**Guidelines for Customization of the**

**WIPO Intellectual Property Policy Template for Universities and Research Institutions**

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**Foreword**

This publication provides practical guidance for high-level officials responsible for the development of policies, rules and regulations in their respective academic or research institutions, to facilitate customization of the [**Intellectual Property Policy Template for Universities and Research Institutions**](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/policy_template.docx) (“Template”). The Guidelines for Customization of the IP Policy Template (“Guidelines”) explain the contents and describe the background of each proposed article in the Template. Where possible, the text of the articles is illustrated with examples and extracts of real time institutional policies and useful references.

It is expected that the Guidelines will help policy drafters to formulate an appropriate IP Policy according to the Institution’s individual needs, activities and ethos.

The Guidelines have been developed with accuracy and help of prominent experts. However, they contain information of a general nature and are intended only to provide a summary of aspects of the subject matter included. They are not intended to be and should not be treated as comprehensive. They should not be relied upon as a substitute for legal or other professional advice on any particular matter or to make any particular decision.

**Authorship and Acknowledgements**

The Guidelines were prepared by Ms. Lien Verbauwhede Koglin, Ms. Kerry Faul and Mr. Richard Cahoon.

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The Guidelines are part of the **WIPO IP Toolkit for Universities and Research Institutions –Connecting Academic Research with the Economy and Society**[[1]](#footnote-1),which alsoincludes:

* IP Policy Template for Universities and Research Institutions*:* Acompendium of key issues that are essential in an IP policy. Authors: Ms. Lien Verbauwhede Koglin, Mr. Richard Cahoon,   
  Mr. Mohammed Aljafari, Ms. Hagit Messer-Yaron, Mr. Barthelemy Nyasse, Ms. Maria del Pilar Noriega Escobar and Ms. Tana Pistorius.
* IP Policy Writers’ Checklist: Practical guidance and step by step information on the different stages the process of creating or improving an IP Policy usually involves. Author: Ms. Lien Verbauwhede Koglin.
* Academic Intellectual Assets Map: Designed to understand the broad scope of potential assets that an academic institution owns or may own and the way to strategically use them. Project leader: Ms. Olga Spasić, authors: Mr. Steven Tan and Dr. John Fraser.
* Model Agreements: A compilation of model agreements for knowledge and technology transfer between academic institutions and with business partners. Project leader: Ms. Olga Spasić, author: Mr. D. Patrick O'Reilley.
* Case studies: A tool for training technology managers, making reference to several of the Model Agreements. Project leader: Ms. Olga Spasić, authors: Ms. Hagit Messer-Yaron and Dr. Keren Primor.

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# I. About the Guidelines

The Guidelines serve as a practical drafting guide for the IP Policy Template.

The Template is not designed to serve as a “model”, but rather as a compendium of minimal areas that should be covered in an institutional IP Policy. The Template thus provides a set of clauses that comprise effective well-defined IP Policy, which may be used as is. However, there are a variety of policy choices and clauses that may be used instead of those provided in the Template. These Guidelines now provide these alternatives and options through different country examples, and an analysis of the pros and cons of various approaches.

The Guidelines are *unique* in the sense that:

* they are the result of **collaborative writing** of experts from 14 different countries, who have tested a mix of diverse institutional IP Policies and IP management structures;
* they help users to determine the applicability of each article in an IP Policy in their own **context** and to be aware of existing options; and
* they intend to encourage **responsible IP-based commercialization**[[2]](#footnote-2), aiming to maximize the public good, while acknowledging the traditional mandate of public universities and research institutions.

# II. Common Guidelines for Drafting an IP Policy

**Comments**

When drafting an institutional IP Policy, the following should be considered:

* **Legal and institutional consistency**
  + Laws - A uniform model IP Policy for all universities and research institutions (Institutions) is not advised, as many factors need to be taken into account. In particular, the IP Policy should not contradict national or international laws and regulations and as such it is highly recommended to carry out an in-depth analysis of the national legal framework**[[3]](#footnote-3)** before formulating your IP Policy. Additional factors that need to be taken into account include the specific goals of your Institution, market practices, the Institution’s entrepreneurial culture, the ability of the Institution to transfer knowledge, and the region’s ability to absorb that information.
  + Institutional bylaws - The vision and mission of your Institution may differ in important aspects from the proposed clauses in the Template and should be taken into account when formulating your IP Policy. The IP Policy should not contradict other institutional policies, bylaws or statutes.
  + Policy approval - Furthermore, Institutions should have processes in place to ensure that their IP Policy is approved and hence binding within the Institution.

**Box Tips to Align Your IP Policy with the Law and Institutional Bylaws**

* Does your country have an explicit law allowing publicly funded Institutions to own and commercialize IP?
* Are there express rules on ownership of employee IP? What is the ownership position in the law for academic employee inventions/creative outputs?
* Are there rules on access to outcomes of publicly funded research (such as open data/open access/open source)?
* How will the Institution’s IP Policy be binding to its staff members, students and visitors?
* Do academic employment contracts include assignment clauses and are they enforceable?
* Is the IP Policy aligned with the Institution’s research policy?

For more detailed specifications, see the [WIPO Policy Writers’ Checklist](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx).

* **Customization** – Each Institution should shape its IP Policy to reflect its approach to IP management and knowledge transfer, and to take into account the Institution’s character, the nature of the technology, and the local innovation ecosystem.[[4]](#footnote-4) The Institution should determine the applicability of every single article in the IP Policy Template and consider all existing options. To best personalize the Template, it is recommended to carry out an Institutional needs assessment.[[5]](#footnote-5)

**Endorsement** – The academic community should be consulted during the process of development of the IP Policy before it comes into force. This ensures legitimacy, promotes understanding of the intent and scope of the IP Policy and is likely to reduce potential points of friction in its implementation.[[6]](#footnote-6)

* **Communication** – While the policy development process is in itself a valuable undertaking, it is only the first step toward successful knowledge transfer which also requires buy-in from senior management, reasonable expectations, and patience. The stakeholders of an IP Policy (staff members, students, visitors, etc.) are normally not familiar with the complex issue of IP rights and transfer of technology. In this regard, an institutional IP Policy should be short and comprehensive. Some Institutions have found it useful to provide practical guidelines or a manual along with their IP Policy (such as Best Practices for Students, Guidelines for Researchers, Student Handbook, etc., including standard operating procedures).[[7]](#footnote-7) Further, it is advisable that the IP Policy be made available to the entire Institution community through the hiring process, website, and other means of promulgation.
* **Improvement and adaptation** – An IP Policy should be a living document and be subject to review and updating by the Institution, from time to time.[[8]](#footnote-8)

# III. The IP Policy Template Explained

The Guidelines have the same structure as the IP Policy Template, and explain, through comments and annotations, every single article of the Template. When reading these Guidelines, it is important to take note of the definitions contained in Article 2 of the Template as all capitalised terms used in these Guidelines are defined there.

## 

## ARTICLE 1 – PREFACE

### Introduction

IP Policies usually start with a preface, a table of contents and a section on definitions.

Article 1 of the Template serves as an example and needs to be adapted in order to:

* reflect the Institution’s mission, vision and values and explain how the commercialization objective fits in with these strategic principles; and
* describe briefly what led to the desire of an IP Policy and what is the goal of the Policy;
* refer to any key relevant documents such as:
  + legislation;
  + national guidelines or codes of practice for IP management, if any, which your Institution endorses (see [Box 6](#Box6));
  + other relevant Institution policies (e.g. conflicts of interest, spin-off, students); and
  + supporting procedures and/or associated guidelines.

### Article 1.1 – Context and Institution Mission

* **Article 1.1.1, *mission***: An IP Policy should relate to, support and operationalize the Institution’s mission. Institutions have a range of differing missions. The key missions of universities, for example, are education, research and societal engagement. IP commercialization and transfer of knowledge to those in society who can make use of it for the general good, contribute to each of these missions. A growing number of Institutions have therefore adopted formal mission statements expressing support for academic entrepreneurship and commercialization (often referred to as the “third mission” [[9]](#footnote-9)).

### Article 1.2 - Purpose of the IP Policy

This section may contain a brief statement to clarify the reason for the IP Policy and the needs it seeks to address. Most policies reviewed have included some combination of the following objectives:

**Box Common Objectives of an IP Policy**

* + - * To reward the creativity of the researchers, technicians and students;
      * To facilitate the transfer of knowledge and technology to society;
      * 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;
      * To promote linkages with industries;
      * To encourage research, scholarship and a spirit of inquiry, thereby generating new knowledge;
      * To create an innovative culture which fosters the creation of IP and provides a framework for considering its commercial potential;
      * 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 Institution as well other stakeholders;
      * 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;
      * To promote, preserve, encourage and aid scientific investigation and research;
      * To provide a clear understanding of the rights and responsibilities of the Institution, and its staff members, students and visitors.

Articles 1.2.1, 1.2.2 and 1.2.3 of the Template lay out three broad purposes: promoting the widespread use of the Institution’s IP; establishing rules for strategic and effective IP management; and ensuring a balance of interests.

* **Article 1.2.1, *IP utilization***: An IP Policy seeks to foster an environment in which useful inventions or creative works produced by staff members, students and visitors, 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[[10]](#footnote-10). These transfer opportunities include licensing, research collaborations, service and consultancy, the creation of new companies based on Institution IP (spin-offs) or the use of Institution IP in existing start-ups.
* **Article 1.2.2, *IP management***: An IP Policy aims to establish transparent procedures for managing IP.
  + Relevance for researchers - A sound IP Policy will assist the Institution in identifying and protecting the outcomes of its research. An IP Policy will ideally include provisions to stimulate and capture the creativity and innovations of its staff members, students and visitors. It should include guiding principles relating to the emphasis the Institution places on the financial and non-financial benefits of knowledge transfer.
  + Relevance for enterprises – A published IP Policy is essential to provide transparency to companies and entrepreneurs who desire to commercialize Institution-based IP. Companies should be able to access and commercialize IP quickly, on terms that provide fair value to all parties, and in ways that are foreseeable and consistent from one negotiation to the next.
* **Article 1.2.3, *balance of interests***: It is essential to keep in mind that maintaining the Institution’s traditions (including academic freedom, scholarship, research, shared governance, and the transmission of knowledge via publication) and IP-based commercialization can be highly complementary. In fact, an effective IP Policy will ensure the complementarity of these parallel pursuits.
* **Option**: More articles can be added to further explain the purpose of the Policy. For example:

*1.2.X.* ***Rights and responsibilities****. The IP Policy sets out the Institution’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.*

* **Option**: Some countries have national “guidelines”, “principles”, “best practices” or a “code of practice” for the management of IP in knowledge transfer activities (for a compilation of such guidelines, see [Box 6](#Box6)). If your Institution endorses any such guidelines, it is recommended to refer to them in the Preface of the IP Policy:

*1.2.X.* ***Compliance with national best practices****. The IP Policy assists the Institution to comply with [Title of the relevant national guidelines, principles, best practices or code of practice for IP management].*

**Box Common Motivations for Institutions to Commercialize IP and Develop Collaborative Research Initiatives**

Institutions are driven by a variety of reasons to set up a commercialization program and undertake collaborative research initiatives, supported by an enabling IP Policy. The main opportunities arising from such activities are:

* + - * Advancing the region’s competitiveness;
      * Tackling societal challenges[[11]](#footnote-11) and maximising the impact of research at societal level;
      * Broadening the Institution’s research funding sources[[12]](#footnote-12);
      * Furthering the Institution’s reputation and ranking[[13]](#footnote-13);
      * Benefiting from industry partnerships in terms of enhanced quality of research programs[[14]](#footnote-14), enhanced teaching[[15]](#footnote-15), faculty/student career opportunities[[16]](#footnote-16), improved inter-sectorial mobility and access to empirical data from industry; and
      * Attracting key talent.[[17]](#footnote-17)

For more information, see the [Policy Writers’ Checklist](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx), checklist 2.

### Article 1.3 – Overall Principles

This section is not essential, but it is useful to provide brief non-mandatory statements of principle which would not be appropriate in the body of the Policy. In this context, Article 1.3 of the Template sets out some principles that the Institution intends to keep in mind, when there are opportunities to commercialize any IP arising from research.

* + **Article 1.3.1, *Responsible Commercialization***: This article emphasizes that the commercialization of research outcomes is primarily driven by facilitating access to the IP created (on a variety of terms) coupled with social and economic benefit, and not solely revenue generation (IMPACT, not INCOME). In this context, more and more Institutions around the world are adapting the concept of “social responsibility” or “social entrepreneurship”.
* **Article 1.3.2, *Incentives***: Incentives play an important role in driving knowledge transfer. Institutions that choose to place emphasis on the entrepreneurial dimension of knowledge transfer should consider financial and non-financial reward systems that take into account the motives, perspectives and cultures of the three key stakeholders in knowledge transfer: (a) the academic scientists[[18]](#footnote-18), (b) the IP Management Office (IPMO) and university administrators[[19]](#footnote-19), and (c) the companies/entrepreneurs[[20]](#footnote-20). See also [Article 10](#_ARTICLE_10_-).
* **Article 1.3.3, *Local development***:The Template promotes the view that increased efforts to utilize IP generated from academic research can be a driver for significant local economic growth. [[21]](#footnote-21) Many Institutions play an important role as a partner to local and regional stakeholders. They implement a variety of IP management practices including 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[[22]](#footnote-22). Each Institution should consider how proactively it will use its IP assets in aiding the local innovation ecosystem and economic development.

Article 1.3.3 reflects the idea that the mission of Institutions includes dimensions beyond the promotion of knowledge and research, generally referred to as “**university social responsibility**.”

**Corporate social responsibility** has been a feature in the business world for several years and has become embedded in many Universities and research institutions as their leaders seek alternative ways to achieve sustainability. The goal of corporate social responsibility is to operate “in an ethical and transparent way that contributes to the health and welfare of society”, according to [ISO 26000](http://www.iso.org/iso/home/standards/iso26000.htm)[[23]](#footnote-23).

An increasing number of Institutions are integrating social responsibility into their mission statements, arguing that higher education is better off when it gives back to the society that is responsible for funding it. Examples of such approaches include tailoring research missions to produce research that meets the needs of the marketplace; promoting ethical approaches to IP commercialization; performing research activities in close cooperation with the local community and industry; and addressing a variety of socio-economic challenges such as health, energy, and food security.

**Box Application Cases of University Social Responsibility**

* Both the Template and the [IP Policy Writers’ Checklist](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx) contain several references to social responsible commercialization of academic research outputs

- [IP Policy Template](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/policy_template.docx): Articles 1.2.3, 1.3.1, 1.3.3, 7.4, 9.4, 9.5, 9.6, 10 and 12.

- [IP Policy Writers’ Checklist](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx): checklists numbers 2, 3, 10 and 17.

* The [EU-USR Report](http://www.eu-usr.eu/wp-content/uploads/2015/04/D1.4-Final-Report-Public-Part-EN.pdf)[[24]](#footnote-24) provides a Common European Reference Framework to enhance social responsibility of European universities.
* Examples of Institutions that have integrated a social dimension in their knowledge transfer practices:
  + Hashemite University, Jordan[[25]](#footnote-25)
  + South Valley University, Egypt[[26]](#footnote-26)
  + University of Manchester, United Kingdom[[27]](#footnote-27)
  + University of the West of Scotland[[28]](#footnote-28)
  + University of Oslo, Norway[[29]](#footnote-29)
  + [University of Berkeley](http://ipadvocatefoundation.org/mission/pdfs/SociallyResponsibleLicensing_Berkeley.pdf), USA[[30]](#footnote-30)
  + Cornell University[[31]](#footnote-31)
  + City University of Hong Kong[[32]](#footnote-32)
  + ASEAN University Network[[33]](#footnote-33)
  + Hispanic American Universities [[34]](#footnote-34)

The philosophies of Articles 1.3.1 to 1.3.3 find application in numerous articles throughout the Template. Other sub-articles could be added to Article 1.3, for example:

* *1.3.X.* ***National government aid rules.*** *The Institution must observe national government aid rules regarding IP protection and disposition of IP; and must adapt the IP Policy to the reporting and disclosure obligations imposed by law.*

For example, the 1980 Bayh-Dole Act in the USA allows academic recipients of federal research funding the right to seek patents on inventions arising from that funding. The Act does not, however, bestow entirely unconfined discretion upon recipients. To the contrary, the Act contains accountability safeguards, including requirements for reporting not simply the existence of federally funded patents but also information regarding the licensing, assignment and practical utilization of these patents. The Act also provides the government with a range of retained rights in the work that it funds.

* *1.3.X.* ***IP awareness and education.*** *The Institution shall take steps to raise awarenessamong Staff Members and Students of the various types of IP, the rights associated with each type, their contribution to innovation, and this IP Policy. The Institution shall also consider incorporating IP, knowledge/technology transfer and entrepreneurship courses in the curriculum.*

If the Institution elects to adopt the mission of IP-based commercialization, it is essential that there is understanding and acceptance of this mission by the research community. Institutions should therefore encourage IP education/training for interested researchers, institution administration and technology transfer officials. Such training should also address the specifics of the entrepreneurial process, and how to interact with the local business/entrepreneurial community. Effective ways of increasing such awareness include IP workshops; publication of articles in a newsletter or via the intranet; circulation of IP flyers and brochures to all departments; visiting lectureships, etc.

**Box Tips for Introducing a Culture of Awareness of IPR**

* Raise awareness and basic skills regarding IP and knowledge transfer through training actions for all staff members, students, and visitors, and ensure that the staff responsible for the management of IP (i.e., university administration and IPMO staff) have the required skills and receive adequate training.
* Set up an adequate IP and entrepreneurship education program for each of the constituencies involved in knowledge transfer, and focus on practicalities for each group, such as:

|  |  |  |  |
| --- | --- | --- | --- |
| **Group** | **Training Curriculum** | | |
| **Researchers** | | * The process of identifying and protecting IP; * When to disclose IP to the IPMO; * The importance of confidentiality, especially with respect to publishing, submitting abstracts, and academic presentations/posters; * Record keeping and proof of existence requirements (incl. laboratory notebooks); * A basic understanding of the types of IP agreements, especially in the context of exchanging research material and information; and * The Institution’s IP Policy, and issues related to ownership, protection, commercialization, contact persons, etc. |
| **Research managers and institution directors** | | * The importance of IP management and management functions; * IP protection processes and procedures; the costs required to manage IP effectively (including decisions required at different stages of IP and research development); * Implementing the Institution’s IP Policy; and * An appreciation of the role of technology in addressing socio-economic needs. |
| **IP managers** | | * Overview of IP management from the generation of IP to its commercialization and application; * Awareness building; * Understanding of science (understanding of certain fields of science are an added benefit) |
| **Operations** | | * **Finance**: Understanding IP Policy guidelines, namely, systems and processes to handle IP payments and receipts (for example, royalties); the administration of benefits to researchers and the institution * **Human resources**: IP Policy guidelines and interface with other institutional policies such as conditions of service, recruitment, conflicts of interest and commitment, and contracting with clients * **Legal services**: IP Policy guidelines, IP contracts and agreements, understanding what constitutes IP and the different forms of IP protection, and IP negotiation * **Grant and contract research**: IP contracts and agreements, especially clauses regarding IP ownership, and IP Policy guidelines |
| *Source: Adapted from: Pefile, S. and Krattiger, A.,* [*Training Staff in IP Management*](http://www.iphandbook.org/handbook/ch06/p07/)*[[35]](#footnote-35)* | | |

* + - *1.3.X.* ***Rights of other IPR holders.*** *The Institution respects economic and moral rights of other IPR holders. Staff Members, Students and Visitors intending to use any proprietary material or IP provided by or owned by external parties should ensure that they and the Institution are authorized to do so.*

The Institution should not willfully or negligently infringe the IP rights of others. While in some cases research or teaching use may fall within exceptions to the relevant national IP law (such as a research and development exception which provides that research conducted on subject matter which is statutorily protected will not constitute infringement), however, this should not be assumed, as the law in this area is complex. Staff members, students and visitors should ask for the support of the IPMO in case of doubt.[[36]](#footnote-36)

### Useful Resources Related to Article 1

* **Preface**. To find out how other Institutions have phrased their policy preface, search the WIPO Database on IP Policies.
* **National guidelines, or codes of practice for management of IP in knowledge transfer activities.** Some national agencies or councils have developed non-binding guidance for the ownership, promotion, dissemination, commercialization and protection of IP generated from research by public sector institutions[[37]](#footnote-37). The aim of such guidelines is to build on existing knowledge and expertise and to prevent abusive patenting and licensing. Below are some examples (the list is not exhaustive).

**Box Examples of National Guidelines or Codes of Practice for IP Management**:

* Australia: [National Principles of Intellectual Property Management for Publicly Funded Research](http://www.arc.gov.au/national-principles-intellectual-property-management-publicly-funded-research). Developed by the Australian Research Council.
* Europe: [Commission Recommendation on the management of IP in knowledge transfer activities and Code of Practice for universities and other public research organisations](http://ec.europa.eu/invest-in-research/pdf/ip_recommendation_en.pdf) (2008) adopted by the European Commission.[[38]](#footnote-38)
* Europe: [European Research Area Guidelines on IP Management in International Research Collaboration Agreements in European and Non-European Partners](https://ec.europa.eu/research/innovation-union/pdf/international_cooperation_guidelines_erac_kt_group.pdf) (2012). Produced by the European Research Area Committee.
* Ireland: [National Code of Practice for Managing IP form Publicly Funded Research](http://www.sciencecouncil.ie/Publications/2005/National-Code-of-Practice-for-Managing-Intellectual-Property-from-Publicly-Funded-Research.pdf). Developed by the Irish Council for Science, Technology and Inn.
* Ireland: [The national IP Protocol 2016](http://www.knowledgetransferireland.com/ManagingIP/KTI-Protocol-2016.pdf). Developed by Knowledge Transfer Ireland.
* United Kingdom: [Intellectual Asset Management for Universities](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/308072/ipasset-management.pdf). Developed by the Intellectual Property Office.
* United States of America: [Nine Points to Consider in Licensing University Technology](https://www.autm.net/AUTMMain/media/Advocacy/Documents/Points_to_Consider.pdf) (2007). Developed by leadership at 12 institutions from across the U.S.A.
* US: [Managing Intellectual Property in the Public Interest](https://www.nap.edu/catalog/13001/managing-university-intellectual-property-in-the-public-interest). Developed by the National Research Council.
* US: [Statement of Principles and Strategies for the Equitable Dissemination of Medical Technologies](https://www2.tulane.edu/ott/upload/AAU-Statement-of-Principles.pdf) (2010)
* **Socially Responsible Commercialization**

- Stevens, A., [An emerging model for life sciences commercialization](https://www.nature.com/articles/nbt.3911) (2017).

- [IP Advocate](http://ipadvocatefoundation.org/mission/promote.cfm#Policy)

* Whitepaper [In the Public Interest: Nine Points to Consider in Licensing University Technology](http://news.stanford.edu/news/2007/march7/gifs/whitepaper.pdf). Drafted by 12 participating institutions and endorsed by AUTM and over 70 other institutions. The paper has an annex with examples of clauses. See also [Box 63](#Box63).
* Centre for the Management of IP in Health and R&D (MIHR).
* **Recommendations to introduce IP and entrepreneurship education**
  + The OECD has carried out extensive research into the role of higher education in fostering entrepreneurship. The book [*Entrepreneurship and Higher Education*](https://www.oecd-ilibrary.org/docserver/9789264044104-en.pdf?expires=1526636575&id=id&accname=ocid54015566&checksum=F0C787E456C41D3EB8979421B34EFB9C), OECD, 2008, proposes a series of recommendations to strengthen knowledge transfers and the commercialization of research, as well as useful recommendations for the establishment of a comprehensive entrepreneurship curriculum.
  + IP-Unilink[[39]](#footnote-39) has developed a report [*How proactive IP Management can improve research collaborations*](http://www.ip-unilink.net/public_documents/Good%20Practice%20Guide%20web%20(FINAL%2020.06).pdf). The report contains examples of good practices in the field of IP education from EU and BRIC countries.
  + University Entrepreneurship and Technology Transfer: Process, Design and Intellectual Property, Volume 16, 241-274 (2005).
  + Pefile, S. and Krattiger, A.,[*Training Staff in IP Management*](http://www.iphandbook.org/handbook/ch06/p07/)*,* In: Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices.

## 

## ARTICLE 2 – DEFINITIONS

### Introduction

Definitions provide the basis for clear policy interpretation and implementation. The definitions proposed in the Template are based on many years of practice at various Institutions around the world. They are designed for clarity, simplicity, and brevity. Not all definitions listed in the Template need to be included in an IP Policy.

**Box Tips for Writing Definitions**

* Select and create your own definitions to accommodate requirements of specific national laws and regulations.
* Make reference to other documents/policies that may contain similar terms to ensure that common definitions are used.

### Some definitions explained

**Background IP.**

* Sometimes called “**Pre-Existing IP**.” Clauses that deal with Background IP are very familiar in Research Projects. In this context, Background IP usually 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.
* Background IP may include registered IPRs, but researchers may also bring other Background IP like specific know-how, software and existing data to a collaboration.
* If Background IP is owned by another party who is not involved with the Project, it is usually referred to as “Third Party IP”, and you will need to obtain relevant permission to use this IP.
* IP which comes into existence in the course of performance of a Research Project, is usually called “Foreground IP.”

**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. See also [Article 9.4](#_Commercialization_Pathways).
* The use of Course Materials by the Institution for the purposes of teaching and research in its programs, usually does not constitute Commercialization of the IP.

**Commercialization Entity.** This can be either a spin-off/out or a start-up.

* A start-up is a new company. In the context of an institutional IP Policy, a start-up may have been formed by Institution Staff Members or Students, or may be a new company which acquires and seeks to commercialize Institution IP. There is no definitive time period when a newly formed company is no longer a start-up. However, eighteen to twenty-four months is reasonable. The start-up may be formed.
* A spin-off (or spin-out) refers to a start-up company that “spins off” or “spins out” of the Institution. A spin-off is thus always associated with the Institution.
* Start-ups or spin-offs may, in some cases, be partly owned by the Institution by virtue of the IP licensing contract which apportions shareholding *in lieu* of, for example, royalties.

**Course Materials.**

* Course Materials can be in any form including digital, print, video, and graphical material and may include:
* course guides, handouts, online materials;
* presentation materials (including lecture notes, images, slides, graphics, multi-media presentations, course software and other audio-visual materials);
* virtual learning tools;
* instruction manuals, books and handbooks; and
* assessment and examination questions.

**Creator.**

* This term is used to refer to any Staff Member, Student or Visitor who creates 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 relevant law, for example, an inventor pursuant to the Patents Act, or an author or co-author pursuant to the Copyright Act. It is recognized that collaborative or co-operative effort may involve several Creators. For the purpose of the Policy Template, the Creator can be a Staff Member, Visitor or Student.

**Enabler.**

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

**Genetic Resources (GRs).**

* GRs themselves, as encountered in nature, are 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, by a *sui generis* system that regulates plant breeders’ rights.[[40]](#footnote-40)
* GRs are subject to access and benefit-sharing regulations, in particular within the international legal and policy frameworks defined by the *Convention on Biological Diversity* (CBD) and its *Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization*, as well as by the *International Treaty on Plant Genetic Resources for Food and Agriculture of the United Nations Food and Agriculture Organization*.[[41]](#footnote-41)
* The principle of prior informed consent (PIC) concerning access to GRs is one of the cornerstones of the CBD.[[42]](#footnote-42) According to the principle of PIC, holders should be fully consulted before their genetic resource is accessed or used by third parties and an agreement should be reached on appropriate terms; they should also be fully informed about the consequences of the intended use. 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.
* The idea of an equitable balancing of interests in IP law is often phrased in terms of a balancing of the interests of right holders and the general public. According to this principle, the GRs holders receive an equitable share of the benefits that arise from the use of the GRs, which may be expressed in terms of financial or other non-financial benefits.[[43]](#footnote-43)
* For more information, see the [WIPO webpage on Genetic Resources](http://www.wipo.int/tk/en/genetic).

**Invention.**

* This definition needs to be adapted to the national law dealing with patents. Many national laws state what cannot be considered an invention but however do not define what an invention is, other than setting out the criteria which an invention must comply with in order to be patentable.
* A clarification could be added of what constitutes a “patentable invention.” There are numerous conditions that must be met in order to obtain a patent and it is not possible to compile an exhaustive, universally applicable list. However, 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 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 industrial application, meaning that it 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. In many countries, discoveries, scientific theories, aesthetic creations, mathematical methods, plant or animal varieties, discoveries of natural substances, commercial methods, methods for medical treatment (as opposed to medical products) or computer programs are generally not patentable.
* 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.

**Inventor.**

* The “inventor” is the person who creates or develops a new method, form, device or other useful means that becomes known as an invention. 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. This is distinct from the “proprietor” or “owner” of a patent, who 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.

**IP Disclosure Form.**

* Sometimes called “invention disclosure form”, or “invention disclosure report.” 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.

**IP Expenses.**

* The term “IP Expenses” is used for the calculation of the IP revenues (royalties, etc.) which will be distributed amongst the stakeholders. It is the most common practice for an Institution to 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[[44]](#footnote-44)
* There are a number of important variations on what an Institution usually considers to be “IP Expenses” and it is important to provide a detailed definition of the term.

**IP Committee.**

* Use the term which your Institution has selected for the IP Committee. This may be an individual (e.g., President, Vice President, Vice Chancellor, Deputy Vice Chancellor), but is typically a committee or board or panel, that is often referred to as a Steering Committee or IP Advisory Board.
* Generally, the IP Committee comprises of the Senior Responsible Officer, Deans of key faculties, Institution’s legal representative, IPMO representative, and often one or more external persons who may be IP experts, or have some other relevant specialisation to assist with IP management and commercialization decisions. See also [Article 4.1](#_Article_4.1_-).

**IP Management Office (IPMO)**.

* Use the term which your Institution has selected. Other names used for this include, Technology Transfer Office (TTO), IP and Technology Management Office (IPTMO), Licensing Management Office. In some cases, the functions of the IPMO are undertaken by a separate company wholly owned by the Institution, which can bear a name reflecting the functions of IP management and commercialization. See also Article 4.2.

**[Option:] Knowledge Transfer.**

* Many definitions are given in prestige academic sources and popular websites, e.g.

“*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*.”[[45]](#footnote-45)

* In the scope of the Template, Knowledge Transfer is a collective term for the transferring 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. According to the University of Cambridge[[46]](#footnote-46), Knowledge Transfer is “*all about the transfer of tangible and intellectual property, expertise, learning and skills between academia and the non-academic community. It’s also well recognised by government and funders as an important return on the UK’s investment in academic research, one that provides a significant driving force for enhancing economic growth and societal wellbeing. For academics, KT can be a way of gaining new perspectives on possible directions and approaches for research. This two-way exchange element of KT is at the heart of successful and sustainable collaboration*.”

**[Option] Patent**.

* A definition of a “Patent” – adapted to the national Patent Law - could be added. A patent is a set of exclusionary rights granted by law to applicants for inventions that are new, non-obvious and commercially applicable.
* It is valid for a limited period of time (generally 20 years from the convention filing date), during which patent holders can commercially exploit their inventions on an exclusionary basis. The rights of the patentee can only be enforced after the patent application has been granted.
* In return, applicants are obliged to disclose their inventions to the public in a manner that enables others, skilled in the art, to replicate the invention, the foundation of *quid pro quo*.

**Plant Variety.**

* Many universities and research institutions conduct research in areas such as 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.
* A plant variety represents a more precisely defined group of plants, selected from within a species, with a common set of characteristics. Under the [International Convention for the Protection of New Varieties of Plants](http://www.upov.int/upovlex/en/upov_convention.html)[[47]](#footnote-47) (“UPOV Convention”), and the [European Patent Convention](https://www.epo.org/law-practice/legal-texts/html/epc/2016/e/r26.html), the following definition is used:

*“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, certain acts concerning the exploitation of the protected variety require the prior authorization of the breeder.[[48]](#footnote-48)
* 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.

**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). Under certain national laws, the “right of disclosure” is a moral right.
* In the field of patents, “disclosure” is part of the core rationale of patent law. Patent law imposes a general obligation on patent applicants, as referred to in Article 5 of the Patent Cooperation Treaty (PCT), “*to disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art*”.
* 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, controls should be put in place to keep new inventions confidential for a limited period to allow the IPMO to undertake a timely evaluation of the case including patentability assessment.

**Public Domain.**

* In general, a work is considered to be in the Public Domain if there is no legal restriction for its use by the public.
* The Public Domain has been defined **in the field of copyright** **and related rights** as “*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*.[[49]](#footnote-49)”
* 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[[50]](#footnote-50).

**Research.**

* Research comprises three activities: Basic Research, Applied Research and Experimental Development; wherein
  + - Basic Research is experimental or theoretical work undertaken primarily to acquire new knowledge of the underlying foundation of phenomena and observable facts, without any particular application or use in view;
    - Applied Research is also original investigation undertaken in order to acquire new knowledge. It is, however, directed primarily towards a specific practical aim or objective; and
    - Experimental Development is systematic work, drawing on existing knowledge gained from Research and/or practical experience, which is directed to producing new materials, products or devices, to installing new processes, systems and services, or to improving substantially those already produced or installed.[[51]](#footnote-51)

**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 (see [Article 5.1.2](#_Article_5.1_–). Template).
* Some Institutions exclude computer software and databases.

**Senior Responsible Officer.**

* The Senior Responsible Officer may appoint a designee to exercise some aspects of this authority. In the case of universities, this person tends to be one of the Deputy Vice Chancellors, typically the one responsible for Research or Academic; in the case of research organisations, this may be a Vice President or Executive reporting to the Chief Executive Officer or President of the organisation.

**Staff Member.**

* Alternative terms are: “Employees”; “Academic Staff”[[52]](#footnote-52); “Faculty and Staff”[[53]](#footnote-53); “Academics”[[54]](#footnote-54), etc.

**Student.**

* The IP Policy covers those students with an Appointment (in which case they are Visitors) 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. Template) or Research Contracts (article 5.2.4. Template).
* Note that in some countries a PhD is considered a student (also in legal status), whereas in other counties a PhD is an employee (Staff Member). In some countries, such as the Netherlands, the PhD can choose to be student or employee.

**[Option:] Tangible Research Property (TRP).**

* 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[[55]](#footnote-55), 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.

**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:
* confidential scientific and technical information (e.g., research results[[56]](#footnote-56) in laboratory notebooks or invention disclosure reports, unpublished source and object code of software, technical drawings, etc.);
* an invention before the filing of a patent application;
* 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;
* research materials, including biological materials, and data;
* 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 are 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).

**Traditional Knowledge (TK).**[[57]](#footnote-57)

* Given the close relationship between genetic resources and some forms of traditional knowledge, the principles of prior informed consent and benefit-sharing are applied in a number of national laws concerning access to and use of TK.
* Examples of traditional knowledge can include:
* knowledge about traditional medicines;
* traditional hunting or fishing techniques; or
* knowledge about animal migration patterns or water management.
* “Traditional knowledge *lato sensu*” includes the intellectual and intangible cultural heritage, practices and knowledge systems of indigenous peoples and local communities; in other words, it encompasses the knowledge and the expression of the knowledge. “Traditional knowledge *stricto sensu*” refers to the knowledge as such, especially technical and scientific knowledge resulting from an intellectual activity in a traditional context. In these guidelines, we refer to traditional knowledge *stricto sensu*.

**Visitor.**

* Some Institutions use “Appointee”, “Visiting Researcher”, “Affiliate”, or similar terms. Visitors also includes secondments and sabbaticals.

### Useful Resources Related to Article 2

* **IP-related definitions**. WIPO provides a set of glossaries and FAQs:
  + [Frequently asked questions on patents](http://www.wipo.int/patents/en/faq_patents.html).
  + [PCT Glossary](http://www.wipo.int/pct/en/texts/glossary.html)
  + [Glossary on IP and genetic resources, traditional knowledge and traditional cultural expressions](http://www.wipo.int/tk/en/resources/glossary.html)
  + [WIPO Lex Glossary](http://www.wipo.int/wipolex/en/glossary/)
  + [Industrial Property Statistics Glossary](http://www.wipo.int/ipstats/en/statistics/glossary.html)
* **Research-related definitions**. The Frascati Manual, provides a [glossary of terms](https://www.oecd.org/sti/inno/Frascati-2015-Glossary.pdf) including definitions of research and development (R&D) and its components.

## 

## ARTICLE 3 – SCOPE OF THE POLICY

### Scope may include the groups (Staff members, Students and Visitors) 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

* It is recommended to have prospective staff members, students and visitors clearly identify, in writing, any Background IP in which they have an ownership interest in *prior* to the commencement of their employment or enrolment. By doing this at the outset of the relationship, you are proactively mitigating possible arguments later down the road about who owns what.
* The notification is usually done to the Vice President; a template Notification Form of Background IPcan be helpful for these purposes. The IPMO will then usually assess the nature of that IP, and will provide a report. The Institution will make a determination and will notify the staff member, student or visitor 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/visitor concerned in the course of their employment, enrolment or appointment at the Institution.

### Article 3.3 – Applicability

* ***applies*** ***to all Staff Members, Students and Visitors:*** IP policies usually state the groups of persons to which the policy is applicable. In most cases, these include the faculty, staff, students, visitors and others participating in the research programs of the Institution. However, different rules, ownership rights and obligations will usually apply for Staff Members (employees), Students (non-employees) and Visitors.
* The selection of which persons should fall under the IP Policy should be made carefully with due regard to tradition, fairness and ethics, practical matters, and good management practices learned over decades. The Template has been designed with all these factors in mind.

**Box Tips for Defining the Scope**

* Carefully consider each category of persons affiliated with your Institution and whether they ought to fall within or outside the policy.
* Determine how each category will be bound by the policy (see [Article 3.4](#_Article_3.4_–)).
* Then, consider how to handle each different type of IP they may create.
* ***who participate in a Research Project***: The Template applies to individuals participating in Research Projects given the obligations that the Institution 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 your Institution to join another institution or firm, you 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 Visitor 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

**When is an IP Policy legally binding?**

An IP Policy is just that – a policy, being a unilateral document designed by the Institution, not a consensual one. As such, a policy is not law, but a proposed course of action. It can therefore not be *assumed* that an IP Policy is legally binding. Something more is needed for that to be the case.

To be legally enforceable or binding, an IP Policy must either have legislative force, or form part of a legally binding contract. Both requirements need to be analysed under the applicable law of the country.

* IP Policy with legislative force in itself - In some countries an IP Policy can be law, if it is either a statute of a legislature (primary legislation) or subordinate legislation[[58]](#footnote-58) authorized by a statute of a legislature (such as a regulation, code, or by-law). The IP Policies of many state universities in the United States are laws in this way, as well as the IP Policies of some universities in the United Kingdom. Often it is the Institution itself that makes the subordinate legislation.
* IP Policy reflecting a legal principle of national law - Institutional IP Policies often reflect rules of national law, that apply independently of the IP Policy. For example, an IP Policy may provide that the Institution owns the IP created by an employee in the course of the employee’s duties, and that may also be the general rule established in the law of the Institution’s country.
* IP Policy being part of a legally binding contract - If the IP Policy’s terms are included in a legally binding contract, then the IP Policy will be enforceable on the contracting parties.

**Article 3.4.1 - Special Issues in relation to Staff Members**

* **Article 3.4.1, *ensure that the employment contract […] includes a provision placing Staff Members under the scope of this Policy***: A note of caution: Institutional IP policies are typically included “by reference” in employment contracts, simply to avoid the duplication of the entire text of the policy. For example, an employee contract can state: “*Jane Smith will be bound by the university’s Intellectual Property Policy, the provisions of which are deemed to be incorporated by reference into this Agreement*.”

While most countries accept the “incorporation by reference” principle,[[59]](#footnote-59) to be valid, such incorporation must, however, comply with strict legal requirements. The following requirements usually apply:

* the reference to the IP Policy must clear and unequivocal;
* the reference must be called to the attention of the employee (or student);
* the employee (or student) must have consented to the IP Policy, meaning that the employee (or student) must have the opportunity to read it, and to consider its contents; and
* the terms of the IP Policy must either: (a) already be known to the employee (or student), or (b) be easily available to the employee (or student).

**Box Tips for Incorporation of the IP Policy by Reference**

If an Institution wishes to incorporate its IP Policy into an employee’s employment contract, it should:

* identify the (group of) employees to whom the IP Policy is intended to apply;
* include a clause similar to “Jane Smith” example in their written employment contracts;
* email the contract to the staff member who is about to be hired, and in the email prominently: (i) call attention to the clause; (ii) include a link to the IP Policy’s updated URL; and (iii) urge the recipient to read the policy carefully; and
* ensure that at least a two (or preferably more) days pass before the recipient signs the contract, so that there cannot be any doubt that he/she had the opportunity to review the IP Policy.

**Article 3.4.2 - Special Issues in relation to Students**

* **Article 3.4.2., *The Institution shall ensure that Students participating in a Research Project sign an agreement***: The starting point is that students own any IP they generate. There are, however, considerations which can justify a claim for institutional ownership. These include situations where students are funded by industry or work on Institution research projects (See for more information, Article 5.2). In these circumstances, it is reasonable for the Institution to require the student to enter into a binding agreement with the Institution, under which the student agrees to assign to the Institution any IP that he/she generates in the context of such research project, so that the Institution can commercialize the complete package of IP arising from the research program. In return, the university may agree to treat the student as an employee for the purposes of the university’s revenue sharing policy for academic inventors.
* **Article 3.4.2., *before commencing the project***: The Institution needs to have this binding agreement in place prior to the student generating any IP, so that the Institution can in turn enter into binding agreements with sponsors and licensees for the commercialization of the IP package.
* Many Institutions have promulgated a **separate IP Policy for students**, and/or **Guidelines on the subject of Student-generated IP**, which may facilitate the understanding for the students. [[60]](#footnote-60) Other Institutions specifically exclude students from the scope of their IP Policy (see, for example, UNISA[[61]](#footnote-61)).

**Box Tips for Dealing with Student IP**

There are situations where the Institution should own the IP generated by Students, so that a larger package of Institution IP can be commercialized. In these cases, take steps to ensure that you own the IP:

* Have an appropriate policy for student IP
* Have appropriate contractual documents (assignments) to give effect to the policy;
* Have appropriate procedures to ensure that the documents are signed;
* Ask legal advice to ensure that the IP assignments are legally enforceable[[62]](#footnote-62).

**Box When Does the Question of Student IP Tend to Surface?**

The subject of student-generated IP comes into sharp focus when the IP Management Office (IPMO) is trying to commercialize a package of Institution IP and it is discovered that a student may own some of the IP. For example:

* + - an academic research project conducted by the Institution has resulted in an invention that is suitable for patent protection. The invention has the potential to be commercially exploited. If a student has been involved in the creation or development of the invention, he/she may have rights in the invention;
    - the Institution has been sponsored to undertake a research project by a commercial organization. The academic involved requires several students to undertake work on the research project. The students may create or generate IP, either alone or together with others. The provisions of the research agreement may require that IP generated during the research belong to the sponsor.

In such circumstances the IPMO will wish to ensure that IP generated by a student belongs to the Institution and/or the sponsor of the research. However, if the topic is not addressed until this point, it may be more difficult for the IPMO to obtain clean title to the IP for the Institution. Among the factors that may create such difficulty are:

* + - by the time the question of IP ownership is considered (e.g. when applying for patents or when doing due diligence in relation to a potential spin-off transaction), the student may have ceased to be at the Institution, and it may be difficult to trace him/her; or
    - the student may place a higher value on his contribution to the IP than is justified, and it may prove difficult to agree an appropriate revenue-sharing arrangement, particularly if there are multiple inventors/creators.

For these and other reasons, the IPMO will generally wish the subject of student IP to have been dealt with before the IP is generated.

*Source: Adapted from* [*UNICO Practical Guides – Commercialization Agreements – Students and IP*](https://www.praxisunico.org.uk/sites/praxisunico.org.uk/files/5%20-%20Students%20and%20IP.pdf)

**Article 3.4.3 - Special Issues in relation to Visitors**

* A Visitor or visiting scientist is an individual employed by one Institution, who visits and carries out research at another Institution. IP Policies often state that a host Institution will own the IP created by a Visitor.

However:

* If the Visitor at the host Institution continues research on a project that originates from the Visitor’s employer Institution, the employer Institution will not want the IP from its project being owned by the host Institution. This causes fragmentation of ownership which may possibly impede commercialization.
* Similarly, if the Visitor at the host Institution undertakes research on a project that originates from the host Institution, the host Institution will not want IP from its project being owned by the employer Institution.
* **Article 3.4.3., *The Institution shall ensure that Visitors sign an Appointment agreement before commencing any activity at the Institution***: To address the above issues, it is important to clearly manage the ownership of IP which will be created by a Visitor by way of an appropriate agreement. The Institution needs to have this agreement in place prior to any work being undertaking. The agreement shall place the Visitor under the scope of the IP Policy, but is subject to arrangements agreed on a case by case basis (see [Article 5.3](#_Article_5.3_–)).

**Box Example - IP Clauses Dealing with Visitors**

Duke-National University of Singapore Medical School:

“*Visitors shall be bound by this Policy unless specifically exempted or varied by written agreement with Duke-NUS. Visitors are therefore required to disclose any Invention that he/she creates or develops while at Duke-NUS. The commercialization of that Invention and sharing of any net commercial benefits will be negotiated on a case-by-case basis with the Visitor and the Visitor's employer and any relevant Third Party. Duke-NUS will recognize the publication rights of Visitors, subject to any overriding commercial imperative*.”

University of Cape Town:

“*Employees who permit Visitors access to UCT Resources shall ensure that the Visitor has been notified of this Policy and obtain written acknowledgement from the Visitor that they are aware that they are bound by this Policy in the absence of any written agreement to the contrary*.”

**Article 3.4.4 - Informed consent**

* If employees, students or visitors are not familiar with their Institution’s IP Policy yet voluntarily consent to it anyway, the policy risks not being fully legally binding. To minimize this risk, effective outreach is critical. The need for explicit documentation and informed consent is especially important when students are involved.[[63]](#footnote-63)
* **Article 3.4.4., *The Policy […] shall be included in the Institution’s website***: Good practise is to develop and post on the Institution’s website material for staff members, students, visitors and third-party collaborators clarifying how the Institution treats each individual with respect to IP. The IPMO should make sure that all relevant individuals involved in research know how to access this information, have accessed and read the information, and do in fact agree with the terms.

**Box Tips to Make Sure that Your IP Policy is Legally Binding**

* Support your IP Policy by appropriate written agreements, acknowledged and agreed to by all individuals involved in research:

- For Staff: 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 unconscionability;

- For Visitors: in an appointment agreement, regulating the ownership of IP which will be created by the Visitor.

* 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.
* Disseminate your IP Policy to spread substantive awareness about the Policy.

### 

### Useful Resources Related to Article 3

* **Legal basis for IP policies**.
  + Mendes, Philip (2016), [*To What Extent are University IP Policies Legally Binding? Part 1: Staff*](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2822343)*,* les Nouvelles - Journal of the Licensing Executives Society, Volume LI No. 3, September 2016
  + Mendes, Philip (2016), [*To What Extent are University IP Policies Legally Binding? Part 2: Students*](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2855159)*,* les Nouvelles - Journal of the Licensing Executives Society, Volume LI No. 4, December 2016
  + Mendes, Philip (2017), [*To What Extent are University IP Policies Legally Binding? Part 3: Visiting Scientists*](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2896185)*,* les Nouvelles - Journal of the Licensing Executives Society, Volume LII No. 1, March 2017.
* **IP policies**. Examples can be found in the [WIPO Database](http://www.wipo.int/about-ip/en/universities_research/ip_policies/index.html).
* **Managing student IP issues**.
  + “[*Managing Student Intellectual Property Issues at Institutions of Higher Education: An AUTM Primer*](http://www.autm.net/AUTMMain/media/ThirdEditionPDFs/V2/TTP_Manual_3rd_Edition_Volume2_StudentIP.pdf)” is a useful articles to help you decide whether or not to include students in the scope of your IP Policy. It also highlights seven key issues that every Institution should consider to make for a fair and comprehensive student IP Policy.

- “[*Undergraduate Students—Your Rights Under Consumer Law*](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/415732/Undergraduate_students_-_your_rights_under_consumer_law.pdf)” explains the UK law applicable to undergraduate (and postgraduate) students.

- “PraxisUnico (2006), [*UNICO Practical Guide to Students and IP*](https://www.praxisunico.org.uk/sites/praxisunico.org.uk/files/5%20-%20Students%20and%20IP.pdf) provides an introduction to the legal and practical issues surrounding the ownership and management of student-generated IP, together with some best practices, suggested template agreements and checklists.

## 

## ARTICLE 4 – GOVERNANCE AND OPERATION

### A two-tiered implementation structure

* Decades of practice have demonstrated the importance of having a two-tiered structure to govern and implement an 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. The IP governance is the sphere of policy creation/evolution and overarching strategic guidance. The 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 (typically President or Vice President, Vice Chancellor or Deputy Vice Chancellor).
* Article 4 lists the two units and their main responsible areas. It is useful to include also a contact phone number or general email address.

### Article 4.1 - IP Governance – The IP Committee

* **Article 4.1.1, *purpose***. A committee or a board is established to ensure good IP governance is in place, i.e., policy creation and evolution, and strategic guidance.
* The Template uses the generic term “IP Committee”. It may be called by any other name, including Office of the Vice President for Research[[64]](#footnote-64), Committee on IP[[65]](#footnote-65), University IP Board[[66]](#footnote-66), IP Advisory Committee[[67]](#footnote-67), IP Steering Committee, IP Advisory Board, etc.
* **Article 4.1.2, *composition***. An IP Committee can consist of a single, authorized individual (such as President, Vice President, Vice Chancellor, or Deputy Vice Chancellor) or of a board or committee of multiple members. The IP Committee is usually headed by the *Senior Designated Officer* of the Institution.[[68]](#footnote-68)

Some Institutions appoint only active Staff Members of the Institution or alumni. Others appoint a mix of internal and external members, usually with a majority of active staff. In addition, some Institutions also have an IP Committee made entirely of external members. Such groups are often experts in technology and commercialization who provide advice and support for IP commercialization efforts.

For example, the IP Committee might comprise the following:

* Deputy Vice-Chancellor or Vice President responsible for research
* Chief Legal Officer
* Executive Director of Finance
* Particular Deans, Department Heads, or Center Directors
* any person(s) the Institution may wish to co-opt, such as a professor with strong interest or expertise in IP issues, a professor with a recognized technical background, external expert, or representation from specific stakeholders.
* **Article 4.1.3, *responsibilities*:** In some Institutions, the IP Committee plays a role in assisting the IPMO in making certain decisions such as with patent filing or license negotiations. In other Institutions, the IPMO is completely independent in its IP management and transactions, and the IP Committee merely acts in a strategic advisory role providing guidance on long-term trajectory of the Institution’s IP strategy and impact, policy implications, and large-scale initiatives.

**Box Example - An excerpt from the IP Policy of the University of Cape Town as to the role of their IP Advisory Committee**



### Article 4.2 – IP Operations - The IP Management Office (IPMO)

* **Terminology.** Common names for offices responsible for day-to-day management of IP, technology transfer and commercialization differ. In deciding on the term, it is important to (1) use the official terms that were already established in any existing Institution regulations, local practices or national regulations; (2) in the absence thereof, chose a term that reflects the main duties of the unit. Examples of common names include Technology Transfer Office (TTO)[[69]](#footnote-69), Technology Licensing Office (TLO)[[70]](#footnote-70), Technology Management Office[[71]](#footnote-71), Research Contracts and Intellectual Property Services Office, Office of Technology Transfer, Office of Technology Development, Technology Transfer Interface[[72]](#footnote-72), Industry Liaisons Office*[[73]](#footnote-73)*, IP and Technology Management Office, and Nucleus of Technological Innovation[[74]](#footnote-74)*.*
* Technology Transfer Office (TTO) is a commonly used term, around the world. However, IP Management Office (IPMO), Knowledge Management Office (KMO)[[75]](#footnote-75), or Knowledge Transfer Office (KTO) may be preferred as a more general term to acknowledge the importance of including non-technical, creative works in the process.

* **Article 4.2.1, *shall establish****:* There are many reasons to set up an IPMO, amongst which:
* to reward, retain and recruit the best researchers, and prevent brain drain;
* to maintain closer relations with industry;
* to promote economic development and create jobs;
* to market research for public benefit;
* to assist researchers with IP management issues including negotiation of IP clauses in Research Contracts;
* to generate additional resources for the research;
* in some countries, national legislation or government has required that an IPMO (or similar unit) exists before allowing an Institution the right to exploit IP. For example, South African Institutions are required to establish an office for technology transfer or designate this function to an existing structure within the Institution. See [Box 15](#Box15).

**Box South Africa’s Intellectual Property Rights from Publicly Financed Research and Development Act (2008**)

***Section 6 “Establishment of office of technology transfer at Institutions***

*(1) Unless determined otherwise by the Minister in consultation with the Minister responsible for higher education, or any other Cabinet minister to which an Institution reports, any Institution must, within 12 months of the coming into effect of this Act*

*(a) establish and maintain an office of technology transfer; or*

*(b) designate persons or an existing structure within the Institution to undertake the responsibilities of the office of technology transfer.*

*(2) An office of technology transfer is responsible for undertaking the obligations of the Institution in terms of this Act.*

*(3) Two or more Institutions may with the concurrence of NIPMO establish a regional office of technology transfer.”*

* **Article 4.2.1, *or designate a function* *within the Institution or another organisation to act as such****:* Not all Institutions have an IPMO within their organization. The main business models for IPMOs are summarized in [Box 20](#Box20). The arguments for creating an IPMO within the Institution or a wholly owned subsidiary are complicated, and issues of tax, liability avoidance, terms and conditions of staff and scale are all factors in the choice. These factors differ in different countries, and it is important that they be thoroughly reviewed in the decision-making process.
* **Article 4.2.2, *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. While listing the IPMO’s high level responsibilities in the IP Policy, it is recommended to keep the detail in a separate standard operating procedure as the procedural aspects may change more frequently than feasible to keep updating the IP Policy.
* Typical major IPMO tasks are listed in Article 4.2.2 of the Template:
  + 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 patent 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, monitoring technology developments and compliance with the terms of the agreements.
  + IP costs and revenue distribution. The IPMO will usually maintain a range of administrative functions in support of the primary functions of IP protection and technology transfer. These functions can include accounting, royalty distribution, license performance management, and patent application management.
* The following is a more detailed list of possible IPMO responsibilities. The list is merely exemplary and should be adapted to the Institution’s needs. Not every IPMO handles the full range of technology transfer mechanisms or all of the patenting activities. This is especially the case in countries/Institutions where the inventor/creator owns the right to the IP or when the filing is left to collaborating firms.

**Box Possible Responsibilities of the IPMO**

* Establish a system to capture and protect Institution IP;
* Establish procedures for reporting IP in which the Institution has a proprietary interest;
* Provide guidance to Creators about IP management at the earliest possible stage in the invention process;
* Manage the cost-effective protection of Institution IP;
* Market and promote Institution IP in order to find suitable partners;
* Identify qualified partners to transfer commercial-use rights for Institution IP;
* Negotiate appropriate agreements between the Institution and partners for the Commercialization of Institution IP;
* Facilitate, where appropriate, the creation of spin-off companies;
* Arrange for the acquisition of equity in spin-off companies by the Institution;
* Keep a record of all protected Institution IP together with records of all costs and revenues generated by individual IP;
* Assist Creators with procedures for recording IP activity to meet internal needs, and to satisfy the requirements of external organisations;
* Guide Creators to IP management tools (advice leaflets, IP registration, and evaluation, confidentiality forms) to ensure effective management of IP;
* Seek, at the earliest possible stage, the assistance from qualified external organisations (e.g., IP law firms) to maximise the potential of IP which is commercially exploitable;
* Assist Creators to identify results that have commercial value and help them notifying such results to the IPMO, before disclosure to any party outside the Institution;
* Scrutinise all Research Contracts and other funding agreements for appropriate references to IPRs, and their accordance with this Policy;
* Perform initial reviews of the disclosures submitted to the Institution to determine the subsequent rights thereto;
* Ensure that required agreements regarding the administration of IP in which the Institution has a proprietary interest, and consequent rights of all parties concerned, are properly executed;
* Determine the ownership and/or assignment, if any, of IP rights;
* Manage the distribution of revenue received from IP Commercialization according to the sharing mechanisms defined in this Policy;
* Provide, wherever possible, assistance to researchers in fulfilling their obligations and responsibilities under this Policy, as well as encouraging their participation in any Commercialization process related to Institution IP.
* Some IPMOs also provide spin-off support and business assistance services that promote local economic growth.[[76]](#footnote-76)

**Box A Case from Brazil – The Innovation Law and the Creation of IPMOs**

In Brazil, academic entrepreneurship practices were stimulated and legitimized by the federal Innovation Law (2004). The Law establishes the following IPMO responsibilities:

*I – to ensure the maintenance of the Institutional policy to encourage the protection of creations, licensing, innovation and other forms of technology transfer;*

*II - to evaluate and classify the results of activities and research projects to comply with the provisions of this Law;*

*III - to evaluate the request of an independent inventor for the adoption of an invention in the form of art. 22;*

*IV - to decide for the convenience and to promote the protection of the creations developed in the Institution;*

*V - to express an opinion as to the adequacy of disclosure of creations developed in the Institution, subject to intellectual protection;*

*VI – to monitor the processing of applications and the maintenance of intellectual property titles of the Institution.*

*VII – to develop studies of technological prospecting and competitive intelligence in the field of intellectual property, in order to guide the actions of innovation*

**Box A Case from South Africa**

The Intellectual Property Rights from Publicly Financed Research and Development Act (2008) establishes the following IPMO responsibilities:

***7.*** *(1) The functions of an office of technology transfer must be performed by appropriately qualified personnel whom, when considered collectively, has interdisciplinary knowledge, qualifications and expertise in the identification, protection, management and commercialization of intellectual property and in intellectual property transactions.*

*(2) An office of technology transfer must, in respect of publicly financed research and development— (a) develop and implement, on behalf of the Institution or region, policies for disclosure, identification, protection, development, commercialization and benefit-sharing arrangements; (b) receive disclosures of potential intellectual property emanating from publicly financed research and development; (c) analyse the disclosures for any commercial potential, the likely success of such commercialization, the existence and form of the intellectual property rights, the stage of development thereof and the appropriate form for protecting those rights; (d) attend to all aspects of statutory protection of the intellectual property; (e) refer disclosures to NIPMO[[77]](#footnote-77) on behalf of an Institution; (f) attend to all aspects of intellectual property transactions and the commercialization of the intellectual property; (g) conduct evaluations on the scope of statutory protection of the intellectual property in all geographic territories subject to commercialization potential of the intellectual property; and …..*

**Box Tips for Establishing an Effective IPMO**

A well-functioning IPMO requires[[78]](#footnote-78):

* An articulated mission*[[79]](#footnote-79)*
* Transparent policies and procedures
* Competent and entrepreneurial staffing and entrepreneurial environment
* Sufficient administrative infrastructure
* Customer-friendly relationships with both internal and external constituents
* A highly supportive university administration and community
* Strong links to potential industry partners
* Access to risk, or venture, capital
* Realistic economic expectations
* Adequate tools and infrastructure to protect and commercialise IP (such as patent fund, Proof of Concept fund, etc.).
* **Independence of the IPMO**: Is it important for Institutions to 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.[[80]](#footnote-80) In certain cases, Institutions expand on this 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 any attendant risks are shielded from the Institution.
* An example of such separate wholly owned company is Innovus[[81]](#footnote-81), which defines itself as *“the university industry interaction and innovation company of Stellenbosch University…..responsible for technology transfer, entrepreneurial support and development, and innovation at the university. We manage the commercialization of the University's innovation and intellectual property portfolio through patenting, licensing and the formation of spin-out companies.”* For more information and examples of such structures, see [Box 22](#Box22).
* **Governance oversight.** Most Institutions agree that it is entirely appropriate and necessary that the IP Committee has oversight over IPMO’s budgets, staffing, policy implementation, business model, and strategy; but interference in IPMO management decisions or specific IP transactions is neither appropriate nor constructive. Maintaining these clear distinctions between these spheres allows an Institution to conduct effective IP commercialization without compromising its character as a non-commercial entity established to serve the public good.

### IPMO – which organizational structure to choose?

The IP operations function may be addressed in different manners and must fit local needs and resources. There is no single “right” way to set up an IPMO, but success requires considering some specific issues.

* **Internal Office.** Currently the most widely used form is an internal IPMO. Having an organizational unit or specialized department embedded within the Institution is often best to win the confidence of the researchers, and to be able to recognize new opportunities. An Institution that wants to engage in IP in any systematic manner should have at least one management level person in charge of the function. Furthermore, the complexity of IP-based activities almost always requires that at least one management level staff person be committed to the function full-time. Assuming some basic level of inventive or creative activity at the Institution, even the smallest Institution should consider assigning one qualified person to be responsible for this function. However, costs often constrain this option for universities, especially in the early stages of implementing an IP function[[82]](#footnote-82). In this case, the following alternative models, which have proven successful globally, can be used.
* **Wholly-owned subsidiary company**. This structure offers certain advantages:
  + By privatizing the IPMO, the Institution can finance its own activities and is not restricted by Institution finances. It has more flexibility to offer competitive salaries to IPMO staff and senior employees recruited from industry.
  + A subsidiary company has the added advantage of shielding the Institution from direct risks associated with IP commercialization in that it can be sued and can sue in its own name, whereas an internal IPMO does not have separate legal persona.
* **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.

Outsourcing to private IP service providers may have some cost advantages but the Institution may ultimately suffer from its inability to build its inherent IP management capability. Also, such outsourcing companies will certainly try to “cherry pick” only the best inventions to invest their time in. Since so many Institution inventions disclosed are not suitable for commercialization, many inventors may be underserved. In addition, there are so many aspects to the technology marketing and licensing connection between the Institution, its inventors, and licensees; and an outsourced service provider cannot always appreciate all such connections.

* **An IP management consortium** is a group of Institutions cooperating to establish and operate a communal IPMO.Thismay be a viable option for some Institutions who can find other Institutions, in a similar situation, willing to pool resources. However, such models may be difficult to implement. Decentralized IP management within an Institution involves allowing various departments, colleges, or centres to handle their own IP. Therefore, IP management consortiums often suffer from a lack of comprehensive and coherent IP Policy implementation, but have been used by Institutions in early stages of IP function implementation.
* **Government offices as IP service providers** - Governments or philanthropic Institutions have, in some cases, taken the role of managing technology transfer from universities and research Institutions to industries by (1) creating technology transfer units in Government departments such as under national IP offices; or by (2) setting up regional Transfer of Technology Offices[[83]](#footnote-83). They should function in a similar fashion to theinternal/subsidiary model of IPMOs.However, (a) it is important to avoid excessive bureaucracy or over-extensive rules; and (b) local ownership is critical so there should be a designated person at each Institution who is trained and responsible to answer any questions on IP issues; to review and advise on possible invention disclosures; and to be in active communication with the central unit.
* Examples of the different IPMO structures are given below, [Boxes 21 to 25](#Box21).

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| **Box The Four Main IPMO Business Models** | | | | |
|  | **Internal IPMO** | **Subsidiary** | **Outsourcing** | **Consortium** |
| **When?** | When prospects for knowledge transfer & commercialization are high within the Institution and sufficient resources allow establishment. | When research and resources are sufficient but institutional culture is not conducive for entrepreneurial activity. | Suitable particularly when the Institution generates technology suitable for high-value, income generating opportunities. | When the Institution lacks resources and critical mass (research base) but institutional culture is conducive for entrepreneurial activity. |
| **Key benefits** | * Alignment with Institutional objectives. * Revenue to Institution. | * May encourage a positive perception of technology transfer and demonstrate seriousness. * More operational flexibility. * Ability to structure staff remuneration packages. | * Minimizes investments and risks for the Institution. * More operational flexibility. * Ability to structure staff remuneration packages. | * Sharing of costs and expertise. |
| **Disad-vantages** | * High investment requirements. | * Lack of alignment with institutional objectives * Unresponsive to policy constraints of the Institution such as publication or conflict of interests. | * Overhead costs (fees) reduce revenue for Institution. * Less geared toward knowledge transfer for the broader public good. | * Requirement for shared procedures and agreements on revenue sharing often challenging. |
| *Source: Bennett, Rajalahti and Pape-Christiansen,* [*Technology Transfer Offices: Facilitating Intellectual Property Protection for Agricultural Innovation*](http://siteresources.worldbank.org/INTARD/Resources/335807-1330620492317/8478371-1330712171692/Module5-TN5.pdf)*[[84]](#footnote-84)* | | | | |

### IPMO – how to attract talented staff?

* The essential element for successful IP and innovation management is people. It is not always easy to find talented people who understand the two languages of academia and industry and are able to set up agreements that meet the needs of the Institution, the researchers and industry. The IPMO should be led and composed by people who have experience working in both sectors, know how to run a business and are capable to win the confidence of academic researchers.
* **Core skills of IPMO staff**. Technology transfer is a talent-based challenge. It requires people who are:

technically trained and have business experience;[[85]](#footnote-85)

able to get the respect of researchers and industrial partners;

able to deal with complexity;

good communicators;

good negotiators; and

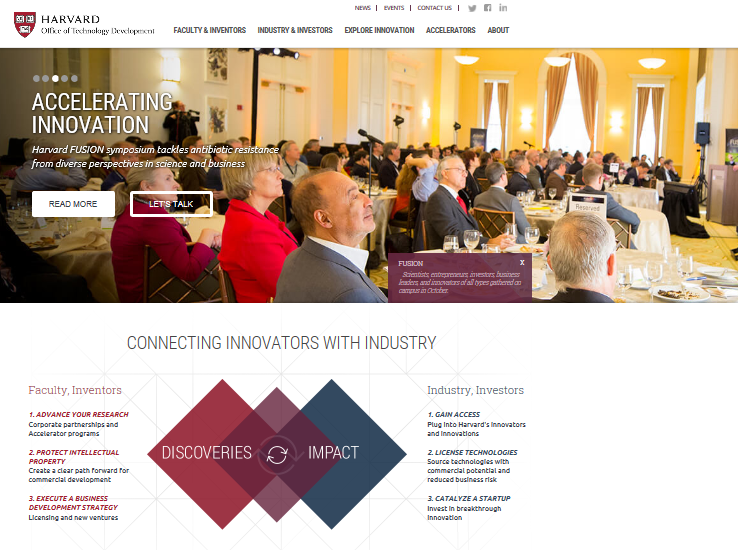
dedicated to the mission.[[86]](#footnote-86)

* **Networking**. It can take many years for the necessary experience to be gained and so Institutions should encourage membership of professional IPMO networking associations in order to exchange good practices and provide training.
* **Incentives for IPMO staff**. To attract highly skilled employees, the IPMO needs to be able to offer adequate wages and benefit packages. However, IPMOs, much like Institutions themselves, differ in their compensation abilities (public universities are confined by pay levels and hiring procedures that many private universities are not). Some public Institutions have solved the issue of staff compensation by creating a private company that manages its technologies and liaison with industry (see also above, “whole owned subsidiary company”).[[87]](#footnote-87)
* **IPMO staff education.** When it comes to keeping top talent, attractive training packages (including internships and international training opportunities) and career development are often reported as being among the top considerations. See also [Box 5](#Box5).

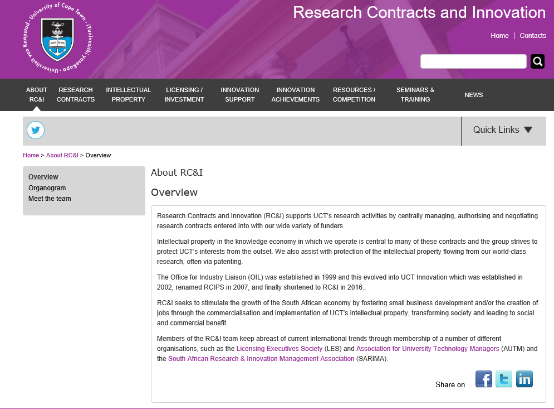
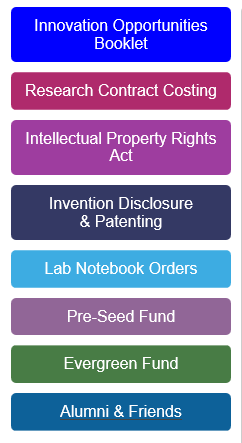
### Examples of IPMO Structures

**Box Examples of Internal Offices**

* Harvard’s Office of Technology Development[[88]](#footnote-88) is one such example.



* The University of Cape Town’s office – the Research Contracts and Innovation Office[[89]](#footnote-89)

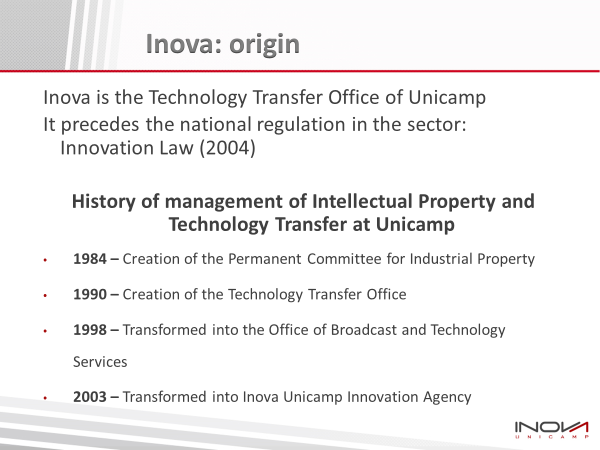
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**Box Examples of Separate Legal Entities (wholly owned companies)**

* INOVA - the technology transfer office of UNICAMP[[90]](#footnote-90) - is a separate wholly owned company

*Unicamp Innovation Agency (or INOVA) promotes interaction between the University and the companies, with the following attributions:[[91]](#footnote-91)*

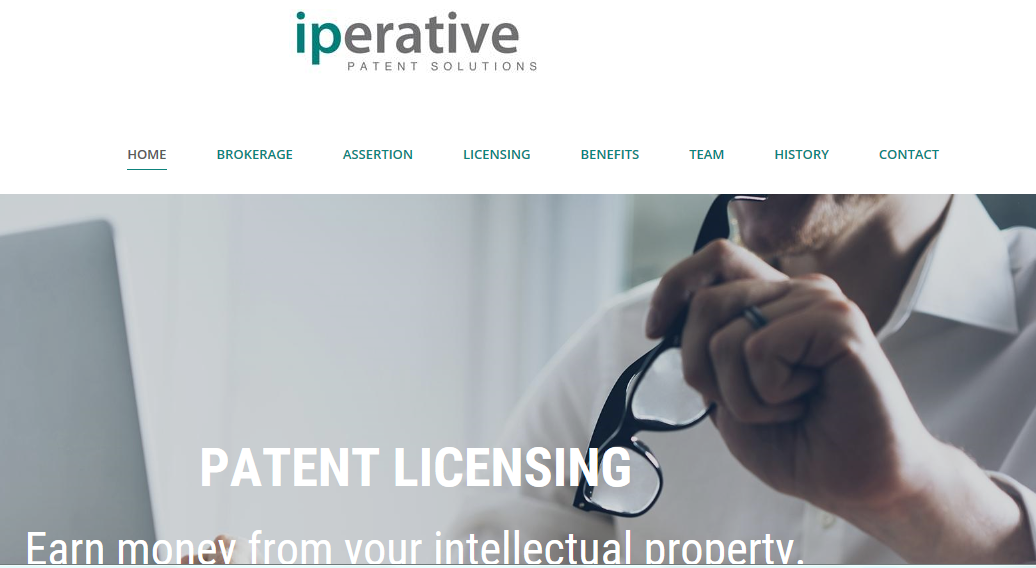
* *To advise interested parties of the university community on issues relating to IP;*
* *Inova is responsible for culture dissemination of IP, the legal protection of IP and licensing in accordance with current legislation, except for the copyrights contained in Federal Law 9.610/1998, without prejudice to the competence of the other organs and bodies of the university.*
* *To promote and to maintain on its website information about policy, IP standards and procedures of the University and the relevant national legislation for UNICAMP community consultation.*
* *To support the teaching and research units and other department of UNICAMP on procedures and instruments for protecting IP implementation and use.*

****

* Another example is WITS Enterprise - the tech transfer office of the University of Witwatersrand, Johannesburg**.[[92]](#footnote-92)** What is unique about this example is that its mandate stretches beyond just IP management and technology transfer and includes short courses as well as research support.
* More examples of wholly owned companies
* Innovus[[93]](#footnote-93) (Stellenbosch University, South Africa)
* Wisconsin Alumni Research Foundation (University of Wisconsin)
* Yissum (the Hebrew University of Jerusalem)
* Oxford University Innovation (Oxford University)
* Many universities in the United Kingdom have created wholly-owned private companies to manage licensing and patenting revenues.

**Box Example of a Private IP Service Provider**

* Iperative**[[94]](#footnote-94)**,an Australian-based company.



**Box Examples of Consortiums**

* **Northern Technology Exchange Market, China**

The Chinese Northern Technology Exchange Market (NTEM), as a state-level standing technology market jointly constructed by the Ministry of Science and Technology and the Tianjin Municipal Government in March of 1995, is one of the most important regional technology transfer istitutions, the distributing centre of technological achievements and information and the technology trading centre. See: <http://www.ntem.com.cn/english1/>



* **Consortia in Brazil**

Brazil has many successful examples of consortia of IPMOs, within the framework of research institutes maintained by the Ministry of Science, Technology, Innovation and Telecommunications:

1 - [NIT-Rio Consortium](http://www.nitrio.org.br/) is composed by eight research institutes, namely: the National Institute of Technology (INT); the Brazilian Center for Physical Research (CBPF); the Mineral Technology Center (CETEM); the Brazilian Institute of Information in Science and Technology (IBICT); the National Institute of Pure and Applied Mathematics (IMPA); the National Laboratory of Scientific Computing (LNCC); the Museum of Astronomy and Related Sciences (MAST) and the National Observatory (ON).

2 - [NIT-Mantiqueira Consortium](http://www.nitmantiqueira.org.br/portal/) brings together the IPMOs of the National Center for Research in Energy and Materials – CNPEM; Wernher von Braun Advanced Research Center - von Braun; Renato Archer Information Technology Center – CTI; Valeparaibana Foundation of Education - FVE / UNIVAP; National Institute of Space Research – INPE; and National Laboratory of Astrophysics – LNA.

**Box Example of a Government Office**

* The National Intellectual Property Management Office (NIPMO), South Africa

Although not strictly acting as an IPMO, it is an enabler for IPMOs, providing capacity building as well as an IP fund.



NIPMO was established in terms of Section 8 of the Intellectual Property Rights from Publicly Financed Research and Development Act (2008). NIPMO is established as a Specialised Service Delivery Unit (SSDU) with effect from 13 December 2013. The Head of NIPMO has powers conferred by legislation. NIPMO relies on the Department of Science and Technology for all support services.

NIPMO functions are to:

* promote the objects of the IPR-PFRD Act;
* ensure its capacity to consider IP referred by a Recipient;
* liaise with Recipients to determine the viability of obtaining statutory IP protection,
* conclude any IP transactions; and
* commercialization of such IP.

### Useful Resources Related to Article 4

**Role of IP Management Offices**.

For more on the roles, motivations and interests of IP Management Offices, see: OECD, The Innovation Policy Platform, [*Technology Transfer Offices*](http://www.oecd.org/innovation/policyplatform/48136121.pdf)*.*

[*Establishing and Operating Technology Transfer Offices*](http://www.iphandbook.org/handbook/execguide_files/ipHandbook%20Guide-Section%2006.pdf)*,* MIHR, PIPRA, FIOCRUZ and bioDevelopments-International Institute (2007). Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices.

* WIPO/ITC, *Exchanging Value: Negotiating Technology Licensing Agreements. A Training Manual*, 2005. Available from WIPO’s e-bookshop at: <http://www.wipo.int/ebookshop>
* Goldscheider, R. (ed.), *The LESI Guide to Licensing Best Practices: Strategic,* 2002.
* R. Maloney, R., [*Handbook of Best Practices for Management of Intellectual Property in Health Research and Development*](https://pipra.org/publications-files/ipHandbook_Volume_1.pdf), 2004.
* *Guía páctica para la creación y la gestión de oficinas de transferencia de tecnología en universidades y centros de investigación*. *El rol de propiedad intelectual*, WIPO Publication No 1026S (Spanish only).

**Core skills for IPMO staff.** Technology transfer officers need an usual combination of qualifications. For more information, see:

- Nelsen, L (2007). [Ten Things Heads of Universities Should Know about Setting Up a Technology Transfer Office](http://www.iphandbook.org/handbook/ch06/p01/). In IP Management in Health and Agricultural Innovation: A Handbook of Best Practices.

**Structure of IP Management Offices**.

For more on the advantages and disadvantages of a separate office: Oxford University Innovation (2009), [*What is the Best Structure for a University Technology Transfer Office?*](https://innovation.ox.ac.uk/wp-content/uploads/2015/01/Best-Structure-for-a-University-Technology-Transfer-Office.pdf)

* **IP Management, IP commercialization and knowledge transfer in Universities and research institutions.** A selection of general resources with information and strategies for utilizing the power of IP generated at Institutions:

WIPO’s [Advanced Distance Learning Course on IP Management (DL-450)](https://welc.wipo.int/index_fr.php) addresses the principal concepts of IP management, commercialization, licensing and best practices highlighting the role of IP in the innovation cycle for economic and social benefits.  An IP management expert assists each participant during the course.

AURIL/UUK/The Patent Office, [Managing Intellectual Property - A guide to strategic decision-making in universities](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/308072/ipasset-management.pdf).

AUTM, Technology Transfer Practice Manual, available at [www.autm.net](http://www.autm.net)

Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices ([IP Handbook](http://www.iphandbook.org/)), MIHR, PIPRA, FIOCRUZ, bioDevelopments-International Institute

For more: see the list or resources provided at [WIPO’s website](http://www.wipo.int/about-ip/en/universities_research/resources/), under the topic “IP Management and Technology Transfer”

## 

## ARTICLE 5 – OWNERSHIP OF IP AND RIGHTS OF USE

### General guidelines for determining IP ownership

Three general rules are set out below for steps to be followed in determining ownership of IP created at Universities and research institutions:

**First rule - Check National Legislation**

* Institutions should perform a thorough analysis of the national legislative provisions, if any, on IP ownership as an institutional IP Policy must comply with any national legislative provisions[[95]](#footnote-95) – one cannot contract out of legislation. Where national law is silent or subject to interpretation, the institutional IP policy can be tailor-made to the institutional vision and mission for IP commercialization.
* In some countries, provisions on IP ownership are found in IP legislation; while in others they are the result of employment law,[[96]](#footnote-96) research funding regulations, contract laws and/or specific laws[[97]](#footnote-97) dealing with Institution IP and technology transfer.
* In addition, many non-legislative instruments may contain provisions regarding the ownership and transfer of IP, such as policies, government initiatives, fiscal rules, rules on government funding agencies, regulations on research funding, court decisions and codes of practice.[[98]](#footnote-98)

In several countries IP ownership differs between non-Institution-based public research Institutions and universities. There may also be different rules for ownership that apply where a work was created through public funding or external funding; and ownership sometimes varies with employment status (professor, assistant, technical personnel, etc.). Furthermore, some provisions in the national legislation may be binding; others create a default position that can be modified by the Institutions through employment contracts and IP policies and/or through individual contracts with industrial partners.

* Whether national legislation is in place, or whether such legislation is absent, Institutions typically adopt one of two regimes for ownership of IP generated at Institutions: the institution ownership, or the inventor ownership model.
  + *The Institution ownership model*

The Institution ownership model allows, as the default position, for academic or research Institutions as employers to owner all IP created by their employees (Staff members, Students and/or Visitors) on the reasoning that they employ the Creators and/or provide resources for the inventions/creative works (the default position may change within the context of “course and scope” and “substantial use” provisions set out on page 42 below).

The Institution is usually given the responsibility for the protection and further development of the inventions. In recent years there has been a clear trend toward Institutional ownership. Countries that currently apply this principle include Brazil, China, Denmark, Germany, Japan, Kenya, Norway, Singapore, South Africa, Spain, Thailand, the United Kingdom and the United States of America, among others.[[99]](#footnote-99)

There are two primary systems of Institutional ownership:

**Automatic ownership**: The Institution is the owner of the IP rights usually via a national legislative provision. This approach is usually subject to certain obligations for the institution and rights of the Creators, for example, the right to benefit-sharing. Examples: Denmark, Finland, Germany, South Africa and the United States of America.

**Box Institution ownership – Bayh-Dole Act (US)**

The Institution ownership model was spurred by the enactment of the Bayh-Dole Act in the US. The Act gives universities the right to own employees inventions resulting from research funding sponsored by the federal government and the right to commercialize such employee inventions. The main purpose of the Act is to prevent non–use of the inventions and creative works resulting from research funded by the tax payer’s money.[[100]](#footnote-100)

**Box Institution ownership – Law of the People’s Republic of China on Progress of Science and Technology**[[101]](#footnote-101)

Article 20. “*Patents of invention obtained in projects covered by the scientific and technological fund established with government funds or by scientific and technological plans, copyrights of computer software, patent rights of wiring design of integrated circuits and rights of new plant strains shall, except where national security and interests and vital public interests are involved, be granted to the* ***authorized undertakers of projects*** *according to law.*”

**Box Institution ownership – South Africa’s Intellectual Property Rights from Publicly Financed Research and Development Act**

*"Subject to section 15(2[[102]](#footnote-102)), intellectual property emanating from publicly financed research and development shall be owned by the recipient".*

**Pre-emption rights**: The employee/researcher is the owner of the IP, but the Institution is entitled to claim the invention, most usually within a specified period of time. This is the system, for example, in Austria and the Czech Republic. In most of these pre-emption rights systems, the Institution must pay some form of remuneration to the employee inventor as compensation for transferring the right to patent the invention to the Institution. Examples: Hungary and Lithuania.

**Box Main Reasons for Institution ownership**

Ownership is not necessary to guarantee these rights, but may be the most effective solution in practice. Some of the main reasons for Institution ownership include:

* Ownership by the Institution and management of the IPRs by the Institution 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;
* Costs of patenting are too high for the individual researcher to fund (particularly if patenting abroad);
* There are generally many researchers involved in a research project, which would lead to fragmentation of ownership and possible problems for transfer and commercialization if technology was owned by researchers; and
* It may generate additional income for the Institution.

*Source:* [*Developing IP Frameworks to Facilitate University-Industry Technology Transfer, A Checklist of Possible Actions*](http://www.wipo.int/export/sites/www/policy/pdf/en/ui_checklist.pdf)

* + *The inventor ownership model*

The inventor ownership model (also called “professor’s privilege”) allows Institution Staff Members (the employees) who are the original Creators to have full rights to the IP they created. This allows them, and not the Institution, to decide whether or not to patent and how to further develop their creations, even if the underlying research was supported by public funds. Usually the Institution has some form of license to use the IP. In some cases, if the Institution provides substantial support to the inventor for technology transfer, the benefits may be shared with the Institution. This concept aims to motivate academics to get more actively involved in the commercialization of research outputs. For this model to function, though, it is required that the Institution inventors are self-motivated to invent and that they have entrepreneurial skills. Examples of inventor ownership countries include Canada, Italy and Sweden[[103]](#footnote-103).

**Box Inventor ownership – University of Waterloo (Canada)**

In Canada, rules on IP ownership by universities vary across Provinces. University policies can be divided in in three main groups of models: (i) university ownership, which requires mandatory assignment of ownership of the IP to the university and university will manage the commercialization process; (ii) inventor ownership, which provides the decision of either assigning the invention to the university or maintaining ownership; and (iii) joint ownership of IP between the university and the inventor.

The University of Waterloo is one of the most successful entrepreneurial universities in Canada applying the inventor ownership model. The motto at this university is that “*everything you discover at Waterloo belongs to you*”. The main principles of the University Policy[[104]](#footnote-104) are:

* IP created in the course of teaching and research belongs to the creator.
* However, the university retains ownership of IP rights in works created as specifically *assigned tasks* in the course of administrative activities.
* While the creator is the owner of scholarly works, the university has a non-exclusive, free, irrevocable license to copy and/or use such works in other teaching and research activities.
* The creator is expected to acknowledge the university for its contributions.
* If an inventor chooses to use university assistance in exploiting his or her patent rights, he or she needs to assign all the rights in the patent to the university.

**Box Tips to Examine the Legal Position Regarding IP Ownership**

* Be aware that the default ownership position for patents may be different from the default position for copyright.
* Seek help of an experienced local lawyer to do a proper analysis of the country’s laws and policiesconcerning ownership issues in IP generated at Institutions. A handy starting point for this exercise is the [*WIPO Policy Writers’ Checklist*](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx). For more information about IP laws in different countries, visit the [WIPO Lex database](http://www.wipo.int/wipolex/en/) and the [Toolbox](http://www.heip-link.net/content/toolbox) provided by the HEIP-link cooperation.
* The IP Policy must provide an instrument (e.g. participation agreement) that binds all Staff Members, Students and Visitors to assign the rights of any invention created as a result of their research to the entity if the national law and Institutional policy permits.

**Second Rule: Consider established and/or best practices**

* An IP policy may give consideration to the historical/established practices of the Institution and the standards and traditions in diverse academic disciplines as well as international best practices.
* Some governments or agencies have established “best practices” for Institutional IP ownership and management such as the Association of University Technology Managers ([AUTM](https://www.autm.net/));[[105]](#footnote-105) International Centre for Environmental Technology Transfer ([ICETT](http://www.icett.or.jp/english/gaiyou/objective.html));[[106]](#footnote-106) Knowledge Commercialization Australasia ([KCA](https://www.kca.asn.au/));[[107]](#footnote-107) [ACCT Canada](https://www.acctcanada.ca/);[[108]](#footnote-108) and the Association for University Research and Industry Links ([AURIL](http://www.auril.org.uk)).[[109]](#footnote-109) While such best practices are usually not binding, it may be of benefit to take them into account.

**Third Rule: In what circumstances should IP be owned by the Institution?**

* The key consideration is that the intention is to promote the largest possible access to the Institution’s IP and research and to maximize the economic and societal benefits.
* Within the scope of any applicable national legislation, the Institution should provide clarity, in an least the options listed below, on which IP created by its Staff Members, Students or Visitors, the Institution will own:
* publicly funded research;
* IP generated through substantial use of the Institution’s resources;
* privately funded commissioned work;
* private work of Employees;
* scholarly works;
* students’ theses;
* IP generated by Students and Visitors;
* IP generate in the context of collaborative or joint research projects.
* Some examples of how institutions may differentiate this ownership approach are set out below:

**Box Example Institution ownership: University of Johannesburg (South Africa)**

“*All intellectual property that arises from services rendered by employees in the normal course and scope of their employment at the University belongs to the University, subject to exceptions provided for in 4.2.3.4 below.*”

**Box Example Institution ownership: Technological Institution of Costa Rica**

Art.6 – “*The Technological Institute of Costa Rica will be the owner of industrial property rights related to the results of the academic activity. However, the inventors maintain their right to be recognized as such and to receive a compensation for their economic exploitation.*”

Art.13– “*Ownership of the rights that may be generated by inventions and innovations or works carried out by staff or students of the Technological Institute of Costa Rica, as established in these regulations, outside the scope of the institute and without the use of the institute’s equipment or instruments, will belong to the inventor, innovator or author, if they are not directly or indirectly related to the research that they carry out in the institute. In case of doubt, the burden of proof will be on the staff or student.”*

**Box Example inventor/creator ownership: University of Calgary (Canada)**

“*The ownership of Intellectual Property and all rights pertaining to ownership are vested in its Creator unless qualified by law or written agreements to the contrary.[[110]](#footnote-110)*

**Box Example - Rules based on category of IP: American University of Beirut (Lebanon)**

*“Intellectual Property: it is divided into two groups:*

*a. The traditional results of academic scholarship, i.e. textbooks, literary works, artistic creations, and artefacts.*

*b. The novel results of research such as products, processes, machines, software, biological technology, etc.*

*Intellectual property in the first (traditional) group are exclusively owned by the author. Such IPs are considered to make their full contribution to the University's benefit by their creation and by their use in teaching, further development, and enhancement of the University's academic stature. Thus, unless there is explicit evidence that the work was specifically commissioned by the University, the IP rights remain with the author(s) and the University rights are limited to free (no cost) use in teaching and research.*

*In the second group, the strong presumption of ownership is to the University (with the originator having a right to share in the benefits derived therefrom). Unless there is convincing and explicit evidence that the IP was developed without the use of university resources and/or facilities, ownership of the IP rests with the University and the originators are obliged to sign the appropriate legal assignment documents upon request.*

**Box Example - Rules based on type of Creator: Victoria University of Wellington (New Zealand)**

5.1 - *“Ownership of Intellectual Property. Under this policy IP may be variously owned by staff, undergraduate students, research students, the University, third parties, Maori, and visiting academics.”[[111]](#footnote-111)*

**Box Tips to Decide IP Ownership Rules**

* Follow the three-step method: What does the law provide? → What are the established or best practices? → When should IP be owned by the Institution?
* To the extent possible, avoid fragmentation of ownership rights, which is an impediment to effective commercialization.
* It is a strong feature of academic tradition that researchers need unfettered rights to publish their works. It is possible to accommodate this separately from ownership/access rights.
* It is important to have clear rules and policies on ownership of IP, while at the same time appropriately recognizing the contribution of the Creators and determining who should share in any benefits resulting from the developed IP.

### Article 5.1 – IP Created by Staff Members

As per Rule 1 above, Institutions should first analyse the national default legal regime for employee’s inventions and creative outputs. Where the legislation is absent or silent, appropriate provisions may be crafted in the institutional IP Policy.

**Article 5.1.1 - Institution ownership**

Article 5.1.1 vests ownership of IP in the Institution, where the IP was generated by Staff Members *in the course of employment OR by making Substantial Use:*

* **Article 5.1.1 (a), *in the course and scope of his/her employment****:* If a Staff Member creates “*in the course and scope of his/her employment*” it is fair and reasonable that the Institution should own the resultant IP. However, if the IP is created or developed outside the course and scope of employment, the Institution is not automatically entitled to this IP ownership. This reflects the general default regime adopted by most countries for inventions created by employees.

The determination of whether IP is created within the course and scope of employment is a question of fact and hence various tests have been developed to assist with this determination.[[112]](#footnote-112) In some jurisdictions, it has been held that the “course” of employment/duties is simply what the employee was employed to do.[[113]](#footnote-113) In *King v SA Weather Service[[114]](#footnote-114)* the copyright ownership of a computer program was at issue. The court noted that the phrase “in the course of employment” is a stock concept in employment law (formerly known as the law of master and servant). The court noted that whether or not a work was authored in the course of the employee’s employment remains by and large a factual issue that depends not only on the terms of the employment contract but also on the particular circumstances in which the particular work was created.

Note also that some Institutions use “course and scope” as opposed to “course”.[[115]](#footnote-115) National law will determine the term to be used.

* + **Article 5.1.1 (b), *Substantial Use****:* The underlying reasoning is that 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 which should be owned, protected and used by the Institution.

Clarity is required in the understanding of the term “resources” and “substantial use.”

“**Resources**” usually refer to the Institution’s (i) facilities (buildings, research laboratories, equipment, campus computer centres); 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.

Some policies include specific measurements, setting a cost floor – for example “*use is considered substantial if the resources employed would cost the professor [X dollar] if they were paid out of pocket*.”

In some countries, supervision may also constitute Substantial Use.

It is also recommended to define what is *not* considered to be Substantial Use. For example, (i) incidental use of the Institution’s facilities or resources (e.g. occasional use of office equipment and office staff); (ii) extensive use of a facility commonly available to all Staff Members, Students or Visitors (e.g. library facilities, facilities available to the general public and administrative staff); (iv) if the IP creator compensates the Institution for the fair market value of the facilities and equipment (as actually charged by the Institution to outside users)[[116]](#footnote-116) prior to the use of such facilities and equipment becoming substantial; and/or (v) the Creator is not using the Institution’s committed time because the activities are permitted in terms of “Individual Consulting and Outside Activities” (Institutions are advised to have a policy on Individual Consulting and Outside Activities).

**Box**  **Definition Substantial Use - Bowdoin College (Unites States)[[117]](#footnote-117)**

*(iii) “Substantial use of College resources” means that the College has provided support with resources of a degree or nature not routinely made available to all faculty and includes special support, either in the form of funding, or the use of facilities or staff.  For example, the provision of a lab space, studio, extensive equipment dedicated to the use of a faculty member or extended IT support from a staff member involves the substantial use of College resources.  However, ordinary use of desktop computers, College libraries and limited secretarial or administrative resources, including routine support from the College’s IT department, and provision of offices, do not constitute substantial use of College resources.  In addition, the College’s funding of sabbatical leaves and funding provided through the Faculty Resource Committee are not considered substantial use of College resources.*

* **Article 5.1.1, *in the course of employment or by making Substantial Use:*** This means that the ownership vests in the Institution as soon as there is Substantial Use of resources, even if the IP was made outside the duties. Many Institutions have accepted this “ownership-rights envelope” circumscribed by “Substantial Use of resources or facilities.” Be aware that some provisions in the national legislation deal with works created outside the employment context. A provision in an IP Policy that is contrary to such a law will be null and void.[[118]](#footnote-118) Others create a default position that can be modified by the Institutions through their IP Policy, and/or through individual contracts.

**Article 5.1.2 - Staff Member ownership**

* **Article 5.1.2, *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. Note once again that some provisions in the national legislation deal with works created outside the employment context.

* **Article 5.1.2, *Scholarly Works*:** This is discussed fully under Article 5.5.
* **[Option]*, Other IPRs, as required by national law, or for which the Institution cannot or does not wish to claim ownership and the Institution has communicated such in writing]*:** There may be instances where an institution elects not to retain ownership of IP developed at the institution and such IP is made offered to the Staff Member should they wish to take ownership of the IP. This could take place at various stages along the “innovation value chain” from evaluation by the IPMO who decide that there is no value to seek for statutory IP protection, or when a novelty-destroying search report is issued, or where a poor techno-economic feasibility analysis report is produced.

**Article 5.1.3 - IP created by Staff Members under Research Contracts**

* **Article 5.1.3, *terms of the Research Contract will regulate ownership of IP created by Staff Members*:** As set out previously, one cannot contract out of legislation. Hence provided legislation does not dictate the ownership provisions, the mutually agreed terms of a Research Contract regulate ownership of IP created by a Staff Member in the course of a research project. Some Institutions have taken an approach to IP ownership in which the right to own IP made by Staff Member is a negotiable point in contracts with an external partner or research sponsor. Experience has demonstrated that giving ownership in IP by “buying” the IP is fraught with problems. Giving up ownership in this manner is likely to hinder the goals of assuring that Institution IP benefit the public, provide long term benefits to the Institution and its Staff Members, and stunt the development of a sustainable and successful university IP-based technology transfer system. Similarly, some believe the Institution should be flexible on ownership of IP made by its Staff Members in collaborative arrangements. There is no doubt that collaborators will ask for such ownership, for whatever reason. However, if an Institution holds to an absolute policy of ownership being absolutely linked to inventorship and to ownership of its Staff Members’ IP, the negotiation is simplified. For further details, see [Article 7](#_ARTICLE_7_–).
* 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 – IP created by Students

Institutions are increasingly working closely with industry on applied R&D and hence it is not just Staff Members but Students who are funded by industry or work in university research projects that have the ability to create IP.

The ownership of IP created by students is often a contentious issue. The Institution will often differentiate between two different categories of students (undergraduate and post-graduate) who, in turn, may have different contractual relationships with their university based on their funding. And some students are employees as well as being students[[119]](#footnote-119).

**Article 5.2.1 - Student ownership**

* **Article 5.2.1, *IP created by a Student in the course of study*:** Students should own the copyright in theses and dissertations as well as Scholarly Works, typically publications. 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. This is important as when publishing an academic work rights will need to be transferred to the publishing company. The student thus needs to own the rights in order to be able to transfer them.

**Article 5.2.2 - Theses or dissertations**

* **Article 5.2.2, [Option 1] *The Student must submit his/her final thesis or dissertation to the Institutional repository***: This is an institutional obligation; it is typically not optional and is often included in the student’s registration process.
* **Article 5.2.2, [Option 2]** ***The Student must grant a royalty-free licence to the Institution to reproduce his/her thesis or dissertation and to distribute copies thereof to the public:[[120]](#footnote-120)*** If the institution acknowledges that the IP in the thesis or dissertation belongs to the Student, the student will be required to grant the institution rights to copy and circulate copies of the document. Granting such licence will prevent the institution from infringing on the Student’s copyright that resides in the thesis or dissertation.

**Article 5.2.3 - Institution ownership**

* **Article 5.2.3, *Institution ownership*:** If a Student makes Substantial Use of the Institutions resources (see Article 5.1.1(b) 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.

**Article 5.2.4 - IP emanating from Research Contracts**

* **Article 5.2.4, *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 an research project the terms of the Research Contract will generally determine the IP ownership.

**Article 5.2.5 - Institution ownership responsibilities**

* **Article 5.2.5, *explanation of the reasons for the assignment of IP rights***: In the case of Institutional IP ownership, the Institution has an obligation to inform the student of the implications of IP ownership.
* ***advise the Student 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
* ***withdraw the Student from the Research Project or Research Contract if a Student elects not to assign the relevant IPRs to the Institution.*** In the event that the Student refuses to assign the IP, the institution should provide for a means to remove the Student from the project or contract. This should be a last resort and instead other means should be deployed first, such as mediation, in an effort to resolve the disagreement first.

**Article 5.2.6 - Bursaries/scholarships**

* **Article 5.2.6, *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 5.2.7 - Student owned IP**

* **Article 5.2.7, Option 1, *Students may be required to assign the IP*:** The IPMO may elect to assist a Student with the commercialization of IP owned by the Student. This may involve the Student assigning the IP to the Institution and then the Institution drives commercialization with financial or non-financial incentives being provided to the Student.
* **Article 5.2.7, Option 2:** Alternatively, various options can be explored where the Student retains the ownership the IP and the IPMO assists the Student on a “services” type basis for a fee or as otherwise agreed.

**Box Tips - Student IP**

There are times when Students develop IP and there are situations in which the Institution should own such Student IP, for example so that a larger package of Institution IP can be commercialized. In this case, the Institution will need to have:

* a suitable policy for student IP;
* suitable contractual documents (for example, assignments) to give effect to the policy; and
* suitable procedures to ensure that the documents are signed.

**Box Example from the University of Cape Town, South Africa[[121]](#footnote-121)**

*6.10  Where Students are involved in activities that could lead to the development of Intellectual Property over which UCT or a third party may claim ownership, the following conditions will apply:*

*- 6.10.1  The Student’s rights in Intellectual Property in any theses or publications arising from the research will be protected;*

*- 6.10.2  The Student’s future career choices will not be closed by the choice to work in a confidential area of research;*

*- 6.10.3  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;*

*- 6.10.4  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;*

*-6.10.5  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 DVC for MSc theses, for periods of 6 months, up to a maximum of two years.*

*6.11  Where Students of UCT may be involved in research at institutions which are affiliated with UCT or at institutions other than UCT, 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.*

*6.12  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 5.3 – IP created by Visitors

There is a whole range of individuals who work at or with the Institution, but who are neither Institution staff members nor students at the Institution. They can be visiting academics, individuals with honorary appointments at the Institution, people employed by organizations which are collaborating with the Institution, etc. A collective term “Visitors” are used for these individuals, because they need to have an Appointment agreement with the Institution to be allowed to conduct research or teaching.

**Article 5.3.1 - Institution ownership**

* **Article 5.3.1, *course and scope; or Substantial Use*:** The same rules that apply for Staff Members apply for Visitors. See [Article 5.1.1](#_Article_5.1_–). Generally, the institutional IP Policy would state that any IP created by the Visitor is owned by the host Institution. In instances, where the R&D may have been initiated at the Visitor’s own Institution, co-ownership may be appropriate. However, in order to avoid the pitfalls of co-ownership, it is recommended that details of who will be responsible for commercialization of such IP be detailed in the appointment agreement or even in the IP Policy.

**Article 5.3.2 - Institution IP**

* **Article 5.3.2, *On departure from the Institution, a Visitor must sign […] an IP Disclosure*:** Articles [8.1.2](#_Article_8.1_–) and [8.1.3](#_Article_8.3_–) define the procedures to be followed for a complete disclosure.

**Article 5.4 - Special Rules for Course Materials**

* **Article 5.4.1, *Institution ownership*:** Institutions are 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 now 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:*** Note: the definition of Course Materials clarifies Course Materials are primarily prepared for teaching purposes. The creators of the Course Materials are granted a licence to use the Course Material for teaching and research purposes. Institutions usually 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**

It is important to harmonize academic practices with the IP Policy on ownership of academic publications. Two policy options may be considered.

* The first option is to deal with the ownership of copyright works separately from the ownership rules of other IP. For example the policy could state: “*Authors own copyright except where university support is used in the creation of the work”[[122]](#footnote-122)* or “*All rights remain with the creator unless (a) the work is work made for hire; (b) the work is funded by the university; (c) the work is commissioned by the university or (d) the work makes significant use of university resources*”[[123]](#footnote-123) or “*Copyright is owned by the creator unless where the university commissioned such work*.”[[124]](#footnote-124)
* A second option is to provide that the Institution owns in principle all IP created by its Staff Members, with the exception of “Scholarly Works”. Examples of works falling within the ambit of “Scholarly Works” are books; chapters in books; articles; monograms; blogs; theses and dissertations. [[125]](#footnote-125)

The Template reflects the second option, which many Institutions seem to follow in their IP policies.[[126]](#footnote-126)

* + **Article 5.5.1***:* The Institution waives its rights in the copyright in Scholarly Works produced solely in the furtherance of an academic career (Article 5.1.2). Scholarly works are routinely prescribed as compulsory reading or used in the course of teaching (for example a prescribed textbook). This does not render the Scholarly Work part of Course Materials. Only where a Scholarly Work is incorporated into Course Materials then the default position of Institutional IP ownership will apply.
* **Article 5.5.2 and 5.5.3, *Institutional repository and* *License to the Institution*.**  When the ownership of Scholarly Works rests with the creators (Staff Members or Visitors), it is good practice that certain rights, to copy and/or use the work for academic purposes royalty free, are granted to the Institution.
* **Article 5.5.2 and 5.5.3, *License to the Institution*.**  When the ownership of Scholarly Works rests with the Creators (Staff Members or Visitors), it is good practice that certain rights, to copy and/or use the work for academic purposes royalty free, are granted to the Institution.

**Article 5.6 – Moral Rights**

* **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:***  In some national systems moral rights may be waived. The IP Policy provides that the Institution will not require Staff Members, Visitors 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. Traditional models for the exploitation of content in general are being challenged by models such as the international open access to research movement[[127]](#footnote-127) and the open educational resources (OER) movement.[[128]](#footnote-128) The decision to promote release of OERs at an Institution does not imply the release of all teaching and learning materials under open licences. An OER policy should provide for a range of choices -- the same material could be released under both a Creative Commons licence for non-commercial use, and under a more restrictive (and/or royalty paying) licence for commercial use.
* OERs have implications for ownership and authorship.[[129]](#footnote-129) 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 the Institution may be held liable for copyright infringement where in-licensed material is inadvertently released as an OER.
* **Option.** The following clauses could be added, if the Institution wishes to refer to the rights of the creators and external parties:

**5.7.X.** *“If a Member of Staff or Student believes that it is in the best interests of knowledge transfer to place IP in the public domain, he or she must discuss and agree this with their Authorizer or Academic Advisor or Supervisor, as appropriate.”*

**5.7.X**. “*Where IP is being created with the support of an external party, then the [Authorizer or Academic Advisor or Supervisor, as appropriate], must discuss and agree the position with IPMO and the external party. The [Authorizer or Academic Advisor or Supervisor, as appropriate], or IPMO (where the IP is being created with the support of an external party), will decide with the relevant Members of Staff or Student who created the IP whether it is appropriate to place the IP in the Public Domain or to make it open source, each taking account of what the [Authorizer or Academic Advisor or Supervisor, as appropriate], or IPMO (as the case may be) believes is in the best interests of the Institution.”[[130]](#footnote-130)*

### Useful Resources Related to Article 5

* **FAQs on ownership issues**. The [WIPO webpage](http://www.wipo.int/about-ip/ar/universities_research/ip_policies/faqs/index.html) contains a set of frequently asked questions on ownership issues.
* **Copyright issues** **including course materials**.

- University of California [Policy on Ownership of Course Materials](https://policy.ucop.edu/doc/2100004/CourseMaterials)

* **General information and good practices for IP ownership or management**.
  + Association for University Research and Industry Links (AURIL)
  + [Fact Sheet. Inventorship, Authorship and Ownership](https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/Fact-Sheet-Inventorship-Authorship-Ownership.pdf), European IPR Helpdesk
  + [Fact Sheet. IP Joint Ownership](https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/IP_joint_ownership_updated.pdf), European IPR Helpdesk
  + For more: see the list or resources provided at [WIPO’s website](http://www.wipo.int/about-ip/en/universities_research/resources/), under the topic “ownership of university research”
* **IP created by students**.
  + For examples of IP Policies dealing with Student IP, search the [WIPO Database of IP Policies](http://www.wipo.int/about-ip/en/universities_research/ip_policies/index.html)
  + Unico [Practical Guide to Students and IP](https://www.praxisauril.org.uk/resource/practical-guide-students-and-ip), PraxisUnico (2006)
  + IP in Student developed inventions FAQs: See the [website](https://www.umsystem.edu/ums/red/oipa/studentip-faqs) of the University of Missouri System
* **Comparative studies**. A few initiatives have compared national IP ownership regimes. See for example:
  + A comparative study of the OECD: [Turning Science into Business. Patenting and Licensing at Public Research Organisations](http://www.oecd.org/sti/sci-tech/turningscienceintobusinesspatentingandlicensingatpublicresearchorganisations.htm) (2003);
  + [Toolbox](http://www.heip-link.net/content/toolbox) provided by the HEIP-Link project coordinated by the University of Alicante, Spain;
  + Ramli, Nasiibah and Zainol, Zinatul (2014), [Intellectual Property Ownership in Academia: An Analysis, Journal of Intellectual Property Rights](http://nopr.niscair.res.in/bitstream/123456789/28924/1/JIPR%2019%283%29%20177-188.pdf), Vol 19, May 2014, pp 177-188; the authors compare the university ownership model and inventor ownership model of IP;
  + Kenney, M. and Patton, D. (2011), *Does inventor ownership encourage university research-derived entrepreneurship? A six university comparison*, Research Policy, 40 (8) 1100-1112.
  + A short history of university technology transfer legislations, see [Harnessing public research for innovation – the role of Intellectual Property](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2011-chapter4.pdf), Box 4.2 and Annex table A.4.1, in book: World Intellectual Property Report 2011 The Changing Face of Innovation, Chapter: 4.
* **IP Ownership Flowchart**
  + The University of Glasgow’s [*Flowchart: who owns IPR?*](https://www.gla.ac.uk/media/media_195589_en.pdf) is a practical introduction to understanding the University’s policy on IPR.
* **Hypothetical case study on ownership**
  + [IP Toolkit for Universities and Research Institutions](http://www.wipo.int/about-ip/en/universities_research/).

## 

## ARTICLE 6 – PUBLICATION, NON-DISCLOSURE AND TRADE SECRETS

### Article 6.1 – Right of Publication

* The vast majority of an Institution’s research output is made available directly to the public at large by publication in journals or by free dissemination.[[131]](#footnote-131) 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 need to be considered, for example by:
  + educating researchers on the necessity to file a patent application before publishing (see [Box 41](#Box41)); or
  + allowing industrial partners to request delays in publication in order to accommodate IP protection (see [Box 43](#Box43)). 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. See also [Article 7.7.7](#_Article_7.7_-).

### 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. The premature public disclosure of an invention may obstruct the protection and commercialization of IP related to that invention. An understanding of what types of disclosures are novelty-destroying under the national and international patent laws is therefore crucial.

**Box Tips to Avoid Premature Disclosure**

* Educate staff and students how to publish the results of their research and still protect the commercial value of their IP:
  + Encourage them to submit and IP Disclosure well before any public communication or disclosure of the invention;
  + Encourage them to inform IPMO of any imminent presentation, lecture, poster, abstract, website description, research proposal description, dissertation, publication, or other public presentation of the invention. Research results that have been published during meetings and conferences as posters and articles, etc. are no longer novel and cannot be patented;
  + Sending a publication for review will usually not constitute a premature disclosure but researchers should need to show a degree of diligence by marking the manuscript “confidential”.
* Consider having a separate confidentiality policy with guidelines to staff on the use of confidential information (see [Useful Resources Related to Article 6](#_Useful_Resources_to)).

### Article 6.3 – Trade Secrets

* Each Institution should 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 might be a better move. Several factors should be evaluated when deciding between patenting or maintaining a Trade Secret, including
  + the cost of patenting versus the costs of maintaining the secrecy of the technology;
  + the risk of the Trade Secrets being disclosed even with the best protection plan;
  + the licensing potential of the technology [[132]](#footnote-132);
  + the need to publicly disclose ideas - for example, to attract capital[[133]](#footnote-133);
  + the rate of technology change[[134]](#footnote-134);
  + the possibility to reverse engineer.[[135]](#footnote-135)
* There is one additional consideration, which may be the most difficult for the technology transfer executives to reconcile. Many argue namely that it is hard to reconcile Trade Secrets with openness in knowledge sharing and absolute freedom of publication, which is part of the academic mission. Therefore, apart from certain exceptional categories[[136]](#footnote-136), many Institutions will have reservations regarding trade secret protection (see the example of Stanford, [Box 44](#Box44)).
* Trade secrets may also be created in sponsored research projects (Research Contracts). In this case, the sponsor will generally require the Institution and the creators to preserve the secrecy of the information[[137]](#footnote-137). However, due to the freedom to publish principle, some universities will not allow any information generated by its Staff Members, even under a sponsored research contract, to be kept secret (see [Box 30](#Box30)). [[138]](#footnote-138)

### Examples of Confidentiality and Secrecy Clauses

**Box Example of Confidentiality Responsibilities – City University of London[[139]](#footnote-139)**

*“Art. 9.1. Before and during projects or collaborations with third parties, all persons bound by this IP Policy must co-operate with the Technology Transfer Team and/or Research Office to ensure that appropriate, written agreements relating to confidentiality are in place before the start of any collaboration or project between the University and any third parties who are not bound by this Policy from which IP may arise or for which University IP may be used or disclosed. This includes pre-proposal discussions with external parties.”*

*“Art. 9.4.b) For Inventions of a technical nature, which might be protected by a patent, advice should be sought prior to any publication from the University Technology Transfer Team to avoid any premature disclosure which may reduce the commercial impact.”*

**Box Examples of Allowing Industry Partners to Request Delays in Publication**

* **The University of Copenhagen**[[140]](#footnote-140) **-** *“The University strives, and is obliged, to publish as much as possible. Private companies, on the other hand, will typically operate with a more controlled publication strategy […]. Publication of research results, produced in collaboration with an external party, can usually be delayed by a maximum of three months (one month where the external party can comment on the material that you wish to publish, and two months where the company can patent its own results). This period can be divided differently. Sending a publication for review is not regarded as publication, but you need to show a degree of diligence by marking the manuscript ‘confidential’.”*
* **Pittsburg University[[141]](#footnote-141)** - *“A commercial sponsor of a research project may not have a veto over a decision to publish, but a delay of publication for an agreed period, not to exceed six months, may be allowed in order to permit filing of a patent application.”*

**Box Example of No Secrecy – Stanford**[[142]](#footnote-142)

*[Perspectives] - “Stanford maintains a core policy of no secrecy in research. Stanford researchers publish their results to advance and disseminate knowledge. Publication is how faculty and students further their careers. University discoveries cannot be kept as trade secrets.”*

*[Sponsored Research Agreements] – “Companies are concerned with protecting their trade secrets, intellectual property and other confidential information. Stanford understands and respects this perspective. But, due to the university’s open environment and flow of researchers and students, we do not have the ability to monitor who has access to specific information. Generally, we prefer that companies do not divulge confidential information to anyone at Stanford. Highly proprietary projects that involve a company’s valuable secrets are not well-suited to the university environment. However, if sharing confidential information is necessary for a particular research project, the company may request that individual researchers personally enter a nondisclosure agreement. Generally, Stanford is not a party to these agreements. Stanford may also be able to accept certain confidentiality terms as part of an SRA, provided they are consistent with researcher interests. In either case, any confidentiality terms must comply with university policy.”*

**Box Example of Limited Secrecy – The University of Copenhagen**[[143]](#footnote-143)

*“Private companies tend to protect confidential information to maintain a competitive position. The University, on the other hand, has an obligation to disseminate the University’s research results to the society that has partly or fully financed the results. Both positions have to be considered in confidentiality agreements. The University of Copenhagen’s management team has decided that non-disclosure of an external party’s confidential knowledge cannot exceed a period of three (3) years from the end of a collaborative project, unless specific circumstances justify an extension of this period.”*

### Useful Resources Related to Article 6

**Examples of information disclosure policies/guidelines**:

[University of Alabama](http://www.uab.edu/policies/content/Pages/UAB-AD-POL-0000090.aspx)

[University of Chicago](http://humanresources.uchicago.edu/fpg/policies/600/p601.shtml)

[Vanderbilt University](https://www.vanderbilt.edu/faculty-manual/part-iii-university-principles-and-policies/ch5-policy-guidelines-for-sponsored-research/)

[Western Michigan University](http://wmich.edu/registrar/ferpa-faculty-staff-confidentiality)

## 

## ARTICLE 7 – RESEARCH CONTRACTS

### Articles 7.1 to 7.6 - General provisions

* **Article 7.1, *Authority*:** Institutions must have clear delegations of authority making it clear who is able to sign a Research Contract on behalf of the Institution. Any signatory on a Research Contract which does not have the necessary delegated authority, may render such contract non-binding for the Institution.

**Box Extract from East Carolina University “Delegation of Authority to Sign Contracts”[[144]](#footnote-144)**

*2. Who is authorized to sign contracts*

*2.1. Full executive and administrative power is vested in the Chancellor by N.C. Gen. Stat. § 116-34(a) and Section 502A of The Code of the Board of Governors of The University of North Carolina. Inherent within this power is the authority to sign contracts binding East Carolina University. This authority is retained and may be exercised notwithstanding delegations of authority to sign certain contracts to other administrative officers.*

*2.2. The Chancellor may delegate signatory authority to selected delegates pursuant to the procedure set forth in this regulation. Delegates may further sub-delegate their authority to other administrators unless the delegation of authority from the Chancellor specifies otherwise.*

*2.3. East Carolina University does not recognize contracts signed by University employees as binding on the University unless the employee who signed the contract has formal, written delegated signatory authority. Section 3 of this regulation sets forth the procedure for formally delegating and sub-delegating authority to sign contracts that will be recognized as binding on the University.*

*2.4. Employees who sign contracts purporting to bind the University without authority properly delegated under this regulation may be held personally liable by the University for its damages, if any, and may be subject to University disciplinary action.*

* **Article 7.2, *Research Contract Policy***: This section of Research Contracts is by no means a comprehensive representation of Research Contacts in general, but instead what the IP clauses should look like dependent on the Research Contract type. As such reference is made to the appropriate Institution policy in this regard. However, it is important to realise that Research Contracts may only be concluded, in other words signed, 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, *shall exercise due diligence and consult 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 the Institution are reflected. Thus, the role of IPMO as a reviewer and amender of the text in the Research Contract should fall part of a standard best practice within the Institution. Furthermore, this provides an opportunity for the IPMO not only to flag potential issues but also to make a note of the Research Contract that is being concluded so that they can monitor progress in this regard as the research advances and be aware of any existing commitments made to the external party/sponsor (such as an right of first refusal once the IP is fully developed).
* **Article 7.4, *Ownership and rights to use:*** The key issue is that it needs to be clear what IP has been created and who owns it. The external party/sponsor may seek to own the research outputs for its commercial advantage. The research Contract should attempt to resolve the ownership of all research outputs up front.  These contracts may take on a few different forms depending on, amongst others, the funding source and the desired outcomes.  The IP clauses in the Research Contracts are then drafted to align to the funding source and the desired outcome. Depending on the legislative framework, Institutions will 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***. As many countries around the globe have enacted legislation regulating the development of IP at an Institution, the legislation needs to be consulted and complied with when devising the IP clauses in a Research Contract. As an example, in South Africa, the Intellectual Property Rights from Publicly Financed Research and Development Act (IPR Act; No. 51 of 2008) prescribed three scenarios for IP ownership:

**Box Example - Government Rules in South Africa for Publicly Financed Research**

* Section (4)(1) states that “*Subject to section 15(2), IP emanating from publicy financed research and development shall be owned by the recipient*”
* Section 15(2) prescribes four requirements for co-ownership between the Institution and the sponsor.
* Lastly, should the full cost of undertaking the research and development at an Institution be paid by the private party/sponsor then it is deemed that the IPR Act does not apply and access to the IP can be freely negotiated between the parties.

### Article 7.7 - Basic Principles

* **Article 7.7.2,** ***Background IP***: Background IP is regarded as that IP owned separately by each party prior to the conclusion of the Research Contract, which Background IP is of relevance to the particular project(s) to be undertaken under the Research Contract. The ownership of Background IP 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 7.7.3, *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 7.7.3, *The general rule is that such [Foreground] IP shall be owned by the Institution***. This is most importantly to avoid the fragmentation of IP.

It is not always the ownership of IP per se that counts, but the scope that parties have to *use* and manage the IP. Crucial requirements for Institution are:

- the ability to use research results in future research (see Article 7.7.8);

- the ability to benefit from the commercialization of the IP, both directly and in combination with other research results; and

- to ensure that the research results will be put to use, whether commercially or otherwise. This may be important, because commercial behavior can often involve not exploiting the IP or using patents to block other companies’ technological activity.[[145]](#footnote-145)

In principle (and if the national law allows), all these requirements can be accommodated within Research Contracts that assign Foreground IP (i.e., give ownership of the IP) to the external party/sponsor[[146]](#footnote-146). However, in practice it may be simpler for Institutions to retain ownership of Foreground IP.

* **Article 7.7.4, *Co-owned Foregound IP***: In general, 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.

Factors that dissuade co-ownership include[[147]](#footnote-147):

* Potential complexity in protecting IP in the absence of clear decisions over who is responsible for obtaining (and paying for) protection of registered IPRs;
* Once a patent is jointly owned, all of the owners must give consent to licensing arrangements, although this can sometimes be overridden by the Court;
* Potential licensees of a technology will prefer to avoid dealing with more than one owner, as this complicates the negotiation process;
* While contractual provisions can be put in place to spread the benefits and risks of licences it is not uncommon for the default co-ownership provisions to be considered as favourable to industry partners;
* Co-ownership is particularly problematic when international collaboration and exploitation is anticipated because the law for joint ownership can vary significantly between different countries. For example, in some countries any co-owner can take action on the patent without having to secure the agreement of or notify other owners, whereas in other countries, they can only act together.
* **Article 7.7.5,** ***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[[148]](#footnote-148). Institution ownership of serendipitous IP is advisable. However, there may be a need for specific ownership clauses to regulate the generation of, ownership to and indeed access of such IP.
* **Article 7.7.6,** ***Right of first refusal to the IP***: A right of first refusal says that when the Institution decides that it wants to commercialize the IP, it will 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 the Institution finds better terms, then the party holding the right of first refusal can either match those or walk away.

External parties/sponsors often take comfort knowing that although they may not own the IP that has been created as a result of the Research Contract, they are afforded a right of first refusal to take assignment of or license the IP under mutually agreeable terms. Such right must have a timeline associated with it, such that if the external party/sponsor does not exercise its right within a defined period of time, the right expires and the Institution is free to negotiate with any other third party that may express interest in the IP.

Note that there is a difference between an “option” and a “right of first refusal.” The key distinction between the two concepts, involves who initiates the grant of rights:

- With an **option**, the party benefiting from the option (in this case, the external party/sponsor) is given a period of time in which to claim the prize - to notify the party granting the option (in this case, the Institution) that it wishes to obtain the grant of rights (such as a license or an assignment).

- By contrast, if the external party/sponsor is given a **right of first refusal**, it cannot initiate the grant of rights. The Institution is in control of the process. If the Institution wishes to grant the rights, it must notify the external party/sponsor and give it an opportunity to accept, or refuse, those rights.

Typically, right of first refusal clauses operate at one or both of the following stages:

- When the Institution first decides it is ready to grant the rights (or is about to start offering the rights to third parties), it must offer the rights to the external party/sponsor; and/or

- When the Institution is about to sign an agreement with a third party, it must give the external party/sponsor an opportunity to match the terms agreed upon with the third party. If the external party/sponsor accepts this opportunity, the Institution must grant the rights to the external party/sponsor on those terms, instead of granting them to the third party.

* **Article 7.7.7, *Publication delay***: As publication remains a significant incentive for researchers (see [Article 10](#_ARTICLE_10_-) for a discussion of incentives), it is important that the process of protecting the IP does not unnecessarily cause undue delay in publication of the researchers’ results in a journal. The Institution 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](#_Article_6.1_–) (right of publication) and [Box 43](#Box43) (example clauses for publication delays).
* **Article 7.7.8,** ***Use of the IP for Research and teaching***: The primary missions of Institutions are to educate and perform research to further scientific understanding. To maintain this status, they must not do anything which restricts their ability to deliver their primary purpose. As a result, many Institution 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.

**Box IP Clauses in Research Contracts**

IP clauses may cover:

* the IP the parties bring to the project (Background IP);
* the IP produced in the project which is specific to the project aims (Foreground IP);
* the IP produced incidentally in the course of the project (serendipitous IP)
* the need to be able to use other party’s background IP in commercialising or using the product;
* the requirement/desire of the Institution to be able to use the Foreground IP in its academic endeavours;
* the desire of parties to publish project results (including Student’s right to publish thesis);
* rights of each party to purchase other’s share of IP Rights;.
* the requirement/desire of the parties to patent Foreground IP;
* confidentiality and publication clauses to support and reflect IP intentions;
* Institution contractual arrangements with its Staff Members, Student and Visitors.

**Article 7.8 - Exceptions**

* **Article 7.8, *Exceptions to the Policy***: The exceptions to the Institution’s IP Policy should only be exercised in so far as the benefit to the Institution outweighs any compromise that the Institution is making. Clear examples should be developed where it would be appropriate to deviate from the provisions in the IP Policy.

**Useful Resources Related to Article 7**

* **General information related to the management of IP in research contracts.**
* The[Commission Recommendation on the management of IP in knowledge transfer activities and Code of Practice for universities and other public research organisations](http://ec.europa.eu/invest-in-research/pdf/ip_recommendation_en.pdf)[[149]](#footnote-149) contains a set of principles regarding collaborative and contract research.
* [Knowledge Transfer Ireland Practical Guide to Collaborative Agreements](http://www.knowledgetransferireland.ie/Model-Agreements/Catalogue-of-Model-Agreements/)

- [European Research Area Guidelines](http://ec.europa.eu/research/innovation-union/pdf/international_cooperation_guidelines_erac_kt_group.pdf) on IP Management in International Research Collaboration Agreements

* **Model research contracts and other agreements which can be used at different stages of technology research and commercialization transactions.**
* Numerous model and template agreements are provided by universities and research institutions. See the [WIPO Database of IP Policies](http://www.wipo.int/about-ip/en/universities_research/ip_policies/search.jsp?institution_id=&focus_id=&type_id=12&territory_id=&language_code=).
* The [IP Toolkit for Universities and Research Institutions](http://www.wipo.int/about-ip/en/universities_research/)provides a set of Model Agreements.
* [Lambert Toolkit](https://www.gov.uk/guidance/university-and-business-collaboration-agreements-lambert-toolkit). Includes model agreements, together with a guidance document and a decision guide helping to select the most appropriate model agreement.
* [IPAG](https://www.ipag.at/en/) (Intellectual Property Agreement Guide) Model Agreements (in English and German). They include dispute resolution clause options referring to WIPO Mediation and WIPO Expedited Arbitration. Available at the [WIPO website](http://www.wipo.int/amc/en/center/specific-sectors/rd/ipag).
* [AUTM](https://www.autm.net/autm-info/about-tech-transfer/about-technology-transfer/technology-transfer-resources/sample-agreements/). Provides a large collection of sample agreements (sponsored research, option agreements, confidentiality agreements, etc.)
* [Knowledge Transfer Ireland Model Agreements](http://www.knowledgetransferireland.com/Model-Agreements/Catalogue-of-Model-Agreements/).
* [Australian IP Toolkit for Collaboration](https://www.ipaustralia.gov.au/understanding-ip/commercialise-your-ip/ip-toolkit-collaboration). Contains checklists, template contracts, and guides on developing partnerships.
* The [European Commission Cross Border decision guide](http://ec.europa.eu/invest-in-research/policy/crest_cross_en.htm) is an interactive toolkit that takes the user through a decision process and raises a set of strategic questions to consider when planning and negotiating collaborative research projects.
* [mICRA](https://www.nihr.ac.uk/about-us/CCF/policy-and-standards/standard-research-agreements.htm) (model Industry Collaborative Research Agreement). Aims to support clinical research collaborations involving the pharmaceutical and biotechnology industries, and academia.

## ARTICLE 8 – DETERMINATIONS BY THE IPMO

### Article 8.1 – Responsibility to Disclose IP

***Article 8.1.1., Recording****:* The Institution should promote good practices for academic research record-keeping, typically though the use of laboratory notebooks. These accurate records of research ensure that the know-how of the research and the reproducibility of the results is documented.

In particular, the role of the **laboratory notebook** is to:

keep a complete record of the experiments, their beginning/ planning and how they were developed;

record the data collected and the statistical and graphical results generated from the analyses made by the researcher;

stimulate the researcher to think and reflect on the research topics;

demonstrate the researcher's continued efforts to turn the idea into practice;

demonstrate the prior art at the conclusion of an invention, with respect to other references to the prior art;

provide information to a person who is interested in continuing an initiated research project; and

allow the evaluation of the results by the donor agencies and partners.

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). Furthermore, the laboratory notebook ensures that there is a record as to the creation of the, for example, invention which will be of use in the event of litigation.

The importance of accurate record keeping should not be underestimated, to the extent that some Universities and research institutions have standalone policies on record keeping and a practical manual supporting implementation of this record keeping policy. Examples are provided under [Useful Resources Related to Article 8](#_Useful_References_to).

**Box Example Record Keeping clause: University of Glasgow (Canada)**

*“In order to properly exploit any IP, it is likely that access will be required to the laboratory notebooks and other written records (including data and research results) generated by employees. It is therefore best practice for all employees to keep full, accurate and up-to-date written records of all IP which they create in the course of their employment. Such records should be regularly signed off by the employee's line manager and should be kept safe from unauthorised access and will be retained by the University when the individual leaves*”.

**Box Electronic Laboratory Notebooks (ELN) Are the Future**

The amount and types of data being produced in research labs are growing every year, and keeping track of all that data is a truly Herculean task.

The advantages of ELNs over paper notebooks can be grouped into four areas:

* + Productivity - automation of workflows and exchange of data between systems;
  + Usability - helping to make sure that users make the right decisions by flagging out-of-specification results, for example;
  + Compliance - ELNs provide the tools to generate and defend data in the regulated space; and
  + IP - ELNs have the ability to provide a “pedigree” for your data, including “who” and “when,” which are often crucial in IP cases.

These days, computer technology is driving most ELN innovations. Blockchain technology[[150]](#footnote-150), which allows digital information to be distributed but not copied, is of great interest lately for its potential ability to resolve IP concerns associated with sharing research data prior to publication.

*Source: Tamly, O*[*., Electronic Lab Notebooks are the Future*](https://www.biocompare.com/Editorial-Articles/347276-Electronic-Lab-Notebooks-Are-the-Future/) *(2018)*

* **Article 8.1.2.**  **IP disclosure*, he/she shall disclose***: The Institution should make 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. An IP disclosure is more than the simple completion of a form to satisfy some policy requirement. 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.[[151]](#footnote-151)

Don’t assume that Creators know when, how, where and why to properly make an IP disclosure. The IPMO should educate all researchers concerning the importance of thorough and timely IP disclosures. The IP Disclosure Form should be easily accessible to Creators, for example on the Institution’s website or intranet. Similarly, the process to follow in order to make a Disclosure should be simple and clear. Standard operating procedures in this regard are useful, along with identified timelines so that the researcher understands how long the process will take and what steps will be involved.

* **Article 8.1.2.**  **IP disclosure*, Where a Creator identifies potential IP***: Since Creators will probably not know if the invention/creation has IP potential; they should contact and discuss with the IPMO at the earliest reasonable stage. This is often the critical role of “IP Scouts” who are active in the laboratories and have a heightened understanding of what may constitute and invention.
* **Article 8.1.2.**  **IP disclosure*, resulting from his/her Research [or that of his/her Team]***: Some Institutions believe that it is a supervisor’s duty to report potential IP of their subordinates to the IPMO. Other Institutions adhere strictly to an individual’s sole responsibility to report any potential IP. Some believe that reporting other’s IP has an “authoritarian” air that is misplaced at an Institution. Similarly, most Institutions do not expect a Student’s supervisor to report the IP of the Student.[[152]](#footnote-152)

**Box Example of an IP Disclosure Form - The University of the Western Cape, South Africa**

* ***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.

It is good practice to disclose an invention/creation as soon as it *is* an invention/creation. However, in reality disclosures often happen immediately before a conference/publication requiring a superficial analysis and the quick filing of a provisional patent application. Alternatively, the disclosure may be made at such an early stage of the research that further work is needed before it is possible to assess whether a commercially viable product, process or service may result. The greater the experience of the team in the IPMO, the greater the ease at which these decisions are taken. However, this experience is only developed over time and through on the job experience.

* **Article 8.1.4 - Optional Clause for IP related to GRs and/or TK**, ***[shall/could]*** ***require its Creators to disclose***: Countries have taken different approaches regarding disclosure requirements specifically for GRs and TK, and the Institution will have to follow the relevant national rules. We highlight below three main approaches.
* In the national law of some countries, mandatory disclosure requirements are put in place and therefore the language “the IPMO **shall** require…” would be suitable. This could 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 [[Box 52](#Box51) - Form P26]. Alternatively, provision could be made to provide for the use of GR and/or TK as a patentability criterion with potential implications for patent validity.
* Some other countries have chosen to include voluntary disclosure requirements in their national law, and therefore the language “the IPMO **could** require …” would be advisable. This would manifest by introducing the voluntary disclosure as part of the patent procedure without any consequences for patent prosecution or patent validity
* Other countries do not require any type of disclosure specifically for GRs and TK in their national law, and therefore this optional clause would not be advisable.[[153]](#footnote-153)

**Box Voluntary and Mandatory Disclosure Requirements**

Germany, for example, put in place a voluntary requirement in Section 34(a) of the Patent Act[[154]](#footnote-154) which provides: “*Where an invention is based on biological material of plant or animal origin or if it uses such material, the application should include information on the geographical origin of such material, if known. This shall be without prejudice to the examination of applications or the validity of rights arising from granted patents.*”

On the other hand, Switzerland implemented a mandatory requirement in Article 49(a) of the Patent Act[[155]](#footnote-155) which states: “*The patent application must contain information on the source: a) of the genetic resource to which the inventor or the patent applicant had access, provided the invention is directly based on this resource; b) of traditional knowledge of indigenous or local communities to which the inventor or the patent applicant had access, provided the invention is directly based on this knowledge*” [[156]](#footnote-156)

**Box Example - Form P26 introduced in South Africa**

Form P26 introduced in South Africa indicating how the form would be completed if no indigenous biological resources, TK or GRs was used to arrive at the invention.



Although some countries have domestic legislation imposing disclosure requirements for GRs and TK, other countries do not require any type of disclosure for GRs and TK in their national law. In this context, the European Union adopted a “due diligence” approach in Article 4 of the Regulation No. 511/2014[[157]](#footnote-157) which states: “*Users shall exercise due diligence to ascertain that genetic resources and traditional knowledge associated with genetic resources which they utilise have been accessed in accordance with applicable access and benefit-sharing legislation or regulatory requirements, and that benefits are fairly and equitably shared upon mutually agreed terms, in accordance with any applicable legislation or regulatory requirements*.”

### Article 8.2 – Creatorship and Ownership

* **Article 8.2.1 and 8.2.2., *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. In some jurisdictions, this is material to be able to identify which claims can be allocated to one or more of the listed inventors. Furthermore, this is material for benefit sharing (see also [Article 10.1.1](#_Article_10.1_–)). If it is not possible to determine the percentage contribution of each inventor to the resultant invention, then each inventor may be apportioned and equal undivided share.

Ownership – The Creator of IP is not necessarily the owner. Once creatorship has been determined, national legislation and/or the Institution’s IP policies will dictate in what instances IP created by Staff Members, Students of Visitors will belong to the Institution (see Article 5). Should the IP need to belong to the Institution, then the Staff Member, Student or Visitor will be required to transfer such rights to the Institution through what is referred to as a Deed of Assignment.

**Box Authorship v. Inventorship: The Difference Between Journal Authors and Patent Inventors[[158]](#footnote-158)**

One of the most frequently misunderstood issues between researchers and the IP professional is the confusion between authorship and inventorship. To many scientists, the concept that you are not automatically an inventor on a patent even though you are an author of a paper on the same subject matter is a profound notion.

Generally speaking, to be an **author** of an article, a person can have performed the underlying research, supervised the research, or written the paper, among other criteria. This is much less stringent than the requirement to be an **inventor**, because inventorship is a legal determination. Improper listing of inventors on a patent can be grounds for invalidation of the entire patent.

It is the responsibility of the potential inventors to make a good faith effort to determine who among themselves are actual inventors.

**Box Disclosure ≠ Assignment**

The duty to disclose should not be confused with the assignment[[159]](#footnote-159) of a creation. Disclosure of a creation means literally that the creation/invention has been described in complete (that is, enabling) detail. Assignment means that ownership of (that is, legal title to) the invention has been given by the creator to another party (for example, the employer and in this case the Institution).

### Article 8.3 – Determination as to IP Protection and Commercialization

* **Article 8.3.1,** ***Evaluation and recommendation:***  For the IPMO to succeed, Creators must be assured that their inventions/creations are going to receive a in-depth evaluation of their patentability and commercialization potential. The ability to do a comprehensive evaluation and hence arrive at a recommendation depends on how complete the disclosure is when received (see [Article 8.1.3](#_Article_8.1_–)). The process of evaluation of an IP Disclosure typically involves three fundamental aspects:
  + The administrative aspect - the Disclosure is analysed for IPRs that may be owed by others by virtue of sponsorship or inventorship, or by use of others’ proprietary material. Possible government rights or obligations, or some internal Institutional obligations are also determined in this aspect.
  + The technology aspect - the Disclosure is evaluated for the quality of the invention/creation. This evaluation considers the performance characteristics of the invention/creation and assesses its potential value (developable, economically feasible and with a potential market) to those who would implement it.
  + The IP aspect - the feasibility of possible IP protection approaches is assessed.

**Box Example - Excerpt from Tech Transfer Central – The three pillars of invention analysis by** [**Debi Melillo**](http://techtransfercentral.com/2014/05/20/the-three-pillars-of-invention-analysis/)

*„There are three main elements to making an invention a commercially viable project, and that invention needs to be strong in all three of these in order to succeed.  First, the technology has to be* ***developable*** *and have limited hurdles to development in terms of time, money, and regulation. Second, the* ***patent*** *needs to be strong, defensible, and enforceable.  And third, the invention must be targeting a compelling* ***market*** *that can be accessed.  A hurdle in any one of these domains can act as a significant barrier and even prevent commercialization”*

* **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. In practice, novelty is an objective determination and hence can be established relatively early. Whereas, inventiveness is subjective and can be argued. Thus if the IPMO is confident that there is novelty and the invention is economically feasible and will have a market (at least), then patent protection should be sought.

**Box Considerations Regarding Whether to File a Patent Application**

Typical considerations include:

* whether the invention is patentable;
* what the like uses of the invention are;
* whether an inventions has sufficient commercial potential[[160]](#footnote-160);
* whether significant additional invent (research, development, regulatory approval steps, marketing, etc.) is needed; and
* (in some Institutions) whether the invention is something without signiﬁcant commercial value, but nevertheless has potential for social impact through non-commercial channels.

Discoveries relating to materials that do not have signiﬁcant commercial value but may be useful in non-commercial research are sometimes non-exclusively transferred to other parties via material transfer agreements (MTAs). Examples of discoveries that generally fall under MTAs include cell lines, monoclonal antibodies, reagents, animal models, growth factors, deoxyribonucleic acid (DNA) libraries, clones, laboratory methods, and some computer software.

*Source: See Van Norman, G.,* [*Technology Transfer: From the Research Bench to Commercialization*](https://www.sciencedirect.com/science/article/pii/S2452302X17300037)*, Basic to Translational Science, Vol.2, No.2, 2017.*

* **Article 8.3.3,** ***IPMO will notify the Creators of the decision*.**IPMO should simply 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 should 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. The reasoning behind this is the researcher is rarely objective about their creation and hence may feel the IPMO is obligated to take it onto their portfolio. However, there are often instances where the disclosure is deemed “non-actionable”. These instances may include no reasonable prospects for a commercially viable product, process or service, further research may need to be done, it may not be in the best interest, or indeed not appropriate, for the Institution to seek to commercialize the disclosed technology, or as public funds were used to develop the IP, commercialization may not be in the public interest.
* **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 on-going 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 licence to use the IP for on-going research and development.

**Box Tips – IP/Invention Disclosure Good Practices**

For Researchers

* Know what an invention is and when you should inform the IPMO that an invention disclosure should be made. You have many more inventions that you ever think you do.
* Invention disclosures help to protect inventions/creations made in your laboratory because they record the date that inventions/creations were created and establish inventorship/creatorship.
* To avoid the potential undesired publication of an invention prior to filing a patent application, all IP disclosures should be submitted confidentially.
* Your IPMO can inform you about your Institution’s policies regarding invention disclosure and provide you with invention disclosure forms.

For IPMO Officers

* One way to gauge the effectiveness of technology transfer in the Institution is to track the number of IP disclosures filed with your office.
* Maintain a filing system for IP disclosures and keep track of your files so that you can determine when or if patent (or other IP) applications should be filed for particular inventions/creations.
* Give careful attention to every IP disclosure, regardless of its content.
* Invention disclosures can be used to develop patent portfolios.
* Invention disclosures can be used to prepare high-quality patent applications.
* Conduct mandatory training sessions on proper IP disclosure.

*See also:**A. Krattiger et al.* [*Sharing the Art of IP Management*](http://www.iphandbook.org/handbook/ch08/p04/eo/) *(2007)*

### Useful Resources Related to Article 8

* **IP management, IP commercialization and knowledge transfer in Universities and research institutions**

- See under [Useful Resources Related to Article 4](#_Useful_Resources_Related_1).

* **Record keeping :**
* For Good practice guidelines for assistance in relation to record keeping and laboratory notebooks:
  + [National Code of Practice for Managing Intellectual Property from Publicly Funded Research](http://www.sciencecouncil.ie/Publications/2005/National-Code-of-Practice-for-Managing-Intellectual-Property-from-Publicly-Funded-Research.pdf), Irish Council for Science, Technology and Innovation (ICSTI) (2004), p40
  + Schreier, A., Wilson, K. and Resnik, D., [*Academic Research Record-Keeping: Best Practices for Individuals, Group Leaders, and Institutions*](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3943904/)
* Examples of Institutions providing recordkeeping policies or guidelines:
  + [University of Sydney](http://sydney.edu.au/arms/records_mgmt/uni_rec_manual.shtml)
  + [Tufts University](https://sites.tufts.edu/dca/records-management/records-policies/guidelines-for-managing-university-records/)
  + [University of London](https://london.ac.uk/sites/default/files/governance/Records_Management_policy_2017.pdf)
  + [Massey University](http://www.massey.ac.nz/massey/fms/PolicyGuide/Documents/University%20Management/Records%20Management%20Policy%20pdf.pdf?AC6B8302798B57416759E77F9212FA53)
  + [Syracuse University](https://policies.syr.edu/policies/university-governance-ethics-integrity-and-legal-compliance/university-records-policy/)
  + [University of Tasmania](http://www.utas.edu.au/it/records/policies)
* **IP disclosure:**
* McGee, D., *Invention Disclosures and the Role of Inventors*, In Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices. Available online at [www.ipHandbook.org](file:///\\adi.wipo.int\wipodata\DAT2\ORGDCEA\SHARED%20ORGSME\IP%20Policies%20for%20Universities\IP%20TOOLKIT%20AC%20INST\IP%20Policy%20Template\Step%2017%20-%2012th%20Draft%20-%20Website%20version\English\www.ipHandbook.org).
* Examples of IP Disclosure Forms can be easily obtained from the internet by any search engine. McGee, D., *Invention Disclosures and the Role of Inventors*, [Box 2](#Box2), which lists items that appear commonly on the IP Disclosure Forms.

## ARTICLE 9 – COMMERCIALIZATION OF IP

Commercialization-savvy Institutions are more conscious than ever 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.

As a general trend, academic research is often fueling impressive benefits for local, regional and national economies.[[161]](#footnote-161) In this context, IPMOs are increasingly implementing IP management strategies which reflect the encouragement of alternative commercialization pathways (See also [Article 1.3.3](#_Article_1.3_–)). Instead of traditional strategies such as seeking established company licensees, IPMOs are gradually make more IP decisions that also allow for the commercialization of institution-developed technologies through faculty and student-led start-ups.

### Determination of the Commercialization Strategy

* **Article 9.1 and 9.3.*, Determination of the Commercialization Strategy, and Sovereignty and Cooperation***: As set out in [Article 8.4](#_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 to bring practical additional 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 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.

**Box An excerpt from the Medical Research Council IP Policy, South Africa, states as follows:**

*3.4.2. The TTO is responsible for the identification, evaluation, protection, (with the exception of opposition to applications, prosecution or defending Infringements and drafting of relevant contracts, which are the domains of the Legal and Compliances Services), management and commercialization of IP, all benefit sharing arrangements in accordance with the MRC’s Benefit Sharing Scheme, and appropriate capacity-building relating thereto. The TTO may, on behalf of the MRC and, where relevant, any co-owners, apply for a patent or any other form of IP registration in respect of any IP, and the MRC shall be regarded as the applicant or assignee of the patent or other form of IP protection. The filing of all patent applications and the registration of designs and trademarks shall be at the discretion of the TTO. The TTO shall* ***make a recommendation on the most appropriate commercialization route to the Executive Management Committee (EMC), which shall make the final decision thereon on behalf of the MRC****.*

*3.4.3. The MRC recognises the right of IP Creators to* ***participate in decisions regarding the commercialization and use of IP generated by them****. IP Creators are entitled to full disclosure of the status of the IP and will be advised by the TTO of the MRC entering into any contracts for the commercialization, use or sale of that IP.*

### Commercialization Pathways

* **Article 9.4.*, Commercialization Pathways:*** There are a number of different pathways that may be followed in the commercialization of Institution 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. [Box 59](#Box58) attempts to illustrate that the road to commercialization is full of feedback loops and continuous re-evaluations until one hopefully reaches the ultimate goal which is impact.

**Box The Knowledge Transfer Process***[[162]](#footnote-162)*



It is important to give consideration to all possible commercialization pathways and hence the various options should be provided for in the IP Policy. 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.

**Box An excerpt from the IP Policy on the University of Malaysia[[163]](#footnote-163)** sets out the different options for commercialising the Institution IP:

5.3 **Licensing**

5.3.1 Licensing can be in the form of exclusive Licence, non-exclusive Licence, sole Licence and cross Licence, subject to para 5.3.4. All licensing arrangements can be contractually limited by geographical locations, time, industry and fields of application.

Exclusive Licence - the Recipient transfers all rights of exploitation of the Intellectual Property to the licensee. This means the Recipient relinquishes the rights to exploit the Intellectual Property himself or to grant any additional, subsequent Licence(s) to another party. Recipient should retain the rights to use, conduct further research and development and exploit the Intellectual Property for non-commercial use.

Non-Exclusive Licence - the Recipient may grant the rights of exploitation of the Intellectual Property to one or more party(s), including the right to exploit the Intellectual Property himself. In a non-exclusive Licence, the Recipient may grant the licensee sub-licensing rights.

Sole Licence - the Recipient transfers all rights of exploitation of the Intellectual Property to the licensee but retains his rights to exploit the Intellectual Property himself.

Cross-Licence - This option allows two or more Intellectual Property owners to contractually authorise each other to use their Intellectual Property for commercial and non-commercial purposes. In a cross-licensing arrangement, the consideration for the rights conferred by one party is a reciprocal grant of rights by the other. Cross-licensing terms may include the payment of a licensee fee or royalty if the rights conveyed by the parties are not equal in value.

5.3.4 **Assignment**

The Recipient transfers complete ownership to another party (assignee). Assignment involves an outright sale of Intellectual Property rights to the assignee. However, partial Assignments are allowed, subject to para 5.3. For example, an Assignment may be restricted by geographical locations.

5.3.5 **Spin-Off Company**

The Recipient establishes a company for the purpose of Commercialization of the Intellectual Property, where Inventor(s) and Recipient may own equity in the company together with any third party, in proportions to be negotiated.5.3.6 Joint Venture Company. The Recipient establishes an entity together with a third party for the purpose of Commercialization of the Intellectual Property, where the Recipient and the third party are shareholders of the said company

* **Article 9.4.a, *license, either exclusive or non-exclusive, and variations thereof***. A licence is a contract under which the holder of an IP (licensor) grants permission for the use of its IP to another person (licensee), within the limits set by the provisions of the contract, without relinquishing ownership of the IP. This is where access to “*make, use, exercise, offer to dispose of, dispose of, or import the invention*” is given while the Institution retains ownership of the IP. The Institution is thus responsible for any on-going prosecution of the IP and associated maintenance of rights.

The difference between a non-exclusive licence, exclusive licence, sole licence and cross-licence is set out in [Box 60](#Box59). In general, when it comes to publicly financed IP, preference is given to non-exclusive licensing and furthermore preference is offered to small and medium-sized enterprises (SMEs). In South Africa, these preferences are extended to Broad-based Black Economic Empowerment Entities (BBBEE entities).

|  |  |
| --- | --- |
| Box Giving Preference to Issuing Licenses to SMEs - South Africa and the United States | |
| IPR Act and regulations | Bayh-Dole Act and regulations |
| Section 11(1)(a) to(c) *(summarised)*:  Preference must be given to non-exclusive licensing, BBBEE entities and small enterprises and parties that seek to use the IP in ways that provide optimal benefits to the economy and quality of life of the people of South Africa (amongst others). | **Section 209(c)(3):**  “*First preference in the exclusive or partially exclusive licensing of federally owned inventions shall go to small business firms submitting plans that are determined by the agency to be within the capabilities of the firms and equally likely, if executed, to bring the invention to practical applications as any plans submitted by applicants that are not small business firms”.*  **Regulation 401.14(i):**  “*Preference for United States Industry: Notwithstanding any other provision of this clause*, *the contractor agrees that neither it nor any assignee will grant to any person the exclusive right to use or sell any subject inventions in the United States unless such person agrees that any products embodying the subject invention or produced through the use of the subject invention will be manufactured substantially in the United States. However, in individual cases, the requirement for such an agreement may be waived by the Federal agency upon a showing by the contractor or its assignee that reasonable but unsuccessful efforts have been made to grant licenses on similar terms to potential licensees that would be likely to manufacture substantially in the United States or that under the circumstances domestic manufacture is not commercially feasible*”. |

It is possible to licence a technology on a different basis per use of the technology or jurisdiction, for example. Thus, one could licence a company in Australia on an exclusive basis to make, use and sell the technology while a company in Hong Kong could be given similar rights in that jurisdiction. Alternatively, one could licence a Chilean company for worldwide exclusive rights to the technology for application in the cosmetics sector while a company in Malaysia were granted exclusive right to the technology in the marine sector.

**Exclusive licenses**. External parties or sponsors often require an exclusive license as they offer more protection for the necessary development to be conducted before a university-provided invention can become a marketed product. The issue is particularly crucial for start-ups which have few assets other than their IP. On the other hand, by definition, exclusive licenses limit the diffusion of technologies. 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. Almost all university technologies require additional investment to commercialize and non-exclusivity is typically not sufficient to justify the investment. At the same time, exclusivity is often granted with restrictions on the licensee side[[164]](#footnote-164):

* Institutions often include clauses in license agreements to protect public interests and access to the IP for future research and development;
* Licensing agreements in many Institutions include a commitment to exploit the invention on the part of the licensee, particularly if the license is exclusive, and to agree on milestones in order to assure that commercialization will take place. Such safeguards can be used to ensure that technology is transferred and that licensed patents are not used simply to block competitors.[[165]](#footnote-165)

**Box In the Public Interest: Nine Points to Consider in Licensing University Technology**

In the Unites States, the nation's top research universities and the Association of American Medical Colleges (AAMC) issued a set of shared guidelines intended to protect the public interest when universities grant licenses for the rights to their latest scientific advances to private parties. Amongst other, the “[Nine Points](http://news.stanford.edu/news/2007/march7/gifs/whitepaper.pdf)” set out that licensees often seek guaranteed access to future improvements of licenses inventions and that such access my effectively entangle a faculty member’s research program. As such the “Nine Points” discourage giving exclusive licenses to “improvements” or “follow-on” inventions and instead state that licensed rights should be limited to existing patent applications and patents. (See Points 1, 2 and 3)

* **Article 9.4.b, *assignment (sale)*:** There is debate over whether licensing or assignment of Institution IP is most appropriate. Many Institutions (in the US, for example, owing to the legal provisions of the Bayh-Dole Act) rarely assign their IP, only license. Other Institutions (in Europe, for example) believe that assignment is necessary in certain situations including sponsored research contracts with private companies. In South Africa, the Intellectual Property Rights from Publicly Financed Research and Development Act, provides for assignment of IP as an exception rather than the norm, with any assignment requiring approval from NIPMO, the oversight agency.

Licensing is generally seen as the most appropriate form of commercialising IP from Institutions, as it enables more parties to have access to the IP and consequently could result in wider dissemination of the IP and widespread impact. However, 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 and if not enabled by legislation, then an exclusive licence would be the best option, as the IP can only be exploited by the licensee. Should an exclusive licence be a consideration, it is advisable that there be performance terms included in the agreement, to ensure that the IP does not become sterile in the hands of the licensee. It may also be a good consideration to link the performance terms to clear milestones which should also be accompanied by milestone payments by the licensee to the Institution.

* **Article 9.4.c, *formation of a Commercialization Entity:*** A Commercialization Entity (Spin-off or start-up) is separate entity created by a parent organization (in this case, the Institution) 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. The Commercialization Entity route may be the only option where no licensee can be recruited to commercialize a product (i.e. if the technology does not fit into the product offerings and markets of existing companies) and where a market does not already exist for the product; or
  + because the technology has clear possibilities to generate many products and applications and so potentially could be extremely valuable. Where the technology is sufficiently broad based (e.g. a platform technology that enables a range of different products to be produced, possibly for a range of different markets) and where the capital investment required for product development and commercialization is justified by the potential returns. The costs and risks must be weighed against the potential returns when deciding on whether to form a new company or to license the technology to an existing company that has the necessary infrastructure such as channels to market, sector knowledge, facilities, commercial management, and an existing contacts network in place.

On the other hand, a license may be the only option if funding for product development and marketing is not available. Forming a new company as a means of commercializing technology presents a higher risk than the traditional licensing route; however, it has the potential to contribute to economic development via the creation of jobs. There are many challenges facing new companies, particularly technology-based spin-outs. A wide variety of skills, expertise and resources are required for them to develop and market their own products. They usually require a huge investment over a relatively long period of time before sales and revenues are realized. Spin-offs from existing companies usually have a strong infrastructure and support base, while spin-offs from Universities and research institutions may be at higher risk, since the Institutions are normally limited in the staff and financial resources and capabilities that they can devote to the commercialization of technology. In either case, a sound and well researched business and operational plan and access to the necessary financial resources are essential.

**Box Tips on Promoting the Formation Commercialization Entities[[166]](#footnote-166)**

Factors that are likely to a positive influence on an Institution’s spin-off capability are:

* + Allowing equity - Institutions (and Creators) that are able to assume equity in a spin-off in lieu of licensing royalty fees have a start-up rate that is higher than those that refuse equity;
  + Allowing exclusive licensing
  + Offering leaves of absence
  + Permitting the use of Institution resources
  + Allocating a lower share of royalties to inventors
  + Providing access to pre-seed-stage capital
  + Permitting research collaboration
  + Recruiting and training IPMO officers with broad-based commercial skills, and paying adequate compensation to IPMO personnel
* **Article 9.4.d, *non-profit use or donation*:** There are instances where it is not appropriate to commercialise Institution IP for financial returns. These may include where the research has been sponsored by a philanthropic organisation (such as Bill and Melinda Gates Foundation, or the World Health Organisation) and donating the IP or granting access rights for non-profit use is important for the project to be successful. Such sponsors normally run similar projects in different jurisdictions and it is the analysis of the sum of the data from each jurisdiction that is useful to, for example, devise dosage regimes for a particular drug.This route would in all likelihood be in line with the Institution’s vision for public good.
  + **Article 9.4.e*, joint ventures***: An Institution 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 the Institution and the external party or sponsor to licence 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. The IP that each party brings into the JV needs to be clearly defined as well as the IP that is co-developed as part of the JV.

**Box An excerpt from the Medical Research Council’s IP Policy (South Africa) on Joint Ventures**:

*The MRC may elect, subject to the approval of the Minister of Health and National Treasury where the significance and materiality framework require such approval, to enter into a Joint Venture (JV) company with an outside entity or organisation for the exploitation of IP, the production of products or the provision of services, in which instance a subsidiary, such as MedRes, shall become a shareholder in the JV company on the MRC’s behalf.*

*The MRC may license or assign the IP to the JV company. Any assignment of IP to the JV company shall be on the condition that the company is domiciled in South Africa and that, in the event of the liquidation of the JV company, the IP shall revert to the MRC prior to such liquidation. Any assignment of IP by the MRC shall be subject to the approval of NIPMO.*

### 

**Box** : **An excerpt from “Analyzing the Effectiveness of University Technology Transfer”[[167]](#footnote-167)**

*Universities must be transparent, forthright and consistent about their strategic goals and priorities for technology transfer. […]*

*Resource allocation decisions must also be driven by strategic choices the university makes regarding various models of technology transfer. Universities cam choose among a variety of “outputs” to emphasize, including licensing, startups, sponsored research and other mechanisms of technology transfer that are focused more directly on stimulating economic and regional development, such as incubators, and science parks.*

*Licensing and sponsored research yield revenue, while equity from startups may generate a long-term payoff. Universities that stress economic development outcomes are advised to focus on startups since these companies can potentially create jobs in the local region or state. Note also that while a startup strategy entails higher risk (since the probability of failure for new companies is relatively high), it can potentially generate high returns of the startup is taken public. However a startup strategy entails additional resources, if the university chooses to assist the academic entrepreneur in launching and developing their startup.*

### Commercialization Guidelines

The Guidelines set out over-riding objectives for the manner in which the Institution utilizes/ commercializes their IP in, amongst others, a socially-responsible manner.

* **Article 9.5.e, “*shelving” or “mothballing” [[168]](#footnote-168) of the IP or its use in any illegal or unethical manner:*** As academic inventions are in areas closer to basic research, scientists and policy makers are also concerned that patenting certain inventions could block downstream research. One example is that of research tools, in which granting a patent could inhibit diffusion by increasing the costs and difficulty of using such tools in applied research. In response, funding agencies and research Institutions have adopted a policy that discourages unnecessary patenting and encourages non-exclusive licensing.[[169]](#footnote-169)

### Furthermore, governments and Institutions have established guidelines or best practices on with the aim to institute safeguards against unintended negative consequences of IP-based commercialization (See [Box 6](#Box6)). Examples of such recommendations are include[[170]](#footnote-170):

* Guidelines can demand that patents should be sought, and exclusive licenses attributed, only where they are a necessary condition for their commercialization;
* Institution policies and government bodies can declare certain areas off-limits to Institution patenting: basic research, research tools, technologies critical to public health in low-income countries, etc.;
* Licensees of government-funded technologies can be required to disclose follow-on investment and the actual use of the patent, for instance avoiding that these patents are used to block follow-on inventions by patent aggregators;
* Certain requirements can be instituted to ensure that products derived from these inventions are sold to consumers of poorer countries on reasonable terms;
* Field-of-use restrictions can be implemented to ensure that the IP is made available for future research, including to other firms; and
* Governments can reserve the right to practice the invention or override exclusive licensing rights (‘’march-in rights’’).

### Useful Resources Related to Article 9

* **Professional, industry and trade associations** are useful sources for information and advice on IP commercialization and knowledge transfer. A comprehensive list of the most prominent associations is available at the webpage of [Tech Transfer Central](http://techtransfercentral.com/online-resources/).
* **Guidelines on the Process of Knowledge/Technology Transfer**
  + The [Biocat](http://www.biocat.cat/en/about-biocat) / [Interbio](http://www.interbio-sudoe.eu/) white book (2012) “[From Research to Market: Key Issues of Technology Transfer from Public Research Centers](http://4.interreg-sudoe.eu/contenido-dinamico/libreria-ficheros/3D0ED325-A000-2BDC-F737-7534920D685C.pdf)” contains practical guidelines for technology transfer in the field of public research in biotechnology, biomedicine and medical technologies. It deals with good practices, evaluation, assessment, licenses, spin-offs and marketing[[171]](#footnote-171).
  + The European IPR Helpdesk (2016) “[Your Guide to IP Commercialization](https://www.iprhelpdesk.eu/node/3439)” provides basic facts on IP aspects in commercialization activities.
  + For a list of national guidelines or codes of practices, see [Box 6](#Box6).
* **Licensing**
* WIPO publication: [Successful Technology Licensing](http://www.wipo.int/edocs/pubdocs/en/licensing/903/wipo_pub_903.pdf)
* Whitepaper [In the Public Interest: Nine Points to Consider in Licensing University Technology](http://news.stanford.edu/news/2007/march7/gifs/whitepaper.pdf). Drafted by 12 participating institutions and endorsed by AUTM and over 70 other institutions. The paper has an annex with examples of clauses.
* **Establishment of Spin-offs**
* UNICO Practical Guides. [Spin-out Transactions](https://www.praxisauril.org.uk/sites/praxisunico.org.uk/files/7%20-%20Spinout%20Transactions_1.pdf). Provides an introduction to spin-off transactions; suggested templates; discussion of legal and negotiation issues; and some underlying issues which are of particular concern for universities.
* E. Rasmussen, E. M. Wright (2015). "[How can universities facilitate academic spin-offs? An entrepreneurial competency perspective](https://brage.bibsys.no/xmlui/bitstream/id/420743/Rasmussen.pdf)." The Journal of Technology Transfer 40(5): 782-799.
* European Commission, [University spin-outs in Europe - Overview and good practice](http://www.cordis.lu/innovation-policy/studies/im_study4.htm), 2002.
* University of Colorado, "[Starting a Start-up: Successfully Managing the Dynamics of a New Company](http://www.cu.edu/sites/default/files/pages/44192-startup-companies-cu/docs/bulletin-startupprocess.pdf)" contains detailed information on the start-up process and important legal and business considerations, as well as additional resources to help start-ups start right.
* **Joint Ventures**
  + European IPR Helpdesk, [Factsheet – Commercialising IP: Joint Ventures](https://www.iprhelpdesk.eu/sites/default/files/newsdocuments/Fact-Sheet-Commercialising-IP-Joint-Ventures.pdf)

## 

## ARTICLE 10 – INCENTIVES AND DISTRIBUTION OF REVENUES

### Article 10.1 – The Institution’s Incentive Structure

### Purpose - why are incentives required?

Institutional incentives play an important role in enhancing the effectiveness of knowledge transfer. The Template underscores the importance for addressing reward systems that are consistent with greater entrepreneurial activity.

* **Article 10.1.1,** ***in the interest of promoting knowledge transfer*:** Researchers have long been plagued by the “publish or perish” mantra where advancing your academic career requires frequent peer-reviewed publications in journals where the higher the impact factor[[172]](#footnote-172) the more respected the academic output. A role in commercialization of research outputs remains an unfamiliar role for most researchers. As the role of universities and research institutions, especially in developing and emerging economies, is morphing as a means to provide local solutions for local problems, the expectation of researchers to adopt a greater role in innovation activities has increased.

To a degree, academic researchers have willingly adopted this more active role in knowledge transfer. However, an appropriate incentive structure is essential to drive and indeed encourage researchers towards this type of behaviour.[[173]](#footnote-173)

Incentives may require **mandatory** implementation as per a legislative framework[[174]](#footnote-174) or they may be in line with the **institution’s vision[[175]](#footnote-175)** to ensure research has socio-economic application. The first example of legislatively mandated incentives was the United States’ Bayh-Dole Act of 1980[[176]](#footnote-176). This intervention was adopted subsequently by a number of other developed countries and thereafter developing countries and countries in transition. Examples include South Africa (see excerpt below), China, Brazil, India, Mexico, and the Philippines which all have legislative provisions, whereas Uganda and Botswana are examples where one or more of their institutions have made provision for incentives in line with their institutional vision.

**Box Mandated incentives in South Africa**

South Africa’s Intellectual Property Rights from Publicly Financed Research and Development Act (No. 51 of 2008; IPR Act) provides such a framework where section (2)(1)(d), under the objects of the legislation, mandates that “*human ingenuity and creativity are acknowledged and rewarded*”. See also [Box 57](#Box56).

The Institution, in the interest of promoting knowledge transfer and in particular technology transfer, is encouraged to give due consideration to **different types** of incentives to researchers to foster research that has socio-economic impact. The Template distinguishes between revenue sharing and other incentives.

**Box Tips for Developing an Incentives Program**

* Publish an incentive policy that clearly explains policy on revenue sharing and equity based commercialization income including provisions for sharing with Creators and Enablers.
* Incentives can include “sticks”such as legal or administrative requirements for researchers to disclose inventions to the Institution that employs them, but also **“**carrots”.
* Don’t restrict your incentives structures to financial benefits only; consider also other types of benefits (see [Article 10.3](#Article10p3)).
* Set out the parameters of revenue sharing, as far as possible, by way of a standardised approach (see [Article 10.2](#Article10p2)).
* Make sure that your policies on revenue sharing recognize specific terms and conditions in relevant funding contracts.
* Choose carefully the types of incentives; a particular incentive structure or royalty distribution formula can potentially enhance technology licensing, whereas others are more likely to boost spin-offs (see [Box 62](#Box61)).

### Scope – to whom should incentives apply?

* **Article 10.1.1,** ***Creators:*** Incentives are primarily designed for researchers who are directly involved in creating the IP which results from their research/intellectual endeavors. These individuals are regarded as the IP Creators, as defined in Article 2, which is a general overarching term, however depending on the type of IP and associated statutory IP right created, the IP Creators will be assigned a more specific terminology as set out in the table below:

|  |  |  |
| --- | --- | --- |
| **Box Types of Creators** | | |
| **IP Creator** | **Example(s)** | **Statutory IP right** |
| Inventor | Invention  (including genetically modified plant varieties) | Patent |
| Author/ Proprietor | Functional or aesthetic design | Design |
| Breeder | Plant variety | Plant Breeders’ Right |
| Proprietor | Mark | Trade mark |
| Author | Literary/Musical/Artistic works  Cinematograph films  Sound recordings  Broadcasts  Programme-carrying signals  Published editions  Computer programmes etcetera | Copyright |

Incentives will thus apply to inventors, authors, proprietors and breeders. It is important that Creators are clearly defined and identified through the disclosure process.[[177]](#footnote-177)

* **Article 10.1.1,** ***Enablers*:**Incentives may also be 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 hard 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. For example, a technician who performs GC-MS analysis, tissue culture, and DNA sequencing followed by cleaning up of the resulting sequence data etcetera.
* **Others**. The goal of the Template 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[[178]](#footnote-178), the IP Management Office (IPMO), Institution administrators[[179]](#footnote-179), and the companies/entrepreneurs[[180]](#footnote-180). Institutions should address reward systems for each of these stakeholders, and take into account their respective motives, perspectives and cultures.

### Article 10.2 – Sharing of Revenues

### General

An inventor’s share in the commercialization proceeds is the most common incentive to academic researchers to commercialize their research outcomes. Such incentives may find minimum application through legislative provisions or may be an elective decision of the Institution to achieve their overall vision.

* **Article 10.2.1, *in line with the minimum requirements set out in relevant national legislation*:** Governments have played an important role in incentivizing the development and commercialization of academic research output. In recent years, various countries have adopted legislation that provides for minimum benefit sharing arrangements.

Some examples of such legislative provisions are provided in [Boxes 64-66](#Box63), and under [Useful Resources to Article 10](#_Useful_Resources_Related). South Africa provides for a minimum benefit sharing provision to IP Creators on Gross IP Revenue before IP Expenses are deducted and thereafter a minimum percentage of the Net IP Revenue. Brazil has a legislative provision that provides for benefit sharing and also for specific minimum and maximum percentages, while China mandates benefit sharing in general. The decision as to which approach to take rests with the national government or the Institution, as relevant.

**Box Benefit sharing – Example of South Africa**

The IPR Act, section 10(1) to (4) prescribes minimum benefits to IP creators as follows:

“*Intellectual property creators at an institution and their heirs are granted a specific right to a portion of the revenues that accrue to the institution from their intellectual property in terms of this Act until such right expires.*

*(2) Intellectual property creators at an institution and their heirs are entitled to the following benefit-sharing:*

*(a)* ***at least 20 per cent of the revenues***[gross IP revenue] *accruing to the institution from such intellectual property for the first one million rand of revenues, or such higher amount as the Minister may prescribe; and*

*(b) thereafter,* ***at least 30 per cent of the net revenues*** *accruing to the institution from such intellectual property.*

*(3) The benefits contemplated in subsection (2) must be shared in equal proportions between the qualifying intellectual property creators or their heirs unless otherwise agreed between those creators and the recipient or determined in accordance with institutional policies.*

*(4) The benefits to intellectual property creators and their heirs contemplated in subsection (2)(a) must be a first calI on the applicable revenue ahead of any institutional distribution*.” [own emphasis added]

**Box Benefit sharing – Example of Brazil**

Consider Article 13 of the New Science, Technology and Innovation Act[[181]](#footnote-181) :

"*The creator is ensured a* ***minimum stake of 5%*** *(5 percent) and a* ***maximum stake of 1/3*** *(one third) of the income earned by the ICT [STI under New Innovation Act] resulting from technology transfer and licensing agreements for granting the right to use or explore a protected creation of which he/she was the inventor, obtainer or author, in accordance, where applicable, with the provision set forth in the sole paragraph of Art. 93 of Law # 9,279 dated 1996*" [as per the Innovation Act]

*"§ 4 The participation mentioned in the above article should take place within a period not exceeding 1* ***(one) year after the realization*** *of the income upon which it is based, counting from the regulation by the competent internal authority*”

**Box Benefit sharing – Example of China**

Article 20 of the Law of the People’s Republic of China on Progress of Science and Technology states:

“*The benefits arising from the exercise of the intellectual property rights, provided for in the first paragraph of this Article[[182]](#footnote-182), shall be distributed among the project undertakers in accordance with the provisions of relevant laws and administrative regulations; and where such provisions are lacking in laws, or administrative regulations, the benefits shall be distributed as agreed upon”.*

### Calculation of revenues for distribution

* **Article 10.2.2, *Calculation of revenues for distribution*:**Institutions are afforded levels of flexibility as to what income will fall within “Gross IP Revenue” and what costs will be allocated to “IP Expenses”, and may be influenced by the Institution’s overheads which may necessitate that less income is regarded as Gross IP Revenue and more costs are allocated to IP Expenses.
* **Article 10.2.2.1, *Calculation of Gross IP Revenue*:** It is important to note that Gross IP Revenue is recorded for a particular piece of IP. For example, should a technology titled “Wind turbine”, protected by a patent and a design and all associated know how, be licensed to a third party, all revenue received for the licensing of the Wind Turbine technology in a financial period from that third party is recorded as Gross IP Revenue for the Wind Turbine Technology. All IP Expenses incurred for the Wind Turbine Technology, 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 Wind Turbine Technology will be deducted before sharing with the IP Creators/ IP Enablers.
* **Article 10.2.2.1, *and 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. Provision is made in the Template for “*direct sale of products or services*”. 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.

**Box** Consider the following draft example:

If a decision is taken to commercialize technology “in-house”, a business plan including a proposal for benefit sharing with the IP Creators/Enablers that is 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 Institution’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 institutions 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.

Finally, it is not recommended that staff time in the IPMO (which are included in Institution overheads) nor the administrative costs incurred in this office, such as photocopying, are included.

* **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 (for example in South Africa, in order to co-own with an Institution four requirements must be met, one of which is a benefit-sharing agreement to ensure that the IP Creators are always acknowledged and rewarded).

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.

**Box Sharing of Benefits from the Commercialization of Co-owned IP – A hypothetical example**

For example, Institution A creates 65% of the IP and Industry Partner B creates 35% of the IP. The revenue accruing in terms of commercialization of the IP will thus be shared in the ration of 65% to Institution A and 35% to Partner B. Thereafter, the IP disclosure form (Article 8.2 and 8.3) will reflect what percentage of the 65% owned by Institution A for the IP created by their Staff, Students or Visitors. Should Staff X and Z have each contributed 25% and Visitor Y 15%, then the revenues (100 000 units Gross IP Revenue [may be any currency] which was Institution A’s share) will be shared as follows:

100 000 units equates to 65% of the Gross IP Revenue Received by Institution A

Staff X = 25%/65%\*100 000 = 38 462

Staff Z = 25%/65%\*100 000 = 38 462

Visitor Y = 15%/65%\*\*100 000 = 23 076

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, Institutions must 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 12.2.3.2, Standard Creator’s/Enabler’s share:** Changes in incentives change the behavior of the Creators/Enablers. Many studies have been carried out on the correlation between the percentage of a Creator’s royalties and the amount of licenses or spin-offs. The general findings of such studies[[183]](#footnote-183) are:
* Policies that provide incentives to junior faculty will increase the Institution’s **patents and licenses**.[[184]](#footnote-184)
* By allocating a higher share of royalties to the Creators, Institutions will generally **license** more inventions to existing companies[[185]](#footnote-185);
* An allocation of a lower share to Creators will reduce the number of licenses and promote the creation of **spin-offs[[186]](#footnote-186)**. See also Guidelines [Article 9.4](#Article9point4).

**Box Comparing Benefit Sharing Between Two Universities**

The **University of Cambridge[[187]](#footnote-187)** provides a high percentage of royalties to inventors, thus promoting licenses over spin-offs.

|  |  |  |  |
| --- | --- | --- | --- |
| Net Income | Inventors (jointly) | Department | Cambridge Enterprise[[188]](#footnote-188) |
| First £100,000 | 90% | 5% | 5% |
| Next £100,000 | 60% | 20% | 20% |
| Above £200,000 | 34% | 33% | 33% |

At **Yale University**[[189]](#footnote-189), the royalties are also on a sliding scale, but are lower compared to Cambridge:

|  |  |  |
| --- | --- | --- |
| Net Royalties | Inventor(s) | *University (allocated to the general support of University research* |
| First *$100,000* | 50% | 50% |
| *between $100,000 and $200,000* | 40% | 60% |
| *exceeding $200,000* | 30% | 70% |

By allocating a smaller portion of the royalties to the Creators, researchers at Yale are encouraged to spin-off companies rather than licensing the technology.

* **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.

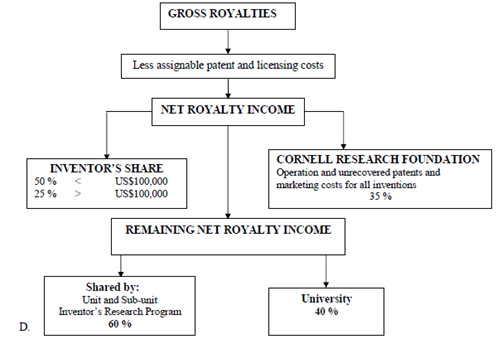
Should the Creator/Enabler pass away, it is standard best practice that all revenue that would have been due to these individuals should now be awarded to their heirs. The curator of the will/ custodian of the trust for the inheritance is typically responsible for disclosing the heirs to the IPMO and/or collecting the revenue for on-going distribution, especially in the event that the heirs are minors [typically younger than 18 or 21 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 (as per Article 10.2.3.7 of the Template).

* **Article 10.2.3.6, *survive any resignation/termination*:** Best practice is split as to whether or not a Creator/Enabler should continue to receive revenue from IP which accrues to the Institution should the Creator/Enabler resign to take up other employment or have their employment with the Institution terminated. The discretion in this regard is once 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 – Institution

* **Article 10.2.2, *Sharing of Revenues – Institution*.** As is evidenced, the Creators/Enablers are given first priority to the Gross IP Revenue and/or Net IP Revenue. Thereafter the Institution 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.

**Box Example Revenue Sharing - Cornell University**



### Article 10.3 – Other incentives (incentives other than through sharing in commercialization revenues)

### General

* **Article 10.3.1, *will refrain from accepting non-monetary benefits or offering incentives other than revenue sharing*:** Revenue sharing should thus be the default position for incentivizing Creators/Enablers.
* **Article 10.3.1, *where the Creator/Enabler elects to choose other benefits*:** It is rather advisable to provide a Creator/Enabler with a choice to accept other benefits *in lieu* of revenue sharing if the monetary benefits will only be realized a good few years down the road, with the potential for the other to be monetized.

### Career development criteria

### Article 10.3.2, *recognition of IP generation and Commercialization performance in appraisal procedures:* Since long, researchers have been measured and recognized for the number of journal articles they have published and where they have published them. Institutions that support commercialization activities should also consider technology transfer performance in the assessment of merit for promotion and grants.

The underlying rationale is that unless researchers are rewarded professionally for patenting and commercializing their research results they are unlikely to pursue this route, favoring a speedy publication of the research results instead that may compromise the possibility of patenting and transferring the technology thereafter. Different Institutions have adopted different systems for evaluating patents and licenses for the purposes of career advancement, taking into consideration that it may also be important to avoid creating incentives for indiscriminate filing of patent applications.

The University of South Wales, for example, has been established a career progression pathway which is not singly dependent on academic publications, as follows through a Readership or a Professorship in Innovation and Engagement:

**Box Example of a career progression pathway which is not singly dependent on academic publications - The Innovation and Engagement Route of the University of South Wales (UK)[[190]](#footnote-190)**

**Readership**

A Readership in Innovation and Engagement is a prestigious title and is a senior designation bestowed by the University in recognition of excellence in enterprise related activities. A Reader in Innovation and Engagement shall have demonstrated excellence in innovation and engagement activities and applied research and will be expected to provide leadership (e.g. through the activities in centers of research and by demonstrating learning from the expertise and insight of the different communities with which they engage). A Reader in Innovation and Engagement must continue to demonstrate competence as a teacher.

If the successful applicant will be expected to undertake new responsibilities, a submission for re-grading should be made in line with the University procedure to determine any relevant change in grade and salary.

### 

**Professorship**

A Professorship in Innovation and Engagement is a prestigious title and is the most senior designation bestowed by the University in recognition of excellence in enterprise related activities. A Professor in Innovation and Engagement shall have demonstrated outstanding excellence in innovation and engagement activities and applied research and will be expected to provide leadership (e.g. through the activities in centers of research and by demonstrating learning from the expertise and insight of the different communities with which they engage). A Professor in Innovation and Engagement must continue to demonstrate competence as a teacher.

If the successful applicant will be expected to undertake new responsibilities, a submission for re-grading should be made in line with the University procedure to determine any relevant change in grade and salary. The Title of Professor will be reviewed every five years and is only applicable whilst employed by the University of South Wales.

### Entrepreneurship support

* **Article 10.3.2, *opportunities for* *enterprise development or capacity development:*** An adequate level and quality of commercial support available to academic researchers is probably the most critical incentive. This could be provided through:
* easy access to and support from business development people;
* more time for commercialization, for example by buying out teaching time or relieving researchers of their admin responsibilities;
* internal commercialization support and mentoring (through the IPMO);
* flexible employment conditions to allow secondments;
* training in IP management and entrepreneurship (see [Box 5](#Box5)).

### Moral prestige and recognition

* **Article 10.3.1, *acknowledgement:*** Acknowledgement can take place through **awards** such as those offered by WIPO, The US Chamber of Commerce, European Inventor Award, Germany’s Diesel Medal and the Millennium Technology Prize awarded by Technology Innovation Finland. Some Institutions give inventors framed copies of their patents or a plaque bearing information about the patent. Institutions can hold annual inventor recognition events such as an inventor award dinner. These programs add a personal element to the compensation scheme.



* Alternatively, the **rating** of a researcher by a funding agency can be influenced by their contribution to the public domain through scientific articles or through their contribution as an innovator. This rating may influence further allocation of research funds by the funding agency, the establishment of a Centre of Excellence or the awarding of a Research Chair, for example.

Consider the example of South African’s National Research Foundation (NRF)[[191]](#footnote-191) where the rating system has primary and secondary research outputs which include both publications and IP outputs as well as prototypes, etc:

**Box Example - Rating System at the South African National Research Foundation (NRF)**

1. **PRIMARY OUTPUTS:** The following outputs are listed as Primary Outputs:
2. Books; Chapters in Books; Refereed/Peer-reviewed conference proceedings; and Articles in refereed/peer-reviewed journals; and
3. Patents. The following information must be provided for each patent: • Please provide information on all past and current patents under your name or as a result of a collaborative effort. Also include whether the patent is a Utility, Design or Plant patent in the description section. Only granted patents will show on the rating application.
4. **SECONDARY OUTPUTS:** The following outputs are listed as Secondary outputs:
5. Keynote/Plenary addresses;
6. Articles in non-refereed/non peer-reviewed journals;
7. Other significant conference outputs;
8. Technical/Policy reports;
9. Products - A Product may be defined as something produced; e.g. a commodity, a play, a creation, an invention;
10. Artefacts - An Artefact may be defined as an object that has been intentionally made or produced for a certain purpose e.g. a broadcast video, a film, a documentary, an object, an item; and
11. Prototypes - A Prototype may be defined as an original model on which something is patterned e.g. a model, a mock-up, dummies, or paradigm.

### Additional research sources

* **Article 10.3.3, *Research Funds***. The academic career requires funds for research, scholarship, and creative activities. Collaborative relations with the private sector can be a source for such funds, through R&D agreements, consultancy, or allocation of a share of IP Commercialization revenues. In essence the Institution may, for example allocate a greater portion of its own share of revenues towards the creators’ research department, which the Creators can then tap into to fund other research activities.

### Access to equity in spin-offs

* **Article 10.3.4, *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, some Institutions take equity in lieu of cash when they license their technologies to startup companies. Equity is also a way for the University to share some of the risk associated with the start-ups.[[192]](#footnote-192)
* **Shares percentage of the inventor versus the Institution**. The University of Edinburgh “Spin Out Support Guide” provides detailed support on how shares should be allocated with the IP Creators and what percentage of shares the Institution should take. An excerpt from this Guide is presented below and provides detail as to the option where the IP Creators benefit sharing from licensing revenue needs to be waived in view of the allocation of shares [Option 2 in Articles 10.3.4.1 and 10.3.4.2]:

**Box Example of Share Allocation in Start-ups – University of Edinburgh (UK)**

*“The University expects to be a significant shareholder in the spin-out company because of the resources and permission it makes available to the spin-out. Typically the University’s shareholding will be equal to that of the academic founders. The size of the shareholding agreeable to the University is dependent on a number of factors: for example, the roles of the individual researchers in the company; the IP; pre-company formation project-specific investment; and the involvement of the University in reaching the stage where a spin-out is possible. Spin-out equity will also need to be shared between all those involved in the company such as the management team and (future) employees. This is a key issue that needs to be dealt with early in the process and can be partly addressed with a share option scheme to reward future input. It will be important to future investors that the division of the company’s equity (both current and any share options) appropriately recognises and rewards those people who are key to the strategic direction and growth of the company. Inventors of the University-owned IP required by the company, who are active in the company formation process, can usually choose to take founding equity in the company or to share in the revenue received by the University in relation to the technology licence agreement. If founders also received income from the technology licence agreement, as per the University’s staff revenue sharing policy, they would be rewarded twice for the same activity (commonly known as ‘double dipping’). As such, founder researchers* ***are asked to waive their right to receive income that may flow in the future under the technology licence agreement****. Founders are able to purchase shares in an arm’s-length transaction alongside other investors without affecting their right to share in the University’s future income. It is typical for inventors who are actively participating in the company to take founding equity in the spinout, while any inventors who are not actively participating usually share in the University’s revenue. Allocating founding equity in this way aligns with the expectations of investors who wish to see those critical to the company being rewarded through the success of the company (via an increased share price).”*

### Further examples of incentives

* **Article 10.3.1, *Other incentives will include, but are not limited to, the incentives described in Article 10.3.2. – 10.3.4:*** The Template leaves it open to the Institution to give consideration to other incentives. A range of financial and non-financial incentives is summarized in [Box 80](#Box80).

|  |  |
| --- | --- |
| **Box**  **Overview of possible incentives** | |
| Financial incentives | Non-financial incentives |
| * fair remuneration and benefit-sharing arrangements (Article 10.2) | * ownership of the IP results |
| * access to resources for further research activities (Article 10.3.3) | * training, business development and commercialization support |
| * salary increase | * career development criteria |
| * direct financial rewards offered to Creators who were involved in successful patent applications[[193]](#footnote-193) | * laboratory equipment |
| * access to equity in spin-off companies | * sabbaticals; mobility[[194]](#footnote-194). |
| * taxation issues | * prestige |

### Useful Resources Related to Article 10

* **General publications referring incentives for commercialization of academic research:**

Zuniga, P. and Correa, P., [Technology Transfer from Public Research Organizations](https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/TechnologyTransferFromPublicResearchOrganizations.pdf), World Bank[[195]](#footnote-195)

Association for University Research and Industry Links (AURIL), Universities UK (2002), *A Guide to Managing Intellectual Property. Strategic Decision-Making in Universities,* [Chapter 4: Incentives](http://www.auril.org.uk/Portals/26/documents/strategic_guide.pdf), pp. 60-69

Scheinberg, S; Norgren, A.; Käll, J. (2009), [*A Comparative Analysis of Institutional Innovation and IP Policies, Strategies and Practices. Results of the Micro-Level Analysis of the IP Unilink project*](http://www.ip-unilink.net/public_documents/Micro-Level_Analysis.pdf), IP Unilink Consortium

Yencken, J. and Ralston, L. (2005), Evaluation of incentives for commercialization of research in Australian universities: a survey of selected Australian universities[[196]](#footnote-196)

* **National legislation on incentives:**
  + On overview of legislation on inventor compensations in selected low- and middle-income economies is provided in [Harnessing public research for innovation – the role of Intellectual Property](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2011-chapter4.pdf), Annex table A.4.1.

Paraskevopoulou, E. (2013), [*The adoption of Bayh-Dole type policies in developing countries*](https://www.innovationpolicyplatform.org/sites/default/files/rdf_imported_documents/TheAdoptionOfBayhDoleTypePoliciesInDevelopingCountries.pdf), World Bank

* + Article concerning the Commonwealth of Virginia’s legislation on incentives: *Incentives for Bioscience Research, Commercialization and Investment in the Commonwealth*, [VirginiaBio website](https://www.vabio.org/?page=incentives)
* **University and Research Institution’s Guidelines**
  + [Guideline 6 of 2018](http://www.dst.gov.za/nipm), National Intellectual Property Management Office (NIPMO)
  + On university and founder/researcher equity: University of Edinburgh “[Spin Out Support Guide](https://www.ed.ac.uk/files/atoms/files/eri_spin-out_support_guide.pdf)”.
* **Examples of incentives programs**
  + [Waterford Institute of Technology](https://www.wit.ie/research/for_researchers/commercialising_your_research#tab=panel-2), Ireland (WIT) Intellectual property Policy (excerpt) pp. 17-19
  + [Innovation Fund Patent Incentive Fund for Research Institutions](https://www.uj.ac.za/research/Documents/Patent_Incentive_Fund_Policy-ApplGuidelines.pdf). Policy and Guidelines for Application (South Africa)
  + [Oregon State University Incentive Programs](http://research.oregonstate.edu/incentive/) provided by the University Research Office
* [General Research Fund](http://research.oregonstate.edu/incentive/generalresearchfund)
* [Faculty Release Time](http://research.oregonstate.edu/incentive/faculty-release-time)
* [Research Equipment Reserve Fund](http://research.oregonstate.edu/incentive-programs/research-equipment-reserve-fund)
* [Undergraduate Research, Innovation, Scholarship & Creativity](http://research.oregonstate.edu/incentive/undergraduate-research-innovation-scholarship-creativity-urisc) (URISC)

## 

## ARTICLE 11 – IP PORTFOLIO MAINTENANCE

**Recording, Monitoring and Accounting**

* **Article 11.1, *IPMO shall maintain records of the Institution’s IP***: It is important to frequently review the Institution’s IP portfolio to determine if individual IP continues to serve the Institution’s interests and strategies, if they are not licensed. When IP applications appear to be stymied in prolonged prosecution, or when maintenance fees become due for payment, these topics should trigger decision-making by the IPMO - and perhaps the IP Committee - to consider dropping or maintaining the IP.

**Box Tips for Recording, Monitoring and Evaluation**

* Develop and implement clear systems for monitoring and evaluation as they can strengthen effectiveness of management of IP and knowledge transfer.
* Perform routine records of IP management measurement indicators in order to:
  + Illustrate to external partners that the Institution is managing IP effectively;
  + Identify problems and opportunities relating to IP management and to change budgets and strategies to reflect these changes;
  + Be effective in tracking and recording which can be a factor in faculty retention and recruitment.
* Design and collect appropriate indicators on an annual basis.
* Adopt procedures that may include specialized software that supports this activity. Such software can issue alerts regarding deadlines, which prevents possible losses of assets.
* **Article 11.1, *IPMO [or and external entity]***: An option is to outsource with a commercial partner to assist with recording and maintenance of IP. When appropriate, the Institution may allow that commercial partner under a specific agreement to control the strategy around actions of any related patent application of IP portfolio according to their interests and strategic plan.

**Selecting suitable performance indicators**

* Performance indicators (PIs) can perform two main purposes. First they can be used to prove to external parties that the Institution is capable of managing it IP effectively. Second, they are useful in assisting IPMO to identify problems and opportunities and to modify budgets and strategies accordingly.
* Most IPMOs do not usually make significant financial returns from knowledge transfer activities (factors as diverse as protecting the Institution’s research capabilities and contributing to the socio-economic development are also important). Therefore statistics collected should be interpreted carefully and designed around the IPMO’s mission relating to knowledge transfer. IPMO should establish suitable metrics relating to IP management and knowledge transfer. Suggested examples of possible indicators are:
  + Number of invention disclosure forms
  + Number of patents filed
  + Number of licences or technology transfers involving patents and IP;
  + Type of licensee - existing company, (including whether it is indigenous), new or spin-out company;
  + Numbers of contacts made and opportunities presented to companies.[[197]](#footnote-197)

### Useful Resources Related to Article 11

* **Literature and examples of guidelines/policies on good management of research data.**
  + University of Glasgow: [Good Management of Research Data Policy](https://www.gla.ac.uk/media/media_555894_en.pdf)
  + University of Helsinki: [Data Policy](https://www.helsinki.fi/en/research/research-environment/research-data/data-policy)
  + A.A. Schreier, K. Wilson, and D. Resnik, (2006) “[Academic Research Record-Keeping: Best Practices for Individuals, Group Leaders, and Institutions](https://www.ncbi.nlm.nih.gov/pmc/articles/PMC3943904/pdf/nihms561459.pdf)”
* **Monitoring and evaluation**
  + The Auril[[198]](#footnote-198) [Guide to Managing IP, Strategic Decision Making in Universities](https://fr.scribd.com/document/320063128/Strategic-Guide)
* **Metrics for IP Management.**

The following publications provide examples of possible indicators for IP management and knowledge transfer.

* + WIPO Economic Research Working Paper No. 10, [The Informal Economy, Innovation and Intellectual Property: Concepts, Metrics and Policy Considerations](http://www.wipo.int/publications/zh/details.jsp?id=3954&plang=EN)The [National Code of Practice for Managing Intellectual Property from Publicly Funded Research](http://www.sciencecouncil.ie/Publications/2005/National-Code-of-Practice-for-Managing-Intellectual-Property-from-Publicly-Funded-Research.pdf), Irish Council for Science, Technology and Innovation (ICSTI) (2004), p32;
  + The American Association of University Technology Managers (AUTM) [Licensing Surveys](https://www.autm.net/resources-surveys/research-reports-databases/licensing-surveys/)
  + Unico Report [Metrics for the Evaluation of Knowledge Transfer Activities at Universities](http://ec.europa.eu/invest-in-research/pdf/download_en/library_house_2008_unico.pdf)

## 

## ARTICLE 12 – TRADITIONAL KNOWLEDGE AND GENETIC RESOURCES

Negotiations are currently underway in the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore[[199]](#footnote-199) towards the development of an international legal instrument for the effective protection of traditional knowledge and traditional cultural expressions, and to address the IP aspects of access to and benefit-sharing of genetic resources. These negotiations might eventually have a bearing on how universities collect, use, conduct research on and manage IP rights in relation to GRs/TK.

Institutions are often confronted with issues related to conducting research involving GRs/TK. Before the Institution conducts research related to GRs/TK, the Institution should assess applicable IP laws and other legal regimes related to these issues at national[[200]](#footnote-200) and international levels. The diversity of national laws and the practical interests of providers and recipients are likely to lead to a wide range of choices.

If there is no specific law for access and benefit-sharing, in your country, contracts can play a significant role. Regardless of national laws, contracts can include prior and informed consent as well as benefit-sharing clauses. Contracts or agreements can also settle on their own definitions of key terms, with reference, for instance, to the customary laws of indigenous peoples and local communities.[[201]](#footnote-201) In other words, the Institution may grant more rights than those granted by national legislation through contracts. [[202]](#footnote-202)

Within access and benefit-sharing agreements, the specific arrangements made for IP management can influence the overall result of access to GRs. Careful management of IP issues during the negotiation, development and drafting of an access and benefit-sharing agreement can be important to ensure that the agreement creates benefits, and that benefits are shared equitably, respecting the interests and concerns of the resource providers (such as entitlement to seek IP rights in inventions and other results of research using the resources, ownership and licensing of any such derivative IP, responsibility for maintaining and exercising IP rights, arrangements for distributing any financial or other benefits resulting from such derivative IP, and requirement for the recipient of the resource to report on any IP that is applied for).[[203]](#footnote-203)

There are examples of successful collaborative research projects, such as the collaboration between the Chuulangun Aboriginal Corporation and the University of South Australia.

**Box Case study: A collaborative research project leads to a patent**

The Chuulangun Aboriginal Corporation ran a collaborative research project on bush medicine plants with the University of South Australia. Together they have collected plants and tested them in a laboratory to study their pharmacological activities. The co-research has led to the identification of certain compounds that can be used in the treatment of inflammation. As a result, patent applications have been filed and a patent has been granted to the University of South Australia and the Chuulangun Aboriginal Corporation for an invention entitled “Anti-inflammatory compounds.” David Claudie, one of the patentees, is an elder from the Chuulangun community who knows the medicinal uses of plants that grow there through his father’s bloodline. Thanks to the mutually agreed terms they have signed and the patent they jointly own, both the University and the Chuulangun Aboriginal Corporation have a say on how the compounds they have identified are commercialized, and will share the commercial benefits. [[204]](#footnote-204)

**Box Example – Benefit-sharing negotiations conforming to customary laws and protocols: Intellectual Property Policy of the University of Adelaide (Australia)**[[205]](#footnote-205)

Article 14. Traditional Indigenous Knowledge. *“The University recognizes that the commercial development of products resulting from use of the traditional knowledge of indigenous peoples should be subject to benefit-sharing negotiations with the providers of such knowledge, and conform to the relevant Indigenous protocols and ethical guidelines (including the Guidelines for Ethical Research in Australian Indigenous Studies).”*

**Box Example – Recognition of ownership of TK by indigenous peoples: Intellectual Property Policy of the University of Canberra (Australia)**[[206]](#footnote-206)

Section 9.2. “*The University and its staff, in the creation of IP, must adhere to and safeguard the ownership of the intellectual and cultural property rights of Indigenous people, including the ownership and use of cultural materials; ceremonial and “secret” issues; use of/reference to deceased people or their names; intrusion into ceremonial funeral sites; and respect for cultural values.”*

**Box Example – Model Material Transfer Agreement suggested by the Biotechnology Industry Organization (BIO)**

Section III. A. Make reasonable efforts to determine if any specific requirements for Prior Informed Consent apply to the collected Regulated Genetic Resources. To do so:

1.       Determine if a Contracting Party has established requirements for Prior Informed Consent, or, if that authority has been delegated to a Providing Party.

2.       Identify the nature of the requirements for Prior Informed Consent established by the Contracting Party or the Providing Party, as the case may be.

3.       Meet the identified requirements to comply with Prior Informed Consent obligations of the Contracting Party or the Providing Party applicable to the collected Regulated Genetic Resources, and incorporate evidence of such compliance into the Bioprospecting.

### Useful Resources Related to Article 12

* WIPO Publication “Protect and Promote Your Culture, A Practical Guide to Intellectual Property for Indigenous Peoples and Local Communities”, available at:

<http://www.wipo.int/publications/en/details.jsp?id=4195>

* WIPO Publication “Documenting Traditional Knowledge: A Toolkit”, available at:

<http://www.wipo.int/publications/en/details.jsp?id=4235>

* WIPO Publication “Key Questions on Patent Disclosure Requirements for Genetic Resources and Traditional Knowledge”, available at: http://www.wipo.int/publications/en/details.jsp?id=4194
* WIPO Publication “Draft Intellectual Property Guidelines for Access to Genetic Resources and Equitable Sharing of the Benefits arising from their Utilization”, available at:

<http://www.wipo.int/export/sites/www/tk/en/resources/pdf/redrafted_guidelines.pdf>

* Background Briefs No. 1 “Traditional Knowledge and Intellectual Property”, No. 6 “Intellectual Property and Traditional Medical Knowledge”, No. 7 “Customary Law and Traditional Knowledge”, No. 10 “Intellectual Property and Genetic Resources”, available at:

<http://www.wipo.int/publications/en/series/index.jsp?id=144>

* Glossary of Key Terms related to IP and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions, available at:

<http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=396139>

* WIPO Database of Biodiversity-related Access and Benefit-sharing Agreements, available at: <http://www.wipo.int/tk/en/databases/contracts/>
* WIPO Repository of Resources on Regional, National, Local and Community Experiences on IP and Genetic Resources, Traditional Knowledge and Traditional Cultural Expressions, available at: <http://www.wipo.int/tk/en/resources/tk_experiences.html>
* Advanced Distance Learning Course on IP, Traditional Knowledge and Traditional Cultural Expressions, available for registration at:

[https://welc.wipo.int/acc/index.jsf?page=courseCatalog.xhtml&lang=en&cc=DL203E#plus\_DL203E](https://welc.wipo.int/acc/index.jsf?page=courseCatalog.xhtml&lang=en&cc=DL203E%23plus_DL203E)

* A collection of national and regional legislative texts relevant to TK and GRs [is](http://is) available at: <http://www.wipo.int/tk/en/legal_texts/>
* To learn more about the Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore (IGC): <http://www.wipo.int/tk/en/igc/> and Background Brief No. 2 available at:

<http://www.wipo.int/publications/en/details.jsp?id=3861&plang=EN>

* To learn more about the Convention on Biological Diversity (CBD) and the Nagoya Protocol: [www.cbd.int/intro/](file:///\\adi.wipo.int\wipodata\DAT2\ORGDCEA\SHARED%20ORGSME\IP%20Policies%20for%20Universities\IP%20TOOLKIT%20AC%20INST\IP%20Policy%20Template\Step%2017%20-%2012th%20Draft%20-%20Website%20version\English\www.cbd.int\intro\).
* To learn more about the International Treaty: <http://www.fao.org/plant-treaty/en/>.

## ARTICLE 13 – CONFLICTS OF INTEREST AND CONFLICTS OF COMMITMENT

Consistent with the Institution’s mission, staff members are entering the commercial space and working with industry in greater numbers. In these relationships and interactions, it is possible however, that a staff member’s interests may at times give rise to an actual, potential or perceived conflict of interest or conflict of commitment with their role and responsibilities at the Institution.

Ensuring that conflicts of interest or conflicts of commitment are properly managed is crucial to reducing legal and reputational risk and demonstrating the integrity of individual staff members and of the Institution. Guidelines are needed to assist the Institution and its research collaborators in proactively navigating the complexities of a variety of requirements when operating in the distinct - yet at times overlapping - spheres of Institution and external roles and relationships.

Article 13 Template intends to highlight these issues and establish a method to protect the Institution community from questionable circumstances that might arise. It is recommended that a separate additional policy and/or set of guidelines be put in place to establish more detailed standards and requirements to protect the Institution’s financial well-being, reputation, and legal obligations and to resolve any apparent or real conflicts.

* **Article 13.1, *Commitment to the Institution*:** This article deals with conflicts of commitment (COC). COC usually involve issues of time allocation (see definition under Article 2 Template). Staff Members and Visitors owe their primary professional allegiance to the Institution; their primary professional commitment of time and intellectual energies therefore is to the education, research, and other programs supporting the Institution’s mission. Attempts to balance Institution responsibilities with outside activities – such as consulting, government service, public service, or pro bono work – can result in conflicts regarding allocation of time and energy. Staff Members and Visitors 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. Permitted limits of outside activities are usually described in the Institution’s COC/COI Policy and/or faculty handbook.
* **Article 13.2, *Best Interests of the Institution*.** This article refers to conflicts of interest (COI). Considerations of personal gain must not influence the decisions or actions of individuals in discharging their Institution responsibilities. Such 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.

The Commercialization of research results through IP management and technology transfer typically involve issues of potential financial and other interests and therefore, COI may occur. COI can be identified on different levels:

1. Institutional level. The Institution’s mission is the creation, preservation and transmission of knowledge for the benefit of the public. Institutions are – unlike corporates - non-profit. The IP commercialization process can put them in a position where immediate financial interests could conflict with their core mission. For example, an Institution may find itself as the full/partial owner of a company whose direct interests are to maximize its profit, even if it conflicts with basic academic principles as openness and knowledge sharing. Similarly, a conflict can arise between the desire for significant financial gain through an IP-license and philanthropic concerns related to that IP. Institutions must, therefore, balance promoting innovation and entrepreneurship with preserving their commitment to safeguarding the integrity and objectivity of their research.
2. IPMO level. The entity which is responsible for the IP commercialization process should serve the interests of the Institution, as well as the interests of the industry and the inventors. These interests, however, may be different such that potential for COI exists.
3. Personal level. Each individual related to an invention is exposed to COI, especially in cases where he/she is formally affiliated to more than one organization. Questionable circumstances that can arise include, for example:

* if a staff member personally invests in a business venture created from the Institution’s IP when they were involved as a researcher or supervisor/manager;
* if a staff member who is a founder of a company personally negotiates the licensing terms with the Institution;
* if a staff member who holds a board position at a company decides on issues involving licensing terms with the Institution;
* if a staff member who also consults for another company needs to decide whether to assign his or her inventions to the Institution or to the company for whom he or she consults;
* if a staff member accepts research sponsorship from a company in which he or she has a financial interest; the conflict arises because the outcome of the research could materially affect the personal wealth of the researcher.
* **Article 13.4, *disclosure of external activities and financial interests:*** It is important to understand that the existence of a COC/COI does not necessarily imply wrong-doing on the part of any person. However, Staff Members and Visitors need to be alert to situations in which they, or the people that they manage or supervise, may have a conflict of interest and ensure that the situation is disclosed quickly and transparently.  The COC/COI Policy should provide guidance relating to the disclosure process.
* **Article 13.4, *to* *the appropriate Institutional authority***: The establishment of a Committee on IP COI/COC may be of use on ambiguous or complex situations. Such Committee is typically responsible for:
  + administering and overseeing the Institution’s COI/COC program;
  + leading COI/COC-related policy training and education;
  + approving or rejecting activities in which individuals propose to be engaged;
  + enforcing requirements of the Institution’s COI/COC policy;
  + manage and resolve conflicts where they occur; and
  + reviewing appeals.
* **Article 13.5, *separate and comprehensive policy***: For long-term sustainability of an effective IP management and IP commercialization program, it is strongly recommended that the Institution develop a separate policy dealing with COI and COC. Such policy should:
  + help alert staff to recognise areas where conflicts may occur (provide guidance about the situations that may create a COI or COC, for example, amount of time that Staff Members may devote to outside activities);
  + encourage full disclosure of potential areas of conflict and open discussion with the COI/COC Committee at an early stage (clear disclosure procedure and requirements);
  + explain the roles and responsibilities of the COI Office;
  + ensure protection of personal information and privacy, etc.

**Useful Resources Related to Article 13**

* **Guidelines on COI/COC**.
  + The Association of American Universities, [*Report on Individual and Institutional Financial Conflict of Interest*](https://www.aau.edu/issues/conflicts-interest) (2001) provides definitions, COI operating guidelines, and a checklist of questions for campus leaders on managing COI.
  + The American Association of University Professors (AAUP), [*Summary of Recommendations, 56 Principles to Guide Academy-Industry Engagement*](https://www.aaup.org/sites/default/files/files/Principles-summary.pdf), contains general principles to guide management of conflicts of interest
* **Examples of COI/COC policies**. Many Institutions have a separate policy on COI and COC, sometimes accompanied by guidelines, COI procedures, COI disclosure forms and other tools.
  + Illustrations can be found in the WIPO Database on IP Policies, choosing the “conflict of interest” focus. For example:
  + [University of Glasgow](https://www.gla.ac.uk/media/media_176371_en.pdf), United Kingdom
  + [Northwestern University](http://www.northwestern.edu/coi/policy/), United States of America
  + [The University of Auckland](https://www.auckland.ac.nz/en/about/the-university/how-university-works/policy-and-administration/university-organisation-and-governance/legal/conflict-of-interest-policy.html), New Zealand
  + [University of Notre Dame](http://policy.nd.edu/assets/185215/conflictofinterestpolicy.pdf), United States of America Nairobi
  + [Chuka University](http://chuka.ac.ke/Code%20of%20Conduct%20and%20Ethics%20Policy%2013.9.2013.pdf), Kenya
  + Examples of US published COI policies can be viewed on the [AUTM website](http://www.autm.net).
  + Further examples include:
  + [India Institute of Technology](http://www.sineiitb.org/downloads/bi_policy_coi_and_confidentiality.pdf), Bombay
  + [University of Cape Town](http://www.uct.ac.za/downloads/uct.ac.za/about/policies/conflictsofinterest.pdf), South Africa
  + Harvard University, United States of America
  + [MIT](https://policies-procedures.mit.edu/faculty-rights-and-responsibilities/conflict-interest), USA, Conflict of Interest Policy Statement
  + [Oxford University](https://innovation.ox.ac.uk/university-members/commercialising-technology/starting-company/conflict-interest-policy), United Kingdom
  + [Ecole polytechnique fédérale de Lausanne](https://polylex.epfl.ch/files/content/sites/polylex/files/recueil_pdf/ENG/4.1.1.1_dir_gestion_conflits_interet_en.pdf) (EPFL)

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## ARTICLE 14 – DISPUTE

### Article 14.1 - Violation of the Policy: Institutions are encouraged to clearly and consistently enforce their IP Policy. However, some caution may be warranted. An overly aggressive IP Policy enforcement could have a potentially negative effect on the traditional culture and activities of a university. Universities should avoid authoritarian bureaucracies and too-stringent punishments for IP Policy infractions. Most importantly, would-be Inventors and Creators should participate in the IP process voluntarily and not by force. Each Institution will need to determine how aggressive it will be in enforcing the IP Policy.

### Article 14.2 – Dispute Resolution: For consideration other than following a dispute resolution through the courts, is to cater for Alternate Dispute Resolution mechanisms in the IP Policy. This can either be separately or in addition to reporting to the courts in the event that ADR fails. For more details, refer to [WIPO ADR mechanism and procedure](http://www.wipo.int/amc/en/).

## ARTICLE 15 – AMENDMENT

### Article 15.1, Revision:

### A copy of the revised Policy needs to be sent to all relevant stakeholders, and their written consent (signature) needs to be obtained. Be careful to change and clearly indicate the version number and effective date of each new Policy.

### In some countries the labour law requires approval of an employee representation body (an internal committee that is represents the pool of employees) to approve (any changes in) the IP Policy, especially when it relates to financial incentives and compensation.

### [End of document]

1. The Toolkit provides a one-stop-shop for academic and research institutions that seek guidance in the course of shaping and implementing their institutional IP policies. A copy can be found on the [WIPO website](http://www.wipo.int/policy/en/university_ip_policies). [↑](#footnote-ref-1)
2. **Responsible IP ccommercialization** refers, in the context of this Guideline, to ccommercialization of IP created in academic settings, to achieve the academic Institutions’ mission to disseminate knowledge; to enhance local economies; and to change the world for the better. See also [Article 1.3.1](#Article1p3p1). [↑](#footnote-ref-2)
3. An analysis of all relevant provisions in national laws, regulations, policies and government initiatives, which foster entrepreneurial behaviour at R&D Institutions, support ccommercialization, regulate ownership and help accelerate the process of technology diffusion from academic and research Institutions to local, national or even international businesses. The [*WIPO Policy Writers’ Checklist*](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx) may help to analyse a country’s relevant laws and policies. For more information about IP laws in different countries, visit the [WIPO Lex database](http://www.wipo.int/wipolex/en/) and the [Toolbox](http://www.heip-link.net/content/toolbox) provided by the HEIP-link. [↑](#footnote-ref-3)
4. Given different histories, economic settings, and players, not all the factors that worked for one Institution will necessarily work for another. Therefore, copying or adopting similar policies from successful leading Institutions does not guarantee similar results. [↑](#footnote-ref-4)
5. The [*Policy Writers’ Checklist*](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx) may help to better understand the needs, characteristics, organization and wider policy framework of an Institution. [↑](#footnote-ref-5)
6. Therefore, consultation with people involved in the commercialization of research from across the ecosystem is crucial. See the [Policy Writers’ Checklist](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx), Checklist 3. [↑](#footnote-ref-6)
7. Various examples of such guidelines can be found by searching the [WIPO Database of IP Policies](http://www.wipo.int/policy/en/university_ip_policies/), indicating “Guidelines and other resources” in the Accompanying Documents box. Some examples of guidelines on national level are: the [Australian IP Toolkit for Collaboration](https://www.ipaustralia.gov.au/tools-resources/ip-toolkit) and a set of [Handbooks and Guides](http://www.auril.org.uk/Publications/tabid/1152/Default.aspx) on IP Management produced by the Association for University Research and Industry Links (AURIL). [↑](#footnote-ref-7)
8. See [*Policy Writers’ Checklist*](http://www.wipo.int/about-ip/en/universities_research/documents/ip_toolkit/checklist.docx), Checklist 24. [↑](#footnote-ref-8)
9. The “third mission” of universities can be understood as the economic use of research, IPRs, spin-offs, technological transfer, and in a broader sense everything in the direction of the society and the economic use of research and IP (see: Dan, Michaela-Cornelia (2012), [*The Third Mission of Universities in the Development Strategy of Vienna City*](http://www.revistaie.ase.ro/content/64/06%20-%20Dan.pdf)). [↑](#footnote-ref-9)
10. Such as government agencies, philanthropic organizations, non-governmental organizations (NGOs), other higher education institutions, private investors and individuals across the globe. [↑](#footnote-ref-10)
11. Institutions should try to anticipate which technologies may have applications that address important unmet social needs unlikely to be served by terms appropriate for commercial markets and to structure agreements to follow for these applications. The principal examples are technologies suited to meeting the agricultural, medical, and food needs of developing countries. See [Nine Points to Consider in Licensing University Technology](http://news.stanford.edu/news/2007/march7/gifs/whitepaper.pdf) (Point 9). [↑](#footnote-ref-11)
12. Knowledge transfer may produce income from royalties and licenses that can be reinvested in new research and teaching programs, although studies indicate that most Institutions will not realize enough income to cover the costs of an IPMO. [↑](#footnote-ref-12)
13. Institutions that succeed in moving discoveries from the lab to the marketplace often create a prestigious following. [↑](#footnote-ref-13)
14. Through industrial equipment, better understanding of market needs and applied research. [↑](#footnote-ref-14)
15. Hands-on teaching through the participation of industry-based lecturers and real case studies. [↑](#footnote-ref-15)
16. Employment prospects of students and early-stage researchers, exchanges of staff between the Institution and businesses, and alumni intake in firms. [↑](#footnote-ref-16)
17. Universities that embrace a robust technology transfer environment are more appealing to entrepreneurial faculty, scientists and students who see the institution as a successful pathway for both career development and bringing innovation to market. [↑](#footnote-ref-17)
18. Academic scientists generally pursue the rapid dissemination of their ideas, especially through publication in selective scholarly journals, and peer recognition. They may also seek financial rewards, which can be ploughed back into their research. [↑](#footnote-ref-18)
19. The IPMO and other research administrators generally attempt to engender revenue from the IP portfolio and seek to transfer or market institution technologies to companies. [↑](#footnote-ref-19)
20. Companies are driven by the desire to commercialize institution-based IP for financial gain. They wish to secure exclusive rights to such IP and place a strong emphasis on speed. [↑](#footnote-ref-20)
21. Universities and research institutions are increasingly expected to actively participate in and contribute to a regional knowledge and innovation ecosystem. See, for example, in Europe: European University Association, [*University-Business Collaborative Research: Goals, Outcomes and New Assessment Tools*](http://www.eua.be/Libraries/euima-collaborative-research/eua_euima_publication_web.pdf?sfvrsn=0) (2014). [↑](#footnote-ref-21)
22. See also [Article 9.4.a](#Commercialization Pathways) and [Box 61](#Box60). Institutions receiving Government funding for research are often required to give preference to issuing licenses to local small business if they have the resources and capability to commercialize the invention. [↑](#footnote-ref-22)
23. The International Standards Organisation’s “Guidelines on Social Responsibility”. [↑](#footnote-ref-23)
24. The EU-USR project (http://www.eu-usr.eu) was conceived as a response to the policy priority of the European Commission about the need for a common social responsibility strategy for all European universities. The EU-USR Report proposes a set of benchmark standards which provide a European model to enhance social responsibility of universities. [↑](#footnote-ref-24)
25. See, [Social Responsibility in Higher Education Institutions: Application case from the Middle East](https://www.researchgate.net/publication/274608438_Social_Responsibility_in_Higher_Education_Institutions_Application_case_from_the_Middle_East). [↑](#footnote-ref-25)
26. See, [A Framework for University Social Responsibility and Sustainability: The Case of South Valley University, Egypt](https://waset.org/publications/10002007/a-framework-for-university-social-responsibility-and-sustainability-the-case-of-south-valley-university-egypt). [↑](#footnote-ref-26)
27. Social responsibility is one of our three core strategic goals in the [Manchester 2020 Strategy](http://www.manchester.ac.uk/discover/social-responsibility/). The University has *Humanitarian IP Commercialization Policy*. [↑](#footnote-ref-27)
28. See the [UWS Sustainability Plan 2016 to 2020](https://www.uws.ac.uk/about-uws/uws-commitments/sustainability/). [↑](#footnote-ref-28)
29. See [University of Oslo Strategy 2020](https://www.uio.no/english/about/strategy/Strategy2020-English.pdf). [↑](#footnote-ref-29)
30. The University of Berkeley has a Socially Responsible Licensing Program to maximize societal impact. [↑](#footnote-ref-30)
31. See article [*By doing good, Cornell can do well*](http://news.cornell.edu/stories/2008/04/cornell-can-do-well-doing-good-tech-transfer-leader-says). [↑](#footnote-ref-31)
32. The University Charter of Social Responsibility is established to guide the conduct of activities at CityU so that the University's operation can be managed sensitively and responsibly, whilst giving due consideration to its impact on the environment and society; balancing growth with sustainability. [<http://www6.cityu.edu.hk/puo/newscentre/usr/uni-charter.htm>] [↑](#footnote-ref-32)
33. <http://www.aunsec.org/aunusrs.php> [↑](#footnote-ref-33)
34. <https://www.emeraldinsight.com/doi/abs/10.1108/S2043-905920140000008013> [↑](#footnote-ref-34)
35. In: Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices. [↑](#footnote-ref-35)
36. For example, in European and some other countries, experimentation on an invention (as opposed to with an invention) is allowed even for commercial purposes. In the United States, however, research without the authorization of the patent owner has only been narrowly admitted for scientific purposes. See: Correa, Carlos (2016), South Centre Research Paper 69, [*Intellectual Property and Access to Science*](https://www.southcentre.int/wp-content/uploads/2016/07/RP69_IP-and-Access-to-Science_EN.pdf). [↑](#footnote-ref-36)
37. Often, such guidelines only apply to IP generated from research that is funded entirely from public sources, where no commercially funded research has contributed to the IP. [↑](#footnote-ref-37)
38. See also the earlier working paper developed by the European Commission: [*Management of Intellectual Property in Publicly-funded Research Organisations: Towards European Guidelines*](http://ec.europa.eu/research/era/pdf/iprmanagementguidelines-report.pdf)(2004). [↑](#footnote-ref-38)
39. The IP-Unilink projectis an initiative of Higher Education Institutions from the European Union (EU), Brazil, Russia, India and China (BRIC countries), co-funded by the European Union. [↑](#footnote-ref-39)
40. For more information, see: [Background Brief No. 10 “Intellectual Property and Genetic Resources”](http://www.wipo.int/publications/en/details.jsp?id=4011). [↑](#footnote-ref-40)
41. The [Convention on Biological Diversity](https://www.cbd.int/) (CBD) was adopted in 1992 to promote the conservation of biological diversity, the sustainable use of the components of biological diversity and the fair and equitable sharing of the benefits arising out of the utilization of GRs. The CBD is the first international agreement that addresses access and benefit-sharing in its objectives and provisions. It recognizes the sovereign rights of States over their natural resources and affirms the authority governments have, subject to their national legislation, to determine access to GRs. The [Nagoya Protocol](https://www.cbd.int/abs) on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization to the Convention on Biological Diversity was adopted in 2010 and is a supplementary agreement to the CBD. It sets out the rules and mechanisms for access and benefit-sharing and provides a legal framework for the effective implementation of the fair and equitable sharing of benefits arising out of the utilization of GRs. The [International Treaty on Plant Genetic Resources for Food and Agriculture](http://www.fao.org/plant-treaty/en/), which was adopted in 2001 and which is limited to plant GRs for food and agriculture, regulates the exchange of a number of important food crops, and facilitates access to crop varieties and their components for agricultural research and breeding of new varieties. See Background Brief No. 10 “Intellectual Property and Genetic Resources”, available at:

    <http://www.wipo.int/publications/en/details.jsp?id=4011>. [↑](#footnote-ref-41)
42. See Article 15 of the CBD. [↑](#footnote-ref-42)
43. See the [Bonn Guidelines on Access to Genetic Resources and Fair and Equitable Sharing of the Benefits Arising out of their Utilization](https://www.cbd.int/doc/publications/cbd-bonn-gdls-en.pdf). [↑](#footnote-ref-43)
44. See Article 10 Template. [↑](#footnote-ref-44)
45. Definition taken from the Biocat/Interbio whitebook (2012), [From Research To Market: Key Issues Of Technology Transfer From Public Research Centres To Businesses White Paper](http://4.interreg-sudoe.eu/contenido-dinamico/libreria-ficheros/3D0ED325-A000-2BDC-F737-7534920D685C.pdf). [↑](#footnote-ref-45)
46. <http://www.cam.ac.uk/research/news/what-is-knowledge-transfer> [↑](#footnote-ref-46)
47. For explanatory notes of the definition, see: [www.upov.int/edocs/expndocs/en/upov\_exn\_var.pdf](http://www.upov.int/edocs/expndocs/en/upov_exn_var.pdf) and <http://www.upov.int/overview/en/variety.html>**.** [↑](#footnote-ref-47)
48. The UPOV Convention contains important exceptions to the breeder’s right: The use of protected varieties in subsistence farming does not require the breeder’s authorization. Protected varieties are available without the breeder’s authorization for research and plant breeding, and Contracting Parties to the Convention may, within certain limits, permit farmers (other than subsistence farmers) to use, for propagating purposes, the product of the harvest that they have obtained from the protected variety. [↑](#footnote-ref-48)
49. See [Guide to the Copyright and Related Rights Treaties by WIPO and Glossary of Copyright and Related Rights Terms](http://world-intellectual-property-organization.com/publications/en/details.jsp?id=361&plang=EN) [↑](#footnote-ref-49)
50. [WIPO Standing Committee on the Law of Patents, SCP/13/5](http://www.wipo.int/meetings/en/doc_details.jsp?doc_id=130183) [↑](#footnote-ref-50)
51. Source : [Frascati Manual](https://www.oecd.org/sti/inno/Frascati-2015-Glossary.pdf) 2015. Guidelines for Collecting and Reporting Data on Research and Experimental Development, (2005), OECD [↑](#footnote-ref-51)
52. University of Calgary, Canada. [↑](#footnote-ref-52)
53. University of Carnegie Mellon University, USA. [↑](#footnote-ref-53)
54. University of Malta. [↑](#footnote-ref-54)
55. DNA, or deoxyribonucleic acid, is like a blueprint of biological guidelines that a living organism must follow to exist and remain functional. RNA, or ribonucleic acid, helps carry out this blueprint's guidelines. [↑](#footnote-ref-55)
56. Even “negative” know-how (research results indicating that a particular product or concept is not commercially useful) may be protected as a trade secret. However, if universities are willing to keep such negative know-how secret, it could jeopardize their standing as society’s truthful arbiter. [↑](#footnote-ref-56)
57. For more information, see [WIPO’s website on Traditional Knowledge](http://www.wipo.int/tk/en/tk). [↑](#footnote-ref-57)
58. Subordinate (or delegated or subsidiary) legislation is legislative decision-making by non-Parliamentary officials to whom power has been delegated under an empowering statute. It is essentially a transfer of law-making power. [↑](#footnote-ref-58)
59. Incorporation by reference is the act of including a second document within another document by only mentioning the second document. Incorporation by reference is often used to make parties to a contract bound by the terms of another document, without having to duplicate the entire document in the contract. [↑](#footnote-ref-59)
60. For example, the University College London, United Kingdom, has a Policy Statement on IP rights in relation to students, with specific guidelines. For more examples, see the WIPO Database of IP Policies. [↑](#footnote-ref-60)
61. University of South Africa. [↑](#footnote-ref-61)
62. Many countries have laws that protect a party to a contract from unfair terms as well as from unconscionable conduct by the other party to a contract. An IP Policy which mandates that a student must assign all its IP to the Institution, or which asserts or declares that the Institution, by force of the policy alone, owns the all IP created by a student, is highly likely to be void. See Mendes, Philip (2016), [*To What Extent are University IP Policies Legally Binding? Part 2: Students*](https://papers.ssrn.com/sol3/papers.cfm?abstract_id=2855159)*.* [↑](#footnote-ref-62)
63. Since students are generally unsophisticated parties in the legal sense, any contractual arrangement with them should be treated carefully. [↑](#footnote-ref-63)
64. Massachusetts Institute of Technology (MIT) and University of Minnesota. [↑](#footnote-ref-64)
65. Harvard University. [↑](#footnote-ref-65)
66. Duke University. [↑](#footnote-ref-66)
67. University of Cape Town. [↑](#footnote-ref-67)
68. Institutions often face the question of whether the IP Committee should be placed under the Institution’s financial officer or the officer responsible for the research enterprise. In the U.S. and many other universities world-wide this debate is now long-over: the IP Committee is placed under research, not finance. [↑](#footnote-ref-68)
69. University of Pretoria, South Africa. While “TTO” is the most commonly used word, it falls sometimes out of favour because much of the knowledge or IP transferred by universities and research Institutions today does not involve technology, for instance the rights to biological tissue or logistics software programs. [↑](#footnote-ref-69)
70. Massachusetts Institute of Technology (MIT), United States of America. [↑](#footnote-ref-70)
71. University of Cape Town, South Africa.

    66 Emory University, United States of America.

    67 Harvard University, United States of America. [↑](#footnote-ref-71)
72. Vrije Universiteit Brussel (VUB), Belgium. [↑](#footnote-ref-72)
73. National University of Singapore. [↑](#footnote-ref-73)
74. Núcleo de Inovação Tecnológica, term established by the Technology Innovation Law No 10.973/2004 in Brazil. [↑](#footnote-ref-74)
75. Knowledge has a far much broader meaning than IP and should not be confused per se with IP, whose meaning has been defined in this guideline. [↑](#footnote-ref-75)
76. For example, Pennsylvania State University, USA, offers consulting services and educational programs to entrepreneurs to start-up businesses [↑](#footnote-ref-76)
77. NIPMO is the National Intellectual Property Management Office, established by this South African law with the mandate to oversee the implementation of the Act. It also assists the Institutions with capacity development and other areas of IP management including funding the costs of IP protection by the Institutions. [↑](#footnote-ref-77)
78. The list is based on: Young, T., [*Establishing a Technology Transfer Office*](http://www.iphandbook.org/handbook/chPDFs/ch06/ipHandbook-Ch%2006%2002%20Young%20Establishing%20TTOs.pdf) (2007), chapter 6.2. in Intellectual Property Management in Health and Agricultural Innovation: A Handbook of Best Practices. [↑](#footnote-ref-78)
79. The leadership of each Institution should articulate a clear mission for the IPMO and convey the mission to internal and external stakeholders. The mission statement should embrace the Institution’s foundational responsibility to support efficient processes to encourage the widest dissemination of Institution-generated IP for the public good.See: National Research Council of the National Academies (2011), *Managing University Intellectual Property in the Public Interest*. [↑](#footnote-ref-79)
80. For this purpose, IPMO managers should be empowered by the Institution’s top-level administration. Otherwise, this independence will not be implemented, since the decision-making will be sent to the top management. [↑](#footnote-ref-80)
81. http://www.innovus.co.za/ [↑](#footnote-ref-81)
82. However, the several decades of IP-based technology transfer experience in the US and UK has shown that early concerns about operation costs are eventually overwhelmed by the importance of the function to the core mission of the university – in other words, it is a cost that must be borne for a university to achieve its’ modern mission and to satisfy societal expectations of the academy. [↑](#footnote-ref-82)
83. Governments will set up such IPMOs when Government legislation has permitted this, often by pooling together resources from universities and R&D Institutions across borders, especially in developing countries. [↑](#footnote-ref-83)
84. # In: The World Bank (2011), Agricultural Innovation Systems: An Investment Sourcebook.

    [↑](#footnote-ref-84)
85. Business experience and knowledge base of IPMO employees have more weight than the sheer number of IPMO employees. [↑](#footnote-ref-85)
86. Source: Nelson, R., Massachusetts Institute of Technology (MIT). [↑](#footnote-ref-86)
87. For examples of such structures, see [Box 22](#Box22). [↑](#footnote-ref-87)
88. <https://otd.harvard.edu/> [↑](#footnote-ref-88)
89. <http://www.rci.uct.ac.za/> [↑](#footnote-ref-89)
90. The University of Campinas is a public university funded by the state of São Paulo, Brazil. [↑](#footnote-ref-90)
91. See [www.inova.unicamp.br](http://www.inova.unicamp.br) [↑](#footnote-ref-91)
92. <https://wits-enterprise.co.za/> [↑](#footnote-ref-92)
93. <http://www.innovus.co.za/> [↑](#footnote-ref-93)
94. <http://www.iperative.com/> [↑](#footnote-ref-94)
95. See Ramli, Nasiibah and Zainol, Zinatul (2014), *Intellectual Property Ownership in Academia: An Analysis*, Journal of Intellectual Property Rights, Vol 19, May 2014, pp 177-188. [↑](#footnote-ref-95)
96. Most national laws provide that an **inventor** has the right to apply for a patent. However, if the invention was made in the course of employment the employer is granted the right to apply for a patent. As far as **copyright** is concerned, most national laws provide that the author of a copyright work is the copyright owner of the work. However, if the work is created in the course of employment the employer becomes the copyright owner. Other national laws provide that the author remain the copyright owner regardless of whether the work was created in the course of employment or not. Most laws will also dictate that these default provisions on ownership may be regulated by contract. [↑](#footnote-ref-96)
97. Even where there are similar approaches (e.g., countries that have enacted a Bayh-Dole-like act), the scope or applicability of the laws differs across countries. To illustrate: the subject matter of the Japanese Bayh-Dole Act is broader than that of the US Bayh-Dole, because it covers not only patent rights but also certain other IPRs; and it does not submit the Institutions to the same conditions to retain ownership. This is also the case with the South African legislation, which considers all forms of IP, not just patents. [↑](#footnote-ref-97)
98. There may be relevant provisions in incentive policies for innovation, science and technology development plans, etc. [↑](#footnote-ref-98)
99. Countries like Austria, Belgium, Denmark, Finland, Germany, Japan and Norway changed their policy from inventor ownership to the Institution ownership model. [↑](#footnote-ref-99)
100. The Bayh-Dole Act was the first dedicated legal framework which institutionalized the transfer of exclusive control over many government funded inventions to universities. The shift and clarification of ownership over these inventions lowered transaction costs as permission was no longer needed from federal funding agencies, and because this gave greater clarity to ownership rights and therefore greater security to downstream licensees. The Act also contains rules for invention disclosure and requires institutions to provide incentives for researchers. See [*Harnessing Public Research for Innovation – The Role of Intellectual Property*](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2011-chapter4.pdf)*.* [↑](#footnote-ref-100)
101. See <http://www.npc.gov.cn/englishnpc/Law/2009-02/20/content_1471617.htm>. [↑](#footnote-ref-101)
102. Section 15(2) sets out specific requirements for co-ownership between an institution and a private entity or organization; the definition of a recipient includes an institution. [↑](#footnote-ref-102)
103. Sweden retained the professor’s privilege system. Italy introduced the professor’s privilege system in 2001. University ownership usually favors the business model of patenting and licensing while inventor ownership rather favors the business model of spinoffs. Actually, in Italy it is only applicable to 100% public funded research. Only Sweden has a PP pure play in EU. [↑](#footnote-ref-103)
104. Policy 73 – Intellectual Property Rights (1997): <https://uwaterloo.ca/secretariat/policies-procedures-guidelines/policy-73-intellectual-property-rights>. [↑](#footnote-ref-104)
105. [AUTM](https://www.autm.net/) has been publishing for many years its Technology Transfer Best Practices Manual, which has been a benchmarking for many countries around the world. [↑](#footnote-ref-105)
106. [ICETT](http://www.icett.or.jp/english/index.html)’s mission is to transfer sophisticated Japanese environmental technology to other, especially developing, countries to help them remedy their environmental issues, thereby contributing to the protection of the global environment. [↑](#footnote-ref-106)
107. [KCA](https://www.kca.asn.au/) is a volunteer led, non-profit organisation whose purpose is to “assist in the development and maintenance of skills associated with knowledge transfer from public sector organisations.” [↑](#footnote-ref-107)
108. [ACCT Canada](https://www.acctcanada.ca/) (*l’Association canadienne pour la ccommercialization des technologies*) is Canada's pre-eminent organization in all matters related to the interface of academic research-industry engagement and research discovery mobilization. [↑](#footnote-ref-108)
109. [AURIL](http://www.auril.org.uk) is the professional association representing all practitioners involved in knowledge creation, development and exchange in the UK who work to ensure that new ideas, technologies and innovations flow from their Institution into the market place. [↑](#footnote-ref-109)
110. Under the IP Policy of the University of Calgary, creators of IP who are members of the University community own their works. At the same time, if they have used University facilities and support in creating IP, the University has a right to share in the net revenues earned from commercializing the IP. [↑](#footnote-ref-110)
111. Articles 5.1.1 to 5.1.9 of the IP Policy of the Victoria University of Wellington further elaborate the ownership rules for each type of creator. [↑](#footnote-ref-111)
112. See Francois Guay “Who owns copyright: Employee or Employer?” at

     <http://smart-biggar-web-com.sitepreview.ca/en/newsletters/Intellectual_Property_Magazine_Dec2010.pdf> [↑](#footnote-ref-112)
113. See Jim Fitzsimons and Alexandra Bridges “The importance of being specific: IP ownership in employee contracts” <https://www.claytonutz.com/knowledge/2010/december/the-importance-of-being-specific-ip-ownership-in-employee-contracts>. [↑](#footnote-ref-113)
114. [2009] 2 All SA 31 (SCA) 35. [↑](#footnote-ref-114)
115. See also “Mary Still, Employers, employees, and intellectual property: The saga of University of Western Australia v Gray” at <https://www.claytonutz.com/knowledge/2010/march/employers-employees-and-intellectual-property-the-saga-of-university-of-western-australia-v-gray> [↑](#footnote-ref-115)
116. Inventors or Creators wishing to directly reimburse the Institution for the use of its resources must make arrangements to do so before the level of resources usage for a particular IP becomes substantial. [↑](#footnote-ref-116)
117. Bowdoin College Brunswick, United States of America: [student handbook](https://www.bowdoin.edu/studentaffairs/student-handbook/college-policies/intellectual-property.shtml). [↑](#footnote-ref-117)
118. For example, in South Africa it would not be possible for an employer to become the owner of an invention made outside the course and scope of employment but with substantial use of Institution’s resources. Section 59(2) of the Patents Act 57 of 1978 provides that any condition in a contract of employment which— (a) requires an employee to assign to his employer an invention made by him otherwise than within the course and scope of his employment shall be null and void. However, in terms of the Intellectual Property Rights from Publicly Financed Research and Development Act, 2008, the Institution will be able to claim ownership of such IP, as the substantial use of the Institution’s resources places the resulting IP within the ambit of this law which requires the Institution as a recipient of public funds and employer, to be the owner of such IP. [↑](#footnote-ref-118)
119. In this case the linkage with the university has to be deeply clarified in the employment agreement. [↑](#footnote-ref-119)
120. The Rules of the Institution generally require, as a condition of enrolment, that the Institution reserves the right to retain the original or copy of any theses, and a license as described in Article 5.2.2. Reference should be made to the applicable Rules. Such retention does not affect any copyright or other IP right that may exist in such theses. [↑](#footnote-ref-120)
121. [University of Cape Town Intellectual Property Policy](http://www.uct.ac.za/sites/default/files/image_tool/images/328/about/policies/Policy_Intellectual_Property_2011.pdf) (2011). [↑](#footnote-ref-121)
122. John Hopkins University, United States. [↑](#footnote-ref-122)
123. Stanford University, United States. [↑](#footnote-ref-123)
124. See for example: Cambridge University, United Kingdom. [↑](#footnote-ref-124)
125. See for example: Central Queensland University Australia. [↑](#footnote-ref-125)
126. Few universities claim an interest in books, articles, works of art and music created by faculty authors. This may be changing in the digital environment, however, especially for online course material. [↑](#footnote-ref-126)
127. Budapest Open Access Initiative (BOAI); the Bethesda Statement on Open Access Publishing; the Berlin Declaration on Open Access to Knowledge in the Sciences and Humanities. [↑](#footnote-ref-127)
128. The OpenCourseWare (OCW) initiative started by Massachusetts Institute of Technology. [↑](#footnote-ref-128)
129. See <https://openeducationalresources.pbworks.com/w/page/25308415/Legal%20Aspects%20of%20OER>. [↑](#footnote-ref-129)
130. Source : [IP Policy of the University of Manchester](http://documents.manchester.ac.uk/display.aspx?DocID=24420) [↑](#footnote-ref-130)
131. Your Institution may be required by law or administrative bye-laws to publish the results of publicly funded research. In most countries, however, Institutions are empowered to agree to delay publication in order to allow patent applications to be made. For an overview of the national contexts in Europe, see the [CREST Report](http://ec.europa.eu/invest-in-research/pdf/download_en/crestreport.pdf), p.31- 33. [↑](#footnote-ref-131)
132. If the technology will be licensed to many parties, increasing the risk of a disclosure, it is better to patent the technology. Commercializing a trade secret through a confidentiality agreement is also possible, but dissemination can cause the secret to lose its value. [↑](#footnote-ref-132)
133. Start-ups would typically need to pitch their business ideas to investors. In addition, since are usually poor on cash, they may need to patent in order to indicate to the market that they have a competitive advantage, thereby attracting capital, as well as to create collateral for borrowing. [↑](#footnote-ref-133)
134. Trade secrets are more attractive to technologies with rapid innovation and changes, such as software. [↑](#footnote-ref-134)
135. IP owners will prefer patent protection if the invention can be easily reverse engineered, because a trade secret cannot be protected from reverse engineering that is carried out without stealing the secret. In contrast, even if a competitor can reverse engineer a patent, he/she may not use the patented technology without the patent owner’s permission. [↑](#footnote-ref-135)
136. For example, universities customarily treat computer software and biological materials as trade secrets. They also require a confidentiality agreement to allow a third party to see unpublished “trade secret” information detailing a potential invention to be licensed. [↑](#footnote-ref-136)
137. In most sponsored research contracts, there is a publications clause stating that there will be a hiatus for publication to make sure nothing that’s confidential gets published by accident. [↑](#footnote-ref-137)
138. See, for example, the [IP Policy of the University of Rochester](http://www.rochester.edu/ventures/for-ur-innovators/for-inventors-university-policy-on-intellectual-property-and-technology-transfer/#4.0), article 4.0. [↑](#footnote-ref-138)
139. [IP Policy of The City University](https://www.city.ac.uk/__data/assets/pdf_file/0005/77063/City-University-London-IP-Policy-v0.86-1410101.pdf), 2014. [↑](#footnote-ref-139)
140. [Research and Innovation. Collaborating with the University of Copenhagen. The University’s Overall Principles. A guide for our collaboration partners](https://fi.ku.dk/tech-trans/guides/pdf/Guide_vedr_samarbejdsaftaler_GB.pdf) (2012). [↑](#footnote-ref-140)
141. [Guidelines for Responsible Conduct of Research](http://www.provost.pitt.edu/documents/GUIDELINES%20FOR%20ETHICAL%20PRACTICES%20IN%20RESEARCH-FINALrevised2-March%202011.pdf) (2011), article 4. [↑](#footnote-ref-141)
142. [Stanford University Researcher’s Guide to Working with Industry](https://sites.stanford.edu/ico/sites/default/files/researchersguidetoworkingwithindustry.pdf) [↑](#footnote-ref-142)
143. [Research and Innovation. Collaborating with the University of Copenhagen. The University’s Overall Principles. A guide for our collaboration partners](https://fi.ku.dk/tech-trans/guides/pdf/Guide_vedr_samarbejdsaftaler_GB.pdf) (2012). [↑](#footnote-ref-143)
144. See ECU [Delegation of Authority to Sign Contracts Policy](https://www.ecu.edu/prr/01/10/01) REG01.10.01 [↑](#footnote-ref-144)
145. Source: Management of Intellectual Property. A Guide to Strategic Decision Making in Universities, AURIL/Universities UK (2002). [↑](#footnote-ref-145)
146. Access to results can be guaranteed through free licensing arrangements. The Institution can be given a share of the revenues generated by the sponsor and doubts over the sponsor’s capacity/willingness to commercialize results can be addressed by introducing penalty clauses for failure to commercialize, including reassignment to the Institution. [↑](#footnote-ref-146)
147. Source: [Intellectual Asset Management for Universities](https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/308072/ipasset-management.pdf), Intellectual Property Office of the UK. [↑](#footnote-ref-147)
148. Serendipity implies the finding of one thing while looking for something else. Many examples exist in drug discoveries, for example penicillin and Viagra. Other examples include X-rays, Velcro, Bakelite (the world’s first plastic), saccharin, the microwave oven, X-rays, Vaseline and the pacemaker. [↑](#footnote-ref-148)
149. See also the earlier working paper developed by the European Commission: [*Management of Intellectual Property in Publicly-funded Research Organisations: Towards European Guidelines*](http://ec.europa.eu/research/era/pdf/iprmanagementguidelines-report.pdf)(2004). [↑](#footnote-ref-149)
150. Blockchains’ decentralized, peer-to-peer and trustworthy properties provide a possibility of creation of a clear, tamperproof record, which is important to IP. Blockchains are resistant to modification of the data. Once recorded, the data in any given block cannot be altered without the alteration of all subsequent blocks and the collusion of the network. Thanks to this, blockchain technology can be used by individuals to provide a solid proof of authorship and evidence of creatorship, hence it can replace or supplement the laboratory notebooks which are relied upon when it comes to the disclosure of an invention. [↑](#footnote-ref-150)
151. Filing an invention disclosure declares the invention, the inventors, and the date of the invention. Even if a patent application is never filed, a properly completed invention disclosure may be able to provide some protection against subsequent patent applications filed by other parties (see Mc Gee, D. [*Invention Disclosures and the Role of Inventors*](https://fr.scribd.com/document/181330059/ipHandbook-Invention-Disclosures-pdf)*).* [↑](#footnote-ref-151)
152. This also relates to the practice of some Institutions to assert ownership over IP made by Students under the supervision of faculty or staff. Most universities do not make such an assertion believing that this is a too-assertive, overreach by the Institution. [↑](#footnote-ref-152)
153. See WIPO Publication “[Key Questions on Developing Patent Disclosure Requirements for Genetic Resources and Traditional Knowledge](http://www.wipo.int/publications/en/details.jsp?id=4194&plang=EN)”. [↑](#footnote-ref-153)
154. As published on December 16, 1980 (as last amended by Article 1 of the Act of October 19, 2013). [↑](#footnote-ref-154)
155. Swiss Federal Act of June 25, 1954 on Patents for Inventions (status as of January 1, 2017). [↑](#footnote-ref-155)
156. A WIPO Publication entitled “[Key Questions on Developing Patent Disclosure Requirements for Genetic Resources and Traditional Knowledge](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_1047.pdf)” focuses on the key questions that policymakers will need to consider at each stage of the policy development process of specific patent disclosure requirements related to GRs/TK. See also “[Background Brief No. 10 “Intellectual Property and Genetic Resources](http://www.wipo.int/publications/en/details.jsp?id=4011&plang=EN)”. [↑](#footnote-ref-156)
157. [Regulation No. 511/2014](http://eur-lex.europa.eu/legal-content/EN/TXT/HTML/?uri=CELEX:32014R0511&from=EN) of the European Parliament and of the Council on compliance measures for users from the Nagoya Protocol on Access to Genetic Resources and the Fair and Equitable Sharing of Benefits Arising from their Utilization in the Union, 16 April 2014. [↑](#footnote-ref-157)
158. Source: University of New Hampshire [blog](https://innovation.unh.edu/resources/all). [↑](#footnote-ref-158)
159. An assignment is the transfer of legal title to an invention or creation. [↑](#footnote-ref-159)
160. The decision that an invention has “sufﬁcient” potential commercial value for a patent application varies from Institution to Institution and depends on many factors. One consideration is the anticipated future royalty revenue of the license. Another factor is whether a commercial entity is already interested in the discovery and is capable of developing it. A third factor is how broad or enforceable the resulting patent is likely to be, and whether copyright is a more suitable IP tool. For instance, if the invention’s patentability is doubtful but includes copyrightable subject matter and is otherwise very marketable, it may be best for the institution ﬁnancially and for the scientiﬁc community in general to immediately license the invention without patent protection. [↑](#footnote-ref-160)
161. See the [Association of University Technology Managers](https://www.autm.net/autm-info/) (AUTM) Licensing Activity Surveys of universities, hospitals and research institutions. [↑](#footnote-ref-161)
162. Excerpt from the [*South African Survey Intellectual Property and Technology Transfer at Publicly Funded and at Publicly financed Research Institutions*](http://www.hsrc.ac.za/en/research-data/view/8578)*.* This survey establishes baseline indicators required to track overall activity in Intellectual Property (IP) management and Technology Transfer (TT) at publicly funded research institutions in South Africa [↑](#footnote-ref-162)
163. <http://research.ump.edu.my/images/docman/Intelectual_Property/UMP-IP-Policy.pdf> [↑](#footnote-ref-163)
164. Also, field of use can be restricted so that other companies can exploit fields that are not of interest of the initial licensee. [↑](#footnote-ref-164)
165. Cervantes, Mario, [Academic Patenting: How universities and public research organizations are using their intellectual property to boost research and spur innovative start-ups](http://www.wipo.int/sme/en/documents/academic_patenting.html). [↑](#footnote-ref-165)
166. Collected from: Breznitz, S. (2014), *The Fountain of Knowledge*. [↑](#footnote-ref-166)
167. Siegel, D. and Phan, P. *Analyzing the Effectiveness of University Technology Transfer: Implications for Entrepreneurship Education*, in Libecap, G. (2005), *University Entrepreneurship and Technology Transfer: Process, Design and Intellectual Property*. [↑](#footnote-ref-167)
168. Shelving or mothballing of academic IP refers to IP and invention disclosure bundles that remain unexplored, unlicensed or unused. [↑](#footnote-ref-168)
169. [↑](#footnote-ref-169)
170. Source: [Harnessing public research for innovation – the role of Intellectual Property](http://www.wipo.int/edocs/pubdocs/en/wipo_pub_944_2011-chapter4.pdf), in book: World Intellectual Property Report 2011. The Changing Face of Innovation, Chapter: 4. [↑](#footnote-ref-170)
171. A “Quick Guide for Technology Transfer to Business” is also provided, which should serve a comprehensive checklist to take into consideration when initiating any technology transfer process. [↑](#footnote-ref-171)
172. The **impact factor** is a measure of the frequency with which the average article in a **journal** has been cited in a particular year. See: <https://www.hsl.virginia.edu/services/howdoi/hdi-jcr.cfm>. There is a strong direct correlation between the impact factor and the value of the science to the scientific community. [↑](#footnote-ref-172)
173. Most university researchers have chosen the academic route rather than the business culture, and may see involvement with the Ccommercialization process as a burden. On the other hand, some level of active involvement by the Creators is essential for the success of Ccommercialization. [↑](#footnote-ref-173)
174. In some countries there is also the legal obligation to share any net profits with inventors. [↑](#footnote-ref-174)
175. See Article 1.3.2 Template. [↑](#footnote-ref-175)
176. Section 202(c)(7)(C and D). [↑](#footnote-ref-176)
177. The good practices and procedures to be followed during the creation of the IP, subsequent disclosure to the IPMO and determination of IP ownership are set out in Articles 8.1 to 8.3 and should be diligently observed and implemented [↑](#footnote-ref-177)
178. Academic scientists generally pursue the rapid dissemination of their ideas, especially through publication in selective scholarly journals, and peer recognition. They may also seek financial rewards, which can be ploughed back into their research. [↑](#footnote-ref-178)
179. The IPMO and other research administrators generally attempt to engender revenue from the IP portfolio and seek to transfer or market institution technologies to companies. [↑](#footnote-ref-179)
180. Companies are driven by the desire to commercialize institution-based IP for financial gain. They wish to secure exclusive rights to such IP and place a strong emphasis on speed. [↑](#footnote-ref-180)
181. Law No. 13,243/16 which came into force on 11 January 2016. [↑](#footnote-ref-181)
182. Article 20 of the ST Act: Patents of invention obtained in projects covered by the scientific and technological fund established with government funds or by scientific and technological plans, copyrights of computer software, patent rights of wiring design of integrated circuits and rights of new plant strains shall, except where national security and interests and vital public interests are involved, be granted to the authorized undertakers of projects according to law [↑](#footnote-ref-182)
183. Collected from: Breznitz, S. (2014), *The Fountain of Knowledge;* and Libecap, G. (2005), *University Entrepreneurship and Technology Transfer: Process, Design and Intellectual Property*. [↑](#footnote-ref-183)
184. The reason behind this is that full and associate professors, usually being tenured, do most of the invention disclosure and patenting. So, encouraging junior faculty will have more effect. See Link, A. and Siegel, D. (2005), *Generating science-based growth: An econometric analysis of the impact of organizational incentives on university-industry technology transfer*. [↑](#footnote-ref-184)
185. Link, A. and Siegel, D. (2005). [↑](#footnote-ref-185)
186. Di Gregorio, D. and Shane, S. (2003), *Why do some universities generate more start-ups than others*? , Research Policy 32: 209-227. [↑](#footnote-ref-186)
187. [IPR Policy](http://www.admin.cam.ac.uk/univ/so/pdfs/ordinance13.pdf) of the Cambridge University, Article 39 [↑](#footnote-ref-187)
188. Cambridge Enterprise is the University’s IPMO. [↑](#footnote-ref-188)
189. [Yale University Patent Policy](https://ocr.yale.edu/faculty/policies/yale-university-patent-policy), article 4(d). [↑](#footnote-ref-189)
190. See <http://research.southwales.ac.uk/our-culture/researcher-development/research-toolkit/career-progression/innovation-and-engagement-route/>. [↑](#footnote-ref-190)
191. One of NRF’s activities is to award ratings to academics who apply according to predefined categories. Explicitly or not, these ratings are part of submissions academics make for promotions and for employment in South African universities. [↑](#footnote-ref-191)
192. Several studies have demonstrated that an important determinant for spin-offs is the ability of the Institution and inventors to take equity in lieu of licensing royalty fees when they license their technologies to start-ups or spin-offs. See Di Gregorio, D. and Shane, S. (2003), *Why do some universities generate more start-ups than others*? , Research Policy 32: 209-227. [↑](#footnote-ref-192)
193. For example, payment of a small sum for completing an invention disclosure; payment of a slightly larger sum when a patent application is approved or filed with the patent office; payment of a larger sum when the patent is issues. A financial reward could be given also for every patent granted by USPTO / EPO so as to promote internationalisation. [↑](#footnote-ref-193)
194. Establishing relationships with local businesses through student internships and research projects. [↑](#footnote-ref-194)
195. This policy brief from the World Bank reviews the rationale underlying the design and implementation of public policy to foster technology transfer from science to industry. It refers to the incentive misalignment. [↑](#footnote-ref-195)
196. This study looks at the incentives provided by 8 universities and Australian Technology Network institutions to research staff to commercialise the outcomes of their research. It provides case studies of successful incentive practices both in Australia and overseas, best practices methods in providing ccommercialization incentives and identification of any gaps or weaknesses in current Australian university practice. [↑](#footnote-ref-196)
197. For more examples, see under [Useful Resources Related to Article 11](#Useful Resources to Article 11). [↑](#footnote-ref-197)
198. Association for University Research and Industry Links. [↑](#footnote-ref-198)
199. See <http://www.wipo.int/tk/en/igc/> [↑](#footnote-ref-199)
200. A collection of national and regional legislative texts relevant to genetic resources and/or traditional knowledge is available at <http://www.wipo.int/tk/en/databases/tklaws/> [↑](#footnote-ref-200)
201. See further the example of the University of Adelaide. [↑](#footnote-ref-201)
202. For example, universities can decide to recognize ownership of the intellectual and cultural property rights to indigenous peoples (see the example of the University of Canberra). Model agreements related to GRs and TK have been developed, such as the model material transfer agreement of the Biotechnology Industry Organization (see further an extract of the model agreement). [↑](#footnote-ref-202)
203. WIPO has developed and maintains a Database of Biodiversity-related Access and Benefit-sharing Agreements, available at: http://www.wipo.int/tk/en/databases/contracts/ WIPO has prepared a draft Intellectual Property Guidelines for Access to Genetic Resources and Equitable Sharing of the Benefits arising from their Utilization that illustrate the practical IP issues that providers and recipients of GRs are likely to face when negotiating an agreement, and is available at: <http://www.wipo.int/export/sites/www/tk/en/resources/pdf/redrafted_guidelines.pdf> [↑](#footnote-ref-203)
204. See <https://www.ipaustralia.gov.au/sites/g/files/net856/f/uts_-_recognising_and_protecting_aboriginal_knowledge.pdf>, see also the WIPO Publication “Protect and Promote Your Culture” p. 37 available at: <http://www.wipo.int/publications/en/details.jsp?id=4195> [↑](#footnote-ref-204)
205. See <http://www.wipo.int/about-ip/en/universities_research/ip_policies/details.jsp?id=5896> [↑](#footnote-ref-205)
206. See <http://www.wipo.int/about-ip/en/universities_research/ip_policies/details.jsp?id=10067> [↑](#footnote-ref-206)