What is a Patent?

A patent is a legally enforceable right granted by a national or a regional intellectual property authority for new and useful inventions. Patents cannot be obtained for artistic creations, discoveries, mathematical models, plans, schemes, or purely mental processes.

The traditional rationale for patents is that because they grant inventors a temporary monopoly to use the invention, they promote innovation. Patents also encourage inventors to disclose their inventions, rather than keeping them secret. A challenge for the patent system is to ensure the grant of temporary monopolies to foster research and development while at the same time enabling patent holders to benefit from their innovation and investment.

Patent rights are not automatic. You must apply to the national or regional intellectual property office in each separate jurisdiction where you seek patent protection. This process can be expensive, given that it entails application fees and annual maintenance fees, in addition to legal fees and possibly costs associated with the translation of documents into other languages. The maximum period of patent protection in most countries is 20 years from the date on which the patent application is filed.

Patent rights are limited to the jurisdiction in which they are granted. There is no such thing as a single worldwide patent. Certain international legal frameworks facilitate the process of patent application in multiple countries. These laws include the *Paris Convention* and the *Patent Cooperation Treaty*. These treaties are administrative rather than substantive, which means that you must apply for and have a patent in each country where you want to exercise exclusive rights in the invention.

After a patent has expired, any person can use the invention and can benefit from the disclosures made in the patent application. Furthermore, anyone can access the disclosed information, and produce and market the invention in any country where a patent has not been granted. This is true even while active granted patents exist to protect the invention in other countries. Due to the limited scope of patent rights, it is important for inventors to decide whether patenting is the best option to protect their inventions. An alternative strategy involves trade secrets, which offer perpetual protection, provided that the secret is maintained. Another alternative is to place the invention into the 'public domain' by publishing details about the invention. Doing so prevents others from obtaining a patent for the same invention, while allowing others to use the invention freely.

Criteria for patent protection

To obtain a patent, an invention must satisfy several criteria, the precise definitions of which vary from country to country. However, in general an invention must demonstrate:

- Patentable subject matter;
- Novelty;
- Inventive step; and
- Utility (usefulness or industrial applicability).

As far as patentable subject matter is concerned, generally, countries make patents available for inventions in all fields of technology, provided that they are new, inventive, and useful.

However, countries may exclude certain categories of inventions from patentability, including where it is necessary to protect '*ordre public*' or morality. For instance, an invention may not be patented if doing so would harm human, animal, or plant life or health, or would result in serious prejudice to the environment.

Furthermore, some countries exclude certain specific categories of inventions from patentability. These may include diagnostic, therapeutic, and surgical methods for the treatment of humans or animals. Additionally, many countries exclude from patentability plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals (other than non-biological and microbiological processes).

An invention is novel if the invention has not been publicly disclosed prior to the date of the patent application anywhere in the world. This means that it is crucial for inventors to maintain confidentiality if they discuss the invention with anyone before the patent application is filed and published. Written confidentiality agreements are strongly recommended if the inventor discusses the invention with other people.

In most countries, it is possible to conduct 'reasonable trial or experiment' on an invention prior to filing a patent application without destroying novelty, but care needs to be taken in doing so. It is strongly recommended that inventors obtain specific advice about any research trial, particularly if the trial will occur in a place that is publicly accessible.

In some countries, the law recognises a 'grace period' that allows novelty to be preserved even if the invention has been publicly disclosed. However, not all countries recognise grace periods for public disclosures. This means that a patent application that relies on a grace period in one country may be invalid in other countries. Third parties who use an invention during the grace period and before a patent application is made will retain their rights to use the invention.

Even if the invention is novel, it will not be valid unless it is also 'inventive'. This means that the invention must not be an obvious approach to solving a known problem. Inventiveness is judged according to what a non-inventive skilled person in that field would try if faced with the same problem.

Additionally, in some countries, the invention cannot be patented if it is not susceptible or capable of industrial application.

Patent holder's rights

The owner of a patent has the exclusive right to commercialise the invention in the country in which patents are held for the life of the patent (usually 20 years from the filing date of the application). In return, the patent holder is required to fully disclose the invention to the public, so that others can learn from the invention, and use it when the patent expires.

Defences

Patents can only be infringed where the patent is valid (see above), and where all of the elements of the invention are infringed. For example, if a patent claims 5 essential features, another product or process that utilises or incorporates 4 of those 5 features will not infringe the patent.

Patent laws in many countries include a 'research exemption' that allows researchers to conduct experiments on a patented invention without infringing the patent. In many countries, use of an invention by a government, a government authority, or a person authorised in writing by the government will not infringe a patent. However, in these situations, the law usually requires compensation be paid to the patent owner.

Many intellectual property professionals offer advice and assistance about patents. These include registered patent attorneys or agents, patent lawyers, and patent search firms. The services that these entities provide range from professional searches of intellectual property databases, to advice about how to protect and commercialise inventions, to legal representation to enforce patent rights.

Patents and plant breeder's rights

In some countries, it is possible to protect plant varieties under two legal frameworks, namely patents and plant breeders' rights. However, there are important differences between the two regimes. For example, there are defences available under the plant breeder's rights scheme (e.g., the 'farmer's privilege' to save and re-use farm saved seed) that typically are not available under patent law (*see* Fact Sheet 2: Plant Breeder's Rights).

This research was conducted by the *ARC Industrial Transformation Training Centre for Uniquely Australian Foods* (IC180100045) and funded by the Australian Government.

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