
6. MANAGEMENT OF INTELLECTUAL PROPERTY RIGHTS

*“An invasion of armies can be resisted, but not an idea whose time has come”
— Victor Hugo*

Intellectual property (IP) protection is critical to fostering innovation in the society. If ideas are not protected, companies and individuals would not be able to enjoy the benefits of their inventions, thereby focusing less on further R&D. Similarly, authors and artists would not be receiving the due respect and reward for their creations, which would ultimately lead to less cultural vigor in the society.

On one hand IPR provisions provide a safe harbor to these original creators and inventors to protect their work and enjoy the right to exclusivity. On the other hand, it encourages further innovation and creativity, thereby leading to an intellectual as well as economic development of a society.

Regardless of the product manufactured or service provided by an individual or an organization, it is likely that there is involvement of IP in some form or the other. Hence one must strategically consider the steps involved in protecting, managing and enforcing his intellectual property rights, to get the best commercial results from its ownership.

Intellectual Property Rights (IPRs) arise out of intangible creations (ideas, works of art, etc) and are given to a creator by a Government of a country. IPRs are territorial rights that are restricted to the country of protection. These are monopoly rights vested with a creator/ inventor/ author and prevent others from using, making or selling the creation.

There are different types of IPRs that have been specified worldwide for the protection of innovative ideas and its forms. The IPRs of prime importance are:

- Patents
- Trademarks
- Copyrights
- Industrial Designs
- Geographical Indications
- Integrated Circuits
- Plant Varieties & Farmers Rights
- Trade Secrets.

To begin with, the creator must understand and identify the different forms of Intellectual Property protection which can be provided to protect his work. While some of the features will come under the ambit of Patents, some aspects may be copyrightable, while the remaining can be registered as a Design. The first step lies in identifying the most appropriate and relevant forms of IP.

Another important factor which one must keep in mind is jurisdiction. IP protection is territorial in nature. For example, if a trademark is registered in India, it will be protected in India only. However, there are certain methods of extending the protection to foreign countries, as discussed under topics related to ‘Madrid Protocol Trademark Applications’, ‘Patent Cooperation Treaty Applications’. The decision to protect a work in several countries has to be taken strategically after considering several issues like finance, market demand, availability of the product, infringement risks etc.

Due diligence forms an essential step in protecting intellectual assets. At the outset, it is strongly recommended to use NDAs to prevent disclosure of confidential information. At the same time, certain analytics tools like Priority or Novelty Search, Freedom-to-Operate Search, Infringement Search; Trademark Availability search reduces the risk of unnecessary legal hassles.

Registration is the most essential step in safeguarding an intellectual asset. However, it becomes futile without proper management and commercialization. As we have already discussed, it is necessary to organize all the intellectual assets in a systematic order to keep track of current status of IP applications, renewal dates or any other required formality, failing which may lead to rejection of IP protection. In this regard, building an IP portfolio becomes necessary.

A good IP portfolio increases the value of the company. Rapid increase in IP portfolio implies the necessity of a dedicated in house IP team. It is also essential to continuously encourage and promote generation of more IP, for example, by providing incentives to employees at an organization. Another activity which boosts proper management of intellectual assets is conducting IP Audits at regular intervals.

6.1 PATENTS

“The patent system added the fuel of interest to the fire of genius.”

— Abraham Lincoln

A Patent is a right granted by the Government of a country to the inventor for a limited period of time. Under the Indian patent legislation, the subject of a patent is a new invention. Invention means a new product or process involving an inventive step that is eligible for industrial application. To be patentable, an invention has to fulfill the three criteria of novelty, non-obviousness and industrial application. Novelty means that the invention has either not come in public domain or it does not form part of the state of the art.

Self-disclosure or commercialization by the inventor before the filing of the patent application leads to loss of novelty. A patent granted under the Patents Act, 1970 (Patent Amendment Act, 2005) confers upon the patentee the exclusive right to prevent third parties, which does not have his/her consent, from the act of making, using, offering for sale, selling or importing, selling or importing for those purposes that product or the product through that process in India.

As per the current Indian Patent Law, the term of every patent is 20 years from the date of filing of the application.

These features of the Patent Law and the criteria for patentability are by and large the same in other countries with variations in respect of only procedures for filing patent applications and rules and regulations relating to patentability and grant of patent.

Public disclosure and patent filing

Dr. Ria Sen has developed a new system for diagnosing cancer cells and identifying the location of the tumour. Although Dr. Sen is interested in commercializing some of her research, she would like to ensure that doing so would not prevent other researchers from having access to her findings. She publishes the findings in Science journal. After a year, she thinks of filing a patent application and she contacts a patent attorney. The attorney advises her that now it won't be possible to obtain a patent even if she files a patent application as her own publication would serve as document in public domain.

The invention must have use or any application in the industry. The invention further should be a subject matter that can be patentable before the respective jurisdiction's Patent Office. Not everything which is new, non-obvious and useful can be patented. In USA new plant forms, software, business methods can be patented, but not in India.

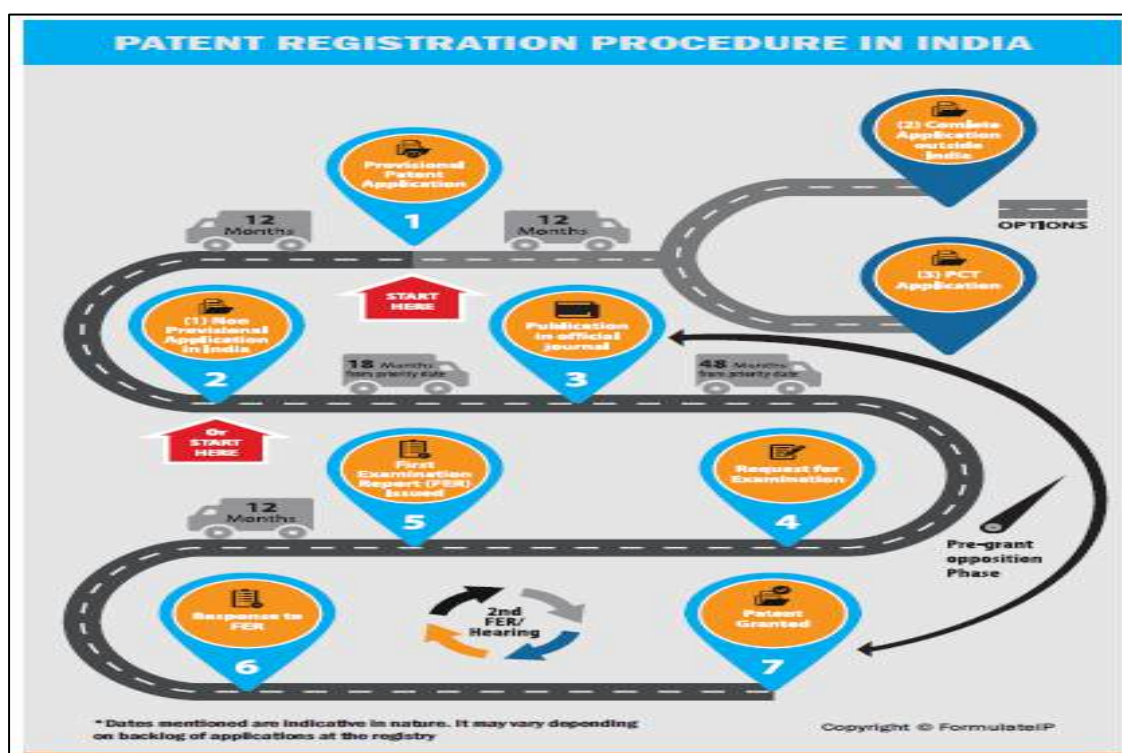
However, there are certain common things which are not patentable anywhere in the world.

For example:

- Laws of nature.
- An abstract idea. For example, you have a brilliant idea on how to eradicate poverty perpetually. Your idea may have the potential to bring about a revolution in society, but the idea cannot be patented, since the idea by itself does not involve anything that is tangible.
- Any literary, musical or artistic work.
- Inventions relating to atomic weapons, etc.
- Mere arrangement of re-arrangement of known elements, for example: umbrella with a torch and a clock
- Traditional Knowledge.

6.1.1 Patent Registration Procedure in India

Step 1: It is always recommended to conduct Prior Art Search to check whether your invention is novel or not. Subject to the outcome of the Search, an applicant may proceed to filing the Patent Application. An application for a patent can be filed by the true and first inventor and also by the assignee or legal representative of the inventor, as the case may be.



Step 2: You may file the Patent Application along with Provisional Specification or a Complete Specification at any of the four offices mentioned below: a. Mumbai Patent Office: Maharashtra, Gujarat, Madhya Pradesh, Goa, Chattisgarh, Union territories of Daman, Diu, Dadra and Nagar Haveli; b. New Delhi Patent Office: Haryana, Himachal Pradesh, Jammu and

Kashmir, Punjab, Rajasthan, Uttar Pradesh, Uttaranchal, Delhi and the Union Territory of Chandigarh; c. Chennai Patent Office: Andhra Pradesh, Karnataka, Kerala, Tamil Nadu and Union Territories of Pondicherry and Lakshadweep; and d. Kolkata Patent Office: Rest of India On successful application, the Patent Office will issue an application number using which you can track the status of your application.

- Step 3: 18 months from the date of filing or Priority Date (whichever is earlier), the Patent Application is published in the official Patents Journal, published every week by the Patents Office on its website. On publication, the patent specification including drawings and deposits are available in the public domain. The rights of the applicant under the Patents Act, starts from the date of publication, but can only be enforced after the patent has been granted.
- Step 4: An Application with a formal request for examination along with the official fee has to be filed within 48 months from the date of filing the application or Priority Date (whichever is earlier). The Patent Application is then allotted to a patent examiner who is an expert in the technical domain of the concerned patent. Presently there are four examination groups based on the broad area of technical specialization in the Patent Office. These are namely, (i) Chemistry and allied subjects, (ii) Biotechnology, Microbiology and allied subjects, (iii) Electrical, Electronics and related subject and (iv) Mechanical and other subjects.
- Step 5: The application is examined on both procedural as well as patentability grounds. Within 1-3 months a First Examination Report (FER) is issued.
- Step 6: The patent applicant is required to comply with the objections and amend his application as mentioned in the FER within the next 6 months. If all the objections are overcome a patent is granted for 20 years. If the objections are not rectified as required or not complied within the prescribed time frame, the patent application could get rejected. It is important to note that a patent is granted only when the application has not been successfully opposed by any third party.
- Step 7: Once the patent is issued, you need to maintain the patent by paying an annual renewal fee from third year onward till the life of the patent before Indian Patent Office. It is mandatory to commercialize your patent within 36 months from grant of patent for which you need to submit a status of working of the patent periodically. In case you do not submit the working of patent as stipulated by the Patents Office, then your patent can be revoked by the Patent Office. A patent can be refused by the Patents Office either during the examination stage, or objected to at pre or post grant stage. With regards to examination of a patent application, if the patent does not meet the patentability criteria then it can be rejected for which you can respond to the FER (First Examination Report) as well as make a request for a personal hearing in the Patents Office. With regards to pre or post opposition which can be for various reasons such as the invention being in public domain or the invention being stolen, you again need to satisfactorily respond to the objections raised. In case you are not satisfied with the decision of the patent office, you can file an appeal with the Intellectual Property Appellate Board (IPAB) against the decision of the patent office which has the power to revoke or amend their decision within the prescribed timeline.

The schedule of fees payable for patent filing to the Indian Patent Office is available at www.ipindia.nic.in/form-and-fees.htm.

NPA = Non-provisional patent application
PPA = Provisional patent application

PATENTS	
DOs	DON'Ts
Make sure your invention is patentable, i.e. it's new, non obvious and has utility	Do not wait for the invention to get completed and then file an application
Conduct a Prior Art Search to check whether similar inventions exist	Do not forget to check whether you are infringing a third party patent
Decide where you will file the application strategically as patent laws are not uniform	Do not disclose your invention carelessly before filing an application
Mention 'Patent Pending' on your invention once an application has been filed	Don't forget to file NPA within 12 months if you have filed a PPA

6.2 Trademarks

A trade or service mark (a word, name, device, symbol or any combination) is adopted by an organization to identify its goods or services and distinguish them from those of the others. Trademark ownership is usually acquired through use of a term or word or symbol to identify the origin of the goods or services. It is a mark capable of being represented graphically.

It distinguishes the goods or services of one person from those of others and may include shape of the goods, their packaging and combination of colours. A registered trade mark or a mark used indicate a connection in the course of trade between the goods or services and some person having the right as proprietor or by way of permitted user, to use the mark.

Example of Trademark



Did you know taglines and phrases can also be protected as a trademark?

An example of a tagline: "We bring good things to life." **GE's tagline**

6.3 Copyrights

Copyright means an exclusive right to do or authorize the doing of any of the acts listed below in respect of works in which copyright subsists. Copyright subsists in literary (including computer programme), dramatic or musical work, in an artistic work; in a cinematograph film and in a sound recording.

Doing or authorizing the doing of any of the acts in respect of the above works broadly include reproduction, issuing of copies to public, making any cinematographic film or sound recording, translation, adaptation, selling or giving or

even making offers to sell etc. on commercial rental any copy of the computer programme or making a copy of the film. Doing any of such acts, as stipulated in the Copyright Act, 1957 amounts to infringement of the copyright of the owner.

In other words, copyright subsists in "original works of authorship" which have been fixed in any tangible medium of expression from which they can be perceived, reproduced, or otherwise communicated, either directly or with the help of a machine or any other device.

Did you know copyright is a right which is created with the creation of the work and can be protected by putting a c in a circle © followed by the year. However for its enforcement, copyright needs to be registered.

It may however be pointed out that unlike patent which protects the idea, copyright covers the "expression" in a particular work, computer program, musical work, video or motion picture, sound recording, sculpture, photograph and so on in which the "expression" is embodied, illustrated, or explained, but does not protect the "idea".

6.4 Industrial Designs

Industrial design rights are intellectual property rights that make exclusive the visual design of objects that are not purely utilitarian. An industrial design consists of the creation of a shape, configuration or composition of pattern or color, or combination of pattern and

Did you know industrial design also plays a role in branding of the company?

A particular design of the product such as coke's bottle is recognized by the customer as a product belonging to coke.

color in three dimensional forms containing aesthetic value. An industrial design can be a two- or three-dimensional pattern used to produce a product, an industrial commodity or a handicraft. The Design Act, 2000 defines a "design" to mean only features of shape, configuration, pattern, ornament or composition of lines or colours applied to any article, two dimensional or three dimensional or both, by any industrial process or means, whether manual, mechanical or chemical, separate or combined, which in the finished article, appeal to and are judged solely by the eye. The copyright on a design accrues to the proprietor of the design only when registered in accordance with the provisions of the Act.

6.5 Geographical Indications

As per the Geographical Indications Act of Goods (Regulation And Protection) Act, 1999, "Geographical Indication", in relation to goods, means an indication which identifies such goods as agricultural goods, natural goods or manufactured goods as originating, or manufactured in the territory of country or a region or locality in that territory, where a given quality, reputations or other characteristics of such goods is essentially attributable to its Geographical origin and, where such goods are manufactured goods, one of the activities of either the production or processing or preparation of the goods concerned takes place in such territory, region or locality, as the case may be.

Did you know India has these geographical indications other than Darjeeling Tea?

- ***Chanderisaree*** (Guna, Madhya Pradesh);
- ***Kota Doria*** (Kota, Rajasthan);
- ***Kancheepuram silk*** (Tamil Nadu);
- ***Solapur terry towel*** (Maharashtra);
- ***Mysore silk*** (Karnataka);
- ***Kullu shawl*** (Himachal Pradesh);
- ***Madurai Sungudi*** (Tamil Nadu);
- ***Kangra tea*** (Himachal Pradesh);
- ***Coorg Orange*** (Karnataka) Bidriware (Karnataka);
- ***Channapatna toys & dolls*** (Karnataka).

Any name which is not the name of the country, region or locality of that country shall also be considered as the Geographical Indication if it relates to a specific Geographical area and is used upon in relation to particular goods originating from that country, region or locality, as the case may be.

6.6 INTEGRATED CIRCUITS

'Layout- design' has been defined in the Semiconductor Integrated Circuits Layout Design Act, 2000 mean a layout of transistors, and other circuitry elements and includes lead wires connecting such elements and expressed in any manner in a semiconductor integrated circuit.

A lay out design which is not original, or which has been commercially exploited anywhere in India or in a convention country, or which is not inherently distinctive or which is not inherently capable of being distinguished from any other registered designs, shall not be registered as a layout-design.

6.7 PLANT VARIETIES AND FARMERS RIGHTS

Instead of Patent, India chose *sui generis* system for protection of plant varieties integrating the rights of breeders, farmers and village communities, and by making provision for equitable sharing of benefits. The Act offers flexibility with regard to protected genera/species, level and period of protection. It covers all categories of plants, except micro-organisms. The objectives of the Protection of Plant Varieties and Farmers Rights Act, 2001 act are:

- To provide for an effective system for protection of plant varieties.
- To confer rights to farmers and plant breeders and to provide for their protection.
- To stimulate investment for research and development in the field, both in public and private sector.
- To facilitate growth of the seed industry and to ensure availability of high quality seeds and planting materials of improved varieties to farmers.

6.8 TRADE SECRETS

Trade secret (a concept that may be applied to almost any secret which is used in business) is used to protect valuable proprietary information and is a commonly used form of protection for software. It gives the owner of the trade secret a competitive edge over the others. The protection provided by trade secret remains legally valid as long as the trade secret is maintained. It is necessary to bind individuals (those who have access to the secret) by contractual agreements called nondisclosure or confidentiality agreements. This way protection can be maintained while a trade secret is being used.

*A trade secret is a secret till it is kept **confidential** and is not divulged to anyone. In order to keep trade secret **confidential** one needs to inform the other party with whom the information is being shared that it is confidential.*
Contractual obligations through employee agreements and non-disclosure agreements can be ensured for its protection.

6.9 Other Aspects

6.9.1 International Perspective on Patents

Although the criteria of patentability viz. novelty, inventive step and industrial application remain same across the globe, there are exceptions with respect to the scope of protection. Across the globe there are different laws governing the patentability of biotechnological and life science inventions. In US there

are two modes of protection for plant varieties, one is plant patent and other is the protection of plant variety. Microorganisms, modified organisms, processes to modify or processes using such organism are also patentable in US. Also software can be patent protected in US. In comparison to US, Europe has limited the scope of protection by excluding certain inventions just like India, in accordance with the guidelines laid out in the World Trade Organization's Agreement on Trade Related Intellectual Property. Articles 52 and 53(b) of European patent convention define what can and what cannot be patented. Biotechnological inventions are basically patentable, but with the following exceptions:

- Methods for treatment of the human or animal body by surgery or therapy, and diagnostic methods practiced on the human or animal body
- Plant and animal varieties
- Essentially biological processes for the production of plants and animals.

In US and Europe, secondary application/use of a known substance is patentable; while in India, it is not patentable. The protection of secondary use of a known substance in Europe is done through the Swiss claims.

6.9.2 IP Analytics

In recent decades there has been rapid development in the technology sector which has resulted in the shortening of life cycles of the products. In order to have a competitive edge in the market, companies are trying hard to consistently develop new products. More emphasis is being laid on the R&D departments. However, although more attention on innovation is yielding considerable results, many companies are unaware of how to use the outputs strategically. Business planning and technology planning are two entirely different areas. The key is to link them in such a manner that technology analysis can pave the way for business development.

This is when IP Analytics comes into the picture.

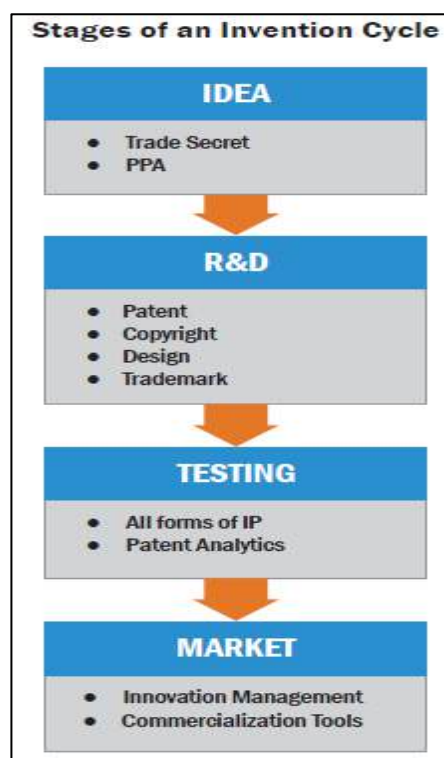
An in-depth statistical analysis of this information with respect to IP activity in a specific field of technology is often termed as IP Analytics. By having access to such patent data, a better and thorough understanding of the 'big picture' is possible which will help you to take strategic and informed decisions. From such an analysis it may be possible to discover current patterns and trends in the industry which otherwise would have been difficult to come across. Various IP Analytics Tools are discussed as follows:

- **Prior Art Search:** A prior art search involves searching different patent and non-patent databases to identify identical or similar inventions that are patented/published or available in the public domain.
- **Novelty Search:** A novelty search is the second step where the novel features of your invention as against the existing prior art are identified. The purpose is to establish the points of novelty which make the proposed invention new or novel.
- **Freedom to Operate Search (FTO):** It is usually conducted as a due diligence effort to identify the potential patent barriers to commercialization of any product/process in a certain jurisdiction. The purpose of this search is to make sure that the proposed invention is not infringing any patented materials in the country where it is being filed and free from any potential risk to operate in that jurisdiction.

- **White Space Analysis:** It is a methodology which identifies absence of patents/innovations in a particular product or technology area and thus acts as a primary driver of innovation decision making. The said search is one of the pre-trial activities conducted by a third party against a particular patent.
- **Invalidation Search:** This kind of search is conducted only with the purpose of invalidating another patented invention of a third party patent which is in conflict with your invention.
- **Mapping/Landscaping:** It is a compilation of patent information by creating a visual representation to encourage faster and easier understanding. Using bibliographic data it is easy to identify which technical fields particular applicants are active in, and how their filing patterns and IP portfolios change over time. It is also possible to find out which countries lead in which fields. For example, if a person wishes to study the patents filed for pharmaceutical products by a particular company, he may compile all the relevant information in an organized structure which is known as a Patent map or a landscape

6.9.3 IPR Protection: Start from the Idea Stage

People tend to think that IP protection is required only once the final product is ready to be launched in the market. But this is a common misconception. IPR provisions can be effectively used and enforced from the Idea stage. IPR associated with the product lifecycle can be categorized into the following stages:



A. Idea Stage

At this stage in order to safeguard an idea, the company or individual(s) can either file a Provisional Patent Application or keep it as a trade secret. The company or individual(s) should further conduct Novelty or Prior Art search to be aware of existing technologies related to the idea.

B. R&D Stage

This is an important stage in the innovation cycle and requires appropriate IP protection. Apart from maintaining the Trade Secret for certain aspects, all the information and drawings related to a product may be used to file a Non- Provisional Patent Application or Patent Co-operation Treaty (PCT) application. Manuscripts for literary works can be protected by Copyright and distinctive designs can be protected by filing an application for Design Registration. At the same time, a Trademark application can be filed to protect the name of the product or service.

C. Testing Stage

This is the last stage before launching of the product and hence it is recommended that most of the IP filings are completed before the end of this stage. This ensures that the product is safeguarded from

potential infringement before it is finally released in the market. Also it is essential to use certain Patent Analytics tools to determine the strength and scope of the product.

D. Commercialization Stage

Once the product is in the market, constant monitoring of the IP is required. At the same time, it is essential to use Innovation Management strategies and IP commercialization tool for the best results. Once your Intellectual Property is registered, you have the exclusive right to use and exploit your property. If you do not, there is always a chance that somebody might try to take credit for the intellectual work which you have created or can copy your idea without paying any royalty to you.

Registration of Intellectual Property is futile if it is not properly commercialized. The IP commercialization is done mostly by either selling or licensing the IP asset to another entity. Assignment is the permanent transfer of IP ownership from one party to another, where ownership of all rights is acquired by the assignee. It is recommended that you enter into a Non-disclosure agreements or (NDAs) before the Assignment. This will keep the intended assignment a secret and that confidential information shared will not be revealed except for negotiating purposes.

IP due diligence is another important pre-requisite for gathering information on IP assigned. It is a means of analyzing potential risks involved in the transaction. Due diligence audits are performed by multidisciplinary teams of legal, financial, technology and IP experts.

Licensing of an IP asset permits a third party (licensee) to use the rights associated with IP under certain terms and conditions. The person receiving the license is called the licensee and the person granting the license is called the licensor. Licensor retains the ownership of IP. The licensor still maintains ownership of the asset in this case. Another option for a business is to leverage the IPR assets and form a business partnership with another business. The partnership can then exploit the IPR assets by creating a new entity such as a joint venture.

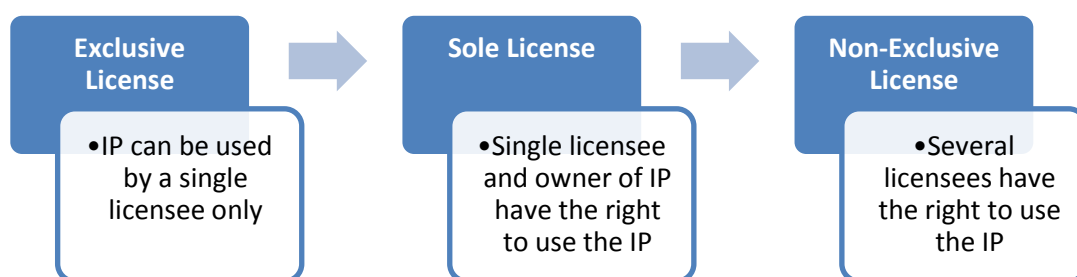
An example of licensing of IPR assets is the license granted by software companies for using their software, which provides the end user with the right to use the software but does not transfer ownership of the software to the user.

6.9.4 Licensing

By entering into a License Agreement you can permit a third party to use your IP based on mutual conditions. A suitable licensee and a properly drafted license agreement represent a steady inflow of income for the licensor while reducing costs and risks.

Depending upon number of licenses allowed to use the licensed IP, licensing agreements can be categorized into three main types namely

- Exclusive license
- Sole license
- Non-exclusive license.



The biotechnology companies are well-positioned to extract value from their patent portfolios to remove roadblocks on the path to commercialization and success.

For a biotechnology company, the ultimate goal of IP is to protect the investment that goes into developing a commercial product. But as products are often many years away from commercialization, there are several ways IP can be exploited to get financing and complementary technologies needed for short-term survival. There are four key ways that biotech companies can leverage value from an IP portfolio. Although these are the main strategies, they are certainly not the only ones for extracting extra value from patents.

- Out-licensing
- Cross-licensing
- Selling IP or royalties owed on it
- Lending secured by IP.

Method	Advantages	Disadvantages
Out-licensing	Raises capital	Engenders fear of out-licensing too early
	Is suitable for early-stage technology	Cedes some control over reputation and valuation of technology
	Narrows company focus	
Cross-licensing	Removes blocking patents	Requires giving up exclusive rights
	Can allow collaboration	Can allow competition
Selling IP or royalties owed on it	Raises short-term capital	Requires demonstrable financial return
	Narrows company focus	Discounts value of IP
Lending secured by IP	Makes use of IP, which may be company's most valuable asset	Interest rates obtained do not generally reflect IP value
	Raises non-dilutive capital	Risks losing IP upon default

Creative executives, financiers and lawyers may find other ways to obtain short-term value from a company's IP. But a broad and diverse patent portfolio, combined with flexibility and ingenuity, can provide unexpected leverage to remove roadblocks on the path to commercialization and success.

6.9.5 Compulsory License

In certain cases, a government permits a third party to produce the patented product/ process without the consent of the patent owner. There are certain conditions laid down in TRIPS Agreement for issuing a compulsory license. For example, usually, the applicant for a compulsory license must try to negotiate a voluntary license with the patent holder. Only when it does not work out, a compulsory license can be granted. Moreover, even after a compulsory license has been granted, the patent owner must be paid adequate remuneration on the basis of the economic value of the authorization.

India's 1st Compulsory License

In March 2012 India's first compulsory license was granted to Hyderabad-based Natco Pharma to sell a generic version of Nexavar (a kidney/liver cancer drug that goes by the generic name of SorafenibTosylate), but with the condition that a 6% royalty on the net sales (every quarter) will be paid to Bayer, the holder of the Patent. The reasons for granting the compulsory license were:

1. Since Bayer supplied the drug to only 2% of the patient population, the reasonable requirements of the public with respect to the patented drug (Nexavar) were not met.
2. Bayer's pricing of the drug (2.8 lakhs for a months' supply of the drug) was excessive and did not constitute a "reasonably affordable" price.
3. Bayer did not sufficiently "work" the patent in India.

If my Licensor is granting me license from another country, what are the issues that should be covered in the licensing agreement?

To check whether the IP right is covered in the country of your interest, you need to determine whether you are entitled to file a patent or design application in that jurisdiction. In case of a trademark, you would have to make a fresh application and in case of copyright if the country of your interest is a signatory of the Berne Convention, then you are covered. It is also important to make sure that there is no issue or controversy regarding the ownership of the particular IP. This can be determined by checking the present status of ownership of the IP with the respective IP Office.

6.9.6 Protecting your IP in Joint R&D

The most important point to resolve is who will own the IP rights and the rights over improvement of the product/technology. If you have been contracted as a vendor for product or technology development on a market rate basis, then 100% of the ownership of IPR should rest with the company. But in case you have a risk-sharing arrangement, whereby you will be compensated on achieving certain milestones or you have been provided equity instead of cash, then the ownership of the IP should be negotiated with the company to compensate for the risks being taken by you.

There is no fixed formula with regards to IPR ownership but you should put a financial value to the risk in product development and then accordingly seek part ownership of the IPR concerned. But what is of most relevance to you is

the ability to use the product or technology for future use with other clients as well as having access to the rights to improved versions, product or technology concerned.

Alternately, you can choose to negotiate with the company to use the product developed for other clients either at no cost or by paying an agreed-upon royalty, which will provide you with more business opportunities. Ensure a clause is incorporated in the commercial contract with clear details of IPR ownership and rights over future improvement in the product or technology concerned.

In case you have been hired to render services to a large organization where there is no significant generation of IP but the work would involve confidential data and proprietary processes, you would be asked to sign an NDA with the company to protect its own interests. You should always have confidentiality agreements with your own employees and with your contractors to ensure that they do not disclose client confidential information to third parties.

6.9.7 Points to Remember: Entrepreneurs acquiring Technologies

Entrepreneurs often license or buy technologies or other forms of IP assets from academic or research institutions that have the expertise and resources to undertake basic and applied research. Of late, institutions in India are becoming more entrepreneur-friendly with a business focus. It is important to take care of certain issues, which could crop up in your dealings with institutions, to ensure a successful partnership:

- a. While institutions claim to have developed market-ready products or technologies which have been tested to work at manufacturing level, it is prudent to validate the claims by requesting for a demonstration of the technology and understanding its scope.
- b. Review the patents filed by the Institute with regards to the technology or product you are interested in licensing or buying. Check whether the patents have been granted, pending or abandoned (if the application is not pursued by the applicant then it is abandoned by the patent office). Also the Institute may have filed for patents outside India which needs to be verified.
- c. Cross-check whether the Institute has entered into any agreement with a third party for sale or licensing of the technology and, if so, whether the agreement is exclusive or non-exclusive.
- d. Check if there are any restrictions or preconditions with regards to sale or sublicensing of the technology to someone else since that would restrict your ability to exit the agreement .
- e. Find out who will bear the renewal costs to be incurred for maintenance of patent in case of a granted patent and costs for engaging a professional in case of a pending patent to take it through the grant process.

6.9.8 Innovation Management

At present, R&D departments are gaining importance because research plays a crucial role as a major contributor to innovation. However, to utilize and encourage innovation, proper management is required. The creation and management of the IP portfolio plays a very important role at this stage. The discipline of effectively managing the different stages in a product cycle is termed as Innovation Management. The purpose is to challenge and facilitate creative potential which would ultimately lead to result orientated, innovative business development. Innovation Management consists of a set of tools that

create a common platform where managers, technical and marketing teams work together to achieve their goals.

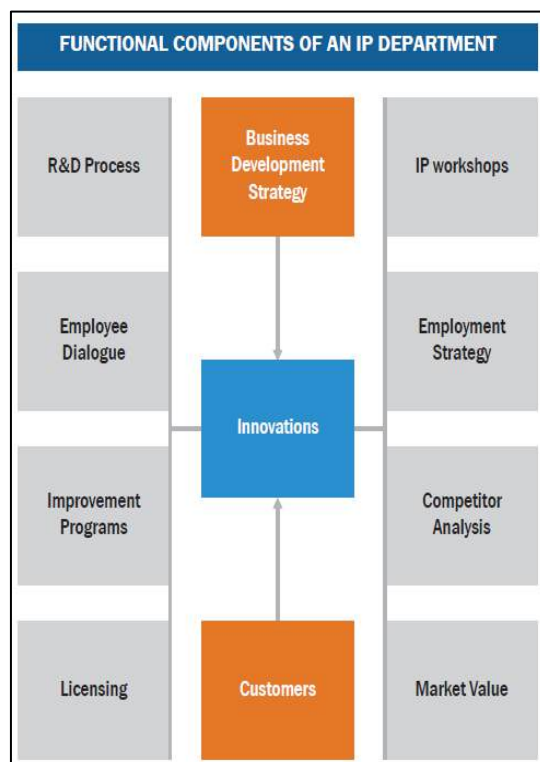
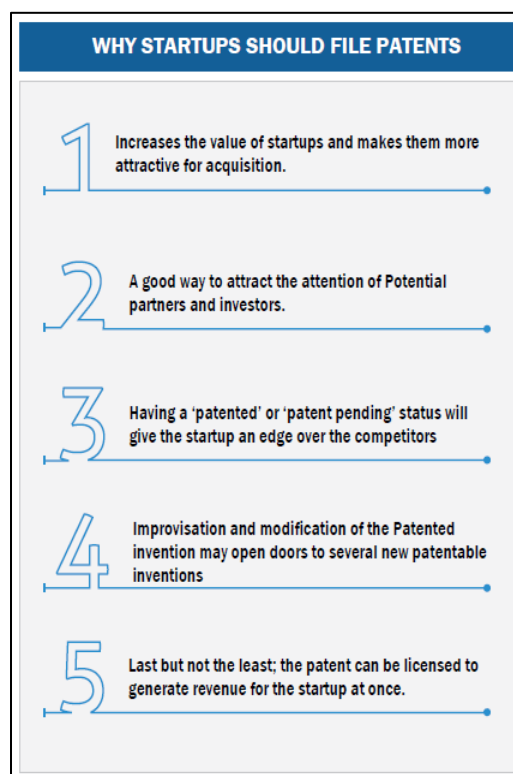
Effective innovation management requires the implementation of a number of processes and the employment of a number of tools. At the outset it is important that the culture of the organization empowers employees and encourages them to submit their ideas. Most importantly, the management should adopt an appropriate innovation strategy to lead the innovation process and to manage an innovation portfolio.

Innovation management helps to realize the potential of your business. The purpose is to be the game changer in the marketplace by measuring the relative impact and importance of your invention. The objectives of innovation management include:

- Creating an innovation strategy suitable for the organization's potential and to enable accomplishment of the vision.
- Building a portfolio of innovation projects for easy management and strategy planning.
- Define a criterion for selecting and prioritizing projects within the portfolio to remove less potential ones.
- Make necessary internal changes and form the right teams.
- Identify potential future partners that can be tapped on requirement, and determine the strategy on how such partnerships are to be formed.
- Promotes and encourages innovation by allowing employees time and incentives.

It is highly recommended to have an in-house IP department to manage and regulate the intellectual assets of a company. The underlying goal of an in-house

intellectual property department is to derive the maximum value from intellectual property assets with reduced cost and improved accuracy.



There is no standard format and plan that applies to all business situations. Each business must consider the nature of its business situations. Each business must consider the nature of its business, the environment of the industry in which it operates, its corporate culture and its business goals, when establishing an IP management program.

6.9.9 Developing an IP Portfolio

The first step is to create an inventory of all the intangible assets your business owns or controls, such as technology, trademarks, domain names, creative works (such as brochures, product catalogue), licenses or rights received for regulatory or government approvals, customer relationships and databases; and determine their criticality and impact on your business. Once you have identified and maintained your IPR and intangible assets, you can decide to prioritize based on their business impact, and on how you can monetize non critical IP assets.

Registering a patent, trade mark or design application is required to safeguard the exclusive rights to an invention or brand. However, this alone is not sufficient to generate significant revenue. With the increase in strength of an IP portfolio, the commercial leverage of the business also develops. In this regard, it is necessary to build and regularly manage an IP portfolio.

Case Studies for Illustrations

Case Study 1: Mr. Amir Khan is a young entrepreneur and graduate in science. He owns and operates a plastic recycling and moulding business. He designed a machine — the Xtrasmooth — that sorts plastics by the quality and thickness of plastic before it is melted and recycled. Mr. Khan's invention will make the plastic-sorting process cheaper and increase the profits for his business. He believes the Xtrasmooth has world-wide market potential and would like to commercialize it. He is seeking advice from his maternal uncle who runs a plastic bottle manufacturing business on how best to protect and commercialize the invention.

Issues to be addressed

- Trade secrets versus patents
- Non-disclosure or confidentiality agreements
- Impact of disclosure on patent rights
- Requirements for patent protection
- IP strategy and commercialization options

Questions to ponder

- Under what circumstances is a non-disclosure or confidentiality agreement signed? What are the main elements of such an agreement?
- How should one decide on commercialization options?
- What are the costs and benefits of registering a trade-mark?

Case Study 2: Ms. Aparna Sharma has been awarded a prestigious Department of Biotechnology, Govt. of India postdoctoral fellowship to work in a Immunology research lab at the Harvard University. She will be working with a group which is working on developing a new system for creating anticancer (aCC) cells and an a CC cell line that can be coaxed to differentiate into cells that would be useful for the killing malignant cells and treatment of cancer. Although Ms. Aparna is interested in commercializing some of her research, she would like to ensure that doing so would not prevent other researchers from having access to her findings.

Issues to be addressed

- Ethical issues in patenting and commercialization of cells/artificial cell lines
- Impact of public disclosure
- IP ownership in a university research environment
- Patent application process in foreign jurisdictions.