IP AUDIT MANUAL - FINAL - ENGLISH

The Scinnovent Centre;

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CONDUCTING INTELLECTUAL PROPERTY AUDITS

A Practitioner's Manual







The Science Granting Councils Initiative

The Science Granting Councils Initiative in sub-Saharan Africa (SGCI) is an Initiative which aims to strengthen the capacities of Science Granting Councils (SGCs) in sub-Saharan Africa to support research and evidence based policies that will contribute to economic and social development. The Initiative is jointly funded by the United Kingdom's Department for International Development (DFID), Canada's International Development Research Centre (IDRC), and South Africa's National Research Foundation (NRF).

The SGCI currently operates in 15 sub-Saharan Africa countries including: Kenya, Rwanda, Uganda, Tanzania, Ethiopia, Côte d'Ivoire, Botswana, Burkina Faso, Senegal, Ghana, Zambia, Mozambique, Malawi, Namibia, and Zimbabwe.

For more details: www.sgciafrica.org

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Table of Contents

Executive Summary	4
Why conduct IP audits?	5
What constitutes IP assets?	8
Patents	9
Copyright	11
Trade secrets and confidential information	15
Industrial design	16
Geographical indications	17
Plant varieties	18
Types of IP audits	19
General purpose IP audit	19
Event driven IP audit	20
Limited purpose focused audits	23
Preparing for an IP audit	25
Conducting an IP audit	27
Auditing contracts and agreements	29
Auditing IP assets	32
After completing an IP audit	36
From IP audit to IP asset management	39
Presenting the audit report	40
Annex 1: IP audit workbook	43
Annex 2: Recommendations template	44
Annex 3: IP asset inventory template	45
Annex 4: Sample Implementation and M&E template	46

Executive Summary

The Science Granting Councils, Universities and Research Institutes have historically given primacy to their tangible assets including land, buildings, machinery, equipment and other forms of physical infrastructure. However, the rapid transition to knowledge society and knowledge-based economies is shifting the focus to intangible assets as the source of competitive advantage to organizations, firms and national economies.

Property Rights Intellectual form kev intangible assets emanating from research, scholarly work and innovation which form the primary products of these innovation system actors. They spread across both the public and private spheres and hence any public-sector institution entering into research partnerships with private sector entities will confront IP issues. More significantly, IP management issues and potential conflicts are likely to arise in government funding schemes - a key function of the science granting councils. The situation gets even more complicated in collaborative research projects which involve:

- different academic partners with differing clauses on key IP issues such as ownership, access and benefit sharing in their institutional IP policies
- private sector actors whose views and approaches to IP are more stringent (or loose) than their public-sector partners.
- co-investment arrangements of funders who have different policies on IP
- disclosure and sharing of potentially proprietary information

As the Councils position themselves to (i) promote knowledge exchange and technology transfer (ii) implement innovative financing mechanisms (iii) enhance research excellence, ethics and integrity and (iv) facilitate interactions amongst various research and innovation systems actors, IP management capabilities become increasingly relevant.

To facilitate inter-regional cooperation between and amongst African countries as well as international cooperation between African countries and other parts of the world, SGCs will confront differing IP systems. Enhancing their capacities negotiate, supported by guiding documents and evidence, would ensure they take off from an informed position. It will further be useful when resolving disputes related to ownership, disclosure, and the distribution of income from intellectual assets.

Most of the universities and public research institutes now have institutional IP policies and have established technology transfer offices (TTOs). While such offices still suffer from under-staffing and under-resourcing, they nonetheless play an important role in facilitating IP management and industry liaison within the national research and innovation systems. Their work needs to be supported and complemented by key government institutions and agencies such as the national intellectual property office (where such exists) and other relevant regional (e.g. ARIPO and OAPI) and international bodies such as World Intellectual Property Organization (WIPO).



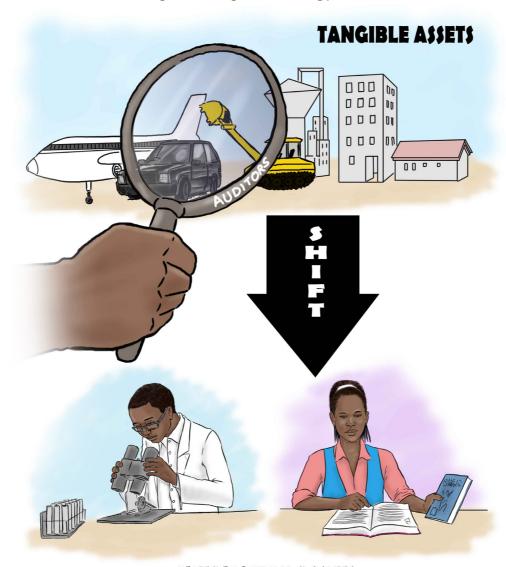
Why Conduct IP Audits?

The role of the Science Granting Councils as coordinators and facilitators is fundamental. A close working relationship between the TTOs and the Councils will ensure that the government-funded research projects undergo proper IP audits and that IP rights are properly assigned.

An IP Audit is a systematic review of the intellectual properties owned, used or acquired by organizations and businesses so as to assess and manage risk, remedy problems and implement best practices in IP asset management. It is premised on the observation that:



Strengthening the capacities of the Councils in IP management and availing to them a suite of tools, mechanisms and support systems is a key contributor to enhancing their roles in knowledge exchange, technology transfer and commercialization



INTANGIBLE ASSETS

An IP audit can help the Science Granting Councils to make an inventory of their IP assets or update it and analyze:

- a) The different IP assets owned (whether internally generated or acquired) by the organization e.g. what type of IPs arise out of the grants from the SGCs?
- b) How the IP assets are used or unused: An IP audit seeks to uncover unused or under utilized assets, to identify any threats to an organization's bottom line
- c) Enable business managers to devise informed business and IP strategies that help maintain and improve its competitive position in the relevant market(s).
- d) Whether these IP assets are infringing the rights of others or others are infringing on the organization's rights
- e) Determine what actions are required to be taken with respect to each IP asset, or a portfolio of such assets, to serve the relevant business goals of the organization (for example, advocate for the commercialization of the IP).

How does this manual support SGCs attain these objectives?

In conducting IP audits, there are key capabilities that auditors should be equipped with as well as considerations to take into account. These key capabilities and considerations form the basis of this manual and its organization.

They include but not limited to:

- The auditor should know "what to look out for". In other words, the auditor should be familiar with the different types of IP. Section two of this manual describes what constitutes IP assets, their scope, characteristics and how to identify and differentiate them.
- The auditor should know "why the audit is being conducted". It is important to be clear from the outset what the purpose of the audit is. What is the organization trying to achieve? What are the key objectives and rationale behind the audit? Section three deals with this and expounds on the different types of audits and the conditions and contexts under which they may be applied.



- The auditor should know "what needs to be in place before the audit". The auditor should be adequately prepared to conduct the audit. Pre-audit planning and scheduling is important. Section four and five deal with pre-audit planning and how the auditor should prepare for the task ahead.
- The auditor should know "the practical steps to follow" while conducting the audit. IP audit deals with two main issues: (i) agreements and contracts (ii) IP assets. Section six deals with how to audit the former and section seven deals with the latter. They detail to the auditor the practical steps in conducting either type of audit.
- The auditor should know "how to record their findings". An IP audit workbook has been provided (annexed) to help the auditors document their findings across the different IP types and contracts.
- The auditor should know how "to present the audit report". What sections? How long? Key action points and implementation plan? Recommendations? An audit report template has been provided. While it covers the main issues, auditors should customize as may be necessary.
- The auditor should be familiar with "how to store and retrieve the data and reports". Otherwise the exercise will end up in another heap of documents that are neither used to inform policy and practice. To support the work of the auditors, a template for an institutional IP repository has been provided

After the audit, then what? Section eight answers this question and sets out ways in which the results of the IP audit may be put into use.

Section nine proposes "how to move from IP audits to IP management" and makes recommendations on what science granting councils could do.

The final section presents a suggested audit report template outlining the broad headings and sub-headings to ensure key issues are captured.

What Constitutes IP Assets?

The Intellectual Property system provides an environment in which creativity and innovation can flourish, enabling people to earn recognition and economic benefit from what they invent or create. Intellectual Property (IP) rights are legal rights which arise from intellectual activities in industrial, scientific, literary and artistic fields. They are the type of property that result from creations of the human mind (the intellect).



Why protect intellectual property?

Protection encourages commitment of additional resources for further research and innovation, spurs economic growth and benefit to society due to new technologies, job creation and enhancement of the quality life and enjoyment

The major types of IP include: Patents, Copyrights, Trademarks, Service marks, Trade Secrets, Industrial designs, Geographical indications and Plant Varieties.

Patents

Patents, grant exclusive rights, for a limited period of time over a specified subject matter (invention) constituting a particular type of advance in return for disclosure of the advance to the public. The exclusive rights given the patent owner include to (i) control who makes, uses, sells, offers to sell, and/or imports the patented invention (ii) seek injunction against infringement and (iii) claim damages for infringement.

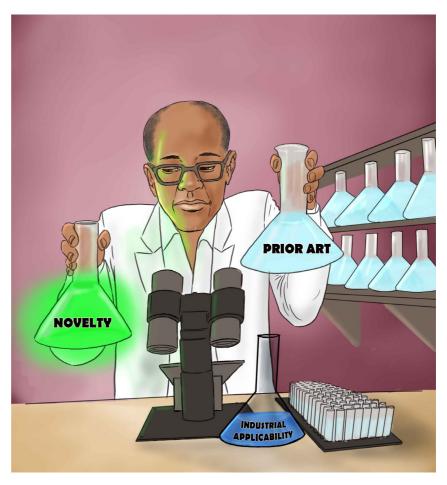
Patents are used to protect inventions and applicable largely in scientific and technological innovation. Patents are useful in a wide variety of businesses such as pharmaceutical, biotechnology, engineering and telecommunications.

What is patentable?

An invention is patentable if it is: (i) new (novelty); (ii) involves an inventive step and is (iii) industrially applicable.

(i) Novelty of an invention tested against prior art. But what is prior art? This refers to everything made available to the public anywhere in the world before the filing date. It includes whether the invention has been used in public; presented at a conference or any other public gathering; or has been published.

Novelty and Grace Period: The standard of novelty varies from country to country with some countries allowing for a grace period e.g. Kenya and the United States (USA) while others insist on absolute novelty e.g. European Patent Office (EPO). It is important to note however that prior



disclosure can destroy novelty and that even in countries where grace period is allowed, patent application must be filed within 12 months after public disclosure. For example, a paper describing an invention at a conference on 10/06/2020, the patent application can still be filed in Kenya, the USA or any other country that provides for grace period till 10/06/2021. However, the invention may lose novelty in Europe and other countries

(ii) Inventive step

An invention has inventive step if: (i) it is not obvious to a person skilled in the art to which the invention pertains (as at filing date); (ii) with regard to prior the art and (iii) common knowledge in the art.

However, (i) combination of features; (ii) substitution of a material for analogous use; (iii) routine experiments or (iv) computerizing known processes do not constitute inventive steps

(iii)Industrial Applicability

This is considered met if invention can be used in any type of industry. The invention must demonstrate some benefit.

In summary, a patent is used to protect an

invention that is new, involves an inventive step and is capable of commercialization. An invention is a solution to a specific problem in the field of technology and must be a product or process/method.

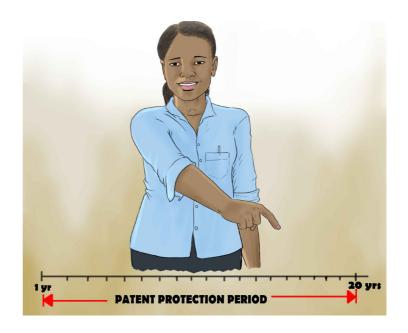
What is not patentable?

Some things are not patentable, for example, a scientific or mathematical discovery, theory or method; a literary, dramatic, musical or artistic work; a way of performing a mental act, playing a game or doing business; the presentation of information or some computer programs; an animal or plant variety; a method of medical treatment or diagnosis or anything against public policy or morality. Other non-patentable subject matter includes:

- Schemes, rules and methods of (i) doing business¹ (ii) performing purely mental acts (iii) playing games e.g. multilevel marketing or method of playing double football
- Methods of treatment of humans/animals by surgery or therapy
- Presentation of information e.g. advertising on a road surface
- Discoveries, scientific theories, mathematical methods e.g. E=MC²

How long is the period of protection?

An applicant is required to give full disclosure of his/her invention in return for a period of exclusivity of 20 years. Patent protection is geographically limited. A patent owner therefore enjoys a monopoly for 20 years in the territory in which the patent is registered.



¹ Some countries allow this

What are the rights of a patent owner?

A patent enables the rights holder to prevent others from making, selling, using or importing the invention during the period of protection. A patent can also be used to get compensation from those infringing the right.

How long does it take to register a patent?

It takes about 2-3 years to register a patent. A person may lose the right rights to a patent if before filing an application, the invention is published or other people are told about it².

Copyright

Copyright protects "original works of authorship" - including literary, dramatic, musical, artistic and certain other intellectual works such as software codes. Copyright does not protect ideas, the work must be captured in some way, e.g. written down or recorded. The protected works include: literary works including software, dramatic and musical works, sound recordings, films, broadcasts and cable programmes.

How long is the protection?

Protection is automatic on both published and unpublished works. The duration of copyright varies with the type of work, but it is generally 50 years after the life of the author. It is important to indicate when a work was first authored for purposes of policing infringement. Copyright accrues automatically and has no cost. Copyright protection is instant once the work has been captured in some way e.g. written down or recorded. However, it is advisable to register it with the relevant office for ease of enforcement of the right.

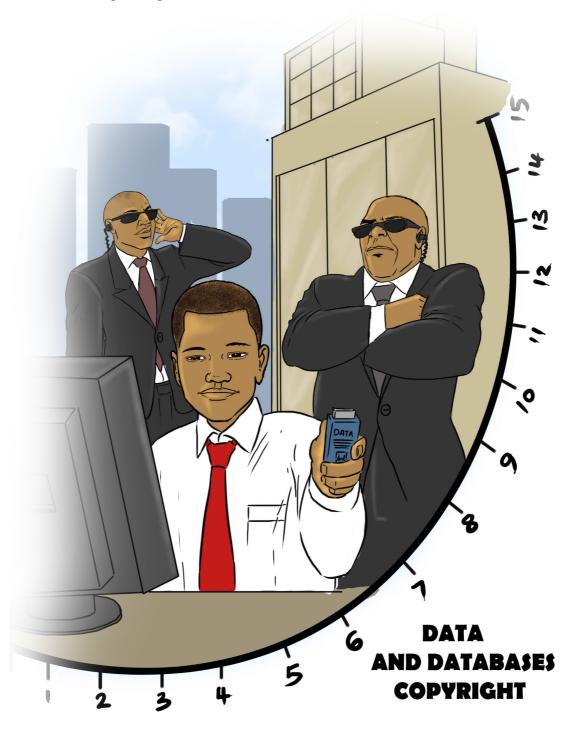


² Except a legal advisor

Is data and databases protected under copyrights?

Database right allows you to protect databases where you have made a substantial investment in making the database. Copyright and database rights are important for IT companies, e-commerce, literature, music and theatre; internet, television, film, press and other media; training and education.

Database right protects databases against anyone extracting and using the contents without permission. It lasts for 15 years from when the database is made or, if the database is published during this time, for 15 years from publication. A database right accrues automatically once the database has been recorded in some form (manually or electronically) and there is therefore no cost in obtaining the right.



What are the rights of a copyright holder?

A copyright holder gets the right to stop others from copying, adapting, distributing, communicating to the public, renting or lending copies to the public or performing in public and to get compensation if these rights are infringed.

Can you have multiple copyrights on the same product?

In order to attract protection, the work must be original, that is, not copied. Such works may be protected by a number of copyrights. For example, on music CD there will be copyright on the individual songs, the sound recordings and the graphics on the CD cover.

In summary, Copyrights confer rights of authors/creators over their literary, musical and artistic works: (i) literary – books, plays, newspaper articles, computer programmes (ii) artistic works – drawings, paintings, photographs, architectural designs (iii) musical works – musical compositions, films, choreography (iv) performances and broadcasts. Copyrights include both economic and moral rights and protection is up to 50 years after the death of the author or after the initial broadcast or performance

Trademarks

A trademark or service mark is a word, a symbol, a logo, a picture, a design of goods (or services), or a combination of these, used to distinguish the goods (or services) of one person or organization from those of others in the marketplace.

A name or symbol can be protected in two ways – a registered trade mark or an unregistered trade mark protection. It is easier to prove a registered trade mark than unregistered. Trademarks are relevant for all businesses which sell goods or services using a brand name or other distinctive sign (e.g. Toyota, Samsung, and International Olympic Committee).



One can register any sign capable of distinguishing goods or services of one business from those of another, unless the mark is descriptive of the product or service (e.g. "fresh vegetables") or if it is likely to be confused with an earlier registered mark.



With a registered trade mark, you can stop (and get compensation from) someone else using the same sign for the same class of goods. You can also stop a similar sign being used for similar goods or services. There is additional protection for well-known trademarks. As long as you use the mark properly and pay the renewal fees, it can last forever.

Some fee is chargeable. One may use the TM symbol for free and puts people on notice that you assert rights in the name. The ® may only be used after a trade mark registration. Typically, trade mark registration takes about a year.

Trade secrets and confidential information

Trade secrets offer an indefinite intellectual property protection by keeping it a secret. This is information which is yours, secret and of value to your business. This includes customer lists, manufacturing techniques or business methods. Whatever is kept secret should be something that cannot be easily reverse engineered.



Secrecy can be achieved by limiting the number of individuals with access to the information; and strict controls over information to maintain confidentiality. The major risk here is that if the Trade Secret is inadvertently disclosed, no legal protection exists; and third parties who file a patent application which covers the information will take control.

There is a duty under equity not to disclose confidential information. However, it is advisable to enter into express confidentiality agreements with your employees, suppliers, and some of your customers who may get access to your confidential information.

The cost of protection is minimal. Whereas equitable protection arises automatically, contractual protection takes effect on the date specified by the parties to the agreement.

Industrial Design

An Industrial Design is used to protect a manufactured article which has a specific appearance. A design must be new, original and sufficiently distinct. Protection applies to the finished article, not the process. Design rights are relevant for all businesses that create products or articles which need to look different to others. The registered design needs to be applied for and will protect the features of shape, configuration, pattern or ornament of new aesthetic articles.



The shape of a bottle, spoon, cup or headlights can be protected with both registered and unregistered design right. The unregistered design right automatically protects the design of any aspect of the shape or configuration of original designs of articles which are functional.

The unregistered design right allows you to stop (and get compensation from) someone else using your design only if you can show they have copied your design. The protection lasts 10-15 years, but can be deferred for 5 years.

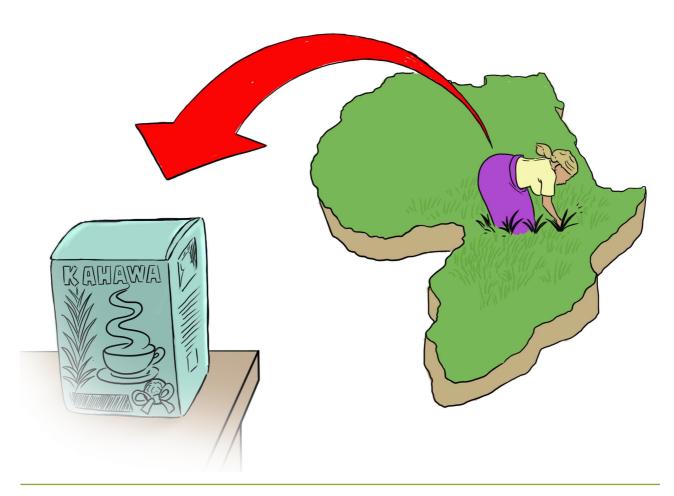
A registered design enables you to stop (and get compensation from) anyone else making or selling a substantially similar article (regardless of whether they have ever seen your design) for up to 25 years.

The unregistered design right accrues automatically and has no cost. The costs of obtaining a registered design are lower than for a patent. Unregistered design right protection is instant.

Typically design registration will take a few months. The application is registered if it passes examination and a search of existing designs. You must file the design application within 6 months of it being disclosed to the public.

Geographical Indications

Geographical indications are rights that accrue from a reputation and special characteristics of a product attributable to a specific location. They include names or signs used on products that possess characterises, qualities or reputation resulting from their geographical origin e.g. Basmati Rice from Basmati region in India/Pakistan; *Champagne* from champagne region in France; *Roquefort* cheese made in caves in the Roquefort region in France. Gl allows farmers and producers to gain added value for their quality products.



The Africa Union has developed a continental strategy for geographical indications in Africa (2018-2023) with potential traditional products for GI protection including: (i) *Kiishi* for meat products from Nigeria, Niger, Cameroon (ii) *Wagashi* for cheese and dairy products made in sahelian countries (iii) *Yett* for fish and sea products made in Senegal and Mauritania (iv) *Dihe* for spirulina algae in chad (v) Rooibos tea- south Africa (vi) Bark cloth – Uganda and (viii) *Coffee* – Kenya and Ethiopia

Plant Varieties

Through specialized breeding skills, new plant varieties emerge. It takes a lot of skill and perseverance, coupled with several attempts to be able to produce a stable new variety. It is an age-old skill that farmers all over the world have used to introduce varieties that achieve higher yields and resistance to diseases or certain weather conditions. It involved repetitive cross-breeding. Such new varieties of plants are protected as new varieties of plants as they do not fit the definition of a patent. However, a patent will be necessary in cases of genetic modification producing new plants such as those resistant to the bacteria *Bacillus thuringiensis (Bt)*. This technology has been applied to produce *Bt* cotton that is resistant to the ball worm. Protection is for 25 years



Types of **IP Audits**

IP audit is a systematic review of the IP owned, used or acquired by an organization so as to (i) assess and manage risk (ii) remedy problems and (iii) implement best practices in IP asset management. It involves undertaking a comprehensive review of an organization's IP assets, related agreements, relevant policies and compliance procedures.

General Purpose IP Audit

A general-purpose IP audit is conducted in order to maintain and control the IP assets. It ensures the wealth and health of IP assets. Before establishing a new company or startup it is always important for a start-up company to be aware of the intangible assets it owns or needs to protect.



A general or broad IP audit is done in the following types of contexts:

- i. Before establishing a new company to determine what IP assets the proposed new company owns or needs to protect.
- ii. When a business is considering implementing new policies, standards, or procedures relating to IP.
- iii. When a business is considering implementing a new marketing approach or direction, or is planning a major reorganization of the company.
- iv. When a new person becomes responsible for IP management.
- v. Whenever new research and/or innovation grants are issued
- vi. Whenever research and/or innovation projects are concluded or finalized
- vii. Whenever new research agreements, contracts, partnerships are signed or negotiated

Once a comprehensive IP audit has been undertaken, a smaller effort and expense is needed at regular intervals, such as on an annual basis, so that IP assets are reviewed and appropriate decisions taken, depending on the current and emerging needs of a company/organization.

Event Driven IP Audit

Event driven IP Audit is generally much narrower in scope than a broad or general-purpose IP audit. The nature and scope of such an audit is determined by the event in question, and the time and resources available for doing it. It is also called "IP Due Diligence", when it is done to assess the value and risk of all or a part of an organization' IP assets. It is ordinarily conducted by a third party before an IP portfolio is bought or invested in.



What is it?

It is a part of a comprehensive due diligence audit that is done to assess the financial, commercial and legal benefits and risks linked to a target company's IP portfolio, typically before it is bought or invested in.

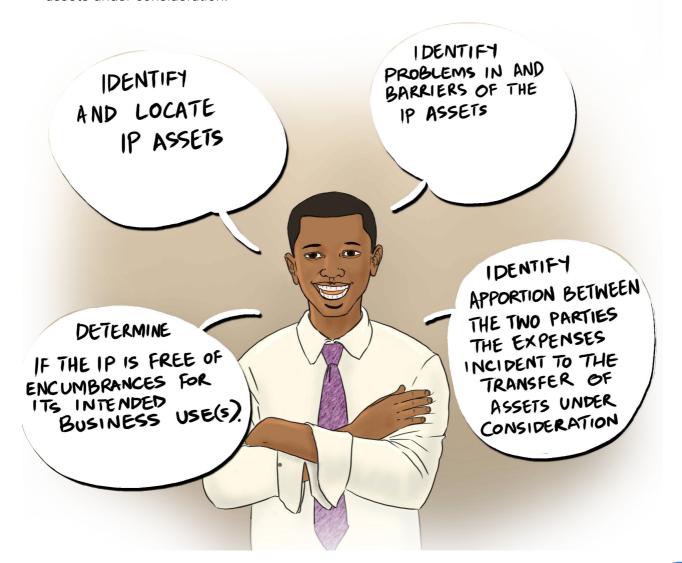
Before starting the IP due diligence process, a mutual non**u**disclosure agreement should be signed between (a) the potential acquirer, investor, or creditor and (b) the target company.

When done properly, IP due diligence provides detailed information that may affect the price or other key elements of a proposed transaction or even aborting the further consideration of the proposed transaction.

What is its purpose?

IP due diligence generally seeks to:

- i. Identify and locate IP assets, and then assess the nature and scope of the IP to evaluate their benefits and allocate risks associated with the ownership or use of the relevant IP assets;
- ii. In particular, it seeks to determine whether the relevant IP is free of encumbrances for its intended business use(s).
- iii. Identify problems in and barriers to the transfer of the IP assets under consideration.
- iv. Identify and apportion between the two parties the expenses incident to the transfer of IP assets under consideration.



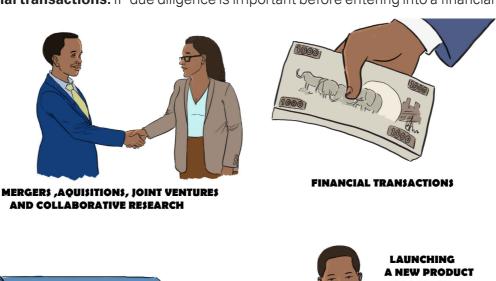
When is it done?

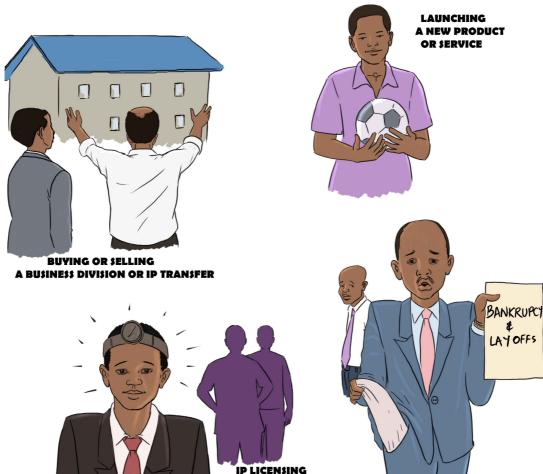
IP due diligence is done in the following types of contexts:

i. Mergers, acquisitions, joint ventures and collaborative research: An IP audit provides a basis for assessing the risk and value of relevant IP assets in a proposed acquisition or sale of intellectual property, as for example, prior to entering into negotiations for a possible merger or acquisition or collaborative research, divestiture, or a joint venture arrangement.

It could lead to a significant increase in the value of the acquired company or the resulting merged entity or joint research output. On the other hand, such an exercise may significantly reduce the acquisition cost or lead to a cancellation of the acquisition process if the due diligence process reveals major IP risks or IP problems in the target company/joint project.

ii. Financial transactions: IP due diligence is important before entering into a financial transaction





involving IP, such as before an initial public offering or private placement of stock, or significant stock purchase, or before taking of a security interest in IP, as all of these have an impact on the ownership of IP. Through an IP audit, a potential lender will be able to more meaningfully assess a structured IP portfolio as part of its overall analysis of the credit worthiness of a target company.

- iii. Buying or selling a business division or IP transfer: Before a company buys or sells a division or a product line, a seller will generally make a series of representations and warranties as to the ownership, non-infringement and marketability of the IP assets linked to the transaction in the ensuing written agreement. Similarly, before a transfer or assignment of interest in IP, an IP due diligence should be done separately by both parties to ensure that the transfer or assignment meets both their respective business interests.
- iv. Launching a new product or service:

 When a significant new product or service is being developed or about to be launched, risk of infringing IP rights of others might be especially high. An IP audit needs to be taken to address any possible infringement or freedom-to-operate issues linked to new product development and launch of such a product on the market.
- v. IP licensing: A potential licensor has to ensure that it actually owns the IP that is sought to be licensed to others. Also, it has to be sure that there are no existing licenses that would interfere with the proposed new license. A potential licensee has to ensure that the potential licensor has the necessary rights to the IP in question so as to legitimately transfer the rights and that scope and extent of the proposed license will duly serve its intended purpose.
- vi. Bankruptcy and layoffs: An IP audit would also be appropriate as a planning tool in advance of any filings for bankruptcy, significant plans for employee layoffs, business closure, or elimination of significant lines of business.

Limited Purpose Focused Audits

A limited purpose audit is typically much narrower in scope than the other two types and is performed under much constrained time schedules. These audits tend to be situational in nature. They are typically used to justify a certain legal position or the valuation of a particular IP, development or marketing.

When is it done?

A limited purpose focused audit is done in the following types of contexts:

- i. Personnel turnover: Before a major personnel turnover of in-house research and development or marketing, especially if it involves disgruntled employees, an IP audit should be done to secure the status of a company's IP assets.
- ii. Foreign IP filings: Before an organization takes up a program of filing IP applications in other countries, that is, before entering a new market abroad e.g. by way of exporting, or expanding overseas through off-shoring/outsourcing some of its activities; or by licensing, franchising or merchandising; an IP audit helps to sensitize the company to market-specific IP laws, rules, customs and practices affecting IP rights.
- iii. Using the Internet for business purposes: Before having an internet presence, doing an IP audit helps it to identify the needs of e-commerce and registration of appropriate domain names, etc.
- iv. Significant changes in IP law and practice: Where there is a significant change or development in IP case law or statutory law in a relevant market it may necessitate review of existing products for possible infringement of the IP rights of others.
- v. Clean room procedures: The clean room procedure seeks to avoid infringement by ensuring that there is no "access" to copyrighted material of unrelated parties



during software development project. Thus, an audit might be necessary to institute, or to review the adequacy of, clean room procedures used in the development of software products so as to reduce the risk of infringing third party copyright.

vi. Preparing for litigation: When considering or facing litigation, a company is required to show non-infringement and no access to the work, complete or confirm the chain of title of the underlying IP rights or otherwise complete the documentation of the relevant IP rights.

Preparing for an IP Audit

Be clear about the Purpose

Before the actual conduct of an IP audit, it is a necessary precondition that it is clearly understood by all concerned why the audit is being conducted. The situations that prompt an audit and the nature and scope of the audit will to some extent depend on its purpose.

The amount of time and money available for conducting an audit will have a bearing on the manner in which the audit is conducted and its eventual outcome.

Finally, consider the available expertise and what needs to be outsourced.



Constitute the IP Audit Team

There are no hard and fast rule as to who should conduct IP audits. However, for an audit to be effective, it is best done by a team that includes expertise in IP and representatives of the relevant technical areas of the organization as may be appropriate for ensuring maximum effectiveness.

The IP audit team should have a basic understanding of the product lines, the relevant business environment and the future plans of the organization so that the audit remains focused on IP assets of maximum business and mission relevance. If such expertise does not exist in-house, the organization should outsource. In cases where the audit team includes external expertise, before starting an IP audit, all external members in the audit team as well as all the internal staff members on the audit team should sign non-disclosure agreements (NDA)³

Conduct background research

Once the purpose of the audit and the available resources for its performance are clear, a major preparatory step for conducting the audit is to understand the organization, what it does and where it wants to go. This is an essential precondition for preparing an audit plan, which will be the basis of the audit.

It allows the audit team to gather as much information as possible on the organization's way of doing business. Background research will be the basis of the audit and will provide the auditor(s) with the required information for preparing a plan for conducting an audit that is comprehensive, focused, timely, and cost effective.

Background research should focus on (but not limited to):

Internal and external relations and interactions: Who does the company regularly interact or intend to interact with? For example, its employees, vendors, customers, consultants, independent contractors, joint venture partners, competitors, and what role(s) do IP assets play or would play in these interactions?

Business strategy: This should help answer questions such as: How does the organization do its business? Does it have written policies in place concerning key aspects of the business? Does it follow a certain business model? Does it have an IP policy and strategy? Does it have a communication strategy? How does its governance structures support/not support its business strategy?

Importance of IP Assets: The overall importance of IP assets to the business/ mission will have a bearing on the audit. Where IP assets are relatively unimportant to the nature of the business as a whole, it might be sufficient merely to confirm that registered IP rights are in good standing and are held in the name of the organization. On the other hand, where the organization's principal assets are IP, it may be necessary to conduct a more thorough assessment of the organization's IP portfolio and IP based activities.

Status of IP management: It is important to determine, amongst other things, what is the organization's overall approach to IP management? Does it have an inhouse intellectual property manager or department and/or does it rely on outside IP expertise? Does it have an IP policy or strategy? How well informed are its staff on IP matters?

IP disputes: Has the organization been involved in infringement suits, whether as plaintiffs or defendants? Is the organization currently involved in disputes or potential disputes that involve IP rights?

Financing: Are the IP assets of the organization tied to its financing?

³This agreement is designed to protect the confidentiality of information exchanged in connection with the consideration and negotiation of transaction and information exchanged in the course of a party's due diligence review of the other. Non-Disclosure Agreements (NDA) can be entered into independently as a stand-alone agreement or it can be contained in the MOU for the proposed transaction.

Conducting an IP Audit

Start with a detailed check list

An IP auditor should ordinarily start working from a detailed checklist, which is prepared and modified for the type and size of the organization's business, relevant IP laws of the concerned countries, desired purpose(s), and the desired outcome(s) of the audit. A good checklist minimizes the chances of leaving out one or more relevant steps from the process. Each member of the audit team should be provided with the detailed checklist.



Prepare an audit plan

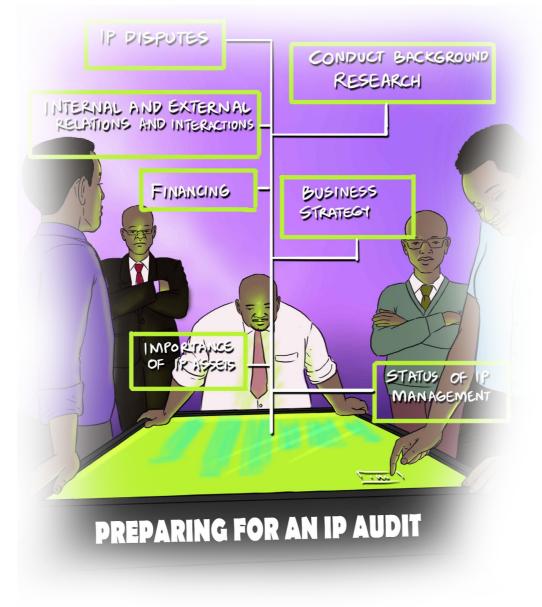
This includes defining the scope of the audit, target intellectual properties, time table of the audit and responsible person(s) for the audit.

To produce a comprehensive, company-wide IP audit report reflecting the entire development and decision-making process for each of the company's products and processes, the audit team should:

- (i) collect, review, and organize not only the IP information but also all the agreements that may affect the IP portfolio of the organization
- (ii) to the extent possible, do or get done relevant IP searches in all key markets.

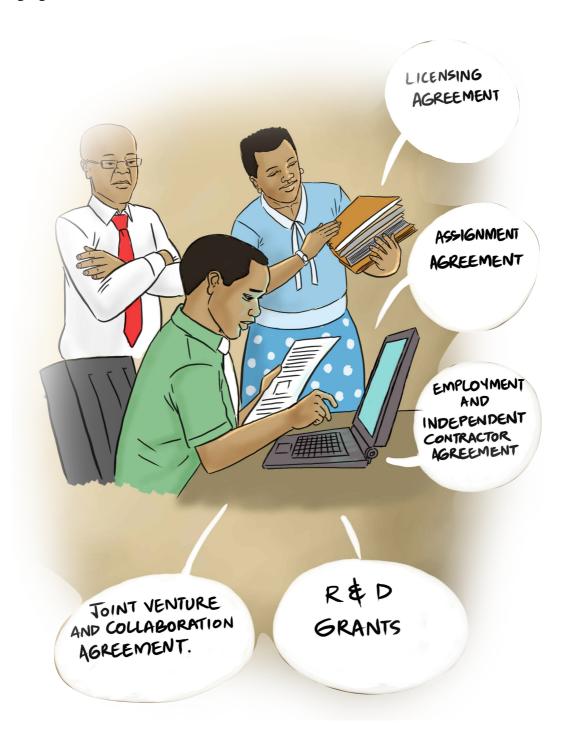
The plan should help the team answer the most crucial questions:

- (a) Does the organization own all the intellectual properties of concern?
- (b) Is the organization optimizing on its Ip assets in conducting its business?
- (c) Does the organization infringe on the intellectual property rights of others in the conduct of its business?
- (d) Do others infringe on the organization's IP rights?



Auditing Contracts and Agreements

This involves examination of the written arrangements with service providers. The intent behind a contract audit is to ensure that the amount and quality of services delivered to the client was correct and that the client was billed, paid and obtained value for the amount billed. A key part of an IP audit is to identify and assess the adequacy of relevant provisions in all agreements that concern the protection of IP. These may include the following agreements:



Licensing agreements

A licensing agreement is a legal contract between two parties, known as the licensor and the licensee. In a typical licensing agreement, the licensor grants the licensee the right to produce and sell goods, apply a brand name or trademark, or use patented technology owned by the licensor. An IP audit should review all licensing agreements to ensure that the company is continually in compliance with the terms of such licenses and whether they further the current and future business plans of the organization.

Assignment agreements

An assignment agreement is a contract in which one party assigns contractual rights. Assignment of rights under a contract is the complete transfer of the rights to receive the benefits accruing to one of the parties to that contract.

An IP audit should review assignments to determine whether the organization has been granted an assignment from every inventor or author of a work. Where necessary, contact all licensors and assignors to determine whether any security interests or liens have been granted in the IP assets.

Employment and independent contractor agreements

Employment contract is used between an employer and employee to address the terms of employment including:

- provisions governing the transfer of the IP rights from employees or contractors to the organization
- terms and conditions under which an independent contractor is allowed to use any copyrighted materials or rely on trademarks associated with the organization's business
- provisions regarding a waiver of moral rights in all copyright works
- clausessettingrestrictionsonthedisclosure or use of confidential information during or after the completion or termination of the employment or contract

- provisions defining the employees' continuous obligation to assist in the protection of the IP rights
- The extent, scope and enforceability of noncompete and non-solicitation provisions

Joint Venture & Collaboration Agreements

Collaboration agreements provides no information about the legal relationship between the parties. On the other hand, a joint venture is when two parties form a partnership for a specific purpose, often a specific project. When conducting the IP audit, review all the various types of arrangements with suppliers, vendors, or customers to jointly develop or update the organization's technology. Keep the following in mind:

- who owns the IP assets pre-dating or created through the joint venture or collaboration?
- define a system for identifying protectable intellectual property resulting from the cooperation
- identify who pays for any application for registration of IP rights and any subsequent defense of the IP rights
- determine the scope of IP contributed to the joint venture
- determine which IP rights can be used by whom when the joint venture or collaboration ends.

R&D Grants

Often government procurement contracts and government funded R&D agreements provide for ownership of IP rights in favor of the government or a government agency. However, there are variations in these across settings and they depend to a much extent on national laws e.g. Bayh Dole Act (1980) in the USA. Therefore, during the IP audit, all such contracts should be closely reviewed for such limitations.

Other Agreements

Other kinds of agreements that could have a significant impact on an organization's IP include:

- a) Technology transfer/know how/ technical assistance agreement: This constitutes a contract that details the benefits of passing on a technology or know-how to a company that will commercialize it. This contract is used when a company (licensor) assigns or licenses to another (licensee) registered industrial and intellectual property rights (patents, utility models, trademarks, copyright etc.) as well as technical assistance and knowhow.
- b) Design and development agreements:

 A design agreement allows you to get paid for your work. A design agreement says I (the contractor) will work with you (the client) to design the work you want done on your home or building, incorporating your ideas and selections and making the design fit your budget.

- c) Royalty agreements: A contract agreement on sharing of revenues arising out of technology transferred to a company for it to commercialize. In its simplest form, it involves a party which owns something, allowing another party to use that something in return for payment.
- d) Material transfer agreements: A Material Transfer Agreement (MTA) is a contract that governs the transfer of tangible research materials between two organizations, when the recipient intends to use it for his or her own research purposes. The MTA defines the rights of the provider and the recipient with respect to the materials and any derivatives.
- e) Source code agreements: used mainly in connection with software, refers to any documentation relating to "clean room" development of software, database licenses listings of computer software used by the company, including all versions and source and object code, flow charts and other software development documents.

Auditing IP Assets

After auditing agreements, the IP Auditor starts to audit the IP assets of the company. There are four steps for this stage. These include (i) identifying and recording IP assets (ii) determining ownership and legal status of the IP assets (iii) detecting any infringement on the IP assets and (iv) taking the necessary steps for creating and protecting IP assets.

Step 1: Identifying and recording IP assets

In this step, the assets are catalogued and a description provided. This involves presenting them by type e.g. patents, copyrights, plant varieties etc. This involves a table detailing the IP asset with a concise description. See details in the proposed IP audit workbook in the next section.

IP assets may include (but not limited to):

- Literary works, including publications in respect of research results, and associated materials, drafts, data sets and laboratory notebooks;
- · teaching and learning materials;
- other original literary, dramatic, musical or artistic works, sound recordings, films, broadcasts, and typographical arrangements, multimedia works, photographs, drawings, and other works created with the aid of SGC/funders resources or facilities;
- databases, tables or compilations, computer software, preparatory design material for a computer program, firmware, courseware, and related material;
- Patentable and non-patentable technical information;
- designs including layout designs (topographies) of integrated circuits;
- plant varieties and related information; trade secrets; know-how, information and data associated with the above

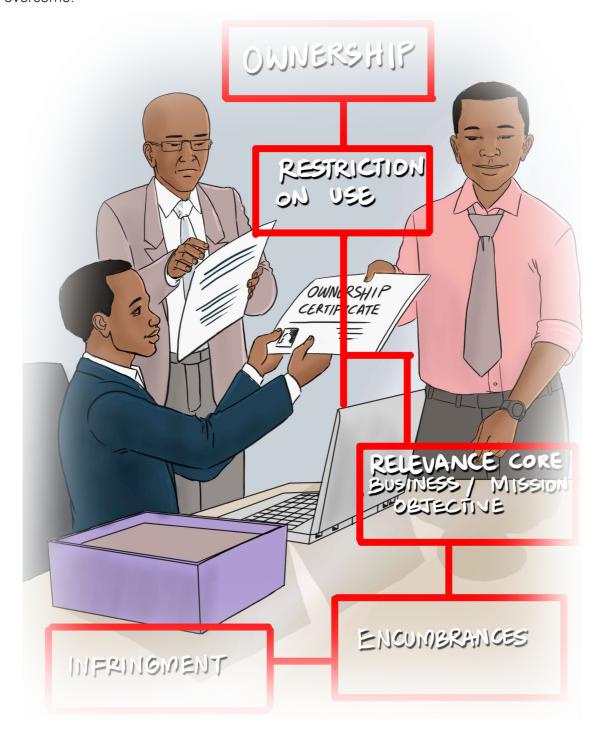
This is the basic stock taking exercise that serves to create or update the intangible asset portfolio of an organization. It serves to inform the organization of its IP assets (actual or potential), which may or may not be used or used differently depending on the goals of the organization.

Step 2: Determining ownership and legal status of the IP assets

The assets will be evaluated as to whether they are owned by the organization and if so, whether they are or should be, protected as IP rights. It includes assets created by the organization itself, and those that are acquired or used with or without the express consent of third parties.

This assessment will enable the organization to determine where, if any, ownership problems exist, why they exist and what should be done to prevent or solve such ownership issues.

It will also reveal whether adequate systems are in place to protect these assets or, alternatively, whether and what internal obstacles exist to their protection, and whether and how these may be overcome.



Below are the main issues the auditor should note with respect to each asset.

#	Issue	Description	Remarks
1	Ownership	The nature of the organization's ownership interests (e.g., sole or joint ownership, exclusive or non-exclusive license, the royalty or other costs associated with the license and the estimated legal duration and period of technological usefulness of the asset) and whether the nature of the interest is in doubt.	
2	Restrictions on use	Are there any restrictions on the use of the asset (e.g. product or agency-related restrictions, territorial restrictions, assignment or transfer restrictions, time restrictions, non-compete clauses)	
3	Relevance to core business/ Mission/ objectives	Is the IP asset relevant to the core business of the company (e.g., whether the asset is a critical asset or an ancillary asset) and any connection with other key non-IP assets of the company, such as key staff members	
4	Encumbrances	Has the asset has been pledged, or in any other way legally encumbered?	
5	Infringement	Are there potential for a third-party claim of infringement or damages due to the organization's use of the asset?	

It is important to note that an invention belongs to the inventor according to the first to file rule. In case of commissioned work or employee invention, the provisions of the institutional IP policies where they exist take preference.

However, in the absence of any agreement, the general rule is that the invention belongs to the person who commissioned the work or the employer. Such rights may be assigned and/or transferred.

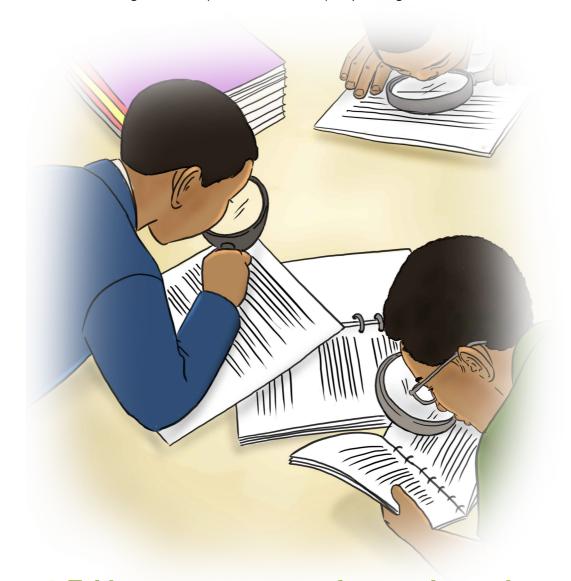
In cases of joint ownership involving two or more inventors/applicants, they can (i) separately exploit the invention (ii) transfer their shares (iii) preclude any person from exploiting the patent. However, in some jurisdictions, joint owners must license jointly e.g. in Kenya while in others e.g. in the USA, joint owners can license separately.

Step 3: Detecting infringement of IP rights

IP protection offers the owners the rights to exclude others from exploiting the IP assets including making, importing, selling or using in any other way. Any person performing these acts without the owner's authorization is deemed guilty of infringement.

When conducting an IP audit, review company's policies with respect to the enforcement of its IP rights as well as its own systems for respecting the legal rights of others. If the assets are owned by the company then an audit may provide information as to whether they are infringed by others.

The IP audit may provide information as to assets that the company thinks it owns but in reality, it does not and could give rise to problems of third-party infringement.



Step 4: Taking necessary steps for creating and maintaining IP assets

An IP audit will reveal where there have been lapses in the administrative, legal and regulatory procedures necessary for creating and maintaining IP assets.

The Audit will also provide the necessary impetus to take care of such requirements by creating or improving the relevant in-house policies, procedures and management practices.

After Completing an IP Audit

This section outlines how the results of an IP audit may be put into use for the benefit of the organization.

Storage and retrieval – towards an IP inventory⁴

It would be a waste of effort to conduct the IP audits and generate another pile of files that nobody refers to or uses. In a few years of the exercise we would end up in the same spot: piles of reports and yellowing files. It is highly recommended that organization (i) digitizes its systems i.e. convert the project files and reports currently held as hard copies to digital formats e.g. by scanning or other methods offered by current technologies. This can be done easily and cheaply even by undergraduate interns from partner universities and institutes (ii) build an institutional IP inventory or repository. At its simplest, even a well-designed excel sheet could be a starting point. For more advanced organizations, a management information systems (MIS) is the way to go. This could be integrated into the overall institutional IP management strategy.



⁴A template has been provided in the annex. Users are encouraged to modify and customize as may be necessary to the tasks at hand.

Analysis and strategic alignment

The IP auditor should evaluate and analyze whether the IP assets are serving the strategic objectives of the organization and, if not, what should be done to change that. One technique that would help at this stage is to divide the results of the IP inventory into groups such as:

- techniques, innovations, and ideas that are essential to your products and services, and to the markets your company has decided to serve
- intellectual assets of real potential but not necessary to your company
- 'Assets' that seem, on balance, to have no great value to your company or to anyone else.



Evaluating IP Assets

The results of IP audit will be the basis for evaluation of IP assets. Properly valuing the benefits that may accrue from any IP asset requires an assessment of:

- Speed with which a particular market values and devalues that type of asset
- The cost of developing alternative IP assets to fulfill the same or comparable market needs
- Royalties being paid for similar assets
- Market recognition of the asset
- The cost of developing such recognition if it is deficient

Review on IP assets and IP policy

An IP audit will provide the management of the company with the basic information as to whether its IP assets are being used to attain the company's strategic objectives.

The management has to check if its business objectives, business model and its IP management policies are in alignment with each other.

This can be identified by evaluating the relevance and tangible benefits obtained by using or leveraging IP assets that a company owns or has access to.

Preventing or being prepared for litigation

A carefully conducted audit may result in a determination that the company's use of its IP violates the rights of a third party.

Advance warning of infringement allows the company to cease infringing activities, obtain a license or at the least, evaluate its liabilities and defenses.

Business strategy formulation

At this stage of an IP audit the management matches its newly established inventory of IP assets to its strategic business objectives. The objectives should include aligning:

- The types of products or services on which the company intends to focus its resources
- The markets it intends to serve
- The return on investment it requires in order to satisfy its owner, funders or shareholders.

The results of the IP audit may add a new dimension to strategy discussions and may lead to new business strategies for the domestic or export markets.

From IP Audit to IP Asset Management

Establish an IP asset management team

An IP asset management team is charged with managing the knowledge portfolio and is overseen by a senior executive. The team should be composed of managers from various disciplines who collectively understand the organization's intellectual assets and (where possible, but not necessarily) have had a hand in developing them.

Create an IP culture

Proper training on IP best management practices should be provided to all staff. All training programs should be reviewed, to verify if they have adequate focus on IP asset management.

Formulate, track and monitor the institutional IP policy/ strategy

Continuously review and monitor the existence and adequacy of IP asset management policies, procedures and practices within the organization.

Implement effective communication strategies

IP assets will only be useful and beneficial to the organization if they are widely shared, get commercial entities interested and taken up for commercialization or transferred to generate revenues. It is important that verify that the organization's IP assets and resources are effectively communicated to both internal and external stakeholders.

Presenting The Audit Report

In this section, we suggest an outline for the audit report. It is only intended as a guide and auditors should modify and customize as may be necessary for their purposes. Still we recognize that IP audits could result in loads of information and data that could be more confusing than clarifying. Some level of synthesis and analysis into a "management advisory note" is necessary if the findings are to be implemented. The management (or whoever commissioned the audit) should not spend time or additional resources figuring out what to do or how to do it.



General guidelines

- Focus on the target audience. IP audits are initiated or commissioned either by management for different purposes. Our report should clearly identify who "the commissioning authority" is/are. This is the primary target for your report. Always keep him/her/them in mind. Both the message and the recommendations need to be clearly focused on your target audience. Build on what they already know as you introduce the unknown
- Keep it brief. The details will be in the workbook, inventory/repository, workplans and other such tools you have used in the auditing process. The purpose of this report is to advise the management/ commissioner of the report on key highlights and action points.
- Talk to your audience: The report is your "advisory opinion" and management would like to 'hear your voice' and conviction in it. It inspires confidence and would likely invite engagement from them on what to do and the next steps. So, to the extent possible use your natural voice....in other words, write as though you are speaking to this defined audience. Assume you are addressing this mixed but knowledgeable audience sitting in front of you and you are telling them about the findings and key strategic interventions they need to undertake.

Without being prescriptive or restrictive, an audit report could include the following broad sections:

Executive Summary

In this section, give a high-level, non-technical and short summary of the report that entices readers to go further. Keep it short but rich, in other words, even if the reader didn't go further, they should understand and be clear about the IP audit.

Mind your language. Avoid all technical jargon and concepts of the academic discipline. Make it easy to follow for a wide and knowledgeable audience. If you must use them, explain all

technical terms to a lay audience

Background and context

In this section, answer the question why is the audit was necessary/important. The terms of reference (ToRs), or scoping, inception meetings with management/commissioning authority would be helpful.

Answer the question what were the goals of the audit and overall findings. What did you set out to achieve/change/explore? How does this relate to the why question above? In other words, how would your findings/results address the why question?

Approaches and Key Findings

This is where to present your methodology and findings. This section answers the how question. In other words, what did you do to arrive at the results and conclusions. Keep the methodological description limited to only what the reader needs to know in order to appreciate the audit. What and how was it done? If necessary, why were some methods/approaches preferred over others?

In presenting results, summarize facts, issues and context; focus on the evidence; back your argument up using evidence, and underline the consequences of adopting particular alternatives. While facts, figures and statistics are important, the target for this report is more inclined to the 'managerial and strategic relevance' of your report rather than the technical details. They are interested in knowing what your work means for their core business and the legal health of the organization. Every discipline has their specialized approaches but remember this report is for a non-technical audience.

Strategic Interventions and Recommendations

This section answers 'the so what question'. In other words, the strategic and managerial relevance of your work. What should the management do next? How will each action,

affect the core business? What are the legal and business implications of each suggestion recommendation? In presenting your recommendations:

Focus on practicability and feasibility.

This report should be an action-oriented tool. Your recommendations should be realistic and implementable in terms of cost, time and impact. Consider, for example, is your recommendation seeking to:

- a) introduce new aspects/methodologies/ approaches/theories etc to an existing chain of offerings? Will it change the current practices and approaches to the business model?
- b) change/modify/improve the technical aspects of how programmes, projects, production, distribution, marketing etc are designed/implemented?
- c) change a particular specific policy/policy regime. If so, which one and why?

Base conclusions on results/evidence:

Ensure your results and findings provide enough evidence to support the recommendations. Reflect on what kind of evidence do you have? Quantitative/qualitative/other?; are there any contrasting/contradicting evidence on this issue? How will your findings stand against such contrasting/contradicting evidence? On the other hand, are there any other evidence complementing/supporting your findings?

Aim for concrete recommendations and strong assertions

Consider: Who/which office or department has the mandate/authority to make /implement the changes/actions you are recommending?

This has to be very specific...where possible, name both the person and the office/department. They should have the authority/legitimacy to make/effect the changes/actions being sought They should have the power to allocate resources/or cause resources to be allocated to the specific issue

Conclusion

This section answers the what next? question. State clearly what could or should happen next.

- What specific change/action are you seeking/recommending?
- What are the other alternatives?
- Why is this (recommendation) the best course of action? (think in terms of costs, technical feasibility, acceptability etc)

Annex 1: IP Audit Workbook

IP Category/Characteristics	Ownership/authorship			
⁵ Defining features – describe the attribut this category	List here those who can claim any stake including both internal and external partners			
[INSERT HERE THE IP CATEGORY BE MARKS, UTILITY MODELS ETC]	PATENTS, COPYRIGHT, TRADE			
⁶ What?				
The gist/key findings/types of IP				
⁷ Who?				
The persons/people involved				
⁸ Where?				
The place/location				
⁹ When?				
The time/timing				
Any other remarks?				

⁵ Does the IP asset being audited exhibit the key features that qualify it to fit into this IP category? List these features and align them with the definitions/characteristics outlined in section X of this manual. This description forms evidence base on which the management will decide the acclaimed potential and their next course of action. As such, it should be as specific and detailed

as possible.

⁶ Give a high-level summary of the of the project and findings. Describe the key IP assets arising from this work

[&]quot;Identify all the parties involved in the research/innovation including internal (institutional) as well as collaborating (external) partners and funders.

*Describe the physical/geographical location where (a) the research was conducted (b) the IP registration and protection may be required.

⁹Record when the research/innovation was conducted. Note that IP protection is time-bound and the timelines may help in deciding not only which IP category is appropriate but also whether the organization has adequate time to benefit from pursuing registration and protection.

Annex 2: Recommendations Template

IP Category	Potential/eligibility Comment on whether the organization could (a) obtain IP protection (b) benefit from / registering protecting the IP				Action Comme based	ent on ti	Possibility of infringement Record any other observations such as whether there's possibility of infringement or freedom to operate issues		
[INSERT HERE TYPE OF IP E.G. PATENTS, COPYRIGHTS, TRADE MARKS ETC]									
Title Short descriptive title of the IP asset	The organization can obtain IP under this category		The organization can benefit		Pursue registration/ Protection		Pursue under another IP category	Further information/ consultation needed	
Code/serial number a unique identifier assigned to each asset	Yes No Yes No		Yes	No	Yes	Yes			
In which physical location is the asset to be found e.g. department, registry, repository etc									
Any other remarks?									

Annex 3: IP Asset Inventory Template

		IP ASSET			AUTHOR/OWNER/INVENTOR						
Code	Title	Description	Type	Remarks	Department	Name	Email address	Phone	Mailing address	Country	Date

Annex 4: Sample Implementation and M&E Template

Strategic Intervention ¹⁰	The observable milestone by which one knows the change has happened	The unit of change should be monitored to see if the milestone has been achieved?	The current situation of the measure?	The measure to be reached by the target date	Data source Where is the data? or how will it be collected?	How often should the data be monitored and reported?	Who is responsible for monitoring the indicator?

 $^{^{\}rm 10}\,\text{Specific}$ recommendations on what the management or whoever commissioned the IP audit should do.

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