

Intellectual Property Rights, Patenting and Commercialization

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What is IP?

- Intellectual properties are intangible products of the mind.
- Is a creation of the mind that can be protected by law;

Why IP is Important in Universities and Research?



IP is a marketable commodity that can be used for income generation and job creation;

Allows the inventor to recover financial and intellectual investment into the technology;

Improves the value for licensing the innovations/technologies;

☑ Makes the technology available to the public.

Prevents other people who did not invest in the IP development from exploiting it.

Intellectual Property is MONEY for:

Individuals



Universities and research institutions



Companies



SMEs



Farmers

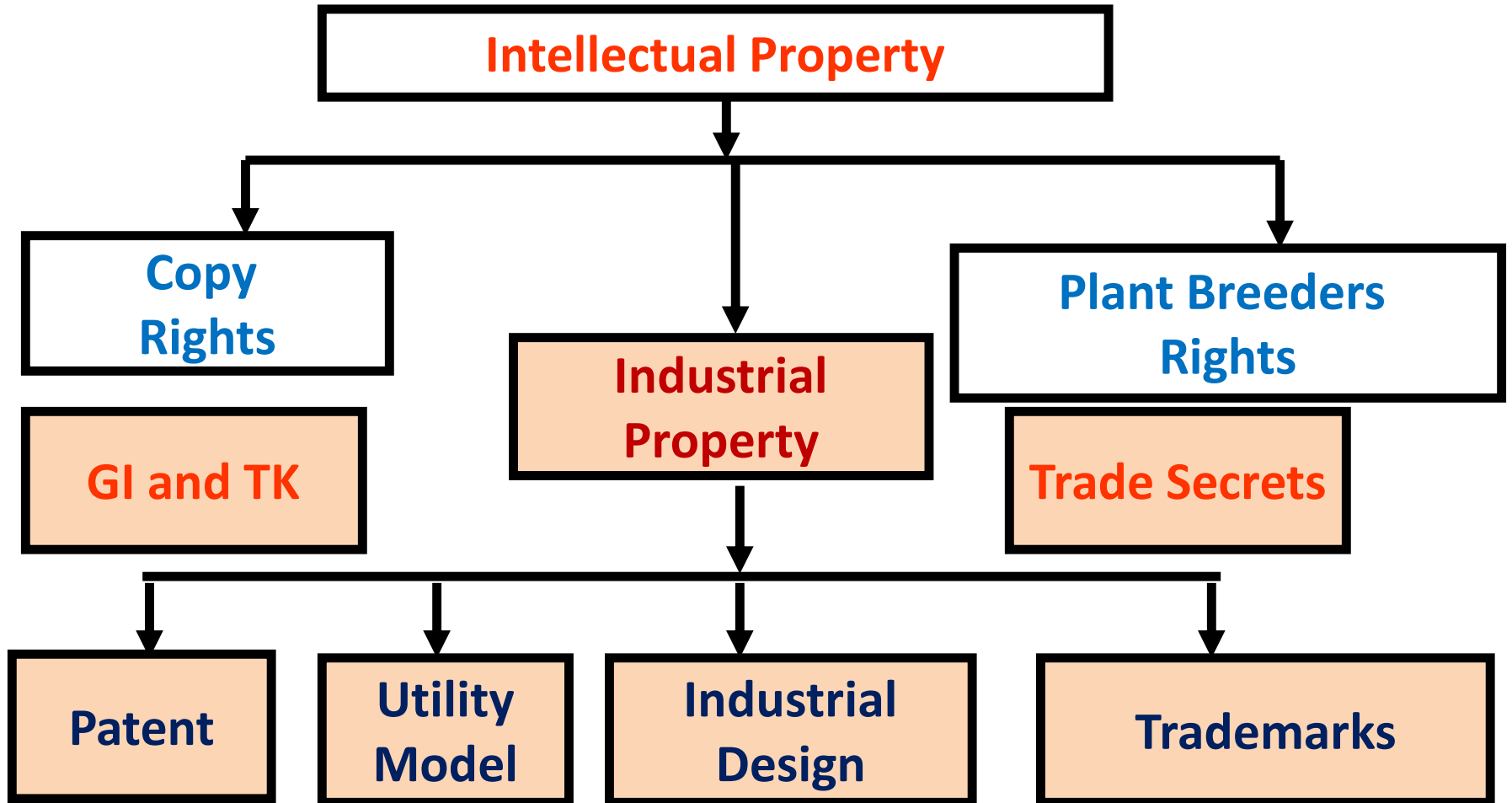


Artists and creators



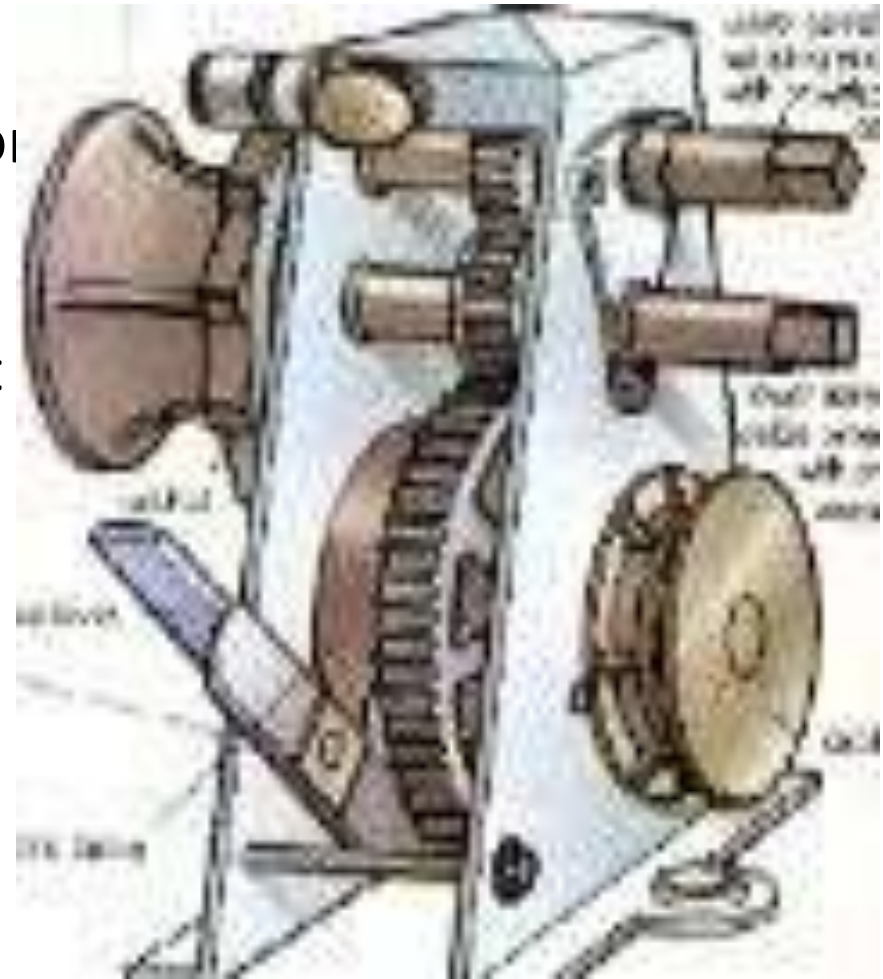
A country

Types of Intellectual Property Rights



Patent

- A patent is a set of exclusive rights granted to an inventor for a limited period of time;
- A product, process or service that is:
 - **novel**
 - new, not disclosed in any way to the public
 - **Inventive**
 - not obvious to skilled person in field in the light of the prior art
 - and has **utility**



Note

the invention must never have been made public, in any way (e.g. by oral disclosure, use, sale, trial, printed publication in any language) anywhere in the world, before the date on which an application for a patent is filed.

It is therefore essential that details of the invention are not made public before filing a patent application by publishing research papers, prior public use or sale of a product etc.

Scope of protection

- Patents are territorial. There are no “worldwide patents”

Therefore:

- To stop someone making use of your invention in any particular country you must obtain a patent in that country.

However:

- Provisions exist for applying for patents in several countries at the same time e.g.
- the International route (PCT)
- the European route (EPC)
- result in a bundle of separate national/Regional patents

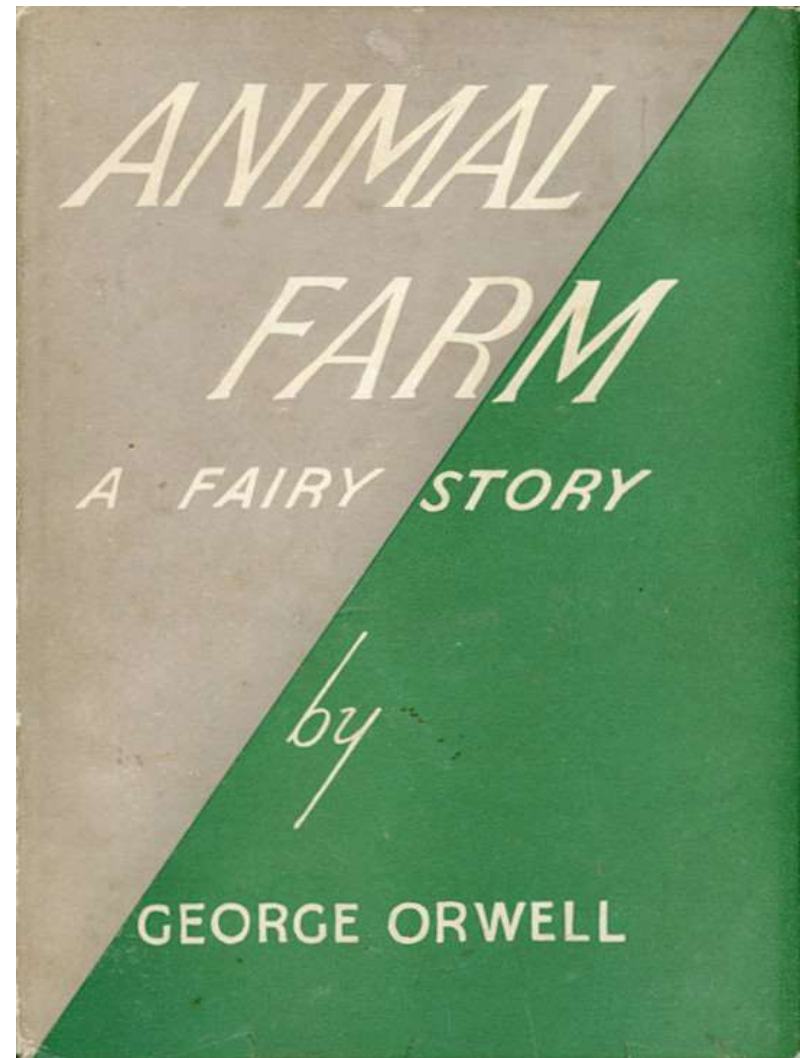
Registered Designs

- **Protection:** outward appearance of an article;
- **How:** File a design registration on the shape and/or ornamentation and/or pattern and/or configuration;
- **Term:** Aesthetic – 15 yrs, Functional – 10 yrs;
- **Rights conferred:** Prevent others from making, importing, using or disposing of articles within the same class with a substantially similar design.



Copyright

- Applies to Copyrightable works for Life of the author + 50 yrs from first publication;
- Rights conferred: Enables holder to control use, expression and distribution of their creations



Trademarks

- **Protection:** Words or marks that distinguish goods and services in the course of trade;
- **How:** File a TM registration on a word or mark (after availability search);
- **Term:** 10 years renewable in perpetuity;
- **Rights conferred:** Prevent others from using a “confusingly similar” mark/sign - does not prevent others from making and selling the same goods or services.



Plant Breeder's Rights

Protects: New plant varieties (bred, or genetically manipulated)

How: Application form plus completed technical questionnaire and plant material

Term: 25 years for vines and trees and 20 years in all other cases

Rights conferred: Exclusivity in the production, sale, import into and export of propagated material or harvested material of the protected variety;

The breed must be New, Uniform, Distinct and Stable



Trade Secrets

- **Protects:** Confidential data, information or compilations not generally known or obtainable;
 - **How:** Secrecy must be retained;
 - **Term:** Indefinitely unless disclosed;
 - **Rights conferred:** Not capable of registration but confers a competitive advantage – usually protected and enforced through contract
- Can be inform of:
 - **Research and Development processes**
 - **An invention**
 - **A technological innovation**
 - **An ingredient**

GEOGRAPHICAL INDICATION

- A geographical indication (GI) is a sign used on products that have a specific geographical origin
- The product must possess qualities or a reputation that are linked to the original place of production.
- Example of a branded item in Kenya is **“The Taita Basket”** and **“Arabuko Sekoke Honey”**

Which form IP to use when?

- **Patent:** where product could easily be reverse engineered;
- **Copyright:** most useful to protect artworks, literary, cinematographic and musical works;
- **Designs:** best used in conjunction with other forms of IP;
- **Trade mark:** supporting brand and developing good will;
- **Plant breeders' rights:** new plant varieties;
- **Trade secret:** useful for processes (where you can't easily detect or prove infringement), where you need protection for more than 20 years.

The IP Filing Dilemma

Based on the following:

- Patent protection is **territorial in nature**
 - **But patent information is global;**
- Patent protection is time-limited
 - **But patent information remains permanently available;**
- Patent protection is limited in scope by claims (**what has been defined as the inventive step**)
 - **But patent information includes all information contained in patent documents;**
- Patents give owners a right to prevent others from carrying out the invention (manufacturing or marketing)
 - **But patents do not prevent others from learning from the invention.**

Patents: A Useful Source of Information

- About two-thirds of the technical information revealed in patents is never published elsewhere;
- Over 80 million patent documents have been published to date;
- Patent documents provide information in a highly standardized format and;
- Describes how the invention works (addresses a particular technical problem);
- Provides background information on this problem;
- Indicates other known solutions to the problem.

Legal Uses Of Patent Literature

It assists you in:

- Determining the patentability of your inventions;
- Drafting strong patent applications;
- Determining the validity of existing patents and which technologies belong to the public domain;
- Helps you to identify when technologies come off patent and the potential infringement which you need to avoid.

Technical Uses of Patent Literature

- Develop new solutions to technical challenges faced in the country, or adapt existing technologies to suit local conditions;
- Use technologies not patented in your country;
- Target research resources more effectively;
- Technical information must be sufficiently clear and comprehensive to be carried out by a typical expert in the field of technology and therefore:
 - **can be followed and replicated**
 - **can be used to track research activities of competitors**
 - **can be used to identify opportunity for licensing and joint ventures**
 - **can be used to review trends in specific areas of technology**

Publishing Vs Protection

Publishing

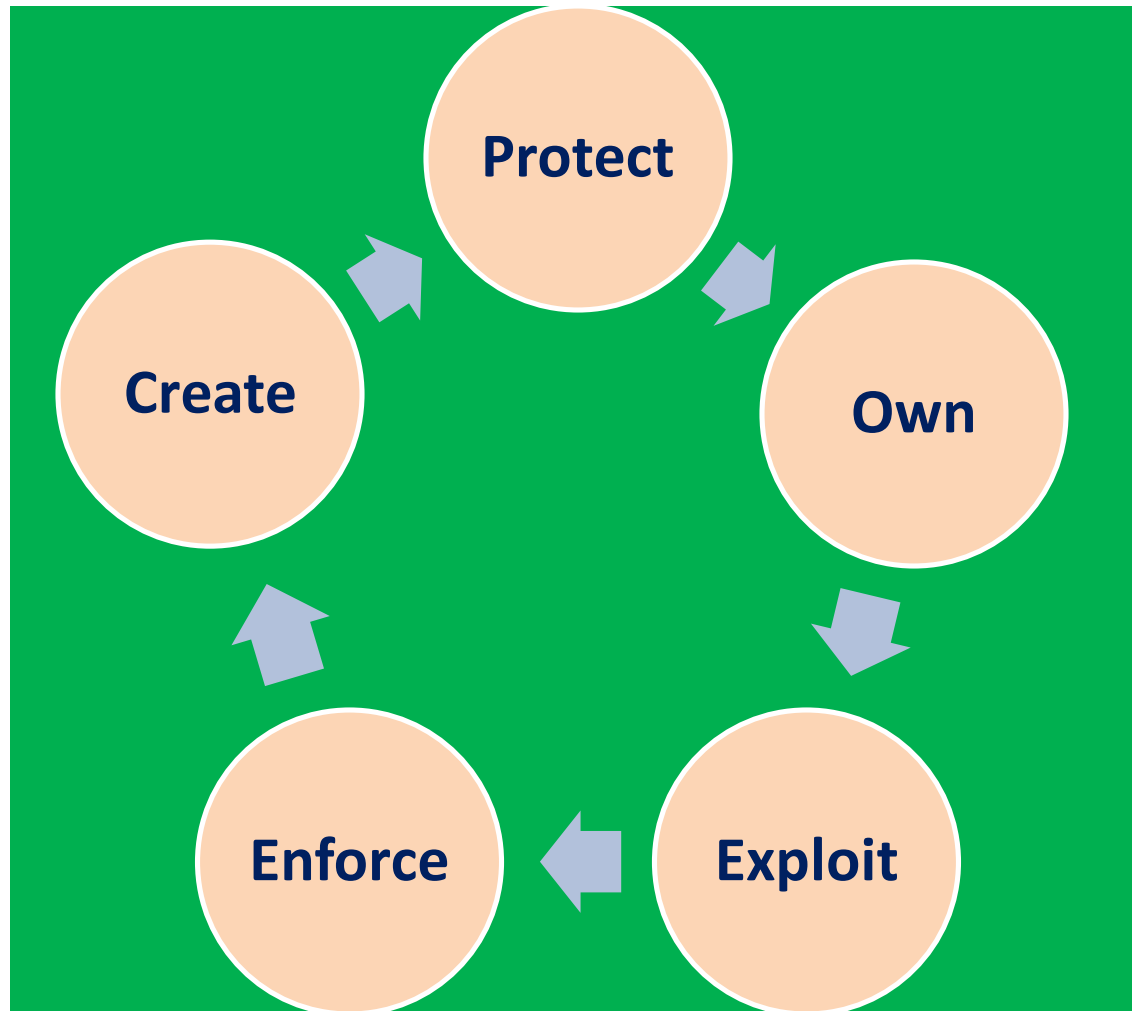
- is the standard by which academics are measured;
- is the most desirable route for academics;
- puts ideas in the public domain;
- allows others to use the information for social or commercial purposes;
- is relatively inexpensive

Protection

- takes time, is expensive;
- Most common form is patenting but it is not always appropriate form;
- protects competitive advantage;
- provides an incentive for companies to invest;
- increases the chances of cutting-edge research discoveries being pursued

Managing National IP Assets

Managing National IP Assets



Issues for consideration in an Institutional IP policy and strategy

Creation of IP

- IP Capacity
- IP Awareness
- Funding of STI
- Support structures

Protection of IP

- IP Administration
- IP Laws

Exploitation of IP

- Modes of exploitation
- Valuation
- Licensing
- Technology transfer management

Enforcement of IP

- Laws
- Institutions
- Human Resource

Commercialization Options

- The process of introducing a new product or method of producing a product into the market;
- It doesn't necessarily need to have a monetary return, but should be Sustainable;
- The route chosen will depend on the evaluation of the innovation as well as the inventor's aspirations;

Possible Commercialization Options

- Direct sale of products and services
- Research collaboration with the industry
- Open innovation route
- Assignment / sale
- Licensing to existing company
- To spin out company

Material Transfer Agreements

- Regulates transfer of materials (incoming/ outgoing)
- Important consideration for freedom to- operate
- Protects interests of the material donor (researcher, institution and country)
- Restricts the use of the material by the recipient
- Limits liability of the donor in use of the material by recipient
- Allows donor to access results of research on material
- Allows donor to share equitably in benefits arising from exploitation of materials

Likely Challenges?

1. Academic Carrier

- Priority may not be patenting, but rather publication for **promotion**;

2. Personnel

- Public knowledge on patenting is limited
- University and Research institutions have limited awareness on patenting , and IP offices are not well staffed with experienced personnel

Personnel Challenges Cont'

- Expertise for patent drafting is limited;
- Patenting is a subject of science, engineering and technology. However, patenting lawyer/attorneys have limited knowledge in science, engineering and technology;
- Innovators, scientist, engineers, & technologist have limited knowledge in patent legal;
- Hence Drafting challenges

More Challenges

3. Patent Offices

- Are some of agency's officers seeing half full or half empty glass?
- **Suggestions:**
- Need to support Researchers to file patents;
- Awareness;
- Communication;
- There is a need for close collaboration between innovators and attorneys.
- Awareness to innovators on patenting procedures and to attorneys on technology basics might improve the situation

Conclusion

- Patenting is a challenging procedure but this does not mean that it can not be done;
- Understanding the legal requirements and to ensure they are properly phrased is important;
- Patent attorneys are very useful in drafting patents but must be properly guided to capture the essential technical details;
- It is important to understand how patent examination is conducted.

Patent search tools

From Free Data Bases

- <http://www.wipo.int/patentscope/en/dbsearch/>
- <http://patft.uspto.gov/>
- www.google.com/patents/
- https://www.wipo.int/geo_indications/en/#accordion__collapse__01
- <http://www.epo.org/searching/free/espacenet.html>
- <http://www.ipaustralia.gov.au/auspat/index.htm>

More Information

- Paris Convention for the Protection of Industrial Property, 1883;
- Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS);
- Patent Cooperation Treaty (PCT);
- European Patent Organization (EPO);
- African Regional Intellectual Property Organization (ARIPO);
- Organisation Africaine de la Propriété Intellectuelle (OAPI);
- Gulf Cooperation Council (GCC).



ASANTE SANA