INTELLECTUAL PROPERTY POLICY

OF THE

COPPERBELT UNIVERSITY

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PREFACE

One of the Copperbelt University's core business is research which pays particular emphasis on scientific innovations and collaboration with internal and external partners. The University has managed to carry out its research which is driven by specific strategic directions drawn from the CBU 2014 – 2018 Strategic Plan. The Strategic Direction No. 1, which is 'Growth of Scholars, Scholarship, Publications, and Alumni, has stimulated the academic and none academic staff from various schools and directorates to be actively involved in both basic and applied research. These units have conducted research in different fields and, in most cases, tangible outputs have been obtained. In every academic year the number of peer reviewed publications in different Journals with high Impact Factor, have increased significantly. In order to consolidate its research strength, technology exchange and transfer, CBU has worked together with other partners as guided by the Strategic Direction No.6, on 'Collaboration and Strategic Partnerships'. To this effect, collaboration in research and consultancy with local, national, regional and international partners has led to well-grounded practical research outputs which have also been aided by the establishment of the three units that are responsible for the research acceleration. These are: Research and Innovations (RI); Centre for Academic Development (CAD) and the Business Development (BD) units. First, the RI is responsible to develop, operationalise, monitor and review research, innovations and commercialisation of any product/s generated from CBU's and/or partner Institutions creativity. The CAD, facilitates quality assessment on research and other relevant academic programmes. The BD, outsources funds for business ventures of the University.

The above notwithstanding, very little has been done to commercialise research output. In addition, such "shelved" research outputs are never protected nor owned by the researchers and the University at large. It is in view of this that CBU embarked on designing and developing an Intellectual Property Policy as a tool to guide the Institution on how to protect and patent its innovations and creations generated through research. Therefore, it is our sincere hope that University community, Government, our relevant research partners, to name but a few, would find this document useful.

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Research and Innovations
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FOREWORD

"*Imagination is the highest form of research"*
Albert Einstein (1879 – 1955)

This Intellectual Property Policy (IPP) document of the Copperbelt University (CBU) provides the desired requirement for guidance on research and innovations product appreciation that will propel the Institution through and beyond the 21st century as a centre of excellence in research, teaching and consultancy. The guidance arises due to the need for a coherent, systematic and comprehensive approach to the generation of cutting-edge technological products and the use of University inventions, discoveries and other works for the common good of the Institution and the Nation.

Since 2008 the University has been formulating mechanisms to protect University intellectual property to encourage commerce and industry to invest their resources to develop and distribute products and processes for public use. To this effect, the promotion, preservation, fostering and the aiding of scientific investigation and research on products and services was to be guided through a methodological and inclusive mechanism as provided for in this Policy document.

This Policy comprehensively covers matters on organizational structure and procedures to aid with the protection of Intellectual Property generated under the University's auspices by its members of staff and collaborating partners. It further establishes standards for determining the rights and obligations of the University, Creators of intellectual property and other players with respect to inventions, discoveries and works generated at the University. It furthermore provides mechanisms for compliance with applicable laws and regulations of the country and enables the University to secure sponsored research with the aim to enhance and protect the reputation of the University.

As the Policy embeds the whole of CBU's approach to research and innovations, within the 2014-2018 Strategic Plan, it is hoped that this Policy shall be of great benefit for the generation and protection of both new knowledge and ideas in order to mainstream the Institution's participation in science and technology advancement for sustainable development of Zambia.

Prof. Naison Ngoma
Vice-Chancellor
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ACRONYMS

CBU	Copperbelt University
COI	Conflict of Interest
DRC	Disclosure Review Committee
ICT	Information Communication Technology
IPP	Intellectual Property Policy
IPRs	Intellectual Property Rights
LAZ	Law Association of Zambia
MTAs	Materials Transfer Agreements
NSTC	National Science and Technology Council
NTBC	National Technology Business Centre
PACRA	Patent and Companies Registration Agency
R&D	Research and Development
TMO	Technology Management Office
WWW	World Wide Web

PART I . INTELLECTUAL PROPERTY POLICY

1. Preamble

The primary functions of the CBU are teaching, research and community service. The application of knowledge from research can advance the common good of humanity through furthering education and utilization of innovations in providing technical solutions to problems affecting mankind. Therefore, inventions and innovations stimulate further research and creativity that spurs economic development of nations. That's, it is in the context of advancing the common good that the University supports and encourages efforts directed toward bringing the fruits of the University's research in diverse fields of knowledge to public use and benefit.

It is the policy of the University to publish research results and to foster the use of University inventions, discoveries and other works for the common good. In many cases, publication of research results and other scholarly works will be sufficient to serve this purpose. In other cases, to serve the common good, it will be necessary to secure protection of University intellectual property to encourage commerce and industry to invest their resources to develop and distribute products and processes for public use. In view of this, it is important to emphasize that, CBU must encourage protection of inventions and innovations before they are published in Scientific Journals to avoid losing novelty which is an essential characteristics of Patentability.

The University wishes to establish this Intellectual Property Policy for the management of intellectual property to:

(a) Promote, preserve, encourage and aid technical investigation and research;

(b) Provide an organizational structure and procedures through which inventions and innovations made in the course of University research may be made readily available to the public through channels of commerce;

(c) Establish standards for determining the rights and obligations of the University, creators of intellectual property (e.g., inventors, developers, authors) and their sponsors with respect to inventions, innovations and works created at the University;

(d) In its broad discretion and consistent with its overall mission, encourage, assist and reasonably attempt to provide mutually beneficial rewards to the University and members of the University community who transfer University intellectual property to the public through commercial channels under this Policy;

(e) Ensure compliance with international and national laws, international legal instruments and enable the University to secure sponsored research funding at all levels of research; and

(f) Enhance the reputation of the University as an academic research institution and a member of society by pursuing the highest ideals of scholarship and teaching and by conferring the benefits of that scholarship and teaching on the University community and society.

Any matters related to intellectual property rights arising from research shall be governed by the University Intellectual Property Rights policy. The implementation of appropriate Intellectual Property Policy will enable the University generate significant and substantial income through:

(i) Royalties and fees from licensed Intellectual Property Rights;
(ii) Consultancy fees;
(iii) Research contracts;
(iv) University owned companies and joint ventures or spin offs and spin outs;
(v) Commercialisation of R & D findings; and
(vi) Utilisation of existing protected and unprotected Intellectual Property creations.

In order to benefit financially and otherwise from the planned endeavours, the University recognises the need to take particular care of the interests of all the stakeholders who contribute in one way or the other in the process of innovating, creating and commercialisation of innovations, inventions, created works and research findings at the University.

2. Application of Policy

This Policy applies to University employees (including Staff Development Fellows), students, and non-employees (including visiting scholars, industrial personnel, etc.) who participate in research projects at the Copperbelt University including collaborators and funders.

2.1.1. Scope of Intellectual Property Rights (IPRs) covered under the Policy

The Scope of the Copperbelt University Intellectual Property Policy shall be broad, comprehensive and holistic in approach and shall include:

i. Patents;
ii. Industrial designs;
iii. Trademarks;
iv. Utility models;
v. Copyrights and related rights;
vi. Trade secrets and Know-how;
vii. New plant varieties;
viii. Electronic commerce (e-commerce)
ix. Expressions of folklore and traditional knowledge;
x. Layout Designs of Integrated circuits;

xi. Protection against unfair competition; and
xii. Geographical indications;
xiii. Genetic resources;
xiv. Micro organisms.

3. Recognition and Ownership of Intellectual Property

Scientific research at major academic research institutions today is carried out in diverse technical and scientific fields. Such research can produce findings and results of exceptional academic interest as well as applications having a broad range of public uses and benefits. The University has a duty to promote the widest possible distribution of academic and public benefits and to facilitate the development of intellectual property, both to meet its social obligations as an institution of higher learning and to meet its obligations as a public University to disseminate the benefits of research funded by public grants and contracts. Effective dissemination and commercialization of such technology may require protection and licensing of University intellectual property. The University shall have mechanisms to recognize researchers who engage in research and generation of Intellectual Property.

University Resources include, without limitation: Office, laboratory, studio space and equipment and facilities; Computer hardware, software and support services and facilities; Secretariat services and facilities; Research, teaching and lab assistants and; Supplies and utilities; Funding for research and creating works; and University Time. Each project shall stipulate the University overhead and administrative costs associated with the project as a percentage of the project budget.

(a) General Statement of Ownership: Except as noted below, all intellectual property (including lab notebooks, cell lines and other tangible research property) shall be owned by the University if significant University resources were used or if it is created pursuant to a research project funded through corporate, government or other external sponsors administered by the University. Creators will provide, upon request by the Technology Management Office, assignments or other documents necessary to perfect the University's ownership rights.

(b) Exceptions to the General Statement of Ownership:

(i) The creator may retain ownership of intellectual property developed without a significant use of the University resources and without corporate, government or other external sponsorship;

(ii) Where artistic, literary and scholarly intellectual property, such as scholarly books, articles, and other publications (including those in electronic form), works of art, literature and music recordings are neither created under the direction and control of the University, nor developed in the performance of a sponsored research or other third party agreement (outside of the creator’s course of duties in the University), the creator thereof may at the University’s discretion retain ownership of such works so long as in the creation of such, the University resources were insignificant;

(iii) All copyright in all works that may be created in the execution of a person’s studies including research papers, theses and dissertations, all presentations, assignments, test and examination scripts, sound recordings, video recordings, software, databases, designs, models and instruction manuals may in certain cases be assigned in whole or in part to the student, or the student may be authorised to utilise the work commercially or otherwise.

(c) Other Ownership Options: Upon mutual agreement, a creator may assign intellectual property he or she would otherwise own under this Policy to the University to be managed by the Technology Management Office. Creators may dedicate their University-owned inventions or discoveries to the public domain, thereby foreclosing the possibility of patenting and/or licensing, provided there is no conflict with the desires of co-creators, third party or University rights, or applicable laws and regulations. If the University cannot, or decides not to, proceed in a timely manner to protect and/or license University-owned intellectual property, it shall, upon written request by the creator(s) and to the extent permitted by law and third party agreements, assign ownership to the creator(s).

(d) Publication: Nothing in this Policy shall limit or restrict the right of University schools or units and students to publish results of their research, subject to reasonable delays to preserve patent or other intellectual property rights. CBU must utilise the provisions of the Patents Act on filing of Patent Applications with provision specifications while research is still on-going in order to preserve novelty. Delays in publication required by the University or third parties in sponsored research agreements, as a general rule, shall not exceed ninety days from initial disclosure of the intellectual property to the Research Office or the sponsor. The holding period for a patentable thesis should not exceed a period of three years. Exceptions may be allowed as agreed by third-parties in funding contracts.

(e) Income Sharing. The University shall share royalties, equity and other income derived from the licensing of patented inventions and other transfers of technology (including licensing of non-patented technology, material transfer agreements, etc.) with the creator, unless prohibited or restricted by a third party agreement. Determination of the University's income sharing formula for the division of all intellectual property income shall be as stipulated in this policy. In the event where more direct costs are anticipated the University may decide to hold back the distribution of the income to the creators and other stakeholders.

(f) Spin-off and Spin-out**:** In the event of a decision to create a spin-off or spin-out entity to commercialise the project(s) arising from the intellectual property, creators and other stakeholders will have to opt to benefit either from shareholding (dividends, etc) or receipt of royalties so as to avoid potential double-dipping.

4. University Responsibilities Associated with Intellectual Property

The University recognizes that the research and teaching missions of the University always take precedence. At the same time, the University encourages the development by industry of inventions and technology resulting from University research, and seeks to facilitate the transfer of such technology for the use and benefit of the public. To these ends, the University shall:

(a) Educate schools regarding intellectual property and tangible research property; Provide support as it deems necessary or desirable to obtain legal protection of University intellectual property; Facilitate the transfer of intellectual property to public use and develop mechanisms within the Technology Management Office for the licensing and management of technology;

(b) Provide legal support as it deems necessary and desirable to defend and protect the interests of the University and creators of the intellectual property against third party claims or unauthorised use;

(c) Report to research sponsors as required by research and licensing agreements, and applicable laws and regulations; In a timely manner, return to the creator the ownership of intellectual property which the Technology Management Office cannot, or decides not to, patent and/or license; and

(d) Provide a process for resolution of disputes that arise between and among the University, sponsors and creators regarding intellectual property. \

5. Responsibilities of the Creators of Intellectual Property

(a) The creator of new intellectual property shall disclose in a thorough and timely manner all inventions, discoveries and other works that belong to the University as described in this Policy;

(b) The creator shall provide such assistance as may be necessary throughout the technology transfer process to protect and effectuate transfer of the intellectual property, including assignment or transfer of the intellectual property to the University, if necessary;

(c) The creator shall arrange for the retention of all records and documents that are necessary to the protection of the University's interest in the intellectual property;

(d) The creator shall abide by all commitments and undertakings made in license, sponsored research and other agreements, and laws related to government and privately funded research;

(e) The creators shall comply with ethical standards and procedures as prescribed in the University Research and Innovation Policy (for every research project, ethical clearance shall be obtained from the Ethics Clearance Committee; and

(f) The creator shall promptly disclose all potential conflicts of interest to the Disclosure Review Committee.

6. Implementation and Oversight of Intellectual Property Policy and Activities

(i) The University through an appointed Unit in the University shall be responsible for implementing the Intellectual Property Policy. The following will be the functions:

(a) Promote awareness among University staff and students regarding intellectual property management;
(b) Evaluate the potential of inventions, creations and works eligible for Intellectual Property protection and obtain appropriate IP protection;
(c) Assess the commercial potential of any invention or creation and identify suitable commercial development partners;
(d) Develop approaches within the University to facilitate negotiation, licensing and management of Intellectual Property Rights;
(e)Manage and administer License Agreements and Assignments;
(f) Identify Industrial problems to be solved through research;
(g) Assist Deans, Directorates, Departments and Units to ensure proper negotiation of the Participation Agreement, Material Transfer Agreement, Confidentiality, and Disclosure Agreement, inter alia;
(h) Develop the capacity for personnel needed to manage IP and undertake other processes such as technology searches and draft IPR applications; and
(i) Develop and refine standards and procedures for processes and product marketing and testing.

(ii) Appeal cases and other such matters shall be referred to the adhoc Committee.

PART II. GUIDELINES ON IP AND TECHNOLOGY TRANSFER

The Copperbelt University Intellectual Property Policy provides the structure and procedures through which inventions and discoveries made in the course of University research are made available to the public through the transfer of technology. The variety of intellectual property and the mechanisms for the transfer of technology are vast, and it is not possible to address all of the possibilities in these Guidelines. These Guidelines are intended to assist the creators of intellectual property and the staff in the Technology Management Office with the identification of possible situations and suggestions for solutions, and are not intended to be exhaustive.

1. Administration, Protection and Dissemination of IP

a. Administration of University Intellectual Property

The goal of the University's Technology Management Office (TMO) is to promote the transfer of University technology for society's use and benefit while generating income to support research and education. A wide range of Intellectual Property, developed through industrially funded research, publicly funded research, the use of unrestricted funds, or by some other course of research or creative activity, may be managed by the TMO. The TMO evaluates, obtains proprietary protection for, and assists in the commercial development of selected technology. The protection and commercial distribution of intellectual property may require funding from a source outside of the TMO, such as the creator's school, department or an outside sponsor. To this effect, the TMO will be required:

(i) To develop specific guidelines with respect to the policy and its implementation.

(ii) The TMO will at all times act to safeguard the interest of the University, the creators and other stakeholders in all IP-related matters, including the exercise of the Powers of Attorney.

(iii) To design its own terms of reference subject to approval by the relevant authorities of the Copperbelt University.

b. Disclosure

Technology should be disclosed to the TMO in writing if the University has an ownership interest and the technology may be patentable or has potential for licensing. The TMO shall provide disclosure forms on request. The creator should consult TMO with respect to their duties to disclose inventions and the manner and timeliness with which such disclosures should be made to the TMO.

(i) Sponsored Programmes: The terms of the sponsored research and other agreements normally create obligations with respect to the reporting of inventions, technical data, and copyrightable works such as software. In particular, inventions or discoveries and copyrightable works developed under government or privately sponsored research should be promptly disclosed to the TMO. Frequently, reporting to private sponsors can be accomplished directly by the creator. Invention reporting to the government will be done within two months, or such other time as may be prescribed by government regulation, of receipt of disclosure from the creator.

(ii) Other Programmes: Technology developed under University programs, either as a work-for-hire or with significant use of University resources, should also be disclosed to the TMO. Technology that is not developed under government or privately sponsored research or with the use of significant University resources need not be disclosed to the TMO unless the creator desires the TMO to commercialize the technology.

(iii) Form and Content of Disclosure: Disclosure is made by the creator(s) to the TMO in writing, on the IP disclosure form within a reasonable time of conception or reduction to practice. The disclosure should contain sufficient detail to convey a clear understanding, to the extent known at the time of the disclosure, of the nature, purpose, operation and technical characteristics of the invention. The creator(s) should also disclose any publication or submission for publication, sale or offer of sale, or public use of the invention. Thus, the creator(s) have the responsibility to update the TMO in a timely manner of any developments involving publication, sale or use of which they become aware after the initial disclosure, and should take all reasonable efforts to make the initial disclosure to TMO well in advance of any publication, sale or public use.

(iv) In the event of two or more Creators, the following procedure will apply: All Creators will execute a binding agreement at the time of disclosure that will delineate each Creator's personal share (percentage) of any income. In the event of a dispute arising from absence of prior agreement on ratio of ownership, the default shall be equal sharing.

c. Intellectual Property Rights Determination

If the creator claims an ownership interest in intellectual property or has a question about whether an assignment must be made to the University, the property should be disclosed to the TMO and the claim or question clearly stated. The University, through the TMO, will provide a determination of rights within a reasonable time following submission, generally not to exceed 90 days. The determination may be appealed to the Vice Chancellor.

d. Evaluation of IP for Protection and Commercial Development

The TMO will evaluate inventions and other technology intellectual property disclosed to the TMO to suggest the form of intellectual property protection, if any, that should be considered and the potential for technology transfer through licensing. Where the University has no interest in protection and commercialisation, the inventors may be permitted to seek IP protection and exploitation for themselves.

Copyright: The TMO will review copyrightable University intellectual property, including software, disclosed to it. In other instances the TMO may consult with creators to help ensure that proper notices are affixed to a work.

Patents: The TMO will review invention disclosures and will consult with the inventor(s) and others as necessary to investigate the patentability and commercial potential of inventions. The TMO will assist in ensuring that patent applications are filed.

e. Commercial Development

Through the TMO, the University and the creator share responsibility for disclosing inventions and other licensable intellectual property and cooperating to make the intellectual property available commercially.

(i) Creator Responsibilities

a) The creator is required to disclose inventions, discoveries and other new intellectual property to the TMO in a thorough and timely manner as stated above.
b) The creator should abide by all commitments made in license, sponsored research and other agreements and comply with all laws and regulations related to government and privately funded research.
c) The creator should also provide such assistance as may be necessary throughout the technology transfer process to realize the goals and objectives set forth in these Guidelines.
d) The creator has the further responsibility to properly consider, disclose and manage any possible conflicts of interest arising from agreements to commercialize intellectual property. If multiple agreements exist, for example, when a company funds University research and also has a consulting arrangement with the creator, there may be conflicts created with respect to intellectual property rights. The creator should work with the TMO to resolve such conflict.

(ii) Establishment of processes for technology transfer

The University, through the TMO, will establish processes for technology transfer to protect University intellectual property rights in order to carry out the University's missions set forth above. Acting within its broad discretion and in good faith, the University will seek to maximize the value of the intellectual property. To these ends, the TMO, in consultation with the creator, may:

a) publish or advertise the technology as it deems appropriate;

b) assist in finding a partner for the University or a sponsor for the creator;
c) endeavour to negotiate and manage agreements that are consistent with the Intellectual Property Policy and Guidelines;
d) as deemed necessary or desirable by the Office of the Vice Chancellor, provide legal support for all technology transfer activities and initiatives;
e) prepare legal instruments necessary to realize the technology transfer objective;
f) provide legal and administrative support following such realization as needed; and
g) cooperate with the TMO in the management of conflicts of interest.

f. Dissemination of University Intellectual Property

Disclosure: Intellectual property in which the Copperbelt University has title should be disclosed to the TMO as provided in Section 1(b).

(i) Public Domain: A creator may request that the intellectual property he or she developed be published and made available to the public without restriction on use. The TMO will investigate whether such a request may be fulfilled or whether the intellectual property should be protected in some form. The creator's request will be considered by the TMO in its broad discretion, and accorded due weight and deference, consistent with the overall objectives of the IP Policy, requirements imposed by law, agreements with research sponsors, and the rights and interests of co-creators.

(ii) Commercialization: When the TMO has determined that protection of intellectual property is likely to help commercialize property, it will recommend that the University seek protection. In addition, protection of intellectual property may be obtained or pursued although commercial potential is unknown, to preserve opportunities for commercialization in the future, or when required by an outside sponsor.

(iii) Publication: Nothing in these Guidelines is intended to limit or restrict the right of creators to publish results of their research, subject to reasonable delays to preserve patent or other intellectual property rights. Delay of publication required by the University or third parties in sponsored research agreements should, as a general rule, not exceed ninety days from initial disclosure of the intellectual property to the TMO or the sponsor.

2. Interactions among Companies, Creators and the University

A commercial organization (company) may interact in a variety of ways with a creator of Intellectual Property. Interactions are defined in a variety of agreements among the company, the creator and the University. A partial list of the agreements includes: consulting agreements, research agreements and licensing agreements. More than one agreement may be active concurrently, which requires great care in reconciling the terms of the agreements. Interactions may be divided into those in which there is no personal income to the creator and no uncommitted income to the University and those in which either the creator may receive personal income and/or the University may receive uncommitted income. In general, a consulting agreement between a creator and a company can result in direct personal income that does not pass through the University. A licensing agreement to develop a particular piece of intellectual property results in income (cash or equity) to the University, which is distributed as specified by the University's Intellectual Property Policy and these Guidelines (see section 3 below). This may result in direct personal income to the creator as well as income to the University that is not committed to a particular project. A research agreement provides funds to conduct agreed upon research, is administered by the University and includes no direct personal income.

a. No Personal Income to the Creator and No Uncommitted Income to **the** University

Patent Costs: A company may agree to pay the cost of patent prosecution plus local and foreign patent maintenance fees as part of a licensing agreement.

(i) Equipment Grants: A company may provide equipment or access to equipment for use, possibly for a defined set of studies.

(ii) Exchange of Personnel Between University and company: A company may send personnel to be trained, or provide for University personnel to work in company facilities.

(iii) Research Support Agreements: A company may provide support to the University for research conducted by the creator, either as a contract (with specified performance criteria) or a grant (to support an endeavour).

b. Personal Income to a Creator and/or Uncommitted Income to the University

Licensing Income: Licensing income is most commonly received in the form of royalties from sales or guaranteed payments. Tax obligations arising from payments and royalties shall be in conformity with prevailing tax laws and practice.

(i) Milestone Payments: These payments are made when particular steps are made, ranging from obtaining a particular research result to reaching a particular stage in such development.

(ii) Equity Interest: In some cases, particularly with start-up companies, licensing income or milestone payments are made in the form of equity rather than cash. The equity may be in a variety of forms, including publicly tradable shares, privately held shares, or options to acquire shares.

(iii) Creator as Compensated Consultant: A creator may also be retained as a paid consultant to a company, through a personal consulting agreement.

(iv) Creator as Compensated Officer: A creator may have a position in the company, most often in the case of a start-up company formed by the creator, or formed around the creator's intellectual property.

c. Basic Guidelines for Interactions Among Companies, Creators and the University

There are basic principles that must be observed in the structuring of interactions among the creator, the University and a company.

(i) Publication: Public dissemination of research results must not be compromised. The publication of research results must not be hampered by agreements made to commercialize intellectual property. However, a minimal and defined delay to protect intellectual property through patent applications may be included. It is also the case that creators may be required to observe confidentiality and non-disclosure agreements covering defined company intellectual property. The covered property must be clearly identified in the agreement.

(ii) Educational Mission: The educational mission of the University must not be compromised. Trainees (students and fellows) must have access to the best guidance and choice of research opportunities that the University can provide. They also must have the ability to publish the results of their research and should not be prohibited from continuing work on a project when they leave a laboratory, as a result of an agreement to develop intellectual property.

(iii) Scientific Integrity: The scientific integrity of the creator must not be compromised. Any agreement should not compromise or appear to compromise the design, conduct or reporting of research conducted by the creator or the University.

(iv) Patient Care: Patient care must not be compromised. Patients must receive the best and most appropriate advice and treatment, and must also perceive that their care is not compromised by other concerns.

(v) Contracts: Agreements must conform to statutes and regulations. The terms of any agreement must be in conformance with applicable laws and regulations, including the tax code to avoid jeopardizing the University's tax-exempt status. The terms of an agreement must not be in conflict with existing licensing or research agreements.

(vi) Indemnification: Indemnification of the University is needed. A company will normally be required to indemnify the University with respect to general liability, product liability and/or infringement claims related to licensed intellectual property to be used in any product.

d. Potential Financial Conflicts of Interest Arising from Commercial Development

The possibility of a financial conflict of interest is inherent in the commercial development of intellectual property. The Copperbelt University shall adopt Conflict of Interest (COI) Policies applicable to all schools and staff and shall establish a Disclosure Review Committee to develop and implement mechanisms to manage, reduce, or eliminate, when necessary, such financial conflicts for individuals engaged in research.

Financial interests that could be related to an individual's research must be disclosed to the appropriate Disclosure Review Committee (DRC). Special consideration must be given to licensing agreements that could be related to an individual's research. Regardless of value, these must be disclosed to the DRC to determine risk and appropriate management strategies.

It is important to note that the University may also have institutional conflicts of interest, which must be evaluated by the TMO and other responsible parties. Such conflicts are handled on an ad hoc basis and are outside the purview of the Disclosure Review Committee.

In general, the following factors increase the perceived level of risk present in a material conflict of interest:

(i) increasing magnitude of personal compensation;

(ii) increasing number of financial relationships between a creator and a company;

(iii) increasing commitment of a creator's time to a company;

(iv) holding of equity in a company;

(v) involvement of trainees or students; and

(vi) involvement of patients or human subjects.

A factor of particular relevance to interactions during the development of intellectual property is the ability of the creator to influence the value of a financial interest. For example, in the case of royalty payments from an established technology no longer being actively investigated at the University, the creator has little ability to change the amount of income. However, in the case of an ownership interest in a small company whose intellectual property portfolio is based on the creator's technology, particular results of studies performed under the direct supervision of the creator might have a significant effect on the value of that ownership interest.

The management strategies are graded with the degree of perceived risk. Management strategies include (but are not limited to) disclosure to all parties, concurrent review and negotiation of all relevant agreements, escrow of equity, and/or divestiture. In the event a conflict of interest cannot be effectively managed, the University may be unable to enter into an agreement.

The overall concern, and hence the level of management required, also increases as more risk enhancing factors are present. As a rough guide, the following interactions between a company and a creator are ranked in terms of increasing risk.

(i) Patent costs paid by licensee (very low).

(ii) Cash royalties on sales paid by licensee (low). The payments occur only after a product is taken to market, and the income is largely independent of the actions of the creator.

(iii) Research support paid by licensee (low). No direct payment to the creator is involved.

(iv) Cash consulting fees paid by licensee (low). These fees are not linked to any performance criteria, and are not directly associated with professional activities conducted by the creator at the University.

(v) Milestone payment by licensee for a research deliverable (medium to high). These payments may be predicated on work performed by others (for example, company in-house animal studies), in which case the risk is reduced. Alternatively, the payment may be made based on a particular research result obtained in the creator's University laboratory, in which case the risk is intensified and may be difficult to manage.

(vi) Equity ownership in a company concurrent with its support for research (medium to high). In general, the value of equity holdings may be influenced by the actions of the creator. A mechanism for escrow of equity exists, and will be a likely management strategy. The risk presented by equity ownership is particularly severe in small companies, in which the intellectual property developed by a creator may represent a significant part of the intellectual portfolio of the company.

(vii) Creator is a company principal concurrent with the company's support of related research (high). The risk is viewed as difficult to manage.

(viii) Equity ownership in a company concurrent with active participation in clinical trials (high). The risk is viewed as so high as to essentially preclude participation of an equity holder in clinical trials.

3. Division of Intellectual Property Income

The Copperbelt University policy encourages the commercialization of the technology developed by its schools, trainees and staff and provides for the sharing of any income derived with the creators of the ideas that produced the technology. The proposed mechanism for the division of this income is here described in detail.

The gross income from a particular intellectual property owned by the University is reduced by all technology transfer expenses that can be directly linked to it. The result is the net intellectual property income. Net income shall be calculated annually by TMO unless mutually agreed otherwise. The shares of net income shall be divided as follows:

- 50% to go to the University.
- 30% to go to the Creator(s).
- 20% Creators' School /Unit.

The creators' share may be taken as personal income or may be waived in part or in total by the creator. The creator(s) may at their sole discretion elect and make provision for enabler(s) to receive a share of the creators' portion of the revenue as agreed to by all creators and reduced to writing, signed and lodged to DRIC.

The share distributed to the creators' school shall be managed according to a policy determined by the administration of the school. However, this division shall include the creators' laboratory, the creators' department and other school budgets. The Copperbelt University policy extends the plan for the division of income to the creators of non-patentable ideas.

At times it may be difficult to determine what expenses can be directly charged to the gross income of a particular technology transfer agreement. Legal and patent expenses associated with a licensed invention are easy to allocate. However, delayed expenses, expenses associated with the realization of equity or expenses associated with related, but unlicensed inventions are often more difficult to allocate. In making these difficult determinations the following principles shall apply:

(a) Distributions to creators are final and shall not be affected by unanticipated expenses, except for simple adjustments necessary to correct clerical errors.

(b) Prior to the determination of the distribution of net income, the creator shall receive a statement of direct expenses charged against the gross income derived from a technology transfer agreement.

(c) Subject to the above principles, all reasonable expenses associated with a particular agreement should be charged to the gross income derived from that agreement.

The distribution of income shall, as closely as possible, follow the plan for division in force when the intellectual property was created, licensed or negotiated as the case may be. When an agreement with a sponsor includes equity to be held either by the creator, the University or both, such shares of the equity may be placed in escrow for the duration of the sponsor's support of University research and for a year thereafter, as determined by the DRC. Even though the determination of the creator's or the University's income from equity held in commercial ventures involved in technology transfer activities is complicated by the length of time usually required to determine the value of the equity and applicable tax and security laws and regulations, the appropriate plan for income division shall still be followed as closely as possible.

In the case of the division of income in the form of equity, as well as in the case of all intellectual property income (royalty), the creator shall continue to receive income upon termination of employment with the Copperbelt University. Furthermore, income will pass to the creator's heirs as directed by the creator's estate.

4. Spin-off and Spin-out

In the event of a decision to create a spin-off or spin-out entity to commercialise the project(s) arising from the intellectual property, creators and other stakeholders will have to opt to benefit either from shareholding (dividends, etc) or receipt of royalties so as to avoid potential double-dipping.

5. Dispute Resolution

Any disputed issues related to intellectual property, or the interpretation of the University Intellectual Property Policy, shall first be reviewed by the TMO. Any disputed issues that cannot be resolved with the assistance of the TMO shall be referred to the Vice Chancellor. The Vice Chancellor may refer disputed issues to the University Oversight Committee for its recommendations and advice. The University shall also establish an independent dispute settlement Board to hear and adjudicate appeals over disputes related to IP. The University also recognises the authority of the competent authorities, courts, arbitral tribunals and like bodies in the settlement of IP disputes. The independent dispute settlement board shall comprise representatives from NTBC, NSTC, PACRA, CBU Legal Counsel (Secretariat), Registrar, Academic Union and LAZ, whose representative should be an advocate with specialisation in IP.

6. Amendment of the Guidelines

These Guidelines may be amended upon recommendation to Senate by the appointed committee.

PART III PARTICIPATION AGREEMENT

(i) As a way of enforcing the University IPP there shall be a participation agreement that confirms acceptance of the policy by employees, students and all other category of researchers.
Each Head of Department and the TMO must confirm that a valid Participation Agreement is on file before any University's resources are made available for any research;

(ii) New employees recruited by the University shall be required to sign the participation agreement on taking up appointment while subsisting employees shall be required to sign the agreement at the initiation of the research programme;

PART IV DEFINITIONS

Below are some definitions of terms that may be so necessary in the discussion of this policy on intellectual property.

Academic Freedom: A core University principle and privilege of scholars to choose their own research field, to enter into collaborations with others, and to communicate with others regarding their scholarly efforts.

An industrial design is the ornamental or aesthetic aspect f an article. The design may be the shape, the patterns, lines or colour of an article. Industrial designs are applied to a wide variety of products of industry, handcraft, technical, medical, house ware, electrical and architectural drawings. Industrial designs are what make an article attractive and appealing, hence they add to the commercial value of a product and increase its marketability.

Artistic Intellectual Property: Aesthetic, decorative, illustrative elements protected primarily by Copyright.

Assignment: The transfer of rights and title in real, personal or Intellectual Property by a written instrument with the result that the assignee is vested with rights of ownership. Other Intellectual Property may be assigned to the University, or to other parties pursuant to a Research or License Agreement. If the Invention is not one that must be assigned to the University by law or University policy, the Invention ownership may remain in the Inventor(s).

Commercial Venture: A start-up company, partnership, joint venture, corporation or any other enterprise entity that has obtained a License to University technology in exchange for equity in the enterprise entity.

Conception: Creation in the inventor's mind of a new and useful way to solve a problem; the act of visualizing an invention, complete in all essential detail; this occurs when a solution is formulated, not when a problem is recognized. Conception is the unequivocal mental discovery of an invention.

Confidential Disclosure: Sharing of proprietary information (such as the description of an Invention), that is protected against unauthorized disclosure by a Confidentiality Agreement between the disclosing and receiving parties.

Confidentiality Agreement: May be a separate agreement between disclosing and recipient parties, or may be a term in a Research Contract or License Agreement. When it applies to information disclosed by a company to a University employee, the recipient employee may agree to be personally bound not to release the company confidential information unless expressly permitted by the company. When it applies to information disclosed by a University employee to a company, it is usually meant to prevent the company from using the information without permission, and to protect the patentability of any Invention, or trade value of other technology, disclosed by the University Inventor or Creator to the company. University

Contracts protect the right of schools, students and other employees to publish the results of their work, but may allow for brief delays to file Patent applications or otherwise protect Intellectual Property.

Conflict of Interest: Conflict of interest exists if an employee's position or authority may be used to influence or make decisions that lead to any form of financial or personal gain for that employee or for his or her family. A conflict of interest is material if an ordinary person would take it into account in making a decision. In academic research, the term conflict of interest refers especially to situations in which financial or other personal considerations may compromise, or may have the appearance of compromising, an investigator's professional judgment in conducting or reporting research. The bias such conflicts may conceivably impart not only affects collection, analysis and interpretation of data, but also the hiring of staff, procurement of materials, sharing of results, choice of protocol, and the use of statistical methods.

Contract: A legally binding mutual agreement between two or more parties in which an exchange of value (consideration) occurs, and which obligates each party to certain duties covering this exchange. Those signing such an agreement must be authorized to bind the entity that they represent.

Copyright: Copyright is a legal term describing rights given to creators for their literary and artistic works or, computer programmes, compilations, audiovisual works, sound recordings, broadcast, capable programmes, typographical arrangements of published editions of literary works, including rights of performing artists, the right of producers of phonograms.

Creator: Person or persons, who may be University staff or student, either Inventors or those who do not meet established legal standards of inventorship and thus may not be named on a Patent application, but who have participated in the creation of an Invention, discovery or advancement of some technology.

Creator's Laboratory: The University facilities, which provide the means and opportunity for experimentation, observation and/or practice in the Creator's particular field of study.

Creator's Notebook: Usually a bound workbook. Details should be entered in ink, dated, entered regularly and witnessed; the notebook may become crucial in a court proceeding or in research integrity investigations.

Creator's Share: The Creator's Share of Net Income is determined by University policy. If there is more than one Creator, each receives an equal portion of the Creator's Share, unless the co-Creators agree to a different distribution.

Disclosure of Financial Interest: An employee's description of his/her income from or ownership interest in an unrelated party, if such financial interest might create or appear to create a Conflict of Interest. This Disclosure is required by University Conflict of Interest policy.

Disclosure: The sharing of information with one or more individuals.

Double-dipping: This arises when a creator or any other stakeholder receives double streams of income through both royalties as owner of licenced IP, on one hand, and dividends as the shareholder in a spin-out or spin-off, on the other.

Electronic Circuits: An electronic circuit is a complete course of conductors through which current can travel. It is composed of individual electronic components, such as resistors, transistors, capacitors, inductors and diodes, connected by conductive wires or traces through which electric current can flow. The combination of components and wires allow various simple and complex operations to be performed, such as signals can be amplified, computations can be performed, and data can be moved from one place to another.

Electronic Commerce: (i) Electronic commerce consists primarily of the distributing, buying, selling, marketing and servicing of products over electronic systems such as the internet and t h e Wo r l d Wide Web (WWW) and other computer networks.

Enabling Disclosure: A description of an Invention, in a Patent application or in a Publication that could allow a person skilled in the art to replicate the Invention.

Equity or Equity Shares: Shares of common or preferred stock, warrants, options, convertible instruments, units of a limited partnership, or any other instrument conveying ownership interest in a Commercial Venture.

Escrow: In the University, this is a means to sequester tradable Equity during the period of a high level Conflict of Interest, such as the ownership of more than 5% of the financial interest of a licensee company that also supports research in the laboratory of the Creator(s) of the licensed technology.

Expression of Folklore: (i) The emergence of a “global information society” in recent years, characterised by the rise of modern information technologies, has also given rise to increasing awareness of the values of traditional knowledge and folklore. At a time when the wealth of nations lies increasingly in the knowledge base they hold, emerging stakeholders in Intellectual Property field are claiming a new set of information resources, to which they refer as “traditional knowledge”.

Financial Interest: Any relationship, including a consulting relationship, entered into by the employee or his or her family, other than employment by the University that could result in financial gain for the employee or his or her family.

Geographical Indications: The geographical name of a country, region or specific place which serves to designate a product originating therefrom by virtue of the characteristic qualities of that product due exclusively or essentially to the geographical environment, including natural or human factors or both natural and human factors.

Gross Income: Funds obtained from commercialization of technology under a License Agreement. Gross Income may include License Fees, milestone payments, minimum annual

Royalties, earned or running Royalties, Equity, equipment, or reimbursement of Patent expenses and fees.

Income: Funds received by the University under a License Agreement.

Industrial Designs: An industrial design is the ornamental or aesthetic aspect of an article. The design may be the shape, the patterns, lines or colour of an article. Industrial designs are applied to a wide variety of products of industry, handcraft, technical, medical, house ware, electrical and architectural drawings.

Intellectual Property Enforcement: Unauthorized use of a patented Invention, Copyright, Trademark, or other Intellectual Property is an infringement of rights or misappropriation of property for which legal remedies may be sought. The decision to enforce Intellectual Property rights is complex and highly dependent on factors such as the commercial value of the rights in question. University owners of Intellectual Property may be sued when they or their licensees infringe rights belonging to an unrelated party, or a university may bring suit against an unrelated party for infringement of Intellectual Property rights belonging to that university.

Intellectual Property: Ownership and associated rights relating to scientific discoveries, technological advances, compilations, and original works of art, literature or music. Intellectual Property includes Patents, Trademarks, Copyrights, Trade Secrets and other species such as computer software, Mask Work, printed material, or Tangible Property.

Invention Disclosure: Typically used to describe a formal (written) description of an Invention that is confidentially made by the Inventor to his/her employer. At the Copperbelt University an Invention Disclosure should be an enabling one, should include details as to co-inventors and funding sources and should be sent to the Technology Management Office by an Inventor. Such a Disclosure is the "first alert" to the University that an Invention has been made.

Invention: A new solution to a technical problem. It may be a process or product or an improvement on an existing solution. Besides being new, an invention must be capable of being put to practical use and should not be obvious to someone knowledgeable in the relevant field.

Inventor: An Inventor is one who makes a creative contribution to the inventive thought or to the final result of an Invention.

Joint Patent Ownership: Equal and non-accountable (to each other) ownership of Patent rights.

Know-how: The knowledge, innovations, practices, expertise, processes or procedures, and secrets of individuals regarding the use of a material, product or technology.

License Agreement: A License is frequently called a License Agreement.

License Fee: Generally, the money paid by a licensee to the licensor at the time License is signed. Can also be called a License Issue Fee.

License Option: A Contract between the University and another party which conveys to that party the right to negotiate for a License to certain Intellectual Property, generally on terms within certain specified parameters. If the option is exclusive, the University agrees to refrain from granting a License to a third party during the option period. Exclusive options on future Inventions are often offered in return for the agreement of the unrelated party to pay for Patent costs and/or to support research. Not to be confused with stock options, which are agreements that require conveyance of equity.

License: A License is a Contract, which awards to a party other than the owner(s) of the Intellectual Property the right to make, use, sell or import products or services based on the owner's Intellectual Property. Licenses may be awarded on an exclusive or non-exclusive basis and may provide for payment of License Fees, Milestones, Royalties, or other Income to the owner(s) of the Intellectual Property.

Literary Intellectual Property: Literary works of authorship protected by Copyright.

Material Transfer Agreements: The transfer of proprietary Tangible Property often, biological materials, is covered by a contract called a Materials Transfer Agreement. Such contracts may cover materials coming into the University from academic or industrial sources, or may cover materials going out from the University to academic or industrial recipients. Negotiated terms of such agreements may cover the use of the original materials, progeny materials produced by self-replication of the original sample, and modifications of the original materials. Points of contention in negotiations include preservation of Publication rights, preservation of ownership, disposition of liability arising from hazardous materials, and ownership of new Inventions arising from the use of the materials. Materials Transfer Agreements (MTAs) may significantly affect the ability of a school to collaborate with or accept funding from unrelated parties.

Net Income: Net Income is Gross Income less unreimbursed University expenses for Patent prosecution and licensing expenses associated with a particular License Agreement (e.g., travel made expressly to negotiate a particular License Agreement). Net Income may be subject to sharing with Inventors and Creators and is distributed in accordance with University policy.

New Plant Varieties: (i) The University recognizes that it may be involved in research in the development of New Plant Varieties that need protection in order to secure the University's interests. The University further recognises that the University will have to lobby government to enact the appropriate legislation protecting New Plant Varieties. (ii) Protection for New Plant Varieties gives the Plant breeder limited monopoly rights over the varieties they have created by way of registration system of the said New Plant varieties which New Plant Varieties maybe be exploited by the plant breeder for financial gain through licensing assignment and sale of new plant products to the public such as high quality, resistant, long shelf life products, e.g., seeds, fruits, etc

Participation Agreement: This is an agreement between the University and participating Researcher/s or Institution/s which creates a contract and triggers the formal engagement in the collaborative research process, designed to encourage the settlement of any dispute without the use of outside of litigation.

Patent Assignment: This is the transfer of an owner's property rights in a given patent or patents, and any applications for such patents.

Patent Ownership: (also called Patent Title) In the case of a Patent, the owner is the entity, which holds the Patent Rights Ownership originally vests in the Inventor(s), but law or agreement may require that Patents be assigned to an employer or another.

Patent Rights: This is the exclusive right conferred on a researcher, innovator or creator by a patent under this Policy.

Patent: A patent is an exclusive right granted for an invention, for a product or a process that provides a new way of doing something, or offers a new innovative and useful technical solution to a problem in industry.

Publication: As related to Inventions and Patents, a Publication is a public Enabling Disclosure of an Invention, and may be verbal or printed. Printed Publications include abstracts, student theses and, in certain instances, grant proposals, whether funded or unfunded. A public Enabling Disclosure is a non-privileged, non-confidential communication. It is important to emphasize that such a Publication may jeopardize the ability to obtain a Patent. Questions about the implications of Publication can be addressed to the Technology Management Office.

Research Contract or Agreement: A separate agreement to fund and conduct research, which research may or may not be related to licensed technology.

Right of First Refusal: Similar to a License Option. In return for research funding and/or payment of Patent costs, the University may agree that it will not execute a License with any other party without offering such License to the company supporting the University. The terms offered to the supporting company are the same terms as those offered to a third party. The optionee then has the first right to accept a License based on the proffered terms.

Royalties: Royalties are compensation for rights in Intellectual Property and are usually expressed as a percentage of revenue received by the licensee from sales of a product.

Service Agreement: A contract between the University and a company in which the University agrees to perform certain tasks, such as evaluation, field testing, or clinical trials, using the protocols, either directly specified by the company or developed by the University, to meet very specific criteria and data requirements set by the company. Often, the products or processes being tested are already covered by dominant Intellectual Property protection belonging to the company, and improvements made by the University participants are usually assigned to the company. Publication rights are sought by the University in all such agreements.

Spin-off: An entity or unit created by the University and/ or other internal stakeholders in order to develop and commercialise IP as an internal division or entity controlled by the University (the University can be involved in the idea’s development and implements it in an internal division or in a new venture created by and related to the University).

Spin-out: This is an independent entity formed by the creators (and/or, the University) and other stakeholders for purposes of commercialisation of the IP and other related outputs.

Tangible Property: Tangible Property is anything having a physical embodiment (e.g., cell lines, software, devices, compositions of matter) whether or not patentable or copyrightable.

Technology Intellectual Property: Practical scientific knowledge embodied in a Patent, Patent application, Copyright, Mask Work or Trade Secret.

The University, however, shall ensure that trade secret protection does not negate knowledge sharing which is part of the academic mission of the University.

Trade Secret: Trade Secrets comprise confidential data, information or compilations used in research, business, commerce or industry. Universities, government agencies, business entities and individuals may own and use Trade Secrets. The information may include confidential scientific and technical data and business, commercial or financial information not publicly known which is useful in an enterprise and that confers competitive advantage on one having a right to use such information. The secrecy of the information must be maintained to conserve its Trade Secret status. Trade Secret information may be disclosed or shared under the terms of a Confidentiality Agreement. Confidential information may be created in sponsored research projects; the sponsor will generally require the University and the Creator to preserve the secrecy of the information. Trade Secrets in the form of know-how and show-how may be vital to the practice of patented Inventions and other innovations. Trade Secret information may have considerable value by itself or in conjunction with other forms of Intellectual Property. Trade Secrets and related legal remedies are governed primarily by national law.

Trademark: A trade or service mark consists of a word, symbol, phrase or design, or combination of these, and exists for the exclusive use of the holder in identifying the source of a product or service. Marks are identified by the symbols ®, ™ or SM. Marks have no necessary relation to Invention or discovery. Unlike Patents and Copyrights, marks can exist for an indefinite time.

Trigger Date: The date Equity held in Escrow by the University is no longer subject to restrictions imposed by the University to mitigate Conflict of Interest.

Unfair Competition: (i) Protection against unfair competition has been recognised as forming part of industrial property protection for almost a century. By recognising that, any act of competition contrary to honest practices in industrial or commercial matter constitutes an act of unfair competition, the following in particular are generally prohibited: (a) All acts of such nature as to create confusion by any means whatever with the establishment, the goods, or the industrial or commercial activities, of a competitor; (b) False allegations in the course of trade of such a nature as to discredit the establishment, the goods, to the industrial or commercial activities, of a competitor and (c) Indications or allegations of the use, of which in the course of trade, is liable to mislead the public as to the nature, the manufacturing process, the characteristics, the suitability for their purpose, or the quantity of goods.

University employee: Anyone employed by the university on full-time, part-time, contract or permanent basis.

Utility Models: It must be noted that for a utility Model to qualify for protection it must be, (i) new (novelty) and (ii) must have some industrial use. Inventive step is the only requirement that does not apply to utility models.

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2. Research Policy and Intellectual Property Rights. University of Zambia (June 2009)

3. Intellectual Property Rights Policy. Washington University (Revised 2006)

4. University of Cape Town (2011) Intellectual Property Policy

5. Stellenbosch University (2004) Policy in respect of exploitation of intellectual Property

6. University of Pretoria: Intellectual Property Policy

7. World Intellectual Property Organisation

Notes

1. Government rights in the IP
2. Duration of income stream in the benefit sharing
3. Given the nature of the university, it would be important to ensure that student projects are tailored towards the types of invention that can be patented. This should be done so that by the time the student is graduating they at least have a patent. Those in the School of business could be given a task of developing a commercialisation or marketing plan for a prototype built by a student in the school of engineering for example.