

Intellectual Property for Food Science and Technology

In the first of a series of articles, Michael Moore provides an introduction to the complex world of intellectual property with an emphasis on its management in the food science and technology fields

Part 1: Raising awareness

So you have a great idea but you don't know what to do with it. Maybe you have a new product and you want it to stand out from the crowd, or you have found a more efficient, simpler or cheaper method for producing your product. Perhaps your company has a core technology that is vital to the success of your business. How can you protect your interests against your competitors and ensure that your business and products can compete with multinational corporations in the global marketplace?



Intellectual property (IP) is generated through creative or intellectual activity and IP rights provide a legal means by which its owner can control the use and exploitation of that IP, for example, by preventing copying or use, or through licensing. IP rights form the bedrock of most global brands

and multinational corporations. However, any thought that IP is the preserve of these multinationals, or the mad garden-shed inventor, should be dispelled. Any business that invests in some form of creative or intellectual output, whether it be in R&D, manufacturing, product formulation, packaging, marketing, media, or sales and distribution needs to be IP aware. It is both surprising and worrying how many UK companies do not even think about protecting their investment in innovation. For these companies, their first exposure to IP may come when they receive a letter from a competitor's solicitor asking them to stop infringing an IP right. It is perhaps just as concerning how many companies that consider themselves to be "IP aware" have missed significant opportunities to capitalise further on their creativity or innovation. This can be for any number of seemingly valid reasons, for example, because of the pressures of delivering a product to a customer on time and in budget, or of completing a project to meet an internal deadline. But, if you have invested time and effort in innovation that may set your company apart from its competitors, unless you put in place the appropriate IP protection, it may only be a matter of time until those competitors are doing exactly the same thing as you. After all, imitation is easier than innovation.

Broadly speaking, there are two general types of IP rights: those

that arise automatically and are not officially registered (i.e. unregistered rights), and those that, to exist, must be registered and actively maintained (i.e. registered rights). Unregistered rights include copyright, unregistered designs, goodwill, know-how and trade secrets. Whilst it may seem reassuring to know that there are a number of IP rights that can exist automatically, this should not breed complacency. Often such unregistered rights offer little protection against an aggressive competitor. For example, in the case of confidential know-how and trade secrets, once the relevant knowledge has been disseminated into the public domain its value as "IP" is lost. In the case of copyright and unregistered designs, in the event of a dispute, the right-holder must prove not only the existence of the right but also that there was actual and direct copying by the alleged infringer. This can be a difficult task and could require a large expense in even trying to establish these facts, as was famously seen in the recent "The Da Vinci Code" case. For these reasons, registered rights, such as patents, trade marks and registered designs can provide much more clearly defined and enforceable exclusivity in any given sphere.

In practice, identifying the IP right(s) that best cover(s) a particular intellectual or creative work can be quite challenging, often because more than one form of protection may work in concert to cover different aspects of a service, or different features of a product or process. In other cases, a better business decision might even be not to register an IP right, but instead to maintain its secrecy (e.g. the recipe for Coca Cola® or the ingredients in KFC®). With a little IP awareness, you can help ensure that your organisation maintains its competitive advantage. The following sections introduce the different types of IP rights that are available and relevant to those in the food science and technology sectors.

Patents

Patents provide protection for inventions that have a technical character. In addition, the invention

must be: (i) **novel**, meaning that it has not been previously published or publicly disclosed; (ii) **inventive**, i.e. it is not an obvious development over what was already known; and (iii) **industrially applicable**, which means that it can be used in industry or agriculture or made by an industrial process. The requirement for an invention to be novel cannot be emphasised strongly enough. If you reveal your invention to any person outside of your organisation and who is not under an obligation of confidentiality, your invention will probably no longer be patentable. Therefore, put confidentiality agreements (sometimes called CDAs or NDAs) in place and, if in doubt, seek professional advice.

The food science and technology industry is currently experiencing rapid technical advances, which are set to continue with the growing interest in, for example, functional foods and nutraceuticals; and, in view of the increasing crossover that exists with pharmaceutical chemistry and biotechnology, patents are now highly relevant. A patent may provide protection for a novel microorganism, plant or animal that has been genetically modified to produce a particular chemical (e.g. a food ingredient or additive). It may also protect a new synthetic process, a molecule produced by that process, or the use of that molecule to produce a particular effect, for example, a flavour, aroma, texture or stability. It is also possible to patent a new and improved composition, or a method or apparatus for making or testing a composition. With shelf-life, nutrition and health becoming increasingly important to today's consumer, machines, techniques and processes for testing or monitoring food quality may all provide patentable subject-matter. Robots or other machines used for performing tasks, such as packaging of food products, and different types of packaging are also candidates for patent protection.

A patent is commonly described as a "monopoly right", meaning that it gives its owner the right to prevent everyone, other than people authorised by the owner, to use,

produce, sell, import or keep anything that falls under the protection of the patent. But, don't fall into the trap of thinking that having a patent gives you the right to use your invention: it does not! The owner of a patent may be prevented from using a patented invention by law, or more commonly by the existence of an earlier patent that covers similar technology. The latter highlights why it is important not to be complacent when it comes to safeguarding your own freedom to use a particular technology, and demonstrates how your patents can prevent a competitor taking advantage of your success. A patent is an item of personal property and, like any other property, it can be bought, sold or licensed.

Patents have a lifespan of 20 years from the filing date of the application (subject to the payment of annual fees), and have a territorial effect. Therefore, a patent granted in the UK gives rights in the UK only. Contrary to the common misconception promoted by television programs such as *Dragons' Den*, there is no such thing as an "international patent". That said, there are a number of systems in place to help individuals and companies obtain patent rights internationally. The European Patent Organisation (EPO) provides a means by which a single patent can take effect in most (currently 34) European countries. The Patent Cooperation Treaty (PCT) provides a mechanism for filing a single international patent application, which could later give rise to patents in any of the 139 member countries of the PCT. For many companies, Europe, the USA, Japan, Australia, Canada, China and increasingly India are the favoured territories for filing patent applications. However, there is no one-fits-all solution, and the best IP strategy is always based on commercial as well as financial considerations.

Trade marks

A trade mark is a sign which is capable of distinguishing the goods

and/or services of one business from those of another. Typically, a trade mark consists of words, names, numbers, shapes, logos or devices (pictures), or a combination of these elements. However, colours and even smells can also act as a trade marks, provided they can be graphically represented and are capable of distinguishing.

Trade marks can arise through registration or by use and are, perhaps, the most common and easily recognised form of IP right in the food industry. Most products have a trade name or trade mark and consumers are adept at recognising them. For example, everybody knows that the name "Coca Cola®" is a trade mark. Some people will be aware that the contoured Coca Cola® bottle is also a trade mark. A few people may even know that Cadbury has trade marked the purple hue used in their wrapping when used in connection with chocolate. However, despite our relative familiarity with trade marks, how many people realise that the symbol ® should be used to represent a registered trade mark, whereas the symbol "TM" should be used where the trade mark is not registered.

Trade marks can be important marketing tools for your business and, unlike patents, a trade mark can last forever (subject to payment of renewal fees). However, it is important that a trade mark is correctly represented on goods and/or services (i.e. as an identifier), and does not become descriptive for those goods or services, as can be seen with "Hoover®", which is often used in place of the verb "to vacuum [clean]", Kleenex® and others well known brands.

Trade marks are territorial rights and so a trade mark registered in the UK has effect only in the UK. As with patents, however, international treaties and laws are in place to make it easier for a trade mark owner to register a trade mark in several countries simultaneously. For instance, a Community trade mark covering the entire European Community can be obtained by registering a trade mark at the Office for Harmonisation in the Internal Market (OHIM). Similarly, by filing

a trade mark application via the Madrid System, an international trade mark can be obtained in those member states.

A trade mark is registered only in connection with specific categories (or "classes") of goods and/or services. This has the interesting consequence that it can enable different companies to use very similar or identical trade names or marks, provided that the respective goods or services of each company are sufficiently different to avoid confusion. But, a valid trade mark gives its owner the legal right to prevent others from using a similar mark in connection with the same or similar goods. In other words, it allows the trade mark owner to prevent others (e.g. a competitor) from using marks that imitate or could be confused with an existing trade mark.

Registered designs

Registered designs protect the physical appearance of an article (or part of an article), such as its shape, configuration, pattern or ornamentation, including features of lines, contours, colours, texture or material. To be registrable, a design must be "new", which means it must not be the same as any known design; and have "individual character", which essentially means that it gives a different overall impression to any previously known design. As an exception to the normal meaning of "new", a design owner may still file an application for a registered design in the UK within 12 months of first disclosing the design to the public; so if you have recently shown your new design to a potential customer, for example, it may not be too late to protect it.

It is possible to register a design in connection with almost any "article", whether it is mass-produced in industry, or a unique handicraft object. In the food science and technology field, a registered design may be used to cover a new type of packaging or the features of an electrical apparatus, such as a toaster. Since a registered design can cover

the whole or part of an object, a complicated item may be protected by many different designs. Interestingly, a registered design may even protect the appearance of a food item, for example, a specially shaped Yorkshire pudding or the shape of a teabag.

Registered designs provide similar rights to those of patents, in the sense that they can be enforced to stop unauthorised persons from using, making, selling or importing a product having an infringing design, for a maximum term of 25 years (subject to payment of renewal fees). As with other forms of IP rights, it is possible to obtain registered design rights internationally. For example, the registered Community design (RCD) offers comparable protection in all European Union (EU) member states.

Finally, it is also worth mentioning UK "design right", which applies to three-dimensional objects, and unregistered Community design protection. Both arise automatically from the date the design was first displayed to a member of the public, and entitle the owner to prevent the direct copying of the design. Whereas EU design right lasts for only 3 years, UK design right exists for 15 years. However, these rights are of limited value, since actual copying must be proved and, in the case of UK design right, it does not apply to surface decoration, such as artistic designs.

Copyright

Copyright relates to the expression of an idea, rather than to the idea itself. Thus, it applies to original literary, artistic or graphical works, including software programs. A copyrighted work cannot be copied (e.g. reproduced), without the consent of the owner, for the term of the copyright, which, in most cases, is the life of the author (or creator) plus 70 years. The best way to indicate that a work is protected under copyright law is to display the symbol © along with the name of the copyright owner and the year of the work.

Copyright is particularly relevant

to the design, imagery and labelling of packaging, and also applies to two-dimensional design drawings, such as plans, for example, for new packaging or machinery.

Going global

In the global marketplace, UK companies in the food science and technology field need to look to protect their IP abroad, as well as in the UK. As outlined above, most IP systems work internationally and so it is generally straightforward to secure protection in key foreign markets. By way of example, key sales markets might typically include Europe, the USA, Canada, Australia and Japan; whereas, key manufacturing localities might be extended to include China and India.

Ultimately, IP is nothing without a business context. Patents, designs and trade marks, for example, although considered to be real property in the eyes of the law, are of limited value if they do not contribute to a clear commercial plan. While having IP cannot guarantee commercial success, it can certainly help. For some, IP is an insurance policy against competitors, and for others it is a means to consolidate their creative investment or build a trusted brand. One thing is certain, IP is becoming rapidly more important in food science and technology, and you ignore it at your peril.

Further information

The UK Intellectual Property Office: www.ukipo.gov.uk.
The Chartered Institute of Patent Attorneys: www.cipa.org.uk.
The Institute of Trade Mark Attorneys: www.itma.org.uk.

The views expressed herein are those of the author and not of Keltie and do not constitute legal advice.

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