of inquiry, thereby generating new knowledge.
ii. To facilitate the transfer of knowledge and technology to society.
iii. To reward the creativity of staff members, researchers, technicians and students.
iv. To facilitate the practical application and economic use of IP arising from the results of research and other creative work carried out at the Institution to produce benefits for society.
v. To promote linkages with industries.
vi. To create an innovative culture which fosters the creation of IP and provides a framework for considering its commercial potential.
vii. To ensure that the commercial results, financial or other benefits are distributed in a fair and equitable manner that incentivizes and recognizes the contributions of the inventors and the MUAST as well other stakeholders.
viii. To ensure that both IP and other products of research are made available to the public through an efficient and timely process of technology transfer.
ix. To promote, preserve, encourage and aid scientific investigation and research.
x. To provide a clear understanding of the rights and responsibilities of the Institution, and its staff members, students and other stakeholders.

Article 1.2.1, IP utilization: This IP Policy seeks to foster an environment in which useful inventions or creative works produced by staff members, students and other stakeholders, are used in ways which assure that maximum benefit can accrue to the creators, the institution, and society-at-large by transferring such research results to third parties.

Article 1.2.2, IP management: this IP Policy aims to establish transparent procedures for managing IP.

Article 1.2.3, Relevance for researchers: This Policy assists MUAST in identifying and protecting the outcomes of its research. It includes provisions to stimulate and capture the creativity and innovations of its staff members, students and other stakeholders. It includes guiding principles relating to the emphasis the Institution places on the financial and non-financial benefits of knowledge transfer.

Article 1.2.4, Relevance for enterprises: The IP Policy provides transparency to MUAST business units and individuals (staff members and students) who desire to commercialize Institution-based IP. Business units and individuals should be able to access and commercialize IP, on terms that provide fair value to all parties, and in ways that are foreseeable and consistent from one negotiation to the next.

Article 1.2.5, Balance of interests: The policy is essential in maintaining MUAST's traditions (including academic freedom, scholarship, research, shared governance, and the transmission of knowledge via publication) and complementing IP-based commercialization. The IP Policy will guarantee the complementarity of these parallel pursuits.

Article 1.2.6, Rights and responsibilities: The IP Policy sets out the MUAST's position regarding ownership and use of IP (respecting binding/applying legal rules and ownership regimes), the recognition and reward for the creators, and the rights and responsibilities of all parties. It also sets out the rules of the Institution for cooperation with industrial and other organizations and provides guidelines on the sharing of benefits arising from the commercialization of IP.

Article 1.2.7, Motivations for MUAST to Commercialize IP and Develop Collaborative Research Initiatives

i. Advancing MUAST's national, regional and international competitiveness.
ii. Tackling societal challenges and maximizing the impact of research at societal level.
iii. Broadening the Institution's research funding sources.
iv. Furthering MUAST's reputation and international ranking.
v. Benefiting from industry partnerships in terms of enhanced quality of research programs, enhanced teaching, faculty/student career opportunities, improved inter-sectorial mobility and access to empirical data from industry.

Article 1.3 - Principles

Article 1.3.1, Responsible Commercialization: commercialization of research outcomes is primarily driven by facilitating access to the IP created (on a variety of terms) coupled with social and economic benefits, and not solely revenue generation (IMPACT, not INCOME). In this context, MUAST is adapting to the concept of "social responsibility" or "social entrepreneurship".

Article 1.3.2, Incentives: play an important role in driving knowledge transfer therefore financial and non-financial reward systems that consider the motives, perspectives and cultures of: (a) the academic scientists, (b) the IP Management Office (IPMO) and university administrators, and (c) the companies/entrepreneurs.

Article 1.3.3, Local development: The policy promotes increased efforts to utilize IP generated from academic research and to drive local economic growth. Collaboration with regional industrial networks or "clusters"; active cooperation with small and medium-sized enterprises (SMEs) in their region; fostering spin-offs and favoring local companies as potential IP licensees.

Article 1.3.4, Rights of other IPR holders: MUAST respects economic and moral rights of other IPR holders. Staff members, students and other stakeholders intending to use any proprietary material or IP provided by or owned by external parties must be authorized to do so. MUAST will not willfully or negligently infringe the IP rights of others. Staff members, students and other stakeholders should ask for the support of the IPMO in case of doubt.

ARTICLE 2 - DEFINITIONS

Article 2.1, Pre-Existing IP: Refers to IP (i) licensed or owned by any party to the Research Project prior to the beginning of the Project; or (ii) generated independently of the particular project by that party; and which is brought into or used as part of the research project. This IP may include registered IPRs, but researchers may also bring other IP like specific know-how, software and existing data to a collaboration. If IP is owned by another party who is not involved with the Project, it is referred to as "Third Party IP", and therefore relevant permission to use this IP is required.

Article 2.2, Commercialization: There are many commercialization pathways, both for-profit and not-for-profit. These may involve exclusive or non-exclusive licensing, assignment of the IP, formation of a start-up company, the use of patent-management companies or government agencies, non-profit use or joint ventures.

Article 2.3, Course materials: Course materials can be in any form including digital, print, video, and graphical material and may include:

i. course outlines, handouts, online materials;
ii. presentation materials (including lecture notes, images, slides, graphics, multi-media presentations, course software and other audio-visual materials);
iii. virtual learning tools;
iv. instruction manuals, books and handbooks; and
v. Continuous assessment and examination questions.

Article 2.4, Creator: Refers to any staff member, student or other stakeholders who create IP at the Institution. The creator can be an inventor, author, artist, designer, developer and other similar designations as defined by law and used in practice. To be considered a creator, an individual must be considered to be a creator of the IP pursuant to the Zimbabwe law. It is recognized that collaborative or co-operative effort may involve several creators. For the purpose of the Policy, the creator can be a staff member, other stakeholder or student.

Article 2.5, Enabler: This term is relevant in the context of the incentives (Article 10), to also reward those who made indirect contributions to generating IP (for example, allocating a share of returns to the department).

Article 2.6, Genetic Resources (GRs): GRs are encountered in nature, are therefore not IP. They are not creations of the human mind and thus cannot be directly protected as IP.

However, inventions based on or developed using GRs are eligible for protection through the IP system, either through a patent or, in the case of research and breeding activities that can lead to the creation of new plant varieties. The agreed scope of use may be set out in contracts, licenses or agreements, often called access and benefit-sharing agreements, which may specify how benefits arising from the commercial activities should be shared.

Article 2.7, Invention: Definition of Invention in Section 2 of the Patents Act 26:03 there are numerous conditions that must be met to obtain a patent and, some of the key conditions include the following:

- The invention must be novel/new; that is, some new characteristic which is not known in the body of existing knowledge in its technical field. This body of existing knowledge is called "prior art."
- The invention Schedule 87 Section 9 of the Zimbabwe Patents Act must involve an "inventive step" or must be "non-obvious", which means that it could not be obviously deduced by a person having ordinary skill in the relevant technical field.
- The invention must be capable of being used for an industrial or business purpose beyond a mere theoretical phenomenon or be useful. Its subject matter must be accepted as "patentable" under law. The invention must be disclosed in an application in a manner sufficiently clear and complete to enable it to be replicated by a person with an ordinary level of skill in the relevant technical field.

Article 2.8, Inventor: Is the person who creates or develops a new method, form, device or other useful means. This includes a person who has conceived an essential element of the invention, in order to qualify to be cited as an inventor in a patent application or on a patent. The "proprietor" or "owner" of a patent is the person to whom the patent is granted. The inventor and the owner are not necessarily one and the same. However, the inventor must be listed as the inventor on the patent, failing which is it a ground for revocation of the patent.

Article 2.9, IP Disclosure Form It is a confidential document that should be completed by the lead inventor/author and submitted to the IPMO, when something new has been conceived or developed that has possible commercial application. The purpose of this form is to record what has been invented and to allow an assessment of patentability/possible IP protection. An IP Disclosure Form typically contains some background information pointing towards determination of patentability, and also information on multiple sources of funding.

Article 2.10, IP Expenses: The term "IP Expenses" is used for the calculation of the IP revenues (royalties, etc.) which will be distributed amongst the stakeholders. The Institution will recover all IP Expenses (money paid to external entities) first and the resulting amount (termed "Net Revenue") is then shared with the inventors or other stakeholders.

Article 2.11, IP Committee: The IP Committee comprises of the senior responsible officer, Deans of Faculties, Directors, Institution's legal representative, IP Manager, IPMO representative, and one or more external persons who may be IP experts, or have some other relevant specialization to assist with IP management and commercialization decisions.

Article 2.12, IP Management Office (IPMO): The functions of the IPMO are undertaken within MUAST by a Unit wholly owned by the Institution, which can bear a name reflecting the functions of IP management and commercialization.

Article 2.13, Knowledge Transfer: is a collective term for the transfer of new inventions, creations, discoveries, innovations, processes, knowledge, ideas and experiences, which result from research conducted at the Institution, to a commercial environment for use.
"Knowledge Transfer involves the processes for capturing, collecting and sharing explicit and tacit knowledge, including skills and competences. It includes both commercial and non-commercial activities such as research collaborations, consultancy, licensing, spin-off creation, researcher mobility, publication, etc. While the emphasis is on scientific and technological knowledge, other forms such as technology-enabled business processes are also concerned

Article 2.14, Patent: Patent is a set of exclusionary rights granted by law to applicants for inventions that are new, non-obvious and commercially applicable.

Article 2.15, Utility Models: A utility model is an invention that does not meet all the requirements of patentability but has an industrial use.

Article 2.16, Plant Variety: MUAST conducts research in areas such as agricultural sciences and technologies, crop production, livestock and animal health, forestry, fisheries and crop storage. Research efforts in these areas have led to a number of specific achievements e.g., varieties of many crops, which are capable of producing high yields, better suited to specific farming systems, resistant or tolerant to main diseases and pests, etc. These varieties are made available to farmers through existing seed services. For each variety, descriptive data

are also available. They give a brief description of the variety: origin (group, pedigree, common name, etc.), agricultural characteristics (farming system, vegetative cycle, adaptability to biotic and/or abiotic stresses), yield, grain quality, etc. These data facilitate the choice of a specific variety for a relevant type of farming system.

Article 2.17, Variety: means a plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeders' right are fully met, can be (i) defined by the expression of the characteristics resulting from a given genotype or combination of genotypes, (ii) distinguished from any other plant grouping by the expression of at least one of the said characteristics and (iii) considered as a unit with regard to its suitability for being propagated unchanged; Plant Variety protection, also called a "plant breeder's right" (PBR), can be granted to a breeder if the variety obtained is considered to be new, distinct, uniform, and stable, and has a suitable denomination. According to this right, acts concerning the exploitation of the protected variety require the prior authorization of the breeder. New plant varieties formed following genetic modification may form the subject of a plant breeders' right. In addition, such genetically modified plant variety may find protection via the Patents Act.

Article 2.18, Public Disclosure: In the field of copyright, "disclosure" may mean making a work accessible to the public for the first time. First publication of works is one, but not the only possible, form of disclosure, since works may also be disclosed through non-copy related acts, such as public performance, and broadcasting to the public by cable (wire). Some disclosure actions may result in a loss of rights to some or all of one's IP (it is particularly easy to inadvertently compromise one's patent rights). Therefore, the policy empowers IPMO to put in place measure to keep new inventions confidential for a limited period to allow the IPMO to undertake a timely evaluation of the case including patentability assessment.

Article 2.19, Public Domain: Is the scope of those works and objects of related rights that can be used and exploited by everyone without authorization, and without the obligation to pay remuneration to the owners of copyright and related rights concerned - as a rule because of the expiry of their term of protection, or due to the absence of an international treaty ensuring protection for them in the given country. The Public Domain **in relation to patent law** consists of knowledge, ideas and innovations over which no person or organization has any proprietary rights. Knowledge, ideas and innovations are in the Public Domain if there are no legal restrictions of use (varying in different legislations and forming, therefore, different

public domains), after expiration of patents (regularly 20 years), as a consequence of non-renewal/lapsed rights, after revocation and after invalidation of patents.

Article 2.20, Research: Research comprises three activities: Basic Research, Applied Research and Experimental Development.

Article 2.21, Scholarly Works: Scholarly works may include, but are not limited to, scholarly publications, academic journal articles, research bulletins, monographs, books, conference papers and related presentations, plays, poems, musical compositions, sound recordings, video or film material, multimedia works, photographs and other creative works. Staff members usually own IP rights in their scholarly works.

Article 2.22, Senior Responsible Officer: The Senior Responsible Officer may appoint a designee to exercise some aspects of this authority. In the case of MUAST, this person tends to be one of the Pro Vice Chancellor, Director CII, Dean and Chairperson.

Article 2.23, Staff Member: Means all MUAST Employees, academic and non-academic Staff.

Article 2.24, Student: The IP Policy covers those students with an appointment (in which case they are other stakeholders) and those students which have an employment contract (in which case they are staff members). In addition, the Policy has implications for students whose research forms part of the Institution's Research Projects (Article 5.2.3.) or Research Contracts (Article 5.2.4.). Note that a PhD is considered a student (also in legal status), whereas in other cases a PhD is an employee (staff member).

Article 2.25, Tangible Research Property (TRP): refers to physical materials including all biological subject matter such as whole plants and animals, microbial cultures, seeds and cuttings, DNA, and other biological molecules. Physical matter, including biological materials (e.g., cell lines, organisms, proteins, plasmids, DNA/RNA, biochemical compounds, transgenic animals), integrated circuit chips, prototype devices, bread-board circuits, and equipment. TRP may or may not be patentable and is separate and distinct from IP. TRP and IP can exist simultaneously on the same technology. Those research results that are in a tangible form, as distinct from intangible property. Examples of Tangible Research Property may include, but are not limited to: integrated circuit chips, computer software, computer databases, biological materials, engineering prototypes, engineering drawings, and other property, which can be physically distributed. Tangible Research Property may often have associated intangible

property rights. This type of property is common in life science research. It is important to note that tangible property is distinct and different from intangible IP. It is covered by very different legal rules and jurisdictions. IP and TRP can simultaneously exist for the same technology.

Article 2.26, Trade Secrets: Is a form of confidential information and may sometimes be referred to as" **know-how**". The general definition of a trade secret is something that is "*not generally known to the public, provides some benefit to the holder of the secret as a result of it not being known, and that the holder exercises reasonable care to prevent from being generally known*". Trade secrets may include for example:

i. confidential scientific and technical information (e.g., research results in laboratory notebooks or invention disclosure reports, unpublished source and object code of software, technical drawings, etc.);
ii. an invention before the filing of a patent application;
iii. new commercial valuable knowledge which is intentionally omitted from a patent application, and never becomes protected by the grant of a patent, for example, to minimize the prospect of reverse engineering;
iv. research materials, including biological materials, and data;
v. commercially sensitive information such as confidential reports and financial information not publicly known;

Trade secret information may have considerable value in itself, and in conjunction with a patent or other forms of IP (for example, trade secret in the form of know-how is often vital to the working of patented inventions). In order to be protected by law, the "secrecy" of the trade secret must be maintained, through ongoing management actions. These include maintaining the information in a secure location and limiting access to the information to only people who need to know it, controlling the number of documents produced, and are subject to appropriate non-disclosure obligations (under a confidentiality agreement).

Article 2.27, other stakeholder: These include "Appointee", "Visiting Researcher", "Affiliate", or similar terms. Other stakeholders also include secondments and sabbaticals.

ARTICLE 3 - SCOPE OF THE POLICY

Scope includes the groups (staff members, students and other stakeholders) to which the policy pertains, the types of IP covered, and other statements with respect to time periods, funds, etc.

Article 3.2, Background IP: MUAST will have prospective staff members, students and other stakeholders clearly identify, in writing, any Background IP in which they have an ownership interest prior to the commencement of their employment or enrolment. This is done to mitigate possible arguments later about who owns what. The notification is done to the Vice chancellor. The IPMO will then usually assess the nature of that IP and provide a report. The MUAST will decide and will notify the staff member, student or other stakeholder of the outcome. The IPMO shall maintain a confidential register of Background IP which will be taken into consideration when new IP is developed by the staff member/student/other stakeholder concerned in the course of their employment, enrolment or appointment at the Institution.

Article 3.3, Applicability: Applies to all staff members, students and other stakeholders. These include the faculty, staff, students, and other stakeholders participating in the research programs of MUAST. However, different rules, ownership rights and obligations will usually apply for staff members (employees), students (non-employees) and other stakeholders who participate in a Research Project: The IP policy applies to individuals participating in Research Projects given the obligations that the MUAST generally has with external parties who fund such projects. Rights and obligations shall survive the termination of employment: In the event that a person who is or has been involved in the creation of IP leaves MUAST to join another institution or firm, MUAST should ensure to have a written agreement in place, setting out the situation of the ownership of the IP. Should the staff member, student or other stakeholder be regarded as an inventor/ author, then benefits that accrue from commercialization of the intellectual property will be due to the inventor/author post termination of employment.

Article 3.4, Binding effect of the Policy: IP policy will be part of a legally binding contract for MUAST employees, other stakeholders and partners.

Article 3.4.1, All MUAST students participating in a Research Project shall sign an agreement, before commencing the project.

Article 3.4.2, MUAST shall ensure that other stakeholders sign an Appointment agreement before commencing any activity at the Institution: The agreement shall place the other

stakeholder under the scope of the IP Policy but is subject to arrangements agreed on a case-by-case basis.

Article 3.4.3, Informed consent: Employees, students or other stakeholders should be familiar with the MUAST IP Policy and consent to it. The policy is legally binding therefore, effective outreach is critical as well as the need for explicit documentation. Informed consent is important when students are involved. MUAST should Support IP Policy by appropriate written agreements, acknowledged and agreed to by all individuals involved in research: For staff: this should be included in the employment contract;

For students: in an assignment document whose terms are equitable, and which is signed by the student employing a process that ensures that there is no unfairness or coercion;

For other stakeholders: in an appointment agreement, regulating the ownership of IP which will be created by the other stakeholder. Such agreements should deal with IP ownership, confidentiality obligations and the extent to which the parties can use and commercialize the IP. External entities involved in creation of IP - such as firms or other institutions carrying out sub-contracting work - should also execute written agreements dealing with IP ownership issues, confidentiality obligations and rights of use.

ARTICLE 4 - GOVERNANCE AND OPERATION

MUAST will have a two-tiered structure to govern and implement the IP Policy: an **IP governance (IP Committee)** and an **IP operations (IP Management Office)** structure. These two spheres operate semi-independently but are also closely linked. IP governance is the sphere of policy creation/evolution and overarching strategic guidance. IP operations is the domain of day-to-day management, and transactions. Under this two-tiered model, each domain is managed by a different institutional entity, but both ultimately fall under the auspices of a single, senior designated officer of the Institution (Vice Chancellor and Pro Vice Chancellor).

Article 4.1, IP Governance - The IP Committee or a Board shall be established to ensure good IP governance, i.e., policy creation and evolution, and strategic guidance. The Committee or Board shall be composed of the following:

- PVC - Innovation and industrialization
- Deans,

- The Registrar,
- The Bursar,
- Director Centre for Innovation and Industrialization,
- One representative per Faculty,
- IP Manager,
- Legal Officer,
- Any members with specific expertise in areas related to the IP concerned.

The IP Advisory Committee shall perform the review function whose specific responsibilities shall include the following:

- Reviewing directions, issues, proposed policies and documents relating to IP;
- Establishment of spin-out companies and the distribution of any proceeds from the
- companies;
- Presiding over any disputes arising from the IP Policy;
- Resolution of issues related to ownership of IP;
- Guidance and assistance to the University in matters involving University-owned IP;
- Deciding on the appropriate distribution of revenue received from Commercialization
- Assisting in increasing IP awareness among the University community;
- Such other responsibilities as required to comply with state laws.

Article 4.2, IP Operations - The IP Management Office (IPMO)

Article 4.2.1, MUAST IPMO: The reasons for setting up an IPMO, amongst which are to:

- protect IP and Innovation;
- advise on IP procedures;
- intermediary role;
- reward, retain and recruit the best researchers, and prevent brain drain;
- maintain close relations with industry;
- promote economic development and create jobs;
- market research for public benefit;
- assist researchers with IP management issues including negotiation of IP clauses in Research Contracts;
- generate additional resources for the University;

Article 4.2.1, Responsibilities: The IPMO acts as a mediator between the Institution and commercial users of the Institution's IP and helps bridge the gap between research and implementation of innovation. In order to accomplish this role, the IPMO carries out a wide range of activities.

Typical major IPMO tasks are listed in Article 4.2.2

- Outreach/awareness to Creators. This includes promotion of IP and IP commercialization;
- Relationship management with Creators. This includes assisting researchers in identifying results that have commercial value and document the discoveries through a disclosure process.
- IP management. This usually includes:
    - IP scouting;
    - evaluating invention disclosures and deciding whether to file patents or other forms of IP protection;
    - if needed, secure funding for filing IP applications;
    - managing or monitoring the IP protection process and patents prosecution;
    - developing, with business development staff, a commercialization strategy;
    - if the IPMO decides not to pursue IP protection and technology transfer, implementing a process to ensure that others (most often the creator) have an opportunity to pursue protection and commercialization.

Technology marketing and IP contract negotiation: This includes searching for commercial partners and negotiating technology transfer agreements with these commercial partners (especially for research collaborations, grant applications, service and R&D contracting, consulting). The purpose is to negotiate a fair arrangement that facilitates and assists the commercial partner in successfully developing and marketing the product, rather than simply trying to negotiate the highest fees/royalties;

IP contract management and relationship management with licensees: Once an agreement is concluded there is need to monitor technology developments and compliance with the terms of the agreements.

IP costs and revenue distribution: The IPMO is also involved with functions of accounting, royalty distribution, license performance management, and patent application management.

Independence of the IPMO: Should be kept at arms-length from direct negotiations with IP commercialization partners, involvement with IP contract transactions, or the commercialization process. In this context, it is essential that senior management of the Institution or members of the IP Committee do not become involved in the transaction decision-making of the IPMO. Independence by creating a separate legal entity which is wholly owned by the Institution, specifically, for the purposes of commercialization. The IP is then licensed or assigned to this entity such that the Institution is shielded from any attendant risks.

Governance oversight: MUAST IP Committee has oversight over IPMO's budgets, staffing, policy implementation, business model, and strategy; but will not interfere with IPMO management decisions or specific IP transactions.

Private IP service provider: The main alternative to creating an in-house IPMO is to outsource some or all of the IPMO functions to specialists from the private sector. Often in long-term arrangements, there are a number of types of private sector service providers who can be employed in the development or exploitation of IP. These can be loosely labelled as advisers, managers and scouts.

ARTICLE 5 - OWNERSHIP OF IP AND RIGHTS OF USE

Article 5.1, IP created by staff members: All intellectual property that arises from services rendered by employees in the normal course and scope of their employment at MUAST belongs to the University. Ownership of IPR by MUAST and management of the IPRs facilitates the professionalization of knowledge transfer activities and enables researchers to focus on their core research skills; It creates the necessary Incentive for the institution to support and promote knowledge transfer.

Article 5.1.1 (a), Substantial Use: The product of work carried out by individuals employed by the Institution with substantial use of the Institution's resources (salary, facilities, expertise and other resources), constitutes IP and must be owned, protected and used by the Institution.

"Resources" refer to the Institution's (i) facilities (buildings, research laboratories, equipment, campus computer centers); such facilities normally do not include Institution libraries; (ii) human resources (personnel); or (iii) funds (grants, contracts or other support provided by the Institution or external sponsors).

"Substantial Use" (also referred to as "Significant Use") means that the use of these Resources must be important for the creation of the IP.

Article 5.1.2, Staff member ownership

Article 5.1.2.1, Outside course of employment and without Substantial Use: Ownership of IP created by an employee which falls outside the course of employment and with no Substantial Use of Institution resources or facilities vests with the employee.

Article 5.1.2.2, Terms of the Research Contract will regulate ownership of IP created by Staff Members: External contractors can only be bound by the IP Policy by contractual provisions. If such contractors are hired to invent or create, the Research Contract should provide that the Institution owns the IP. At most Institutions, ownership of contractor IP is dealt with on a contract-by-contract basis and there is no blanket ownership of all contractor IP.

Article 5.2.1, IP created by a student in the course of study: Students own the copyright in theses and dissertations as well as Scholarly Works, typically publications. Unless an advisor materially contributes significant content to a dissertation or thesis, the advisor does not usually own any of the copyright in the work. While supervisors often guide the research and writing process and may help to shape ideas within a dissertation or thesis, ideas are not part of a copyright; the copyright comes from the student author's writing, which the student author owns. It should be noted that this is not to say that the supervisor will not be a co-author of an article published from a thesis, this is determined by conventional academic practices and the agreement between the supervisor and the student. More so, students own copyrights in the works that they create, even for class assignments.

Article 5.2.1.1, Theses or dissertations: The Student must submit his/her final thesis or dissertation to the Institutional repository: The physical document (thesis, research paper, work term report, examination answer paper and such) submitted to the University by a student becomes the property of the University.

The University receives a perpetual, non-exclusive, royalty free licence to:

- circulate the work as part of the University Library collection, including but not limited to within the University's institutional repository;
- make copies or representations of the work for academic purposes within the University;
- make copies of a thesis deposited in the University Library at the request of other universities or bona fide institutions;

- publish the abstract of any work which is a student thesis.

Article 5.2.1.2, Institution ownership: If a student makes Substantial Use of the Institutions resources (see Article 5.1.1(a) above) or where a student works on an Institution Research Project, the Institution should own the IP. The Substantial Use should in this case exclude supervision as a student, typically, cannot conduct research without supervision.

In other words, MUAST will retain ownership of the copyrights to theses and dissertations only if the thesis or dissertation research is performed in whole or in part by the student with financial support in the form of wages, salary, stipend, or grant from funds administered by MUAST, and/or if the thesis or dissertation research is performed in whole or in part utilizing equipment or facilities provided to MUAST under conditions that impose copyright restrictions.

Article 5.2.1.3, IP emanating from Research Contracts: terms of the Research Contract shall regulate the ownership of IP created by a student in the course of such Research Contract: where a Student works on a research project the terms of the Research Contract will generally determine the IP ownership.

Article 5.2.1.4, Institution ownership responsibilities: In the case of Institutional IP ownership, the Institution has an obligation to inform the student of the implications of IP ownership. A student will be advised to seek independent advice regarding the assignment: In the event that the student will not assign the IP to the institution, the institution is obliged to advise the student to seek expert advice regarding his/her rights and obligations.
Obtain a deed of assignment from the student for all IPRs emanating from the student's Research Contract or Research Project, where relevant, in return for revenue sharing as provided for in Article 10; The Institution should obtain the deed of assignment from the student. Students IP ownership can also vest in a third party in terms of a bursary scheme

Withdrawal of the student from the Research Project or Research Contract. If a student elects not to assign the relevant IPRs to the Institution, he s/he must be withdrawn from the Research Contract or Research Project.

Article 5.2.1.5, Bursaries/scholarships: Should an external party provide a student with a bursary or scholarship, which bursary or scholarship is not part of a research project or research contract, then the external party may negotiate ownership to the IP developed by

the student. The proviso being that such arrangement should not be contrary to national legislative provisions.

Article 5.3, IP created by other stakeholder. A collective term "other stakeholder" is used for individuals who work at or with the Institution but who are neither members or students of that institution. Such stakeholders need to have an Appointment agreement with the Institution to be allowed to conduct research or teaching.

Article 5.3.1, Institution ownership, course and scope or Substantial Use: The same rules that apply for staff members apply for other stakeholders. See Article 5.1.1. Generally, MUAST IP Policy would state that any IP created by the other stakeholder is owned by the host Institution. In instances where the R&D may have been initiated at the other stakeholder's own Institution, co-ownership may be appropriate. MUAST ensures that details of who will be responsible for commercialization of such IP be specified in the appointment agreement.

Article 5.3.2, Institution IP on departure from the Institution, other stakeholder must sign an IP Disclosure: Articles 8.1.2 and 8.1.3 define the procedures to be followed for a complete disclosure.

Article 5.4, Special Rules for Course Materials

Article 5.4.1, Institution ownership: MUAST is committed to the continued investment and development of course materials and modes of delivery which take advantage of technological developments allowing for distributed and remote learning. Course Materials include many different forms of IP, such as IP in paper-based material, digital media, web-based content, broadcasts, video and audio materials, and software.

Article 5.4.2, License: Course Materials are primarily prepared for teaching purposes. The creators of the Course Materials are granted a license to use the Course Material for teaching and research purposes. Institutions do not claim ownership of IP in course materials produced for personal use and reference in teaching (for example, as personal notes and annotations to support teaching materials, and which are not provided to students).

Article 5.5, Special Rules for Scholarly Works:

Article 5.5.1, Where students are involved in activities that could lead to the development of Intellectual Property over which MUAST or a third party may claim ownership, the following conditions will apply:

Article 5.5.2, The student's rights in Intellectual Property in any theses or publications arising from the research will be protected;

Article 5.5.3, The student's future career choices will not be closed by the choice to work in a confidential area of research;

Article 5.5.4, It will be made clear to students what the nature of the work is before they undertake the activity that leads to the claimable Intellectual Property;

Article 5.5.5, Any confidentiality and ownership of Intellectual Property agreement will only be signed by students after they have been properly advised by the principal investigator or their supervisor on the contents of the agreement;

Article 5.5.6, Any delays in the publication of the thesis that arise from a confidentiality agreement, will be subject to the approval of the Doctoral Degrees Board for PhD theses, or the Faculty and Dean for MSc theses, for periods of 6 months, up to a maximum of two years.

Article 5.5.7, Where students of MUAST may be involved in research at institutions which are affiliated with MUAST or at institutions other than MUAST, agreement should be reached with the institution regarding the rights of the student to Intellectual Property with a view to ensuring that the student's rights under this Policy are maintained as far as practicable.

Article 5.5.8, Supervisors electing to supervise a student in an area likely to lead to the creation of Intellectual Property to which a funder has been granted rights in terms of a funded research agreement, must ensure that a confidentiality and Intellectual Property assignment agreement, which may form part of a Student-Supervisor Memorandum of Understanding is completed with the student before the work is commenced. This may result in some projects not being available to students who choose not to sign a confidentiality and Intellectual Property assignment agreement.

Article 5.6, Moral Rights Section 67 Copyright and Neighbouring rights Act 26:05:

Article 5.6.1, Recognition: Copyright protects the author's moral and economic rights. Moral rights concern the relationship between authors and their works. Authors' moral rights

comprise amongst others the paternity right and integrity right. The paternity right is the right to be identified as the author of the work. The integrity right is the right to object to derogatory treatment of the work.

Article 5.6.2, Rights granted: It is important to recognise that despite the fact that copyright vests in the Institution, the employee-author is still able to enforce his/her moral rights in the work.

Article 5.6.3, No waiver: The IP Policy provides that the MUAST will not require staff members, other stakeholders or students to waive their moral rights as a condition of employment, appointment, enrolment or funding with the source of funding including public funds, or funding from an external party or sponsor.

Article 5.7, Public Domain

Article 5.7.1 and 2, Public Domain and release into the public domain: Commercialization of IP may not always be appropriate and sometimes it is in the best interests of knowledge transfer to place IP in the public domain without registering the IP for protection and/or to make the IP open source for a nominal fee or for free.. The decision to promote release of OERs at an Institution does not imply the release of all teaching and learning materials under open licenses. An OER policy should provide for a range of choices the same material could be released under both a Creative Commons license for non-commercial use, and under a more restrictive (and/or royalty paying) license for commercial use.

OERs have implications for ownership and authorship. Course materials that incorporate third-party material (in-licensing) as well as OERs should be identified and flagged. Such Institution IP should not be released as OER unless all rights have been cleared. Clearing rights in third party material (in-licensed material) within course material will make its release as an OER burdensome in many cases (particularly in relation to multimedia content with multiple rights holders) and MUAST may be held liable for copyright infringement where in-licensed material is inadvertently released as an OER.

ARTICLE 6 - PUBLICATION, NON-DISCLOSURE AND TRADE SECRETS

Article 6.1, Right of Publication: The ability of researchers to publish must be well-kept. On the other hand, companies/sponsors may be concerned that publishing could reveal their confidential information or cause a loss of IP resulting from the research. In these cases, industrial agreements and IP protection will be considered. Educating researchers on the necessity to file a patent application before publishing, allowing industrial partners to request delays in publication in order to accommodate IP protection. The Research Contract can provide for a publication review and delay period (up to a number of days) so that the sponsor can make sure that its confidential information is not inadvertently divulged and so it can identify inventions, if any, that may not have already been disclosed to it.

Article 6.2, Non-disclosure for IP protection: Staff and students should be conscious of the need to avoid premature disclosure of research results to third parties, including any form of publication of those results, prior to completing an IP Disclosure, and considering the need to obtain IP protection.

Article 6.3, Trade Secrets: MUAST to decide if it will own and use Trade Secrets; and the IPMO shall decide on a case-by-case basis if foregoing the high cost of patenting in favour of Trade Secret protection

ARTICLE 7 - RESEARCH CONTRACTS

Article 7.1, Authority: All MUAST Research contracts will bear the Vice Chancellor's signature or his delegated authority for it to be binding. Any signatory on a Research Contract which does not have the necessary delegated authority, may render such contract non-binding for the Institution.

Article 7.2, Research Contract Policy: Research Contracts may only be concluded by an individual with authorised authority or authorised delegated authority, failing which the contract is null and void and deemed not to have been executed.

Article 7.3, Due diligence and consultations with IPMO: In line with Article 7.2, it is important that the IP clauses in the Research Contract are either drafted or reviewed for compliance with any government rules (See Article 7.5) and to ensure that the interests of MUAST are reflected. Thus, the role of IPMO as a reviewer and amender of the text in the Research Contract should form part of a standard best practice within the Institution

Article 7.4, Ownership and rights to use. Depending on the legislative framework, MUAST shall typically own the research results, and the external party/sponsor may be granted rights to use the results for its own purposes.

Article 7.5, Government rules: The Zimbabwe legislation regulating the development of IP at an Institution needs to be consulted and complied with when devising the IP clauses in a Research Contract.

Article 7.6, Basic Principles:

Article 7.6.1, Background IP: Is IP owned separately by each party prior to the conclusion of the Research Contract, which is of relevance to the particular project(s) to be undertaken under the Research Contract. The ownership should not be affected by the project. However, Background IP may be made available to the contracting parties as part of a contribution of resources of each party to the Research Contract, in which case it will be licensed on a royalty-free basis. Alternatively, it is possible to negotiate a value that Party X must pay for access to Party Y's Background IP; this will form part of the funding arrangement of the Research Contract.

Article 7.6.2, IP arising from the Research Contract: This is usually referred to as "Foreground IP". Foreground IP is the new IP that is created and is of interest as part of the Research Contract.

Article 7.6.3, Co-owned IP: co-ownership (or "joint ownership") of IP is discouraged as it can create additional complications. This is particularly true if each of the parties' intentions for the IP are vastly different; and in the case of co-ownership with overseas entities, because of legal and cultural differences.

Article 7.6.4, Serendipitous IP: It is possible that IP may incidentally be created in the course of the project which was not part of the scope of the Research Contract. MUAST ownership of serendipitous IP is advisable. However, there may be a need for specific ownership clauses to regulate the generation of, ownership to and access of such IP.

Article 7.6.5, Right of first refusal to the IP: When MUAST decides to commercialize the IP, it shall approach the party that is granted a right of first refusal to ask them if they wish to exercise their right and table terms and conditions to be agreed to. Failing this, if MUAST finds

better terms, then the party holding the right of first refusal can either match those or walk away.

Article 7.6.6, Publication delay: The process of protecting the IP should not unnecessarily cause undue delay in publication of the researchers' results in a journal. MUAST should thus make a reasonable commitment to the researcher to confirm how long the IPMO will need to review the invention disclosures, make an assessment as to commercial potential and thereafter to devise the IP strategy to support such commercial plan. See also Article 6.1 (right of publication)

Article 7.6.7, Use of the IP for Research and Teaching: MUAST IP deals will have a non-negotiable clause which states that even if exclusively licensed, the contents of the IP must still be available for research and teaching purposes.

Article 7.7, Exceptions to the Policy: The exceptions to the MUAST's IP Policy should only be exercised in so far as the benefit to the Institution outweighs any compromise that the Institution is making.

ARTICLE 8 - DETERMINATIONS BY THE IPMO

Article 8.1, Responsibility to Disclose IP:

Article 8.1.1, Recording: MUAST should promote good practices for academic research record-keeping, typically though the use of laboratory notebooks. This record of research events greatly assists the IPMO in decision-making on IP protection and assists with the drafting of patent applications and the subsequent prosecution of IP (particularly for arguments with respect to determining inventiveness).

Article 8.1.2.1, IP disclosure, he/she shall disclose: The MUAST policy makes it very clear that Creators have an obligation to report, typically on an IP Disclosure Form, any invention/creation with IP potential to the IPMO. The disclosure represents the first official recording of the IP and, if done properly, can establish an irrefutable date and scope of the invention/creation.

Article 8.1.2.2, IP disclosure, where a Creator identifies potential IP: Creators should consult with IPMO if their invention/creation has IP potential.

Article 8.1.2.3, IP disclosure, resulting from his/her Research [or that of his/her Team]: MUAST should adhere strictly to an individual's sole responsibility to report any potential IP.

Article 8.1.3, Complete Disclosure: Upon receiving an IP Disclosure, the IPMO should conduct a review of funding sources, creatorship, external party tangible materials used, publications planned, and any other issue that might affect the rights or use of any potential IP resulting from the IP Disclosure. The IPMO will also determine if the IP Disclosure is sufficient regarding all information requisites and will notify the disclosers of any related information insufficiency. All IP Disclosures should be registered by the IPMO in a confidential Register of IP Disclosures.

Article 8.1.4, Clause for IP related to GRs and/or TK:

MUAST has mandatory disclosure requirements in place and therefore the IPMO **shall** require the completion of a form indicating whether the invention was generated using a TK and/or GR, to meet the formal requirements for filing a patent application.

Article 8.2 - Creatorship and Ownership

Article 8.2.1, Creatorship and Ownership: It is important to understand that "creators" and "owners" may not be one and the same person. Creatorship/ Inventorship - In terms of first principles, any IP developed belongs to the IP Creator. The Creator may be required to sign a formal document confirming that they should be regarded as an inventor, author or breeder, for example, who developed a particular piece of IP. If the IP which has been disclosed can be attributed to more than one Creator (excluding Enablers), then the IPMO will need to assign proportional creatorship to each of the IP Creators. For example, inventor A developed 60% of the invention; inventor B 25% of the invention; and inventor C 15 % of the invention. Furthermore, this is material for benefit sharing (see also Article 10.1.1). If it is not possible to determine the percentage contribution of each inventor to the resultant invention, then each inventor may be apportioned an equal undivided share.

Article 8.2.2., Ownership: The Creator of IP is not necessarily the owner. Once creatorship has been determined, MUAST's IP policies will dictate in what instances IP created by Staff Members, Students or Other Stakeholder will belong to MUAST (see Article 5). Should the IP need to belong to MUAST, then the Staff Member, Student or Other Stakeholder will be required to transfer such rights to the Institution through what is referred to as a Deed of Assignment.

Article 8.3 - Determination as to IP Protection and Commercialization:

Article 8.3.1, Evaluation and recommendation: For the IPMO to succeed, Creators must disclose fully their invention so that their inventions/creations are going to receive an in-depth evaluation of their patentability and commercialization potential.

Article 8.3.2, Decision to protect/commercialize: In the specific case of inventions, the decision to protect will include an assessment of fulfilment of criteria for patentability, namely novelty, inventiveness and utility. Such assessment may reveal that it is too early to obtain patent protection and the IP should be developed further whilst maintaining confidentiality so as not to compromise the novelty requirement.

Article 8.3.3, IPMO will notify the Creators of the decision: IPMO should highlight the salient points that indicate whether the IP disclosure should be pursued, put on hold to wait for further information, or not pursued. Caution should be exercised by the IPMO that although the Creators are welcomed to make inputs, any final decision resides with the IPMO. However, it is important to secure the co-operation of the Creators.

Article 8.3.3, Within no more than [usually 60-90 days]: While it is essential that the IPMO act with reasonable timeliness in making decisions regarding any IP disclosure, it can take significant amount of time to collect, collate, and analyse the information necessary to make an informed decision - the IPMO should not be rushed into making an ill-advised decision.

Article 8.4, Institution elects not to protect/Commercialize the IP:

Article 8.4.1, IP abandoned or not commercialized: The IPMO will provide some guidelines to Creators of instances where the Institution will not seek to protect the IP and/or will not seek to commercialize the disclosed IP.

Article 8.4.2 to 8.4.6, Transfer of Ownership, written notification, no prejudice to IP Protection, assignment and any terms and conditions: If the Institution decides not to pursue IP protection and/or commercialization, it is important to ensure that the Creators or any external parties/sponsors are provided with an opportunity to take ownership. This decision should be communicated in writing to the Creators or any external parties/sponsors in a manner that prevents any existing rights from being forfeited. In order for the Creators and/or external parties/sponsors to continue to prosecute the IP, they will need to do so in their own

name and hence the Institution must transfer their ownership rights through a Deed of Assignment. As this arrangement is on mutually agreeable terms, any ongoing rights and/or benefits to the Institution may be agreed upon between the parties. Typically, the Institution is encouraged to seek a royalty-free non-exclusive license to use the IP for ongoing research and development.

ARTICLE 9 - COMMERCIALIZATION OF IP

Commercialization: MUAST will be cognisant of the benefits of partnering with industry in order to research, develop and commercialize technologies invented in their academic settings. IP is often the core of academic-industry partnerships. In this context, MUAST IPMO's will be increasingly implementing IP management strategies which reflect the encouragement of alternative commercialization pathways. Instead of traditional strategies such as seeking established company licensees, MUAST IPMO will gradually make more IP decisions that also allow for the commercialization of institution-developed technologies through faculty and student-led start-ups.

Article 9.1 and 9.3., Determination of the Commercialization Strategy, and Sovereignty and Cooperation: As set out in Article 8.4, the discretion to determine the commercialization strategy lies with the IPMO. The determined strategy may require consideration/approval by the IP Committee. The value of having industry/external viewpoints at this stage is significant in bringing practical and technical perspectives which may influence not only the decision to commercialise, but also which commercialization pathway to follow.

Article 9.3., Creators must provide IPMO with all reasonable support: Although the IPMO/IP Committee has sovereignty with respect to the strategy for commercialising the Institution's IP, the assistance and cooperation of the Creators is invaluable during the commercialization process, even if this cooperation is only cultivated through providing the Creators with regular updates on the progress made in commercializing the particular IP.

Article 9.4., Commercialization Pathways: There are a number of different pathways that may be followed in the commercialization of MUAST IP. What is critical to establish is that commercialization is not a linear process from research → disclosure → evaluation → IP protection → licensing/assignment/start-up formation → product, process and service being made available in the market. The specific commercialization route to be followed will be dictated by, but not limited to, one or more of the following factors for consideration:

- the financial investment required for each route;
- the potential return on investment for each route;
- the nature of the technology/product/process/service;
- the target market and how it can best be reached;
- the stage of market development;
- the market concentration;
- the availability of management;
- the aspirations of the inventor; and
- legislative requirements.

Article 9.4.a, License, either exclusive or non-exclusive, and variations thereof: This is where access to "*make, use, exercise, and offer to dispose of, dispose of, or import the invention*" is given while MUAST retains ownership of the IP. MUAST is thus responsible for any on-going prosecution of the IP and associated maintenance of rights

Exclusive licenses: The general opinion is that Institutions should license exclusively whenever such exclusivity is necessary to provide the private sector the return on investment (ROI) justification to invest in the development of the technology.

Article 9.4.b, Assignment (sale): in cases where the IP still requires significant investment to bring it to the market, and also where there are limited industry partners who can unlock value in the IP, an assignment could be considered.

Article 9.4.c, Formation of a Commercialization Entity: A Commercialization Entity (Spin-off or start-up) is a separate entity created by MUAST to bring its IP assets into the market. This route is typically chosen: when there is no existing company to approach about a significant breakthrough in a field of technology; or because the technology has clear possibilities to generate many products and applications and so potentially could be extremely valuable.

Article 9.4.d, Non-profit use or donation: There are instances where it is not appropriate to commercialize Institution IP for financial returns.

Article 9.4.e, Joint ventures: MUAST may elect to form a joint venture (JV) with an external party or sponsor to carry out the commercialization of the Institution IP. This may require MUAST and the external party or sponsor to license and/or assign the IP or bundle of IPRs to the JV. The rationale for entering into a JV is that the risk is shared and the parties co-drive the commercialization of the IP.

ARTICLE 10 - INCENTIVES AND DISTRIBUTION OF REVENUE

Article 10.1, MUAST Incentive Structure: an appropriate incentive structure is essential to drive and indeed encourage researchers towards this type of action/pathway. Incentives will thus apply to inventors, authors, proprietors and breeders. It is important that Creators are clearly defined and identified through the disclosure process.

Article 10.1.1, Enablers: Incentives are also designed for IP Enablers, as defined in Article 2, who are not directly responsible for the IP creation through an intellectual contribution to solve the problem at hand in a novel and non-obvious manner, but contribute in a supportive role, generally carrying out instructions and performing standard procedures but without whom the IP creation would not take place.

Others: The goal of the IP Policy is to motivate researchers to participate in the knowledge transfer process, primarily by providing them compensation through royalty revenue. However, knowledge transfer involves different constituencies including the academic scientists, the IP Management Office (IPMO), Institution administrators, and the companies/entrepreneurs

Article 10.2, Sharing of Revenue: An inventor's share in the commercialization proceeds will be used to incentivise academic researchers to commercialize their research outcomes.

Calculation of revenues for distribution:

Article 10.2.2, Calculation of revenues for distribution:

Article 10.2.2.1, Calculation of Gross IP Revenue: All IP Expenses incurred for the Project, until the time that the first Gross IP Revenue is received, may be deducted from the Gross IP Revenue to arrive at the Net IP Revenue. For subsequent Gross IP Revenue received in the following financial period, only those IP Expenses incurred in that financial period for the project will be deducted before sharing with the IP Creators/ IP Enablers.

Article 10.2.2.1, Direct sale of products or services: Typically, Gross IP Revenue is received from a third party *in lieu* of rights granted/ transferred for a particular piece of IP. This would typically only apply if the Institution itself is manufacturing the product or providing the service and hence the revenue received is from a party buying the product or procuring the service. If a decision is taken to commercialize technology "in-house", a business plan, including a proposal for benefit sharing with the IP Creators/Enablers in line with the commercial viability of the product, process and/or service must be developed. The benefit

sharing arrived at should not be significantly different to the revenue that would be expected if the IP had been licensed to a third party.

Article 10.2.2.2, IP Expenses: The MUAST's expenses incurred by payment to external entities for securing, maintaining and enforcing IP protection may include search costs (including novelty and freedom to operate searches); IP attorney fees (or the like) for drafting the application, filing the application (international or national application), preparation of any formal documents required during filing and/or subsequent prosecution (including an assignment or a power of attorney), and for prosecuting the application to grant (including a correction or amendment; receiving, preparing and responding to an official action, translation fees, validation of a granted application; and all related foreign associate fees and IP office official fees); Renewal/maintenance fees; and overhead charges (for example, printing, faxing, telephone, etc.) incurred by the service provider and reflected on their invoice for services rendered.

The institution's expenses incurred in licensing/assignment of IP may also include costs for performing a due diligence on the third party to whom the IP will be licensed or assigned. Note that, as set out in Article 10.2.2.1, costs in making, shipping or otherwise distributing products, processes or services that embody the particular IP will only be included if the product, process or service is directly manufactured by the Institution. If not, it is not appropriate to include such costs in IP Expenses as they will be incurred by the licensee or assignee.

Article 10.2.2.4, Co-owned IP: IP may be co-owned with a third party such as an industry partner or another Institution. The co-ownership arrangement may require compliance with national legislation. The percentage co-ownership may be determined contractually in terms of a pre-determined formula which is typically ascertained by the percentage of IP creation by the Creators at a particular institution or industry partner. In the event that it is not possible to determine the percentage of IP ownership by an Institution or Industry Partner, then it is assumed that the IP is owned in an equal, undivided share. Similarly, if it is not possible to determine the individual contribution of each IP Creator to the overall share in the IP creation, it is assumed that the degree of IP creation is in an equal, undivided share.

Sharing of revenues; Creators/Enablers:

Article 10.2.3.1, % of Gross IP Revenue / % of Net IP Revenue: As a first point of departure, MUAST will ensure that their benefit sharing formula are compliant with any national legislation in this regard. Where the legislation is silent or absent, an Institution may elect as to whether to reward their IP Creators/Enablers from Gross and/or the Net IP Revenue.

Article 10.2.3.1 and 10.2.3.2, Standard Creator's/Enabler's share: Changes in incentives change the behavior of the Creators/Enablers. Therefore, MUAST will use the following Revenue Sharing apportionment outlined in the Table 1.

Table 1. Revenue Sharing apportionment:

	Net Revenue (USD)	University	Centre for Innovation and Industrialisation	Faculty	Department	Individual
Intellectual Property / Innovation	≤ $50 000	15%	3%	3%	9%	70%
	>$50000 but ≤ $100 000	20%	3%	3%	9%	65%
	> $100 000	25%	3%	3%	9%	60%
Business Unit/ Programme funded by the University	≤ $50 000	85%	5%	2%	5.5%	2.5%
	>$50000 but ≤ $100 000	80%	5%	3%	7.5%	4.5%
	> $100 000	75%	5%	3%	12%	4.5%
Business Unit/ Programme funded by the Group/ individuals/ Company	≤ $50 000	15%	3%	3%	9%	70%
	>$50000 but ≤ $100 000	20%	3%	3%	9%	65%
	> $100 000	25%	3%	3%	9%	60%

For the avoidance of doubt, the percentage share applies to each band of Net Revenue generated, regarding IP or other innovations (the rations are in the following order - University: CII: Faculty: Department: Individual, Group

i. For net Revenue up to USD 50 000, the share is 15:3:3:9:70;
ii. For net Revenue that exceeds USD 50 000 up to USD 100 000 the share is 20:3:3: 9:65 and
iii. For the part of the Net Revenue that exceeds USD 100 000 the share is 25:3:3: 9:60.

For the avoidance of doubt, the percentage share applies to each band of Net Revenue generated, regarding Business Units and Projects funded by the University:

iv. For net revenue up to 50,000, the share is 85:5:2:5.5:2.5;
v. For net revenue that exceeds USD 50 000 up to USD 100 000 the share is 80:5:3:7.5:4.5 and
vi. For the part of the Net Revenue that exceeds USD 100 000 the share is 75:5:3: 12:4.5.

For the avoidance of doubt, the percentage share applies to each band of Net Revenue generated, regarding Business Unit/Programme funded by the members of staff/ Group/individuals/ Company IP or other innovations (the rations are in the following order - University: CII: Faculty: Department: Individual

i. For Net Revenue up to USD 50 000, the share is 15:3:3:9:70;
ii. For net Revenue that exceeds USD 50 000 up to USD 100 000 the share is 20:3:3: 9:65 and
iii. For the part of the Net Revenue that exceeds USD 100 000 the share is 25:3:3: 9:60.

Article 10.2.3.6, Entitlement: The rationale behind entitlement is that the Creators/Enablers remain Creators/Enablers once the IP has been created and as such should continue to receive the benefits from their intellectual outputs or enabling role as long as the Institution continues to receive revenue.

This entitlement also applies if the Creator/Enabler retires. Should the Creator/Enabler pass away, all revenue that would have been due to these individuals should now be awarded to their heirs. The curator of the will/ custodian of the trust for the inheritance is typically responsible for disclosing the heirs to the IPMO and/or collecting the revenue for ongoing distribution, especially in the event that the heirs are minors younger than 18 years. The onus does not rest on the IPMO to ensure they have the correct contact details of the heir(s) or the correct banking details.

Article 10.2.3.6, Survive any resignation/termination: The discretion in this regard is again afforded to the Institution and may be influenced by the terms and conditions under which the individual resigns or has their employment terminated.

Sharing of revenues, MUAST:

Article 10.2.2, Sharing of Revenue - Institution: As is evidenced, the Creators/Enablers are given first priority to the Gross IP Revenue and/or Net IP Revenue. Thereafter, MUAST allocates the balance of the revenue received into any number of areas, typically including the running expenses of IPMO itself (which may be deployed, for example, to conduct techno-economic feasibility analyses of one or more technologies). Any other categories of expenses are at the Institution's discretion, as well as the percentage allocated to these categories. Furthermore, it is possible that a range of percentages are provided per category which is an indication of a

minimum or maximum percentage and provides a degree of flexibility which may be exercised depending on the technology.

Article 10.3, Other incentives:

Article 10.3.1, Acknowledgement: MUAST to have acknowledgement through awards and hold annual inventor recognition events.

Article 10.3.2, Recognition of IP generation and Commercialization performance in appraisal procedures: MUAST will consider commercialization activities and technology transfer performance in the assessment of merit for promotion and grants. An adequate level and quality of commercial support available to academic researchers is probably the most critical incentive. Please refer to Ordinance 2 - Academic Staff Appointment, Grading, Tenure and Promotions.

Article 10.3.3, Shares in a Commercialization Entity: Almost all start-ups are severely cash constrained. As such, they do not have the resources to pay upfront fees typical to a license to industry. To accommodate this fact, MUAST may take equity in lieu of cash when they license their technologies to start-up companies. Equity is also a way for the University to share some of the risk associated with the start-ups.

ARTICLE 11 - CONFLICTS OF INTEREST AND CONFLICTS OF COMMITMENT

MUAST is to ensure that conflicts of interest or conflicts of commitment are properly managed which is crucial to reducing legal and reputational risk and demonstrating the integrity of individual staff members and of the Institution. The management of any potential conflict of interest shall be undertaken in accordance with MUAST's Conflict of Interest Policy.

Article 11.1, Commitment to the Institution: Staff members and other stakeholders intending to engage in an external activity that involves significant effort outside of the Institution and that may present a COC must have written approval from the relevant department/office. Individuals may be required to take a leave of absence to proceed with the external activity if it cannot be managed appropriately.

Article 12.2, Best Interests of the Institution: Conflicts of interest (COI). Considerations of personal gain must not influence the decisions or actions of individuals in discharging their Institution responsibilities. Incentives might create a perception of impropriety and, therefore,

require that such conflicts be identified, and then managed, or eliminated. Generally, COI situations arise when the external interest provides an incentive which may compromise one's ability to perform all his/her duties and fulfil his/her responsibilities within the Institution and when the individual has the opportunity to affect the Institution's decision or other activity.

Article 11.4, Disclosure of external activities and financial interests: The COC/COI Policy should provide guidance relating to the disclosure process.

ARTICLE 12 - DISPUTE

Article 12.1, Violation of the Policy: MUAST will clearly and consistently enforce the IP Policy. MUAST will avoid authoritarian bureaucracies and too-stringent punishments for IP Policy violations. Most importantly, would-be Inventors and Creators should participate in the IP process voluntarily and not by force.

Article 12.2, Dispute Resolution: For consideration other than following a dispute resolution through the courts, there is need to cater for Alternate Dispute Resolution (ADR) mechanisms in the IP Policy. This can either be separately or in addition to reporting to the courts in the event that ADR fails.

ARTICLE 13 - AMENDMENT

Article 13.1, Revision: A copy of the revised IP Policy will be sent to all relevant stakeholders, and their written consent (signature) needs to be obtained. MUAST employee representative body (an internal committee that represents the pool of employees) has to approve (any changes in) the IP Policy, especially when it relates to financial incentives and compensation.

Approved.....
(Vice Chancellor)

Date.....08/4/2024.....