

**Protecting Your Intellectual Property:  
To patent or not to patent**

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**Disclaimer**

The concepts and discussion in this paper are the results of many years experience. They have been distilled to give a practical approach for companies using intellectual property. The paper does not purport to give legal advice, nor guarantee any commercial benefit.

## **Introduction**

In this “information age” money is made from ideas and the way we apply them. This is quite different from the industrial age where profit went to the owner of capital and land and labour efficiency was more important than the creation of new goods and services. In the information age it is essential to identify and protect intellectual property to ensure ongoing profits for the company.

This paper sets out some of the options for companies, and individuals, and suggests some of the steps that will improve intellectual property protection and some of the pitfalls to avoid. Microsoft protects its IP by copyright, pharmaceutical companies protect by patent and plant breeders protect by plant variety rights. These are all legally registered rights to protect what is valuable to the companies, but they do have costs. Some companies do not seek legally registered rights, but rely on other methods to keep ahead of their competitors. These methods include; secret recipes (eg Coca Cola) and low cost production. There is no one method that suits all, but it is important to understand the options and when to apply them.

The area of intellectual property rights is an area of developing and changing law. For detailed advice see your patent attorney.

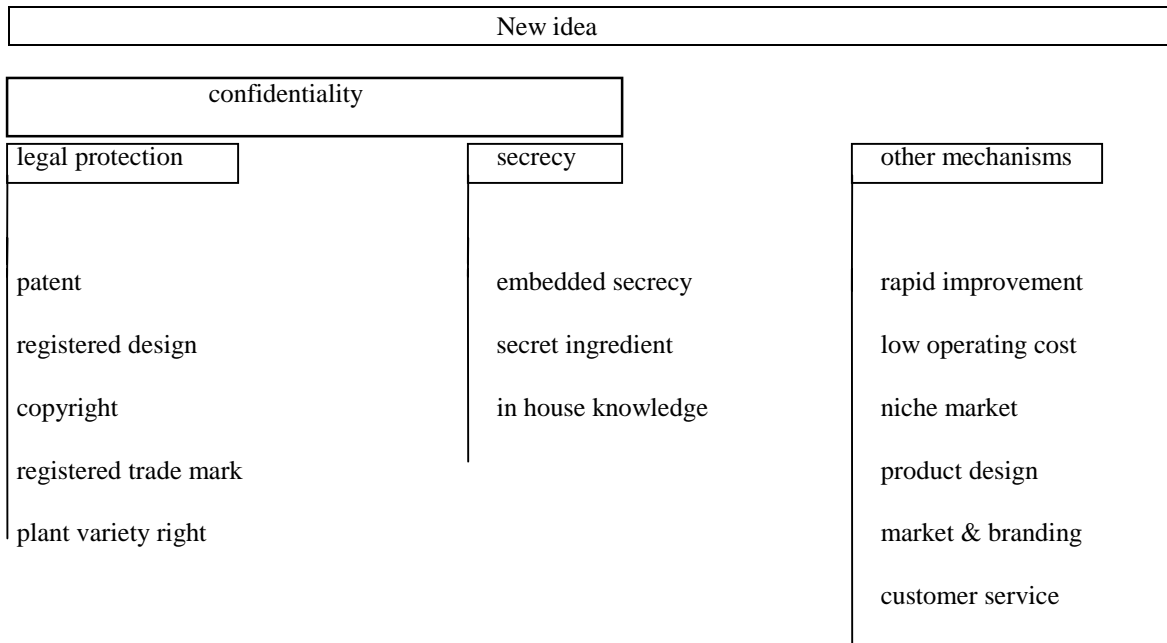
## **What is Intellectual Property ?**

We all have some intellectual property. It is the way we do things, how we think, the tools we use. Often these are taught, or learnt by experience and are therefore common to a number of people. These general forms of intellectual property are useful, but cannot be legally protected.

Where thinking or skills are used to create or invent something new and original then legal rights can give protection to the inventor and give him/her the opportunity to make profit from the creative output, for a period of time. There are a number of different forms of these rights and these will be looked at and the merits of each discussed.

## Types of protection

There are a number of different types of protection available for intellectual property. Patents and copyrights are the most commonly mentioned. The diagram below outlines the main forms of protection and also shows some of the other methods available to companies and inventors. These are all taken from the starting point of a new idea - "what should I do with this?"



A little more detail on each of these is given in the table below. The legal protection mechanisms are differentiated from the other mechanisms. Legal mechanisms require some form of application and approval, except for copyright and confidentiality agreements. Other mechanisms generally involve company secrecy or strong customer relationships.

## Legal Mechanisms

These are applied for and granted under some form of statutory protection. The evidence of originality has some paper trail to the inventor/ originator, or is accepted by a statutory office eg Patent Office. It is important to be able to show the date of the original work, or application - often referred to as the priority date. Like all legally enforceable rights, the ownership can be challenged in court by someone claiming previous knowledge.

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Patents	Patents are granted to those who can lay claim to new product or new manufacturing process, or to an improvement of an existing product or process that was not previously known. A Patent provides a monopoly to make, use or sell the invention for a fixed period of time (maximum 20 years)
Registered Design	Registering an industrial design gives its owner sole rights over it for an initial period of five years. If desired, this can be renewed for a maximum period of 15 years.
Plant Variety Rights	Gives sole rights for plant new plant varieties that distinct, uniform and stable. Does not apply to algae or bacteria.
Copyright ©	Copyright gives rights to the creators of original literature, drama, music, art, recordings and computer programmes. These allow the creators to control exploitation. It is granted automatically and requires no formal registration.
(Registered ®) Trade Mark ™	A trade mark is an identification symbol which is used to distinguish one company's products from similar products made by others. It is not necessary to register a trade mark, though this confers a statutory monopoly. Registration lasts for an initial period but this can be renewed indefinitely.
Confidentiality Agreements	These provide a mechanism for one company to disclose confidential information to another, while protecting ownership and use. In some cases companies are very reluctant to receive such information in case it might 'contaminate' their own development work in the area.

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## Secrecy

Information such as your costs, procedures, 'formulations' and customers are all key elements of your competitive position. This is appropriate where the product is difficult to reverse engineer, but easy to replicate once the detail is understood.

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Embedded Secrecy	Often used where software can be burnt into a chip. Multilayer protection is available that is difficult to unravel
Secret Ingredient	Where one or more recipe ingredients can be held secret then it is difficult to replicate the formula. Need to make sure that no one person has all the ingredient information.
In House Knowledge	Applies particularly to manufacture where a special way of making or assembling provides a unique outcome and can be kept secret in the factory. Heat treatment of steels is one example.

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## Other Mechanisms

Where the competitive advantage for the company is clear and difficult for someone else to achieve then none of the legal protections may be used. Make sure though that the advantage is real and not imagined. Can another company replicate what you're doing?

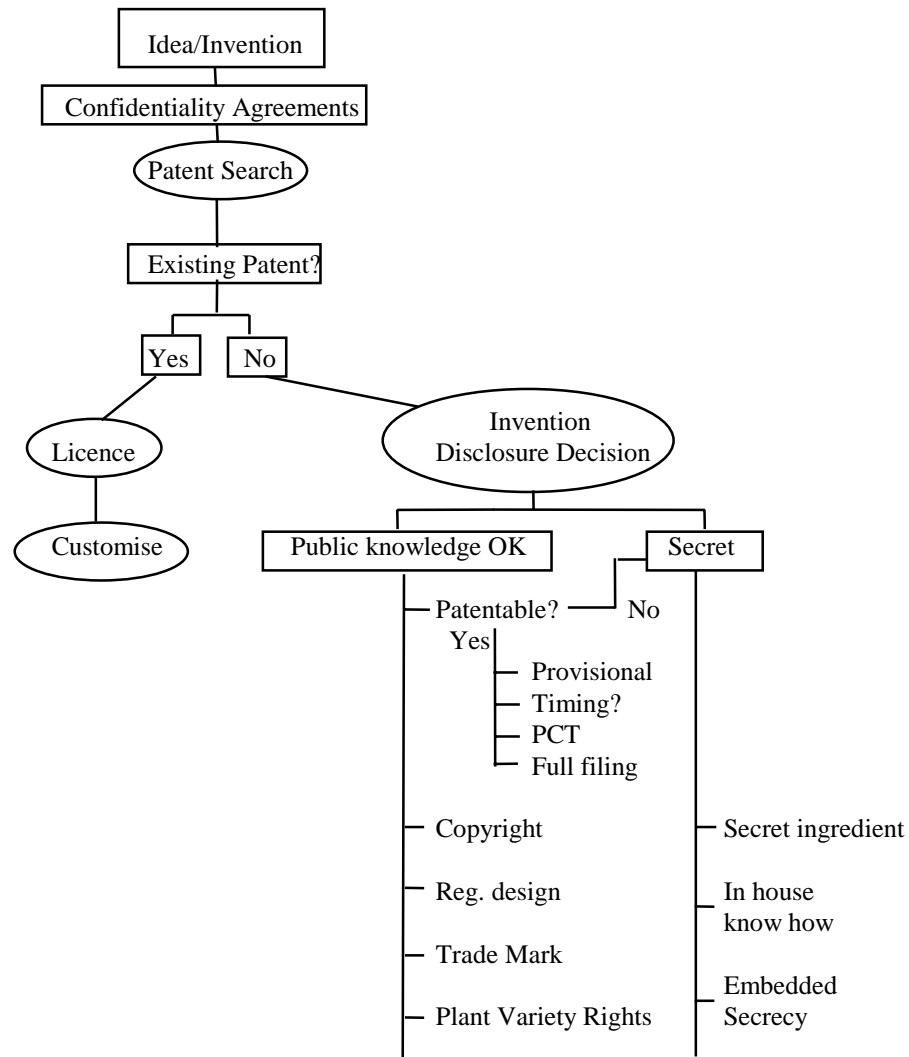
Continuous Rapid Improvement	Striving to improve your products and processes and reduce the risk associated with implementing any changes.
Low Operating Costs	Driving down costs throughout your company so that your costs are always as low and competitive as possible.
Targeting Niche Markets	Focusing your expertise on sectors of the market where other organisations find it difficult to compete or simply not worthwhile.
Product Design and Quality	Ensuring that your 'products' are always of the highest quality, and that designs are both practical and pleasing to the eye.
Marketing and Branding	A good marketing strategy and careful product branding may provide an edge that could keep you ahead of competitors.
Customer Service	Paying close attention to fulfilling the needs of your customers and ensuring that they are fully satisfied with the service provided is the best way to secure follow up business

## The single invention

Too often a company or individual invents something, seeks a provisional patent and runs out of money before the product is ready for market and cannot complete the full patent filing. The 12 months run very quickly in product development and faster still in capital raising for the business. It may be better to leave the patent application and develop under confidentiality than face the wall of patent application without enough money. Alternatives include registered design and copyright protection in the early development and apply for a provisional patent when starting serious commercial negotiations.

## Intellectual Property Decision Tree

The flowchart below shows the decision process for someone who has an invention they are looking to protect and possibly exploit. It should go without saying that confidentiality is important throughout this process, and may continue to be important if secrecy is deemed to be the best protection for a particular invention. The need to keep details confidential applies at least until you have obtained legal protection through a patent etc, or you have decided to keep the development details secured through confidentiality agreements with employees, etc. Obviously for trade secrets etc to be effective protection mechanisms, confidentiality is paramount at all times.



## Development process

All development processes are creative and have some inventive steps. The development process needs weigh points to pick up

- New inventions that may be protectable
- Developments that may encroach on others' patents or other legal protection

The check for other's protection should be at the concept stage. You obviously want to have the idea before you do a patent search so you know what you are looking for. However you don't want to invest too much time and money into an idea if someone already has legal protection for it. It may also be possible to licence the technology from the existing owner and you don't want to waste development money on "reinventing the wheel", and any customising or improvement on an existing patent may also be patentable. The search should also include general literature in the area to establish what,

if anything, already exists in the area. Searches of existing Copyright and Registered Designs may also need to be considered.

The final design is another good review time. All the inventions have been included and it is clear what elements need to be protected. Too often this review is forgotten in the haste to take the product to market. The review needs to be included as a deliberate part of the development process, and signed off.

### **Secret or public**

One of the biggest factors in IP protection is secrecy. All of the legal mechanisms, except for copyright, lead to full public disclosure of the invention. One of the early decisions is whether disclosure and protection is better than secrecy and commercialisation. It depends on the idea and the difficulty of “reverse engineering”. Electronics can often use embedded software and food can use secret recipe ingredients, but pharmaceuticals need to be disclosed for regulatory approval. Disclosure or secrecy is the first milestone decision about intellectual property protection.

The invention disclosure decision is the time when you decide whether to go public or not, however in order to advance with any development you are going to have to trust some people and protect yourself with a confidentiality agreement beforehand. There are always risks and sometimes these things have to come down to “gut feel”.

### **Confidentiality Agreements**

At the early stages of any development it is important that the invention is kept secret and that everyone that needs to know is bound by a confidentiality agreement (CA). The company/inventor needs a CA that defines the subject that is confidential, sets out the time of confidentiality and the parties to the agreement. The CA needs to be signed by each party that you have to disclose information to and a copy filed for future reference. In all cases the invention should only be disclosed to people who need to know.

Look for a good CA that protects both parties to the agreement, seek legal advice if you can't find a suitable document.

### **What will and won't a patent do?**

In return for full disclosure of an invention a patent provides protection to the patent holder allowing them to exploit the development. While in theory anyone who develops something commercial which is covered by the patent is infringing the rights of the patent holder, the patent holder has the choice whether or not to prosecute those who infringe their patent. Be aware though that the costs of prosecuting for patent infringement can amount to tens of times the costs for having acquired the patent in the first place. A patent costing say \$80,000 to register may cost US \$1m plus to defend. Can you afford to defend your patent?

Patent defence doesn't need to be immediate. The patent holder is given the commercialisation rights for a period of time (maximum 20 years). It may be more appropriate to let the infringer continue and build up a successful business then claim damages and royalties for the years of infringement. Be aware that this approach has pitfalls, eg statute of limitations, but it is a commercial choice. The effect on profits for the infringer can be devastating.

### **Jointly Owned Patents and IP - Some things to consider**

When going into joint developments there are some points that need to be put in writing.

- Previous IP should remain with the individual parties
- New developments need to be kept confidential until any legal protection is decided and applied for
- One party should seek legal protection and ownership and license the other party for its own use.
- Avoid joint ownership where possible. It has too many pitfalls.

### **Provisional patents**

A provisional patent is filed with the patent office, but without public disclosure and gives a priority date for the invention. The cost is relatively low and a full patent needs to be filed within 12 to 15 months, which then starts the main cost of the full patent. The provisional patent is a useful legal protection when negotiating with another company. The priority date gives the inventor protection. If the negotiation goes well then the patent can be afforded, if it goes poorly the cost of filing can be avoided. The window of 12 months, therefore, needs to be used thoughtfully.

### **Legal Protection Costs**

The costs of protecting IP vary. Patent attorneys will give indications, but actual costs depend on complexity and the need for language translations. Indicative costs are:

patent search	-	\$800
provisional patent	-	\$1200
trade mark	-	\$1500 plus graphics
full patent filing	-	\$7000 per country
copyright	-	free, needs proof of authorship
registered design	-	\$200
patent defence	-	depends on complexity. Indicative costs allow US \$1m.

## **People who can help**

Patent attorneys are the main source of help. They can supply information and can prepare and file any documents required. As in all commercial transactions get a price indication before starting and make sure it includes all the costs and likely timing.

Other useful sources include:

Company lawyer, Technology NZ and Business Development Boards.

## **Company Policy**

The nature of the business determines the relevance and fit for intellectual property protection. Core business and competencies can be enhanced by legal protection. This increases the business potential and provides a “ring fence” around future technologies and products. This legal protection should also increase gross margins, because it limits the competition from others.

The pathway to the market is also important for exploitation of the IP. Can the company take the products to market? or will an alliance be required? The pathway to market affects the value of any IP and the willingness of companies to defend any challenges to ownership of IP.

Company policy needs to include guidelines on:

- Core competencies required in the company
- Preferred IP protection- legal protection or secret
- Preferred “umbrella” (see below)
- Licensing in, and licensing out, of technology
- Pathway to market - present and future
- Geographical markets
- Preferred alliances
- Employment contracts ( see below)

These guidelines should be part of company strategy and save a lot of wasted time and ad hoc spending.

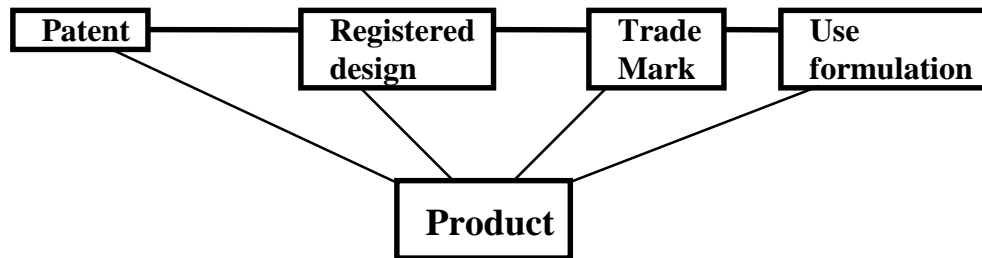
## **Employment contracts**

This article is too short to include all elements of employment contracts relating to IP. Some of the main elements that need to be covered are:

- Confidentiality of information
- Restraint period after employment
- Ownership/Assignment of IP created by the employee - normally this belongs to the company unless agreed otherwise
- Any incentives for employees for creating IP. In some US companies royalties from IP have made some employees wealthy. It can be a very positive incentive!

## **Umbrella protection**

Any intellectual property protection is open to legal challenge, by competitors and other inventors. The cost of defence may be greater than the business resources or the chances of winning and the time taken to win may make the defence too difficult. One way of reducing the impact is to build an umbrella of IP protection, both legal and, where possible, some secret or other components. For example:



This umbrella concept gives a more useful cover and gives options if legal challenges are made. The umbrella can be made of any of the protection methods above. It should have both legal protection and secrecy as components.

## **Joint Venture Developments**

Protecting IP in joint venture (jv) developments should be recognised and included in any jv agreement. Main points that should be addressed are:

- Previous IP remains with the owner
- Set up a system to identify protectable IP in the development
- Agree a mechanism to determine who pays for any protection and any subsequent defence
- One party to own the IP and the other to have free licence for restricted use; by market or product group.

There are no absolute rules for an agreement, but like all joint ventures there must be give and take and there must be good reasons for setting up the jv - any agreement must end up with a win - win outcome for the parties to be commercially viable. For detailed advice see your patent attorney.

## **Technology platforms**

A technology platform will give rise to many products. In pharmaceutical's one "active" can be compounded in many ways and can also be delivered by a number of methods including sustained release delivery systems. This is also true in other areas, including; electronics, biotech and communications, where a basic technology will give rise to many products.

Contrast this approach with protection on a single product or use for a product. The single product often comes from a market opportunity. It's a great way to develop, but suffers from recovering development costs on a single product and the risk of a competitor blitzing your product on price or features.

The growth in a single product is limited whereas with a technology platform the growth of multiple products can continue for many years. Technology platforms are more difficult to develop, but are worth the effort, often they occur as a result of further development work on earlier inventions, where the core technology in a product can give rise to a number of other products. For example, a remote sensing software package can be used for security, utility monitoring and tank level sensing. Many products coming from one technology.

It is important to define the core technologies for a business and to protect these core technologies. The core technologies will lead to many products and require enabling technologies to produce products and services. Protect the core technologies and license the enabling technologies. One good technology will be the source of many product developments. Hence giving a platform to support many future product developments.

## **Conclusion**

There are ways of legally protecting intellectual property and IP can also be protected by secrecy. If care is taken, secrecy can be maintained indefinitely, while all legally granted protection involves some public disclosure and a defined protection period. An early question in the form of protection is - can the invention be reverse engineered? If it can't be then secrecy may be the best form of protection. If it can be easily duplicated then disclosure, claim and legal protection is a better option.

While legal protection is useful, its value increases if there is a clear pathway to market. Where that pathway to market is with business alliances then use IP protection as part of the negotiation strategy and choose the timing of any spending on protection to enhance, not cripple the business.

Intellectual property is the most important asset for businesses in an information age. Build the core of the business around IP for optimum profit and future growth.

## **Further reading**

[www.derwent.co.nz](http://www.derwent.co.nz)

[www.wipo.org](http://www.wipo.org)

Contact Licensing Executives Society