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EXECUTIVE SUMMARY

The ERA-NET MARTEC II (2011 – 2014) is an EU funded project in the 7th Framework Programme. The MARTEC partnership consists of 16 partners and 10 observers from 22 European countries.

As a contribution to the development of the European Research Area, the objective of MARTEC is to form a sustainable network and partnership of key funding agencies and ministries aiming at deepening the understanding of conditions for management of maritime technologies research between the key European countries actively funding RTD in this sector. In co-operation with the European industrial maritime cluster and other stakeholders this network intends to work out a strategy for future maritime technological research funding through trans-national programmes and calls which are coherent with the European research policy and the strengthening of the European Research Area.

Although MARTEC will put particular emphasis on the co-ordination of national R&D programmes which are strategically planned to provide funding for projects which contribute to improving the international competitiveness of the European shipping and marine technology industry, the consortium thinks is extremely important to aware the sector about all issues related to the innovation process and how to deal with them.

In this respect, Intellectual property protection is critical to fostering innovation. Without protection of ideas, businesses would not reap the full benefits of their inventions and would focus less on research and development.

On the other hand, for developing a certain technology, we must invest in scarce resources (money, labor, time, etc) and in the absence of a positive outlook from the economically and morally point of view, the volume of production of these products would be greatly reduced, especially in those obtained by private companies.

It is reasonable to assume that protection through the IPR system increases the average return on inventive activity devoted to inventions protected and therefore more likely to induce such inventive. It can be assumed therefore that the removal of such protection would have the effect of reducing the production of such inventions but we do not know is how much.

Piracy, counterfeiting and the theft of intellectual property assets pose a serious threat to all businesses. Exporters face unfair competition abroad, non-exporters face counterfeit imports at home and all businesses face legal, health and safety risks from the threat of counterfeit goods entering their supply chains.

Most SME's are not aware that their patent or trademark does not protect them in other countries. If you are an exporter, or think you might want to export in the future, you will need to seriously consider securing protection for your intellectual property (IP) in those

foreign markets of interest to you. It is a good idea to get the appropriate forms of IP protection before you start doing business in another country.

Thorough this document, we will try to have an overview about the IPR.

In the first chapter, is described the technology characteristics and why these affect to the ownership and trade of technology.

In chapter two, it will be briefly described the different means of protecting intellectual property Rights, whatever these apply to the maritime sector or not.

Once the general description of IPR is done, the chapter three will focus on patents, the most important protection for technological innovations. This chapter has been structured in a question-answer sequence trying to answer the main issues related to the process and the most usual difficulties arisen for companies when they try to get protection through the patent system.

Although there are a quite unified criteria for patenting all around the world, with international conventions as the TRIPS, the most important differences in the patent system of some countries (mainly USA, Europe and China) are handled.

As much as possible, the different issues are illustrated with real examples of the questions described.

Finally, due to Markets for technology are increasingly important for the circulation of knowledge and patents play a pivotal role in the development of technology transactions, the chapter four deals with the technology transfer and what is important for considering in a Technology Transfer Agreements.

INTRODUCTION TO INTELLECTUAL PROPERTY RIGHTS

1. INTRODUCTION TO INTELLECTUAL PROPERTY RIGHTS.

The Human beings, by the simple fact of being, think in a spontaneous way (or at least supposedly) and analyzes everything that surrounds him. In many cases this "thought" creates knowledge without apparent effort. Other times, however, it takes large amounts of human and financial resources.

The knowledge generated, as a public good, has effects on those who have not participated in the process, i.e. has effects or externalities for others which are not likely be internalized

What is a public good?

This question can be answered better if we first try to answer what a private good is. Private goods are those which are traded on the market. Buyers and sellers reach an agreement through a price mechanism. Accomplished, a transaction occurs. Typically, private properties are mutually exclusive, have clearly identified owners and their use involves rivalry. For example, if one individual visits a doctor there is one fewer doctor's visit for everyone else, and it is possible to exclude others from visiting the doctor. This makes doctor visits a rivaed and excludable private good.



Public good is a good that is non rival and non-excludable. Other example is the exchange of MP3 music files on the internet: the use of these files by any one person does not restrict the use by anyone else and there is little effective control over the exchange of these music files and photo files.

Non-rivalry means that consumption of the good by one individual does not reduce availability of the good for consumption by others; and non-excludability that no one can be effectively excluded from using the good.

Technological knowledge (the technology), as a public good, raises a number of problems:

- It is difficult to establish rights over technology
- The technology is subject to indivisibilities and there is no rivalry in consumption.
- The trade of technology arises problems of adverse selection

It is difficult to establish rights over technology

The expectation of future returns is the primary stimulus for investments. Companies innovate and invest in R & D to improve and develop new products or production processes with the expectation of increasing profits in the future. Unlike most productive investments (facilities, industrial equipment, etc.) investment in R & D are very difficult to protect. R & D produce intensive information results that can be easily reproduced with virtually no cost.

Therefore, the possibility of a rapid dissemination of these results and, as a result, a reduction of the expected benefits, is a strong disincentive to innovative activities.

This problem is partly solved by legislation on protection of Intellectual Property Rights

(IPR). The IPR system, to establish property rights on the results of the innovation process, it protect, legally, the innovator against imitators. It guarantees IPR owner's enjoyment of his invention for a period of time. During that period, the innovator enjoys a temporary monopoly and can return on their investment. Thus, the patent system is an incentive for innovative activities.

However, patent law and intellectual property in general does not allow to protect everything and moreover it does not provide perfect protection over all information generated in the innovation process.

The technology is subject to indivisibilities and there is no rivalry in consumption

The second problem arises from technological knowledge is an indivisible good and there is no rivalry in consumption. The indivisibility implies that when information is available to a person, you can not prevent to be available for others as well. Typical example of indivisibility is presented in MP3 music files. The cost of one other person using a song is nearly zero. In this case the marginal cost of increasing the number of users of information is zero and says there is no rivalry in consumption.

At first glance it may seem socially desirable to have facilities for all individuals can access the results of innovation. However, this characteristic of public goods discourages innovative activities. Companies, when decide how much to invest in R & D, only set in the returns they can

The free rider problem

Public goods provide a very important example of market failure, in which market-like behavior of individual gain-seeking does not produce efficient results. The production of public goods results in positive externalities which are not remunerated. If private organizations don't reap all the benefits of a public good which they have produced, their incentives to produce it voluntarily might be insufficient. Consumers can take advantage of public goods without contributing sufficiently to their creation. This is called the free rider problem, or occasionally, the "easy rider problem" (because consumer's contributions will be small but non-zero). If too many consumers decide to 'free-ride', private costs exceed private benefits and the incentive to provide the good or service through the market disappears. The market thus fails to provide a good or service for which there is a need. The fireworks example illustrates the related free-rider problem. Even if the fireworks show is worth ten dollars to each person, arguably few people will pay ten dollars to the entrepreneur. Each person will seek to "free ride" by allowing others to pay for the show, and then watch for free from his or her backyard. If the free-rider problem cannot be solved, valuable goods and services—ones people otherwise would be willing to pay for—will remain unproduced.



get, not the benefits accruing to others. However, innovators can never appropriate all the benefits generated by their innovations. Even when patented (especially when patented), there is always a part of the benefit which passed on to consumers, competitors and society as a whole and that is the basis of the patent system, temporary monopoly in exchange for making information public (it is a compromise between the interests of the individual and society)

The trade of technology arises problems of adverse selection

The last problem involved in innovative activities is reflected in the commercialization of their results. The fact that technology has the characteristics of information-intensive

public goods fosters the opportunistic behavior of agents. In general terms, opportunism refers to the incomplete or distorted disclosure of information, especially the deliberate efforts to mislead, distort or conceal. Opportunism is responsible for the existence of asymmetric information that hugely complicates the problems of economic organization. In technology transfer, ex-ante opportunism (known as adverse selection) reflects the inability of buyers to judge a priori the intentions of the sellers when they conceal certain aspects of innovation. In most cases, the potential buyer of the technology can not judge in advance the value of the information they purchase. If the seller is behaving in an opportunistic manner and holds some of the information, the buyer may not base its decision on optimal criteria.

These problems also affect the sellers, as the buyer when accessing all the information and deciding on the purchase may act opportunistically. In this case, adverse selection refers to the risk faced by sellers when supply all the information to buyers before entering into the transaction. Given the risk from opportunistic behavior are not easy solutions. The only way to improve efficiency is the drafting of confidentiality or technology transfer agreements

Given all these problems, what can we do?

According to economic theory of property (which comes from David Hume), society should define and protect private property rights because goods are scarce. It makes no sense to define property rights on goods when they exist in abundance.

On the other hand, when goods are scarce and property is communal, they are not used efficiently. Private property ensures that scarce resources will be used in the most efficient and productive way. To ensure efficient use, the important thing is that someone has control of the property regardless of the source of that control (public provision, etc).

According to those opposing the IPR system, it is difficult to justify those under the concept of ownership, as these do not arise from the scarcity of the appropriate objects, but rather its purpose is to create a scarcity, thereby generating a monopoly for holders of law: here the law does not protect the ownership of a scarce, but the law is established for the purpose of creating a shortage not existed before.

As an argument in favor of the IPR system, we must remember that for developing a certain technology, we must invest in scarce resources (money, labor, time, etc) and in the absence of a positive outlook from the economically and morally point of view, the volume of production of these products would be greatly reduced, especially in those obtained by private companies.

It is reasonable to assume that protection through the IPR system increases the average return on inventive activity devoted to inventions protected and therefore more likely to induce such inventive. It can be assumed therefore that the removal of such protection would have the effect of reducing the production of such inventions but we do not know is how much.

Against the IPR.

There are many opinions opposing the IPR system and a good example of this is the ironic event of a poet and casino waitress from Bristol, who angered at the mass patenting of human genes by science and big business, was trying to become the first person to patent herself.

Donna MacLean's application gave number - GB0000180.0 - by the UK patent office. In a letter, officials told Ms MacLean that they would check the legality and originality of the application if she sent them a £130 fee.

To patent an invention, the inventor has to prove it is novel and useful. In her application, Ms MacLean claimed she is both.

- "It has taken 30 years of hard labor for me to discover and invent myself, and now I wish to protect my invention from unauthorized exploitation, genetic or otherwise," she wrote.
- "I am new: I have led a private existence and I have not made the invention of myself public. I am not obvious."
- Ms MacLean said she had many industrial applications. "For example, my genes can be used in medical research to extremely profitable ends," she wrote. "I therefore wish to have sole control of my own genetic material."

INTELLECTUAL PROPERTY RIGHTS.
DIFFERENT MEANS OF PROTECT THEM.

2. INTELLECTUAL PROPERTY RIGHTS. DIFFERENT MEANS OF PROTECTION.

2.1. Introduction

The Convention Establishing the World Intellectual Property Organization (WIPO), concluded in Stockholm on July 14, 1967 (Article 2(viii)) provides that “intellectual property shall include rights relating to:

- literary, artistic and scientific works,
- performances of performing artists, phonograms and broadcasts,
- inventions in all fields of human endeavour,
- scientific discoveries,
- industrial designs,
- trademarks, service marks and commercial names and designations,
- protection against unfair competition, and
- all other rights resulting from intellectual activity in the industrial, scientific, literary or artistic fields.”

The areas mentioned as literary, artistic and scientific works belong to the copyright branch of **intellectual property**.

Example: Rubik's Cube

In 1977, appeared on the shelves of toy stores in Budapest 3x3 cube faces, 26 independent little cubes, and 54 visible faces with different colors in each of the 6 cube faces higher in which each of the layers of 9 cubes could rotate. The name of this plaything was "magic cube".

In a few years sold hundreds of millions of units authorized and pirated items in 1981 was exhibited at the Museum of Modern Art in New York in 1982 "Rubik's Cube" became part of the Oxford English dictionary, and even nowadays is still selling hundreds of thousands of units per year.

Curiously, the Rubik's Cube has not had a legal defense through patent (this was only applied in Hungary). It was the mark "Rubik" and the copyright on the object itself that ensure protection against pirated copies of the cube in all countries.

The cube was created as an object with an inherent artistic interest and which copyright applies not only to the object in 3D but also to any graphical representation of the printed or online, until 70 years after the death of the author.



The areas mentioned as performances of performing artists, phonograms and broadcasts are usually called “related rights,” that is, rights related to copyright.

The areas mentioned as inventions, industrial designs, trademarks, service marks and commercial names and designations constitute the **industrial property branch** of intellectual property. The area mentioned as protection against unfair competition may also be considered as belonging to that branch, the more so as Article 1(2) of the Paris Convention for the Protection of Industrial Property (Stockholm Act of 1967) (the “Paris

Convention”) includes “the repression of unfair competition” among the areas of “the protection of industrial property”; the said Convention states that “any act of competition contrary to honest practices in industrial and commercial matters constitutes an act of unfair competition” (Article 10*bis*(2)).

Neither the copyrights nor trademarks are the significant categories of intellectual property protection of technological innovation itself.

Trade secrets do not make much sense if the ultimate goal is marketing, and innovation that although hidden from the eyes of competitors, when it is placed on the market the product or process, ceases to be secret, and is available to anyone, including those able to unravel how to repeat their achievement. Also, remember that many products of new technologies, including bio-based, are easily reproduced by any moderately equipped laboratory, making it almost impossible to keep secret.

In the following pages, we are trying to describe briefly, the different means of protecting IPR.

2.2. Copyright

With copyrights are protected various creations of the human mind among which are included written and musical works, paintings and sculptures, and other more technological content such as computer programs.

Copyright law protects only the form of expression of ideas, not the ideas themselves. The creativity protected by copyright law is creativity in the choice and arrangement of words, musical notes, colours, shapes and so on. Copyright law protects the owner of rights in artistic works against those who “copy”, that is to say those who take and use the form in which the original work was expressed by the author.

The owner of copyright in a protected work may use the work as he wishes (but not without regard to the legally recognized rights and interests of others) and may exclude others from using it without his authorization. The rights bestowed by law on the owner of copyright in a protected work are frequently described as “exclusive rights” to authorize others to use the protected work.

The original authors of works protected by copyright also have “moral rights”, in addition to their exclusive rights of an economic character. In this way, The Berne Convention requires member countries to grant to authors:

- The right to claim authorship of the work;
- The right to object to any distortion, mutilation or other modification of, or other derogatory action in relation to, the work which would be prejudicial to the author’s honour or reputation.

These rights remain with the author even after he has transferred his economic rights.

The right of the owner of copyright to prevent others from making copies of his works is the most basic right under copyright. For example, the making of copies of a protected work is the act performed by a publisher who wishes to distribute copies of a text-based work to the public, whether in the form of printed copies or digital media such as CD-ROMs. Likewise, the right of a phonogram producer to manufacture and distribute compact discs (CDs) containing recorded performances of musical works is based, in part, on the authorization given by the composers of such works to reproduce their compositions in the recording. Therefore, the right to control the act of reproduction is the legal basis for many forms of exploitation of protected works.

A & M Records vs. Napster. The first P2P lawsuit

A & M Records vs. Napster was a major intellectual property case that took place in 2001, pertaining to the illegal file sharing of MP3 music files, which the record industry claimed was copyright infringement. The United States Court of Appeals for the Ninth Circuit affirmed the decision of the United States District Court, for which the Northern District of California held the defendant, Napster, may be liable for contributory infringement and vicarious infringement of copyrights held by companies within the music industry. This case was responsible for bringing peer-to-peer file sharing services into public attention, which could potentially be used to illegally share copyrighted material, and was the first of several other similar cases.

Although the case is referred to as "A & M Records v. Napster", the list of plaintiffs extends beyond just A & M Records. There were a total of eighteen plaintiffs listed against Napster in the District Court suit, all subsidiaries of the "big four" record companies-- Universal Music Group, Sony Music Group, Warner Music Group, and EMI. All four companies are members of the Recording Industry Association of America (RIAA), a group formed in 1952 which represents the recording industry distributors within the United States, making up more than 80 percent of all music officially released in the U.S.

Napster was a company formed by eighteen year old Shawn Fanning at Northeastern University. Napster was the first user-friendly peer-to-peer file sharing service, which allowed any user to access other users' MP3 files, which were easily downloaded. Napster also introduced a simple searching ability from their central server, allowing users to quickly access a list of available files which they would be searching for. Napster quickly rose in popularity to its peak in 2001, as millions of users continued downloading song files for free from other computers around the world.

The record companies involved in the case filed to place a preliminary injunction to cease the exchange of files, which they claimed violate music copyright law. They also sought claims against Napster for contributory and vicarious copyright infringement. To counter this argument Napster defended itself through fair use and substantial non-infringing use, also claiming that the injunction requested by the record companies violated their First Amendment right to free speech. Judge Marilyn Hall Patel ruled that the record companies had a valid argument against Napster and had successfully proved irreparable harm to the record industry through music copyright infringement. The injunction against Napster was granted and the judge ordered a plan of action to be taken by Napster to remove files protected under music copyright from their network. Napster immediately appealed to the decision to the United States Court of Appeals for the Ninth Circuit.

Napster actively countered the injunction decision through a argument. The court, however, decided that even though Napster did not directly profit off of the material that was distributed over their networks, the excessive copying of works constituted music copyright infringement. The Ninth Circuit consequently agreed with the District Court's conclusion that Napster jeopardized the record industry's sales.

Napster identified three points of fair use in which its service properly used copyrighted material:

- Napster claimed that the network could be used to "sample" MP3 music files for a user to make a decision of whether or not to purchase the record.
- "Space-shifting" was also claimed by Napster, a concept in which a user who already owns a legal copy of the music may legally download the MP3 file through Napster's network. This argument was proven invalid because when a user downloads a file in Napster, it is immediately made available to other users.
- Napster also identified permissive distribution in its fair use arguments, in which an artist can give permission for distribution of copyrighted music through Napster's system. The court allowed this practice to continue.

The court also found that since Napster had the ability to regulate what its users distribute over its networks, they had a responsibility to prevent music copyright infringement from taking place.

<http://copyright.laws.com>

Another act requiring authorization is the act of public performance; for example, public readings, dramatic and musical performances before an audience. The right to control this act of public performance is of interest not only to the owners of copyright in works originally designed for public performance, but also to the owners of copyright, and to persons authorized by them, when others may wish to arrange the public performance of works originally intended to be used by being reproduced and published. For example, a work written originally in a particular way in order to be read at home or in a library may be transformed (“adapted”) into a drama designed to be performed in public on the stage of a theatre.

The third act to be examined is the act of making a sound recording of a work protected by copyright. So far as music is concerned, sound recording is the most favored means of communicating a work to a wide public. This serves much the same purpose for musical works as books serve for literary works.

Sound recordings can incorporate music alone, words alone or both music and words. The right to authorize the making of a sound recording belongs to the owner of the copyright in the music and also to the owner of the copyright in the words. If the two owners are different, then, in the case of a sound recording incorporating both music and words, the maker of the sound recording must obtain the authorization of both owners.

The owner of copyright in a work is generally, at least in the first instance, the person who created the work, that is to say, the author of the work. There can be exceptions to this general principle. Such exceptions are regulated by the national law. For example, the national law may provide that, when a work is created by an author who is employed for the purpose of creating that work, and then the employer, not the author, is the owner of the copyright in the work.

It is to be noted, however, that the “moral rights” always belong to the author of the work, whoever may be the owner of the copyright.

In many countries, copyright (with the exception of moral rights) may be assigned. This means that the owner of the copyright transfers it to another person or entity, who becomes the owner of the copyright.

Copyright does not continue indefinitely. The law provides for a period of time, a duration, during which the rights of the copyright owner exist. The period or duration of copyright begins with the creation of the work. The period or duration continues until sometime after the death of the author. The purpose of this provision in the law is to enable the author’s successors to have economic benefits after the author’s death. It also safeguards the investments made in the production and dissemination of works.

In countries which are party to the Berne Convention, and in many other countries, the duration of copyright provided for by national law is the life of the author and not less than fifty years after the death of the author. In recent years, a tendency has emerged towards lengthening the term of protection.

Example: Mickey Mouse Protection Act.



In USA, the **Copyright Term Extension Act (CTEA)** of 1998 extended copyright terms in the United States by 20 years. Since the Copyright Act of 1976, copyright would last for the life of the author plus 50 years, or 75 years for a work of corporate authorship. The Act extended these terms to life of the author plus 70 years and for works of corporate authorship to 120 years after creation or 95 years after publication, whichever endpoint is earlier. Copyright protection for works published prior to January 1, 1978, was increased by 20 years to a total of 95 years from their publication date. This law, also known as the **Sonny Bono Copyright Term Extension Act** effectively "froze" the advancement date of the public domain in the United

States for works covered by the older fixed term copyright rules, like Mickey Mouse (This is the reason why this Act is pejoratively known as the **Mickey Mouse Protection Act**. A major proponent of the act was the Walt Disney Company. This is because the first copyright relating to Mickey Mouse was set to expire in 1999, and the enactment of the Sonny Bono Act extended this copyright until 2019, keeping Mickey Mouse out of the public domain)

In EU, the Copyright Duration Directive (93/98/EEC) set up the term of 70 years from the death of the author (*post mortem auctoris*, pma) for authors' rights (Art. 1), longer than the 50 year *post mortem auctoris* term required by the Berne Convention for the Protection of Literary and Artistic Works



The European Union has extended, on 12th September 2011, the term of copyright protection offered to sound recordings from 50 to 70 years, following a prolonged campaign from the music industry. The legislation, which was first proposed by the European Commission in 2008 and voted on by the European Parliament in April 2009, was passed by the EU Council of Ministers in Brussels. The new regulations will be implemented by EU Member State Governments within the next two years. "The new directive intends to increase the level of protection of performers by acknowledging their creative and artistic contributions," said the council of the European Union in a statement announcing the ruling. As a result of the extension, many popular titles released nearly 50 years ago will not fall into the public domain for another 20 years. Chief among the artists to benefit is the Beatles: The band's first single, "Love Me Do," was released in October of 1962. This is the reason why this law is pejoratively known as the **Beatles regulation**, likeness the Mickey Mouse Protection Act.

Certain acts normally restricted by copyright may, in circumstances specified in the law, be done without the authorization of the copyright owner. Some examples of such exceptions are described as "fair use." Such examples include reproduction of a work exclusively for the personal and private use of the person who makes the reproduction; another example is the making of quotations from a protected work, provided that the source of the quotation, including the name of the author, is mentioned and that the extent of the quotation is compatible with fair practice.

2.3. Trademarks

“A good name is better than the greatest of treasures”.
Don Quijote, Cervantes.

Let's review, briefly, the life of any person in any country, over one day:

Mr. X gets up in the morning, he showers with “SANEX”, he puts on a “LACOSTE”, he has “NESPESSO & KELLOGS” for breakfast and he goes to work in his “TOYOTA”. Once he sits at his desk, switches on his “MAC” and writes some notes on a “POST-IT”. During the lunch he will drink a “COCA COLA”. At five, he will come back home to play with the “PLAYSTATION” while he eat “PRINGLES”.

We understand perfectly the text although we have referred only to the mark, without identifying the product to which it refers.

“A trademark is any sign that individualizes the goods of a given enterprise and distinguishes them from the goods of its competitors”. This definition comprises two aspects, which are sometimes referred to as the different functions of the trademark, but which are, however, interdependent and for all practical purposes should always be looked at together.

In order to individualize a product for the consumer, the trademark must indicate its source. This does not mean that it must inform the consumer of the actual person who has manufactured the product or even the one who is trading in it. It is sufficient that the consumer can trust in a given enterprise, not necessarily known to him, being responsible for the product sold under the trademark.

The function of indicating the source as described above presupposes that the trademark distinguishes the goods of a given enterprise from those of other enterprises; only if it allows the consumer to distinguish a product sold under it from the goods of other enterprises offered on the market can the trademark fulfill this function. This shows that the distinguishing function and the function of indicating the source cannot really be separated. For practical purposes one can even simply rely on the distinguishing function of the trademark, and define it as “any visible sign capable of distinguishing the goods or services of an enterprise from those of other enterprises.”

This guarantees the origin of a product, guaranteed by the brand, which allows consumers to buy with more certainty (as the brand owners have more incentive to protect the economic value of maintaining the same quality standards for their products) and protects the manufacturer of counterfeiters trying to sell their own products taking advantage of the reputation of leading brands. The mark identifies the origin of the goods but does not prevent the production of similar (or identical), and therefore does not have the character of the patent monopoly.

Each year, it is published the list of top 100 best global brands (more information can be obtained on the webpage www.interbrand.com). It is understandable that it is so important brands on the lists, like the higher the better. The position obtained provides a greater brand value, which is the most decisive factor in the classification.

The marks may be formed by different types of signs that can range from the name of a person, such as GIORGIO ARMANI, may also have abbreviations such as IBM, emblems or figurative elements as apple of MAC, and even names invented as the LEGO brand. It can also be a three dimensional object as the "arches" of MCDONALS.



A brand must have basically two main characteristics: it must be distinctive and must not be misleading.

As distinctive, we can say the example of the mark "apple". This is an appropriate trademark for computers but it wouldn't be for an apple grower, as the competitors can use it to describe their own products. We say that a distinctive mark is not descriptive of the product you want to identify.

As for be misleading, it could not have a brand called "Bordeaux" for a wine that was not produced under such geographical indication (even for a wine made there to be descriptive).

Sometimes, the mark starts being generically used as a substitute name for the product.

"Escalator," "zipper", and "thermos" are all marks that have lost their protection in parts of the world because people started using those names as substitutes for "moving stairways," "interlocking fasteners" and "vacuum bottles," respectively.

"Hoover", "Jacuzzi", and "Jeep" are still legally protected as trademarks, but are sometimes used by consumers in a generic sense. These names are still widely known by the public as brand names, and are not used by competitors.



**They invented “SUV”
because they
can’t call them Jeep.**

A trademark is said to be generalized when it began as distinctive but has changed in meaning to become generic.

A trademark typically becomes "generalized" when the products or services with which it is associated have acquired substantial market dominance or mind share such that the primary meaning of the generalized trademark becomes the product or service itself rather than an indication of source for the product or service to such an extent that the public thinks the trademark is the generic name of the product or service. A trademark thus

popularized has its legal protection at risk in some countries such as the United States, as unless the owner of an affected trademark works sufficiently to correct and prevent such broad use its intellectual property rights in the trademark may be lost and competitors enabled to use the generalized trademark to describe their similar products. In this way Chrysler recently used "trademark awareness" advertisements to prevent the brand from becoming a generic noun or verb.

A trademark is used by companies as a marketing element that differentiates their products from competition.

To provide some indication of the value of a trademark one needs to look no further than Coca-Cola. Coca-Cola is immediately recognizable. It is an icon for capitalism and private enterprise - and it is (probably) the most valuable piece of intellectual property in the world today. It is still on the first place of trademark's value.

The president of Coca-Cola has even publicly remarked that if all of the company's buildings, vehicles, factories and equipment were destroyed Coca-Cola Inc would emerge from the ruins and rebuild itself provided that the Trademark survived. The loss of the Coca-Cola mark however, would damage the company beyond repair.

It is estimated that Coca-Cola Inc has a stock value of about 160 billion dollars, with the value of the physical assets being put at around 20 billion dollars. The value remaining is therefore about 140 billion dollars. This is made up of its goodwill or the intangibles of the business. So, for a company like Coca Cola, the most valuable intangible that they have is the Coca Cola trademark, the Coca Cola brand. Even if the brand makes up only half of the intangibles of the business then the Brand alone is conservatively worth 70 billion dollars.



Protection of Trademark Rights

A trademark can be protected on the basis of either use or registration. Both approaches have developed historically, but today trademark protection systems generally combine both elements. The Paris Convention places contracting countries under the obligation to provide for a trademark register. Over one hundred and fifty States have adhered to the Paris Convention.

Nearly all countries today provide for a trademark register, and full trademark protection is properly secured only by registration.

Use does still play an important role, however: first of all, in countries that have traditionally based trademark protection on use, the registration of a trademark merely confirms the trademark right that has been acquired by use. Consequently, the first user has priority in a trademark dispute, not the one who first registered the trademark.

Use Requirements

Trademark protection is not an end in itself. Even though trademark laws generally do not require use as a condition for the application for trademark registration, or even the actual registration, the ultimate reason for trademark protection is the function of distinguishing the goods on which the trademark is used from others. It makes no economic sense, therefore, to protect trademarks by registration without imposing the obligation to use them. Unused trademarks are an artificial barrier to the registration of new marks. There is an absolute need to provide for a use obligation in trademark law.

At the same time trademark owners need a grace period after registration before the use obligation comes into effect. This is especially true of the many companies that are active in international trade. In order to avoid loopholes in the protection of their new trademarks of which competitors could take advantage, they must from the very beginning apply for the registration of their new trademarks in all countries of potential future use. Even in their own countries companies often need several years before they can properly launch a newly-developed product on the market.

This is especially true of pharmaceutical companies, which have to make clinical tests and have to apply for approval of their product by the health authorities.

The grace period granted in trademark laws that provide for a use obligation is sometimes three years, but more often five years.

2.4. Industrial Design

An industrial design constitutes the ornamental or aesthetic aspect of an article. A design may consist of three-dimensional features (In some countries known as Industrial Model),, such as the shape or surface of an article or of two-dimensional features(In some countries known as Industrial Design), , such as patterns, lines or color.

Industrial designs are applied to a wide variety of products of industry and handicraft: from technical and medical instruments to watches, jewelry, and other luxury items; from house wares and electrical appliances to vehicles and architectural structures; from textile designs to leisure goods.

To be protected under most national laws, an industrial design must be new and/or original. Novelty or originality is determined with respect to the existing design corpus. An industrial design does not protect any technical features of the article to which it is applied.



What is the true story about the design of the famous contour bottle of Coca-Cola? Much has been written on the subject and over the years has helped create a legend and a myth of what in truth was only a request to amend an obsolete object, into a more dynamic, innovative and different. So different was that even today is reference in the design world and is contained in the Museum of Modern Art in New York (MOMA).

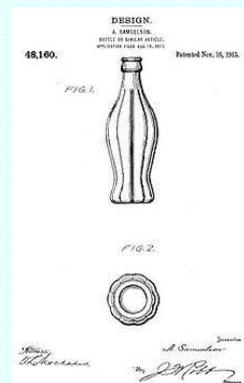
Why this peculiar way?

Go to history. The company needed a makeover for your bottle. Different containers were tested but none provided any conditions imposed by the company. Had to meet a single premise: that it was recognized immediately, the dark, a blind or even broken. The people said everything else ... not true that the form was inspired by the body of a woman, even popular tradition join mythical forms of the famous actress of the day Mae West with the curves of Coca-Cola. Since then, even today, the bottle is popularly known in Atlanta as "le Grand Damme".

"History is full of big mistakes that time is responsible to confirm or deny and the design of the famous bottle was just that: a simple

but huge and successful error.

We are in 1914. The company, already tired of imitators, decides it is time to change the packaging to distinguish once and for all of competitors. For it is in contact with several glassworks to create the first prototypes. In June 1915, Root Glass Company through the artisan Earl Dean looks in the pages of the Encyclopedia Britannica illustrations of the ingredients in soda that somehow inspired the design of the bottle. An illustration of cocoa beans immediately called their attention and how piping gives idea. He produces a few samples before closing the oven, which stopped working in the summer ... and consumed the error. At no time cocoa has been among the ingredients of the original formula of Coca-Cola. The good Earl, in the rush, the cocoa leaf confused with the coca leaf and created, without imagining, the world's most popular package. A mistake, a simple error, the rush and the summer vacation of a craftsman were the causes of this design. The company accepts the new design in 1916, with a capacity of 182 gr. For over 80 years.



When you protect an industrial design, the owner -the person or entity that has registered the design- enjoys an exclusive right against unauthorized copying or imitation of the industrial design by third parties. This helps to ensure a fair return on investment. An effective system of protection also benefits consumers and the general public, promoting fair competition and honest trade practices, encouraging creativity and promoting more aesthetically attractive products.

Protecting industrial design helps economic development by encouraging creativity in the industrial and manufacturing sectors, as well as in traditional arts and crafts. It also contributes to the expansion of commercial activities and export of domestic products.

The industrial design can be relatively simple and inexpensive to develop and protect. They are reasonably accessible to small and medium enterprises as well as for individual artists and craftsmen, in both industrialized and developing countries.

In most countries, an industrial design must be registered in order to be protected under industrial design law. As a general rule, to be registrable, the design must be "**new**" or "**original**". Different countries have varying definitions of such terms, as well as variations in the registration process itself. Generally, "new" means that no identical or very similar design is known to have existed before. Once a design is registered, the term of protection is generally five years, with the possibility of further periods of renewal up to 25 years, depending on the Country.

Depending on the particular national law and the kind of design, an industrial design may also be **protected as a work of art** under **copyright law**. In some countries, industrial design and copyright protection can exist concurrently. In other countries, they are mutually exclusive: once the owner chooses one kind of protection, he can no longer invoke the other.

Under certain circumstances an industrial design may also be protectable under **unfair competition law**, although the conditions of protection and the rights and remedies ensured can be significantly different.

Designs that are generally barred from registration in many territories include:

- designs that do not meet the requirements of novelty, originality and/or individual character;
- designs that are considered to be dictated exclusively by the technical function of a product; such technical or functional design features may be protected, depending on the facts of each case, by other IP rights (e.g. patents, utility models or trade secrets);
- designs incorporating protected official symbols or emblems (such as the national flag);
- Designs which are considered to be contrary to public order or morality.

Some countries exclude handicrafts from design protection, as industrial design law in these countries requires that the product to which an industrial design is applied is "an article of manufacture" or that it can be replicated by "industrial means".

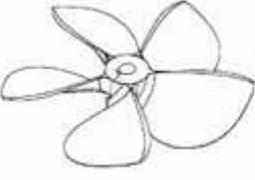
The description needed for registering a industrial design does not have to detail every aspect of the design, but it must state clearly what the design is and what its original

features are. You should describe the visual aspects of the design only, i.e., shape, configuration, pattern or ornament (or any combination of these). Do not refer to how the article functions or performs.

The Office for Harmonization in the Internal Market (OHIM) is the European Union agency responsible for registering trade marks and designs that are valid in all 27 countries of the EU. The mission of the Office is to manage the Community Trade Mark and Community Design registration systems. In order to do so, the Office carries out examination, registration, opposition and cancellation procedures for Community Trade Marks and examination, registration and invalidity procedures for registered Community Designs. The Office engages in cooperation and harmonization activities with National Offices in the EU, as well as with major IP offices outside the EU, including its partners in the Trilateral, and the WIPO.



Example of Industrial designs, registered in OHIM

<p>72  000573308-0001</p> 	<p>Name of owner: Flexitab S.r.l Filing date: 10/08/2006 Locarno class-subclass: 12.06 Verbal element: Indication of the product: Propellers for ships Status: Registered and fully published (A1)</p>
<p>100  000679311-0001</p> 	<p>Name of owner: RESIDENTIAL CRUISE LINES, LTD. Filing date: 27/02/2007 Locarno class-subclass: 12.06 Verbal element: Indication of the product: Ships Status: Registered and fully published (A1)</p>

Under the Hague Agreement Concerning the International Deposit of Industrial Designs, a WIPO-administered treaty, a procedure for an international registration exists. An applicant can file for a single international deposit with WIPO or with the national office in a country party to the treaty. The design will then be protected in as many member countries of the treaty as desired.

2.5. Protection of Semiconductor Products

A semiconductor product is the final or intermediate form of an incorporated circuit in a chip. It has an electronic function.

The topography is the design of the layout, that is, the three-dimensional location of elements and interconnections of an integrated circuit.

Whereas the industrial design determines the external appearance of the device, the topography determines the exact location of each element with an electronic function within the integrated circuit.

The rights granted by this legal title are similar to those for patents, trademarks, and industrial designs, copyright and neighboring rights.



The owner has an exclusive right of exploitation as well as the right to prevent third parties from reproducing, selling or importing parts or the entirety of the protected topography.

This exclusive right of exploitation usually expires:

- 10 years after the first commercial exploitation anywhere in the world, or
- 10 years after the registration was filed with the competent authority, generally the Patent and Trademark Office

The topography of an integrated circuit is the result of a huge investment in terms of both finance and know-how. This is also a field in which there is constant need for improvement, such as reducing the dimensions of integrated circuits. For these reasons, government offices reward these creations of the mind by granting monopoly right of exploitation to the creator.

Topographies of semiconductor products also have considerable commercial value as they can be utilized in a wide range of products. A copy of the design could be done easily by photographing the layers of the integrated circuit. This is why legislation to protect layout designs has been introduced.

Grounds for the request

According to the conditions defined by EEC Council Directive 87/54 of 16 December 1986 and revised by European Communities (Protection of Topographies of Semiconductor Products) (Amendment) Regulations, 1993.

The law said that the legal protection of topographies of semiconductor products, the semiconductor product, must:

- be the creator's own intellectual effort

- be unknown in the semiconductor industry
- meet the above-mentioned conditions if made of a combination of commonplace elements

Registering a topography of a semiconductor product

Topography of a semiconductor product, like other industrial property rights, needs to be registered with the competent administrative authority.

This entails completing an application form and including a description of the topography of the semiconductor product. The description should be clear and complete, provide new technical information for the use of third parties and be written in such a way that it can be understood by a person having ordinary skills in the art.

If filing a claim in a foreign country then an address in that country should be supplied or that of the person holding power of attorney. Other formalities are often required such as the payment of a fee or authentication by a public notary.

The application is then examined by the relevant body in the country concerned; the method used can differ from one country to another.

If protection is granted a certificate is issued to the owner stating that their exclusive rights commence from the date of registration. In cases where protection is refused, the applicant should be given the right to make observations and then appeal.

The application process is described below:

First, it is necessary filing an application for rights to a topography of semiconductor product

- identification of the creator of the topography of semiconductor products
- specification
- graphic or photographic representation

Then, the examination of application by the administrative authority starts.

- national and international screening
- examination by the Patent Office

2.6. Utility Models

The second type of protection of IPR that exists within technical creations, not as extended as the patent, is the utility model. This is an intermediate form between the technical and aesthetic creations.

A utility model is an exclusive right granted for an invention, which allows the right holder to prevent others from commercially using the protected invention, without his authorization, for a limited period of time. In its basic definition, which may vary from one country (where such protection is available) to another, a utility model is similar to a patent. In fact, utility models are sometimes referred to as "petty patents", "short term patents" or "innovation patents."

However, utility models are not a common use form to protect IPR, and they are not available in all countries. According to the Patent Act shall be protected as utility models, according to the provisions of this title, inventions, being new and involving an inventive step, are to give an object a shape, structure or constitution which is advantageous in any appreciable way for its use or manufacture.

From the previous definition follows that utility models are essentially inventions, technical methodology, which are characterized by two fundamental features:

- The shape of the object. The utility model is always in a spatial (two dimensional or three dimensional), must possess a particular configuration and needs to be a form perceptible to the senses.
- Technical advantage. What is protected as a utility model is not technology per se rules or the form itself, but the methodology inventiveness that is manifested in the form, ie, giving an object a certain way is achieved an advantage in using of that object or workmanship.

To get a clearer idea of law it indicates a set of typical objects that may be registered as utility models: "In particular, be protected as utility models: utensils, instruments, tools, appliances, devices or parts thereof".

Differences between patent and utility model

The main differences between utility models and patents are the following:

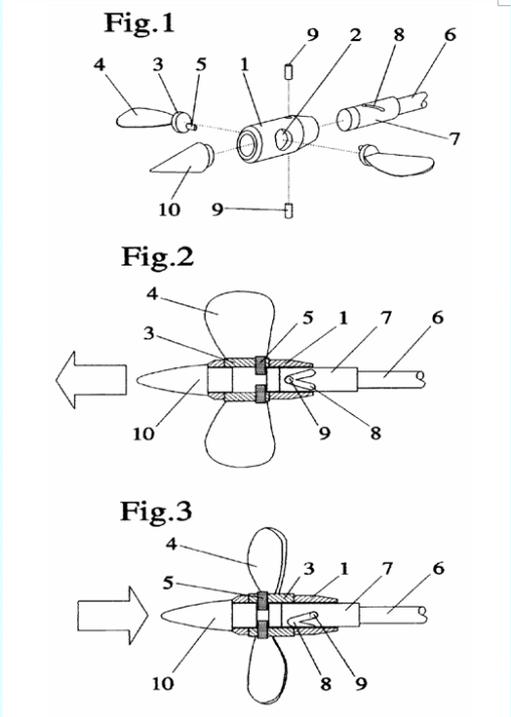
- The requirements for acquiring a utility model are less stringent than for patents. While the requirement of "novelty" is always to be met, that of "inventive step" or "non-obviousness" may be much lower or absent altogether. In practice, protection for utility models is often sought for innovations of a rather incremental character which may not meet the patentability criteria.
- The term of protection for utility models is shorter than for patents and varies from country to country (usually between 7 and 10 years without the possibility of extension or renewal).
- In most countries where utility model protection is available, patent offices do not examine applications as to substance prior to registration. This means that

the registration process is often significantly simpler and faster, taking, on average, six months.

- Utility models are much cheaper to obtain and to maintain
- In some countries, utility model protection can only be obtained for certain fields of technology and only for products but not for processes.

Utility models are considered particularly suited for SMEs that make "minor" improvements to, and adaptations of, existing products. Utility models are primarily used for mechanical innovations.

Example: improved propeller
Registered name: IMPROVED PROPELLER
Registration Code: U9402936
Date of publication: 1995/12/01
Applicant name: GOMILA CIVIT, ADRIA and others
Summary
IMPROVED PROPELLER APPLICABLE TO SPECIAL SAILING AND SAILING COMPETITION, essentially characterized by being formed by a cylindrical body MAIN (1) whose surface has been practiced a plurality of equidistant circular holes (2) we adjust a plurality of BASES REVOLVING (3), SO ONE OF HIS FACE IS ON THE OUTSIDE OF THE CYLINDER AND ONE INSIDE, WHICH PRESENT FOREIGN PARTNER FOR YOUR FACE diagrams or PALA (4) AND ITS AN INSIDE eccentric by (5).



urrently, a small but significant number of countries and regions provide utility model protection. These include: Albania, Angola, Argentina, ARIPO, Armenia, Aruba, Australia, Austria, Azerbaijan, Belarus, Belize, Brazil, Bolivia, Bulgaria, Chile, China (including Hong Kong and Macau), Colombia, Costa Rica, Czech Republic, Denmark, Ecuador, Estonia, Ethiopia, Finland, France, Georgia, Germany, Greece, Guatemala, Honduras, Hungary, Indonesia, Ireland, Italy, Japan, Kazakhstan, Kuwait, Kyrgyzstan, Laos, Malaysia, Mexico, OAPI, Peru, Philippines, Poland, Portugal, Republic of Korea, Republic of Moldova, Russian Federation, Slovakia, Spain, Taiwan, Tajikistan, Trinidad & Tobago, Turkey, Ukraine, Uruguay and Uzbekistan.

In countries where the national legislation does not provide for utility model protection, companies may either apply for a patent or keep the invention as a trade secret.

2.7. Trade Secret

It is considered industrial or commercial secrets, information of industrial or commercial application, including agriculture, livestock, fisheries and mining and quarrying, processing and construction, as well as all kinds of services that keep a person in confidence, which he means obtaining or maintaining a competitive or economic advantage against third parties, in carrying out economic activities for which it has taken reasonable means or systems to preserve its confidentiality and restricted access to it. The information in an industrial or commercial secret shall necessarily relate to the nature, characteristics or purposes of products, production methods or processes of production or the means or methods of distributing or marketing products or services. It is not considered trade secret information that is public, information obvious for people skilled in the art, or information must be disclosed by law or by court order. It is not considered public, the information that is supplied to any authority by a person possessing trade secret, when it is supplied for the purpose of obtaining licenses, authorizations, records or any other official issues.

A trade secret may consist of any formula, model or pattern, device or compilation of information which is used in the business of any person and to provide an opportunity to gain an advantage over competitors who do not know or use that information.

The information that constitutes a trade secret must necessarily be referred to the nature, characteristics or purposes of products, production methods or processes of production or the means or methods of distributing or marketing products or services.

The information related to a trade secret must have an actual or potential commercial value because it is secret, and shall consist of documents, electronic or magnetic media, optical discs microfilms, films or other similar instruments.

Trade secret, has no limitation on its duration, it may stay protected for ever to maintain their confidentiality, can be discovered by others legally independently or through the use of reverse engineering procedure.

What determines something to be considered as a trade secret?

- The extent to which certain information is known outside of the "company".
- The extent to which certain information is known within the company, eg. The employees.
- The precautions taken by the "owner" of the trade secret to keep such information in secret.
- The economic benefits the owner of the information has keeping the information under secret.
- The amount of resources spent for obtaining and developing the information under to secrecy.
- The amount of resources that others would have to invest to achieve the same results.

The secret is very different from a patent. It can not simultaneously be a trade secret

and be patented the same invention, they are mutually exclusive. A patent grants exclusive rights to manufacture and market and sell products covered by the patent in exchange for publishing the invention throughout the world. Therefore, by definition, nothing patented can be secret.

Until a patent is issued, the patent office retains the information of a patent, since there is a possibility that it will not be granted. If this happens we can always resort to trade secrets.

One of the issues faced by many people / companies is whether patenting their developments or keep them as trade secrets. The answer to this question depends on a number of factors, which must be assessed in a careful way. Among the many factors that we take into account are:

- What is the useful commercial life cycle of the product?.
- Is it likely the product can be treated with "reverse engineering"?
- How likely is it that another company can independently develop our invention?
- Is the development new enough to be granted with a patent?
- Is the company able to manage the costs of a patent?

Sometimes, with the answers to these questions it will be easy to make a decision, but not others. A pharmaceutical company that has spent huge amounts of resources in developing new drug, for sure it will patent it. Long time ago, Coca-Cola decided to keep in secret the formula of his soda and this has greatly benefited the company. If it had patented its formula, long time ago the whole world would be making Coca-Cola.

What are reasonable means to protect a secret?

- Restrict access to information where is the secret.
- Conduct confidentiality agreements with employees who have access to information.
- Sign confidentiality agreements with suppliers, customers and subcontractors who have access to information.
- Carry all documents and drawings relating to the industrial secret legends restricting their use and disclosure.

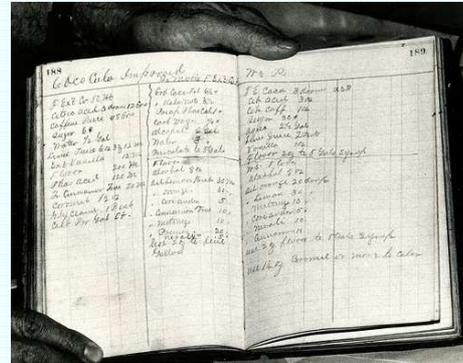
A confidentiality agreement must include a concise description of the trade secret, material applications subject to secrecy, obligations of confidentiality and the period of validity of the agreement. On this last point to note that a trade secret can last indefinitely as opposed to a patent that has a life of 20 years.

In any case, even using all the means to keep a secret, the main drawback of the trade secret to protect intellectual property that can be destroyed by different means:

- Discovery of the invention by third parties.
- Discovery by "reverse engineering", ie starting with the end product and working backward to find the process which has been developed. Always the product must have been obtained by honest means such as by direct purchase from it.

- Obtaining the trade secret through publications.
- By observation of the article in public displays.

One of the most famous examples of a trade secret is **the formula for Coca-Cola**. The formula, also referred to by the code name "Merchandise 7X," is known to only a few people and kept in the vault of a bank in Atlanta, Georgia. The individuals who know the secret formula have signed non-disclosure agreements, and it is rumored that they are not allowed to travel together. In the past, you could not buy Coca-Cola in India because Indian law required that trade-secret information be disclosed. In 1991, India changed its laws regarding trademarks, and Coca-Cola can now be sold in that country.



2.8. Plant varieties

In early history, and as part of the process of establishing fixed settlements and becoming a farmer, man selected and kept seed or plants of those species that offered a secure food source.

By the end of the eighteenth century, when systematic plant breeding by selection began, the plants grown by farmers were the result of several thousands of years of partly conscious, partly unconscious selection. The art of plant breeding resulted from the realization by innovative farmers in the eighteenth century that considerable further progress was possible by systematic selection. In the twentieth century, the rediscovery of Mendel's laws of heredity contributed to the establishment of plant breeding on a scientific basis.

The essence of plant breeding is the discovery or creation of genetic variation in a plant species and the selection from within that variation of plants with desirable traits that can be inherited in a stable fashion. The plant breeders' final selections of superior plants will form the basis of one or more plant varieties. Plant breeders use all available technology both to create genetic variation and to select from within that variation.

Different types of plant variety have been developed, depending upon the physiology of the plants of each species and the ways in which the plants of the species can be reproduced. For example, varieties of rose and potato can be reproduced vegetatively, that is to say, can be reproduced by using a part of a plant as the basis for producing another complete plant. Rose varieties can be reproduced by propagating a bud or a cutting from a plant of the variety. Potato varieties are normally reproduced by propagating a tuber of the variety.

Varieties of grasses and most vegetables and cereals are reproduced sexually, that is by pollination of the female part of a flower (the stigma) by pollen from the male part of a flower (the anther). Here, however, one must make a distinction. The plants of some species, for example wheat, will tolerate, through successive generations, the fertilization of the stigma by pollen from the anthers of the same flower or from another flower on the same plant without loss of vigor. Plant varieties of such species can be based upon a single plant or on a small number of plants which will reproduce themselves precisely through successive generations. All the plants of a variety of this kind, known as "self-pollinated" varieties, will be genetically the same or very similar. The plants of many species are not adapted to self-fertilization or cannot tolerate self-fertilization through successive generations and will become less vigorous if forced to self-pollinate (they will suffer from "in-breeding depression"). In these plants, the female part of the flower must be fertilized by the pollen from another flower, or from a flower of another plant. Varieties of such species, known as "cross-pollinated" varieties, are populations of plants based upon the controlled cross-pollination of a sufficient number of selected diverse, superior plants to secure enhanced performance without suffering in-breeding depression.

Yet a further category of variety is based upon the controlled cross-pollination of parent lines, so that the seed resulting from the cross-pollination inherits its genetic make-up from the parent lines. Such varieties, known as "hybrids", will typically exhibit greater

vigor ("hybrid vigor") than the parent lines on which they are based, resulting, for example, in plants with higher yields, better resistance to stress, etc. The same controlled cross-pollination must be repeated each time the seed of those varieties is produced.

The simple objective of a breeder is to produce a variety which is an improvement on the plants used as the starting point. However, this is a difficult challenge. Many useful characteristics, such as yield and quality, are controlled by the interaction of very large numbers of genes, about most of which little is known. Very large numbers of plants must be examined by the plant breeder over many different seasons and under different growing conditions. Once a desirable plant has been identified, it is still necessary to fix its genetic structure in order that it can be multiplied into a variety, the individual plants of which perform in the desired way. Thus, the breeding of a plant variety takes place over many years.

Large-scale breeding work calls for significant annual investment in land, specialized equipment (including, for example, greenhouses, growth chambers and laboratories), and skilled scientific manpower, which must continue over the many years which it takes to find and develop an improved plant variety. Not all plant breeders are successful and, even where successful, changes in market requirements may eliminate the possibility of a return on investment, so there is also risk involved. However, the benefits arising from the combinations of increased output and improved quality made possible by plant breeding are such that society has good reasons to encourage investment and risk-taking in this field.

Need for Protection of Plant Varieties

New varieties of plants which produce improved yields, higher quality or provide better resistance to plant pests and diseases are a key element and a most cost-effective factor in increasing productivity and product quality in agriculture, horticulture and forestry, whilst minimizing the pressure on the natural environment. Many other modern technologies of plant production need to be combined with high-performing varieties in order to deploy their full potential. The tremendous progress in agricultural productivity in various parts of the world is largely based on improved varieties.

World population continues to grow and it is necessary to find ways of increasing output through higher yields and less wastage, thereby minimizing the use of land and other resources, all of which are becoming scarcer. But plant breeding has wider economic and environmental benefits than just increasing food production, including for developing countries. The development of new improved varieties with, for example, higher quality increases the value and marketability of crops in the global market of the twenty-first century. In addition, breeding programs for ornamental plants can be of substantial economic importance for an exporting country. The breeding and exploitation of new varieties is a decisive factor in improving rural income and overall economic development. Furthermore, the development of breeding programs for certain species can remove the threat to the survival of the species in the wild.

As explained above, the process of plant breeding is long and expensive; however, it can be very quick and easy to reproduce a variety. Clearly, few breeders would spend many years of their life, making substantial economic investment, in developing a new variety if there was no means of being recompensed for this commitment. Hence, sustained breeding efforts are only possible if there is a chance to reward investment. It is, therefore, important to provide an effective system of plant variety protection, with the aim of encouraging the development of new varieties of plants, for the benefit of society.

The plant kingdom is vast and has been classified into a ranking system containing many divisions and sub-divisions. The division which is most familiar to many people is the "species"; however, the species level comes quite low down the classification of the plant kingdom. The most commonly used ranks in classification of plants are, in descending order, Kingdom, Division, Class, Order, Family, Genus and Species.

The rank of species, by which most plants are known, is probably the most important because it is the basis from which the classification is constructed. It denotes a group of organisms sharing a long number of heritable characteristics, which are reproductively isolated. Thus, plants of different species such as rose, potato, wheat and apple cannot inter-breed by natural means.

Although the rank of species is an important botanical classification, it is clear that the plants within a species can be very different. Farmers and growers need plants which are adapted to the environment in which they are grown and which are suited to the cultivation practices employed. Therefore, farmers and growers use a more precisely defined group of plants, selected from within a species, called a "**plant variety**".

Means of protection

Possibilities for protection of plants and plant products are provided by patent as well as plant variety law. Patents will be granted for plant inventions that are **new**, contain an **inventive step** and are **industrially applicable**. The patent granted protects - contrary to plant variety protection - not only plants and their naturally or artificially produced descendants, but also the method of production and use, as well as possible mutants. However, obtaining a patent may prove difficult. First, the conditions of patentability are strict, and second patents are not granted for plant varieties themselves (see art. 53 (b) European Patent Convention).

The Directive 98/44/EC on the Legal Protection of Biotechnological Inventions, in accordance with the EPC, allows patent protection for plants, when the patent protection is requested not only for the plant variety itself.

The protection of new plant varieties is a result of the procedures currently in force in Member States and of the procedures of Regulation No. 2100/94 (EC) on Community

Plant Variety Rights (CPVR), which are generally based on the International Convention for the Protection of New Varieties of Plants (UPOV Convention).

The UPOV system of plant variety protection came into being with the adoption of the International Convention for the Protection of New Varieties of Plants by a Diplomatic Conference in Paris on December 2, 1961. This was the point at which there was recognition of the intellectual property rights of plant breeders in their varieties on an international basis.

The UPOV Convention provides a *sui generis* form of intellectual property protection which has been specifically adapted for the process of plant breeding and has been developed with the aim of encouraging breeders to develop new varieties of plants. Innovations in other areas of technology concerning plants are covered by other forms of intellectual property rights including, in particular, patents.

The UPOV Convention definition of a plant variety starts by stating that it is "a plant grouping within a single botanical taxon of the lowest known rank, ..." This confirms that a plant variety results from the lowest sub-division of the species. However, to understand more completely what a plant variety is, the UPOV Convention (Article 1(vi)) defines it as:

"a plant grouping within a single botanical taxon of the lowest known rank, which grouping, irrespective of whether the conditions for the grant of a breeder's right are fully met, can be:

- defined by the expression of the characteristics resulting from a given genotype or combination of genotypes,
- distinguished from any other plant grouping by the expression of at least one of the said characteristics and
- considered as a unit with regard to its suitability for being propagated unchanged;"

This full definition clarifies that a variety must be recognizable by its characteristics, recognizably different from any other variety and remains unchanged through the process of propagation. If a plant variety grouping does not meet these criteria, it is not considered to be a variety within the UPOV system. However, the definition also makes clear that this is irrespective of whether the conditions for the grant of a breeder's right are fully met and this is not, as such, a condition for determining if a variety is eligible for protection.

The Community protection of plant varieties (CPVR) enables applicants, on the basis of one application to the Community Plant Variety Office (CPVO) in Angers, France, to be granted a single industrial property right, which is valid throughout the European Union. A CPVR has a uniform effect throughout the Community territory and can only be granted, transferred or terminated within this territory on a uniform basis. The new community-wide system exists alongside national systems as an alternative. It is not possible to hold Community and national plant variety rights simultaneously for the

same variety. Furthermore, the CPVR cannot coexist with a patent. If a CPVR is granted in relation to a variety for which a national right or patent has already been granted, the national right or patent is suspended for the duration of the CPVR.

HOW TO PROTECT IPR. FOCUSED ON PATENTS

3. HOW TO PROTECT IPR. FOCUSED ON PATENTS

3.1. Introduction

The technology has a very special feature; it can be easily imitated and even copied by companies that have not invested anything in development. To offset this disadvantage, the Council of wise men of the Venetian Republic, invented in the fourteenth century an ingenious patent system and enacted the first comprehensive law on the matter. In its preamble and expressly provides that the protection of the invention is a measure to encourage inventive activity: "And if it were to be stipulated that people who have seen the works and devices invented by others could not manufacture them and claim credit for them, most likely they would make an effort to come up with other useful inventions that would convey a benefit to our state".

However, it soon became a misuse of property rights. In some cases rights were granted although there was no real creative achievement. Thus were created monopolies which adversely affected economic development. In England, this situation ended with the "Antimonopoly Act" (1624), hereinafter patent protection is granted exclusively to the achievements that were an innovation demonstrated. This was the first attempt to reconcile the protection of individual intellectual achievement with the interests of the world in general.

Nevertheless, it was not until the first half of the nineteenth century when the practice of patents experienced a dynamic expansion. The creation of the first patent office in England (1852) laid the foundations of modern institutional practice patent.

It could be said that a patent is a contract between society as a whole and individual inventors. Under the terms of this social contract, it gives an inventor the exclusive right to prevent, for a fixed period of time, others from making, using and selling the patented invention in exchange for the inventor to disclose publicly the details of the same. Thus, it is intended that the patent systems encourage the dissemination of public information and reward the inventor for his efforts.

The Agreement of the World Trade Organization (WTO) on Trade-Related Aspects of Intellectual Property Rights (TRIPS for short) provides the international standard governing the validity of the exclusivity of a patent, which is 20 years from the date of filing.

Under all systems of patents, when that period expires, the public is free to use the invention according to your wishes.

Among others, the benefits of a patent system are as follows:

- A patent rewards the investment of time, money and effort associated with research; stimulates further investigation to induce competitors to invent alternatives to patents, and encourages innovation and investment in patented inventions, by allowing companies to recover its research and development costs for the duration of its exclusive rights.

- The limited term of a patent also protects the public interest to promote the rapid commercialization of inventions, which reach the public earlier. Patents also foster greater latitude in the exchange of information between research groups, help avoid duplication of investigations and, most importantly, increase the general stock of public knowledge.

Even if, during its lifetime, the patent confers the right to exclude others from making, using or selling the patented invention, it is important to understand that a patent does not necessarily give the owner the right to manufacture, use or sell the invention on their own. For example, the owner of the patent for an improved method for producing a chemical compound is not free to sell the compound made from the patented process if the compound has also been patented by someone else.

While it is true that all WTO members must submit to the patent provisions contained in the TRIPS Agreement, patents are issued in accordance with national laws and, therefore, rights are also national in scope. Thus, a U.S. patent can be applied only to violations committed in the United States. In most countries, these rights are enforced through civil, not criminal.

Consequently, the implementation of the law applies only to the owner of the patent. In general, any act leading to manufacture, use or sell the patented invention without permission is an infringement of the patent, whether the state comet it, a corporation or an individual. And any such violation shall be subject to civil liability, regardless of the intentions of the offender or to ignore the existence of the patent.

Among the resources that can be applied in patent infringement cases include: injunctions, orders to surrender or destroy the items in question, and compensation, due to damage sustained by the patentee or the profits of the infringer.

Any patent issued is subject to challenges of disability, and a common defense argument between alleged offenders is claiming the invalidity of the patent. Ordinarily, they are challenged by arguing that the alleged invention was made by a person other than the inventor credited to it or that the invention is obvious to those versed in the relevant technology.

Article 27 of TRIPS Agreement provides that WTO member states grant patents for any inventions, whether product or process to create a product, "provided that they are new, involve an inventive step, and have an industrial relevance". In other words, to be patentable, an invention must be novel, useful and not obvious. A prerequisite to enable the invention patented is to have any practical application. This underlines the importance of the patent system gives the utility.

The invention must be new, ie that the invention subject is, neither can be inferred, as part of something already known. Usually this is known as the requirement of "novelty". In this context, new or novel means "new to the public". Therefore, the fact that something has been previously used or known shall not prevent a patent if it was not publicly available (eg. it was kept secret).

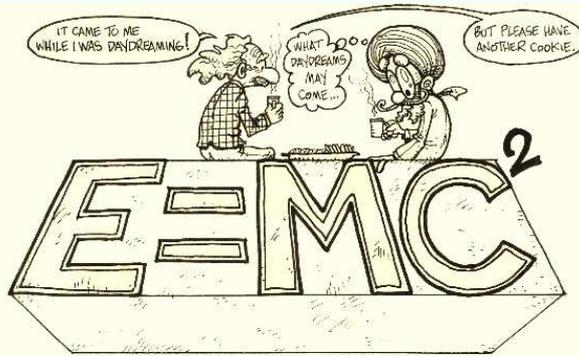
It also requires that the invention do not be obvious. This prevents anyone from taking advantage of the patent system and to obtain protection for something that is more than just a trivial extension or variant of the already known. In general, the test of

inventiveness or "non-obviousness" is based on a person reasonably skilled in the art for the invention it considers as not obvious at the time that it is held.

- animal or plant variety
- a method of medical treatment or diagnosis
- those “invention” against public policy or morality

Information is included in European regulation: art 52(38, 39)

The Einstein's theory of relativity enriched physics and astronomy during the 20th century. When first published, relativity superseded a 200-year-old theory of mechanics elucidated by Isaac Newton. It changed perceptions. The theory of relativity overturned the concept of motion from Newton's day, into all motion is relative. Time was no longer uniform and absolute. Therefore, no longer could physics be understood as space by itself, and time by itself. Instead, an added dimension had to be taken into account with curved spacetime. Time now depended on velocity, and contraction became a fundamental consequence at appropriate speeds. In the field of physics, relativity catalyzed and added an essential depth of knowledge to the science of elementary particles and their fundamental interactions, along with ushering in the nuclear age. With relativity, cosmology and astrophysics predicted extraordinary astronomical phenomena such as neutron stars, black holes, and gravitational waves. However, although the Einstein's theory of relativity has been one of the greatest advances in physics, being a theory, can not be patented



For patenting an invention, has to be very complex?

The answer is emphatically "no". The complexity is unrelated to patentability. There are Patents very simple in their implementation which have commercial value incalculable, in the same way that patents can be very complex that only recently in the archives but would never be put into practice. It is not necessary that the inventor has started from scratch in his groundbreaking work. An improvement in a known system, or simply a different and new to perform a function or produce an object can be patentable and at the same time have a very high technological and commercial value.

Post-It® Notes -- It Wasn't An Accident

The story begins in 1968 with Dr. Spencer Silver, a research scientist (aka: company employed inventor) working for the 3M Company. According to legend, Dr. Silver was attempting to invent a super strong adhesive but failed, instead he invented the adhesive called Acrylate Copolymer Microspheres which would someday become the stickum for Post-It® Notes by 3M. The story, like most legends, is great for Hollywood but a bit short in reality.



Silver was simply tasked with inventing new adhesives that 3M could later develop into commercial products. The beginning of Post-Its was the result of normal research and experimentation by a professional and not a fortunate accident.

United States Patent		(151)	3,691,140
Silver		(145)	Sept. 12, 1972
(54)	ACRYLATE COPOLYMER MICROSPHERES	3,385,839	5/1968 Honig et al.260/86.1 N
(72)	Inventor: Spencer Ferguson Silver, 3 M Center, St. Paul, Minn. 55101	3,428,617	2/1969 Sobolev260/86.1 N
		3,485,806	12/1969 Bloomquist et al.260/86.1 N
(22)	Filed: March 9, 1970	3,527,802	9/1970 Slagel260/86.1 N
(21)	Appl. No.: 17,880		
			Primary Examiner—Harry Wong, Jr. Attorney—Kinney, Alexander, Sell, Steldt & Delahunt
(52)	U.S. Cl.260/78.5, 117/155, 117/161, 260/29.6, 260/30.4, 260/31.2, 260/32.8, 260/33.4, 260/33.6, 260/79.3, 260/80.73, 260/80.8, 260/80.81, 260/86.1 R, 260/86.1 N	(57)	ABSTRACT
(51)	Int. Cl.C08H 15/26		Infusible, solvent-dispersible, solvent-insoluble, inherently tacky, elastomeric copolymer microspheres consist essentially of about 90 percent to about 99.5 percent by weight of at least one alkyl acrylate ester and about 10 to about 0.5 percent by weight of at least one monomer selected from the group consisting of substantially oil-insoluble, water-soluble, ionic monomers and maleic anhydride. The microspheres are prepared by aqueous suspension polymerization utilizing emulsifier in an amount greater than the critical micelle concentration in the absence of externally added protective colloids or the like.
(58)	Field of Search.....260/86.1 N, 79.3, 78.5, 80.73, 260/80.8, 80.81		
(56)	References Cited		
	UNITED STATES PATENTS		
	2,892,822 6/1959 Gray et al.260/86.1 N		
	3,257,478 6/1966 Jubilee et al.260/86.1 N		19 Claims, No Drawings

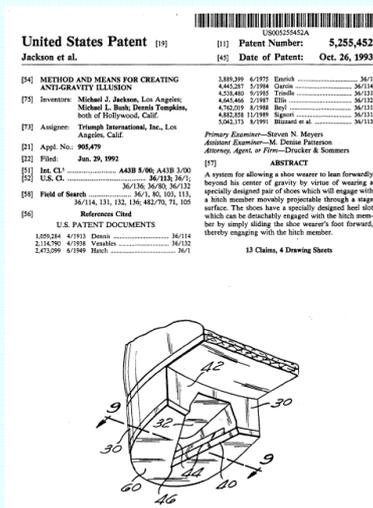
Spencer Silver holds 22 patents, but it is his 1972 Patent #:3,691,140 for a low-tack, reusable, pressure sensitive adhesive that would eventually bring him fame. Silver's initial thought was to make his new adhesive into a spray, or possibly a tacky surfaced bulletin board on which to place and remove temporary notes. It seems almost impossible today to think that Dr. Silver's adhesive would languish within the 3M corporate world for five years without being developed into a product, but that's reality.

What requirements must have an invention to be patentable?

To be patentable an invention must be new, involve an inventive step and be industrially applicable. Later we shall mean each of these terms, taking into account that they are legal concepts and therefore we making reference to the law for interpretation.

Those who ever saw the video of Michael Jackson's "Smooth Criminal" - one of his best known songs - remember that in one part of the choreography, Michael and his dancers, showed a striking effect of inclination of 45 degrees forward without breaking teeth!.

This is achieved through a patented in the U.S. by Michael and two of his costume designers, called "Methods and Means for Creating Anti Gravity Illusion" (US5255452).



A system for allowing a shoe wearer to lean forwardly beyond his center of gravity by virtue of wearing a specially designed pair of shoes which will engage with a hitch member movably projectable through a stage surface.



The shoes have a specially designed heel slot which can be detachably engaged with the hitch member by simply sliding the shoe wearer's foot forward, thereby engaging with the hitch member.

First Step...I want to prepare the papers...what to do and where to go?

Which documentation is needed to apply for a patent?

The patent is a technical document, to which the laws give a legal value, so his writing is halfway between both fields, technical and legal. As a general rule, a patent specification must be described in such a way that a technician in the field can be able to reproduce the invention. Reproduce the invention does not mean to be included in the document all the know-how which is available to optimize the commercial exploitation of the patent. For obtaining a patent, it will be necessary to file an application containing:

- An application addressed to the Head of the IPR Office concerned.

- A description of the invention for which patent is applied for
- One or more claims (defining the object for which protection is sought, must be clear, precise and based on the description)
- The drawings relating to the description or claims
- A Summary of the Invention.

What are the advantages of patenting the research results?

The first reason is that it is fair that the person/entity who invests resources (Man power, money, etc) in intellectual creation collect some returns as a result of their efforts. The second is that, by granting protection to intellectual property, these efforts are encouraged and companies and the society as a whole can progress.

An example of this is the case of the pharmaceutical industry, the invested resources in R&D, needed for a new drug reaching the market, for a long period of time can only be recovered if there are intellectual property rights to exclude competitors from selling the product. Without these rights the company would face losses resulting from the situation of "opportunism" of its competitors. It is reasonable to assume that patent protection increases the average return on inventive activity dedicated to patentable inventions, and therefore more likely to induce such inventive. It can be assumed therefore that the removal of such protection would have the effect of reducing the production of such inventions but we do not know how much. **On the other hand**, some people think that the pharmaceutical industry prioritizes profit above health. Strict patents reduce the availability and affordability of new essential drugs in developing countries, and thereby have a negative impact on the health of the world's poor. Larger pharmaceutical companies benefit more than smaller companies because they have a monopoly in the industry. They invest more in research and development and, linked to economies of scale, are better positioned to exploit markets for new drugs.



In a patent application, can I put the title I want?

Patent law says about the title "those with no fancy names and as much clear and concise as possible, displayed technical description of the invention which shall be consistent with the claims"

Its content is fundamental to give the user of patent documents a first idea of the contents of those documents. It also contributes decisively to the implementation of effective searches in databases by keyword. A defective title may assume that our document cannot be found by an examiner when performing your search on an application that perhaps is infringing our patent.

The title should be meaningful, should not he appear in personal names, fancy names or vague terms as so., or opinions of the applicant as "improvements" or "improvements".

Do I need an attorney / patent agent to prepare and file a patent application?

Applicants may prepare and file patent applications without the assistance of a patent attorney. However, because of the complexity of patent documents and legal expertise required, it is highly advisable to obtain legal assistance of a lawyer / patent agent to draft the application; in addition, there are no people in the patent offices to assist drafting. Besides, it is possible that the laws of a country requires that the applicant whose place of residence or registered office outside the country be represented by an attorney or agent acknowledged (and it usually means living and exercise) in the country. Information may be obtained directly from the national intellectual property offices in relation to patent attorneys and agents recognized in these countries, they also can report before applying for a patent on the patentability of the invention

How much it costs to apply for a patent?

The costs of patents are divided into four groups.

First, the costs associated with the application fees and other processing fees paid to national offices or regional patent. These costs vary widely from one country to another and are typically lower than the other costs listed below.

Second, the costs associated with lawyers / patent agents that assist in drafting the patent application. Although it is optional use of a lawyer / patent agent (unless the applicant does not reside in the country and the law requires to be represented by an attorney or agent known in the country), it is generally advisable to obtain legal advice in drafting a patent document. The rates of patent attorneys vary significantly from one country to another and between a lawyer and another.

Third, translation's cost. These costs are relevant only when applying for intellectual property protection in countries whose official language is different from the language in which it has been prepared the application and can be high, especially in the case of patent applications from highly technical issues.

Fourth, maintaining cost applications and patents through payments to the patent office. These fees usually are paid at regular intervals (eg every year or every five years) to maintain the application or patent. The patent protection throughout the term of protection (usually 20 years) in various countries can be a very expensive undertaking, taking into account that the annual maintenance fees often increase as you increase the term of protection.

The "Donald Duck as prior art"

A famous example about one of the requirements for a patent (it has to be a novel idea) is a method to recover sunken ships by filling them with buoyant bodies fed through a tube. This method was used in 1964 to recover the freighter Al-Kuwait from the bottom of the Persian Gulf. The Danish inventor Karl Kroeyer applied for, and was approved, a patent for his ship-raising process from the United Kingdom and Germany. However, he was denied a Dutch patent.



In 1949 the Donald Duck story *The Sunken Yacht* (by Carl Barks) shows Donald and the nephews raising a ship by filling it with ping pong balls shoved through a tube.

The Dutch office took note of the comic (which came out, by the by, when Kroeyer was 45 years old) and decided to refuse the patent, because the idea had been used 15 years earlier and it was not novel.

Since ping pong balls are buoyant bodies, and they were fed to the yacht through a tube, the Donald Duck episode was considered novelty-destroying prior art.



Images from 'The Sunken Yacht', © 1949 Walt Disney Corporation.

What should contain the independent claims?

Patent claims are the part of a patent or patent application that defines the scope of protection granted by the patent. The claims define, in technical terms, the extent of the protection conferred by a patent, or the protection sought in a patent application. The claims are of the utmost importance both during prosecution and litigation.

The independent claims define the invention in its most general form, described all the technical features which are the object of the invention and protection, without reference to any previous claim. Each is examined separately.

The independent claims that can be included in the same application are:

A) A product/ A procedure designed specifically for the manufacture of this product/
One use of this product

B) A procedure/ A device or means specifically designed for the implementation of this
procedure.

C) A product/ A procedure designed specifically for the manufacture of this product/ A
device or means specifically designed for the implementation of this procedure.

As a patent is a right to exclude others from making, using, selling or offering for sale the subject matter defined by the claims, in order to exclude someone from using a patented invention in a court, the patent owner, or patentee, needs to demonstrate that what the other person is using falls within the scope of a claim of the patent. Therefore, it is more valuable to obtain claims that include the minimal set of limitations that differentiate an invention over what came before, i.e. the so-called prior art. On the other hand, the fewer the limitations in a claim, the more likely it is that the claim will cover or "read on" what came before and be rejected during examination or found to be invalid at a later time for lack of novelty.

Is it possible to renew or extend the term of patent protection?

The term of protection under the most modern patent laws is 20 years from the date of filing. However, in some countries may be renewed or extended the deadline for applications belonging to specific fields such as pharmaceuticals or food, for which it is necessary to conduct an administrative approval procedure before they can be marketed. In European Union member countries, a supplementary protection certificate (SPC) is a sui generis, extension of a patent under a specific, different, set of right. This type of right is available for medicinal products, such as drugs, and plant protection products, such as insecticides, and herbicides.

A supplementary protection certificate comes into force only after the corresponding general patent expires. It normally has a maximum lifetime of 5 years.

Can I sell or “rent” my patent?

The patent is an intangible asset and as such is subject to trade like any other asset.

Nortel patents sold for \$4.5bn. guardian.co.uk, Friday 1 July 2011

Apple, Microsoft, Sony and BlackBerry maker Research in Motion are part of a winning consortium of six companies which have bought a valuable tranche of patents from the bankrupt Nortel Networks patent portfolio for \$4.5bn (£2.8bn), in a hotly contested auction that saw Google and Intel lose out.

Early signs had suggested that Google might be the winning bidder for the patents, which will provide valuable armoury for expected disputes in the communications – and especially smartphone – field.



NORTEL

The result could give Apple and Microsoft the upper hand in any forthcoming patents rows. Microsoft is already extracting payments from a number of companies that use Google's Android mobile operating system on the basis that it owns patents that they were infringing. Oracle has big court case against Google alleging that Android infringes a number of Java patents, and claiming \$6.1bn in damages.



Had Google won the bidding for the patents, it would have been in a better position to protect Android from patent infringement claims.

Large patent portfolios are often used in a tit-for-tat manner to defend a company and its intellectual property from patent claims by rivals: cross-licensing deals effectively create a ceasefire. As a relatively young company, Google has comparatively few patents that it can use for such deals.

I read once that the abstract of the invention only serves to provide technical information, does it mean that I can do it so superficial?

The abstract should be placed on the first page of description and should allow easy understanding of the technical problem posed, the solution provided and the principal use of the invention. It is a concise statement of the invention. Its maximum length is 150 words and should contain the title of the invention, and should deal essentially what is new in the state of the art, whether it is a modification of a device, procedure, or product should focus on the amendment.

It should not contain statements regarding the benefits or merits of the invention or implied or redundant expressions such as "the invention is...".

(54) Title : SELF-PROPELLED SHIP
(54) Titre : NAVIRE AUTOMOTEUR

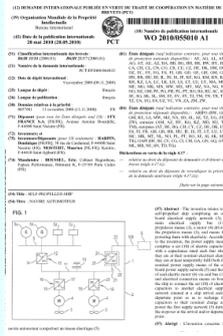
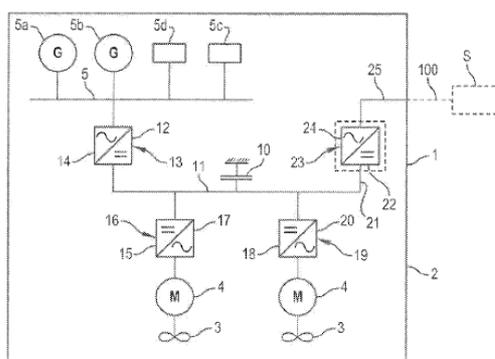


FIG. 1



navire automoteur comportant un réseau électrique (5)

(57) Abstract : The invention relates to a self-propelled ship comprising an on-board electrical supply network (5), a main electrical supply bus (11), propulsion means (3), a motor (4) driving the propulsion means (3), and means for powering them with electricity. According to the invention, the power supply means comprise a set (10) of electric capacitors with a capacitance rated such that when they are at their nominal electrical charge they can at least temporarily fulfil both the nominal power supply means of the on-board power supply network (5) and those of said electric motor (4) via said bus (11) and electrical connection means on board the ship to connect the set (10) of electric capacitors to another electrical supply network situated at a ship arrival and/or departure point so as to recharge the capacitors to their nominal charge and power the first supply network (5) during the stopover at the arrival and/or departure point.

(57) Abrégé : L'invention concerne un

I once heard at a seminar that the draw up of an application should always start by the claims. Is that true?

The claims shall define the matter for which protection is sought. Should be clear, concise and supported by the description. Therefore, the definition of the claim determines the extent of protection or the scope thereof. If a claim does not clearly specify what is covered, does not suit it purpose. Unclear claims can be sources of objections and, after granting of the patent, a third party may launch an attack based on the breadth of interpretation due to lack of clarity.

How long does it take to get a patent? Why within 18 months? I would like my application to be published soon.

The time required for the grant of a patent depends on the registration procedure and a number of factors that vary from country to country. In countries where is not carried out substantive examination of patent application, usually the procedure is relatively fast (the patent will be registered normally within a few months). However, in countries where the patent office conducts a thorough examination to check whether the patent meets the patentability criteria relating to novelty, inventive step and industrial application, the entire procedure, from application the grant, will generally last more than 12 months, and in many cases more than 18. However, it should be noted that the procedure may take longer, especially in cases where the law provides for opposition proceedings before the grant of the patent or allow the so-called deferred examination. Moreover, the deferred examination system gives the applicant more time to decide whether it is worthwhile to patent his invention, in view of market opportunities and costs involved in obtaining the patent.

May I keep on secret a patent?

A patent is a state monopoly status granted to an inventor in exchange for the disclosure of their invention in a written publication. The granting by the state of its monopoly, it will bring or could bring to the patentee economic benefits and for this reason is an incentive for the inventors to apply for a patent contributing to technological progress. Any patent application is published providing a useful indicator to monitor market trends and be a source of information on developing creative in all areas of technology, thus avoiding duplication in research.

I am the manager of a company dedicated to the manufacture of irrigation equipment and now we are ready to seek protection for a new valve, a dropper and a filter. Can I integrate them into a single patent and thus save costs?

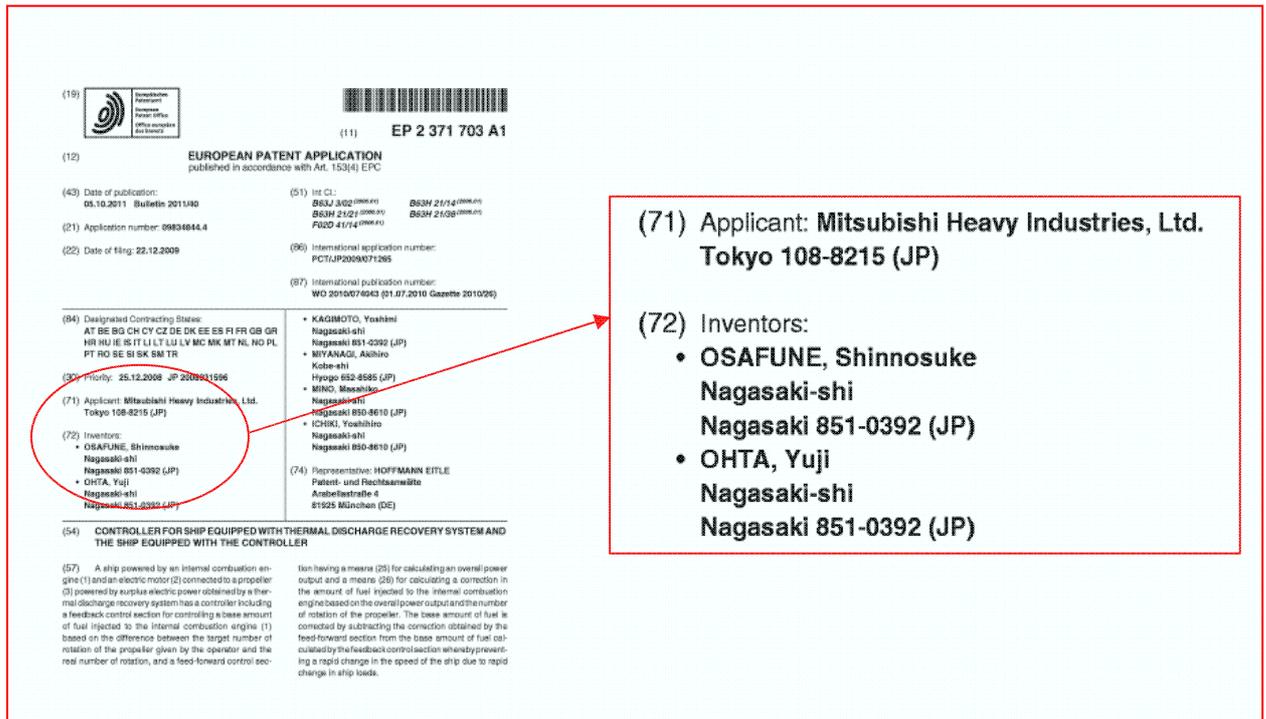
The patent application may not include more than one invention or group of inventions related in so that they form a single general inventive concept. Applications that do not comply with the above shall be divided in accordance with prescribed provisions. Divisional applications have the same date of filing that the initial application as appropriate, to the extent that its subject matter was already contained in that application.

Who owns the DVD patent? .No single company "owns" DVD. The official specification was developed by a consortium of ten companies: Hitachi, JVC, Matsushita, Mitsubishi, Philips, Pioneer, Sony, Thomson, Time Warner, and Toshiba. Representatives from many other companies also contributed in various working groups. In May 1997, the DVD Consortium was replaced by the DVD Forum , which is open to all companies, and as of February 2000 had over 220 members. Time Warner originally trademarked the DVD logo, and has since assigned it to the DVD Format/Logo Licensing Corporation (DVD FLLC). Any company making DVD products must license essential technology patents from the " 3C " pool (LG, Philips, Pioneer, Sony), the "6C " pool (Hitachi, IBM, Matsushita, Mitsubishi, Time Warner, Toshiba, Victor).



Although I am the inventor of a patent application, I don't want to be mentioned in the application. Is it mandatory?

The patent application shall designate the inventor. In the case of not being the same that applies for a patent, the applicant must submit a statement of how he acquired the rights. It is sufficient to point to the cross any of the three options offered in the instance: invention labour, contract or succession. It is important not fail to note this point. The lack of consistency in the administration of the manner in which the inventor has assigned his rights is grounds for suspension of proceedings.



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(54) CONTROLLER FOR SHIP EQUIPPED WITH THERMAL DISCHARGE RECOVERY SYSTEM AND THE SHIP EQUIPPED WITH THE CONTROLLER

(57) A ship powered by an internal combustion engine (1) and an electric motor (2) connected to a propeller (3) powered by surplus electric power obtained by a thermal discharge recovery system has a controller including a feedback control section for controlling a base amount of fuel injected to the internal combustion engine (1) based on the difference between the target number of rotation of the propeller given by the operator and the real number of rotation, and a feed-forward control section having a means (25) for calculating an overall power output and a means (26) for calculating a correction in the amount of fuel injected to the internal combustion engine based on the overall power output and the number of rotation of the propeller. The base amount of fuel is corrected by subtracting the correction obtained by the feed-forward section from the base amount of fuel calculated by the feedback control section where by preventing a rapid change in the speed of the ship due to rapid change in ship loads.

I am the manager of a SME; are patents interesting for my business?

Most people link patents with large patent inventions like Edison's electric lamp or large companies that invest large sums in research and development. Indeed, patents can be obtained for any field of technology, from paper clips to computers and in fact, each year about 750,000 patents are granted throughout the world. Ignoring the patent system by an SME can increase the vulnerability of the company in the market because small companies often have a very limited range of products and may suffer great losses if they are copied by competitors.

In a food fair sponsored by the ministry of agriculture last month, I presented a new method of manufacturing fermented milk invented by my company with a great acceptance by the audience, so I decided to patent it. What are the steps I should follow to do this?

If I made a written or oral exposure of my invention, it becomes part of the state of the art. However the Act provides a number of exceptions to this rule are the following: Do not be taken into account in determining the prior art disclosure of the invention, which occurred within six months prior to the filing Registration of Industrial Property has been a direct or indirect.

Also:

- a. An evident abuse in relation to the applicant.
- b. The fact that the applicant has displayed the invention at official or officially recognized exhibitions. In this case will require that the applicant, when filing the application, declare that the invention has actually been exhibited and, in

support of his statement, submit the corresponding certificate within the period and under conditions determined by regulation.

- c. In the tests carried out by the applicant, provided it does not involve a farm or commercial offer of the invention.

In some countries like the U.S., there is a year of making public from an invention until the patent is sought, provided that the applicant matches the discloser.

I have heard that you can patent "perpetual motion machines "is that possible?

As discussed before, a requirement that an invention is patentable is that it is susceptible of industrial application is that the object can be used or manufactured in the industry, understood in its broadest sense. A continuous motion machine cannot be made because it would violate either the first law of thermodynamics, the second law of thermodynamics, or both. Machines which comply with both laws of thermodynamics but access energy from obscure sources are sometimes referred to as perpetual motion machines, although they do not meet the standard criteria for the name.

Despite the fact that, successful perpetual motion devices are physically impossible, in terms of our current understanding of the laws of physics, the pursuit of perpetual motion remains popular and many patents have been granted along the time.

Are expected perpetual motion devices in the future?

Although a continuous motion machine cannot be made because it would violate the physics laws and so these machines are not suitable with the industrial application requirement, the Patent classifications have classes for them. For example, the European Patent Classification (ECLA) has classes including patent applications on perpetual motion systems: ECLA classes "F03B17/04: Alleged perpetua mobilia ..." and "F03B17/00B: [... machines or engines] (with closed loop circulation or similar: ...Installations wherein the liquid circulates in a closed loop; Alleged perpetua mobilia of this or similar kind ...".

A bit of sense from the Patent offices

Perpetual motion devices in USA Proposals for such inoperable machines have become so common that the United States Patent and Trademark Office (USPTO) has made an official policy of refusing to grant patents for perpetual motion machines without a working model. The USPTO Manual of Patent Examining Practice states:

With the exception of cases involving perpetual motion, a model is not ordinarily required by the Office to demonstrate the operability of a device. If operability of a device is questioned, the applicant must establish it to the satisfaction of the examiner, but he or she may choose his or her own way of so doing.

Can be patented biological material isolated from its natural environment or produced by means of a technical process even if it previously occurred in nature?

The patent can't be granted for the product in its natural state (which is usually mixed with hundreds or thousands of other substances), but the product isolated and purified, as this requires applying inventive, can be patented. This is the case with many drugs, starting with the century-old aspirin (1910), adrenaline (1911) and continuing with antibiotics (for years 40-50) and more (prostaglandins, digitalis, etc.).

Who determines what is considered "good manners"?

The terms "contrary to law" and "morality" are subjective concepts, whose accuracy is framed within the existing social concept. This exception to patentability at the international level took an unusual role with the emergence of biotechnological inventions. Not many years ago, it was used this provision to prohibit the patenting of contraceptive devices in many countries

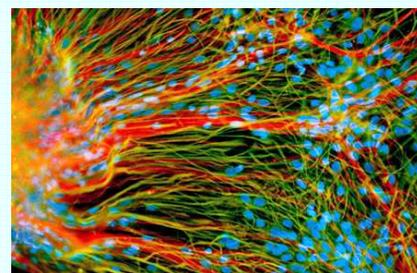
The typical example of lack of patentability is the letter bomb.

Letter-bombs, along with anti-personnel mines, are typical examples of subject-matter excluded from patentability under the European Patent Convention, because the publication or exploitation of such inventions is contrary to the "order public" and/or morality (Article 53(a) EPC)



The European Court of Justice decision to deny Stem Cell based patents is relying on the moral and ethical grounds

Opposing the recent ban on stem cells, European scientists raise uproar against the decision of European Court of Justice to disallow the use of embryonic stem cell based therapies in the European region. This came as a blow to the scientists and the Pharmaceutical sector which was diligently working on the Stem Cell based research for the treatment of various disorders. Scientists believe that such a ban can put Europe at disadvantage in the global society. If there will be no patents granted in this area then it is nearly impossible to obtain approval from the drug industries to invest in the stem cells based research. As the theory of "Commercialization and Development" says: There will be no major breakthrough inventions if there is no commercialization of such inventions.



- **I've heard that for an invention involves an inventive step should not be inferred in an obvious way, what is considered obvious and what not?**

Defines whether the evidence is no significant difference between the prior art and invention. It is a relative concept which raises many practical difficulties for the examiners, it depends on the state of the art and skills of the expert in the field. Non-obviousness will approach as opposed to the evidence. The doctrine defines this invention will be apparent to one skilled in the art can devise without much effort, using their skills and perform normal operations by implementing very simple.

When does the protection actually conferred by a patent application for an invention?

Once it has been published, patent application before the grant, under most patent laws, the applicant is entitled to take legal action against infringing acts. However, the applicant can only exercise those shares once the patent has been granted and if you can prove that the act in question infringes the patent rights.

I belong to a research group from a Spanish university and within the framework of a international cooperation program with a German university; we have developed a new process ... Who owns the patent rights?

By law the University or agency to which the inventor belongs has the ownership rights of the patent and when the invention arose as a result of collaboration between groups from different universities or agencies of the same title, these will be shared by all entities in the corresponding proportion and terms of the contributions made by its researchers.

In both cases, it is always possible to establish different ownership by a consortium agreement to govern from the beginning of the rights and obligations arising from inventions.

Last year my partner and I decided to dissolve a company that had created an invention. In the distribution of assets to the invention it was my responsibility and I decided to patent it. However, I learned that my partner has also applied for a patent, but a week later than mine. What I can do?

In the proceedings to the Patent and Trademark Office is presumed that the applicant is entitled to exercise the right to the patent. However, if someone is against this right can go to court and, if there is a final decision recognizing the right to obtain a patent to a person different than the applicant, whenever the patent had not become yet granted, that person may within three months of the sentence:

- a) Continue the procedure for the application, substituting for the applicant;
- b) Submit a new patent application for the same invention, enjoy the same priority;
- c) Request the application to be rejected.

In the present case the patent right belongs to you, but also your application preceding your partner ones, so you have not to take any action because all the patent rights belongs to you.

- **My father had planned to apply for a patent, but unfortunately he dies before do it. As his heir, can we apply?**

The right to a patent belongs, according to law, to the inventor or his heirs and is transmissible by any means which the law recognizes.

I am an employee of a company dedicated to R & D in biotechnology and in the course of my research I discovered a new product for antitumor applications. What rights do I have on patents that may arise from my invention?

By law, the inventions created by employees during the term of your contract or employment relationship or service with the company, which are the result of a research activity explicitly or implicitly the object of his contract, belong to the employer. The worker, author of the invention is not entitled to additional remuneration for its realization, except where his personal contribution to the invention and the importance of it to the company obviously go beyond the explicit or implicit contract or relationship work. The inventor has in any case, the holder of the patent application or patent, the right to be mentioned as such in the patent inventor. To avoid confusion and potential disputes, employers often provide specific clauses in employment contracts on the ownership of intellectual property.

One of our employees, who participated in the development of an invention, has gone to work a competitor who has applied for a patent. Can we claim it as owe?

It depends on the time since he left the company. The law states that inventions for which an application for a patent or other protection exclusively was presented within the year following to the finish of the employment relationship may be claimed by the employer.

If you publish the patent application before a decision for granted is taken, what kind of protection is counted?

Once it has been published patent application before the grant, under most patent laws, the applicant is entitled to take legal action against infringing acts. However, the applicant can only exercise those shares once the patent has been granted and if they can prove that the act in question violates the rights of the patent.

A French company has a patent granted 19 years ago on a process for polishing metal that I would be very helpful in my process of manufacturing hardware. What is the best strategy for negotiating a manufacturing license?

If the patent was granted 19 years ago, by sure was applied over 20 years ago and therefore its validity has expired, and the patented object belong to the public domain so anyone can use the patent without fear infringing intellectual property rights of the company.

When a pharmaceutical company first markets a drug, it is usually under a patent that, until it expires, allows only the pharmaceutical company that developed the drug (or its licensees) to sell it. Generic drugs can be produced without patent infringement for drugs where: 1) the patent has expired, 2) the generic company certifies the brand company's patents are either invalid, unenforceable or will not be infringed, 3) for drugs which have never held patents.



After requesting my patent I realized that I have not included some details in the description "can I make this change after submitting the application?"

Yes, during the process of granting, modifications can be made if not broaden the object of the invention initially requested, so that the memory of the application can be completed, although the claims (which are what define the scope of the invention) must be final.

Six months ago I presented an application for a patent for a process of manufacturing a textile dyeing and now I've made some improvements on it. "Can I claim protection for the whole process again, or I have to do only for improvements?"

The holder of a valid patent can protect inventions that improve or develop the invention to it, requesting additions to the patent if the object is integrated with the main patent on the same inventive. The additions may not be granted until the patent was not granted. There is no requirement that the purpose of involving an inventive addition to the object of the main patent. The additions have the date of priority corresponding to their respective applications; its duration is the same as it is to the patent, and not subject to the payment of annuities, provided that the request to add does not become patent. Requests may also be additions to a patent application, but those additions may not be granted until the patent had been granted.

Can I patent an invention in Spain patented by another company in another market?

For an invention meets the novelty requirement cannot be included in the state of the art. The prior art consists of everything before the date of filing the patent application has been made available to the public in Spain or abroad by a written or oral description, by use or by any other means. It is also understood comprised in the state of the art content of applications for patents or utility models, as may have been originally filed, filing date is earlier than that mentioned in the preceding paragraph and

which have been published at that time, or are at a later date. In the event that exposes us, to be patented by a company in another country, this invention pertains to prior art and therefore cannot be patented.

I have a product patented in Spain sold throughout the Mediterranean with great success. Several months ago I have realized that a Chinese company is selling an imitation of my product on the Italian market. What court should I file the lawsuit, Italian or Spanish, which is where I have protected my invention?

Patent rights are national (there is no such thing as a “world patent”, only international and regional application procedures) and a patent must be obtained in each country where protection is desired. A patent is valid in the complete territory of the issuing country, which includes both land areas and, importantly for maritime inventions, territorial waters. If your invention is not patented in Italy you have no rights in this country.

The product that I mentioned above is a system for treating ballast water that is being used on ships that run between Italy-Buenos Aires (Argentina), with stops in several Spanish ports. I wonder if once these vessels enter Spanish waters, I will be able to sue against the shipping company.

Since it provides the patentee with all commercial rights to the invention in the territory of the issuing country, a patent would, in theory, be enforceable against any ship entering or passing through the territorial waters of that country. However there are international conventions regulating this for foreign ships, which include exemptions from patent infringement in certain situations (There are also similar provisions for aircraft and land vehicles.)

The actual wording of Article 5ter of the Paris Convention is:

In any country of the Union the following shall not be considered as infringements of the rights of a patentee:

- (i) the use on board vessels of other countries of the Union of devices forming the subject of his patent in the body of the vessel, in the machinery, tackle, gear and other accessories, when such vessels temporarily or accidentally enter the waters of the said country, provided that such devices are used exclusively for the needs of the vessel;
- (ii) the use of devices forming the subject of the patent in the construction or operation of aircraft or land vehicles of other countries of the Union, or of accessories of such aircraft or land vehicles, when those aircraft or land vehicles temporarily or accidentally enter the said country.

Why the exception of Article 5ter of the Paris Convention?

The exception is intended to avoid territorial patent rights hindering international commerce, and to avoid private citizens having power to interfere with foreign trade.

Notably, the exception covers only the *use* of an invention, and it thereby protects ship owners involved in international transport during the normal operation of their fleet. Without the exception, a ship owner would risk facing different claims of patent infringement in the different ports that a ship calls, as well as potentially disrupting search and seizure of the vessel if a national patent owner brings legal action.

For an owner of maritime intellectual property, this provision has the potential advantage that the invention would only have to be protected in the flag state of a vessel to prevent unauthorised use, even for a ship operating worldwide. A technology developer could strategically choose large flag states in order to get broad protection for his inventions at reasonable cost, eliminating the need to patent in every country worldwide. However, if the flag state has a non-functioning patent system, then the protection of such technology could become virtually impossible; internationally the ship falls under the Paris Convention exception while in the home country a patent cannot be obtained or cannot be enforced.



The European law says in Europe cannot be patented computer programs. Is that true?

Article 52-2c EPC explicitly excludes computer programs from the possibility of being patented at the same time that a council directive states that these can be protected through copyright.

However, only the programs as such are excluded from patentability. When they are incorporated in a machine or process that meets the requirements of patentability, the resulting system can be protected by a patent.

Is it possible to patent a DNA sequence in Europe?

In Europe, the patent is allowed provided that the three classical criteria of novelty, inventiveness and applicability. Although the EPC does not provide for exclusion of patents on biological material, there were problems when the patenting of genes and DNA sequences. But the argument of opponents to the patenting of DNA on the basis that it is mere discoveries has not been successful, as it has imposed the doctrine of that DNA and other biological material in its isolated form can be patented, since isolation may involve an inventive step and meet other requirements.

I have developed a process of sewage treatment in which I use a microorganism that is able to ferment in a temperature range between 25 and 40 ° C, with optimal performance at 33.5 ° C. Do I have to determine this temperature in the description of the patent application?

The description of the patent should allow, by itself the "enforceability objective". Very often the fear of the applicant appears to expose their developments. However, national legislation and the European Patent Convention allow that there are elements of the description to be protected under "Know How". So you can write in your description "a process temperature between 25 and 40 ° C". The legislation requires only that the invention covered by the patent can be enforced, not that you can run optimally.

If your desire is to seek protection in the U.S., either directly or through a PCT need to take into account that

If a state has granted a patent, does that guarantee their validity?

No. According to European regulation art 64 and 69 (60, 61) , "the grant of the patent shall be without prejudice to third parties without government guarantee as to the validity of it and the usefulness of the object on which it rests".

In the newsletter publishing my patent I see that there is a section that says: International Classification: B62B 7 / 06. What does this mean?

The "International Patent Classification (IPC) is a system that divides technology into more than 67,000 branches, each identified by a symbol. Each symbol is composed of a combination of roman letters and Arabic numerals. The primary objective of this classification is the establishment of a document search tool effectively. The IPC is a hierarchical classification system that includes:

- Sections (8)
- Classes (118)
- Subclasses (624)
- Groups (more than 67.000)

In your patent:

- The first letter (B) corresponds to the section "Performing operations; transport"
- The second number (B62) corresponds to the class "land vehicles moving otherwise than on rails"
- The third letter (B62B) corresponds to the subclass "Vehicles powered by hand"
- The fourth combination of numbers (B62B 7 / 06) for the group "Children Car folding or collapsible"

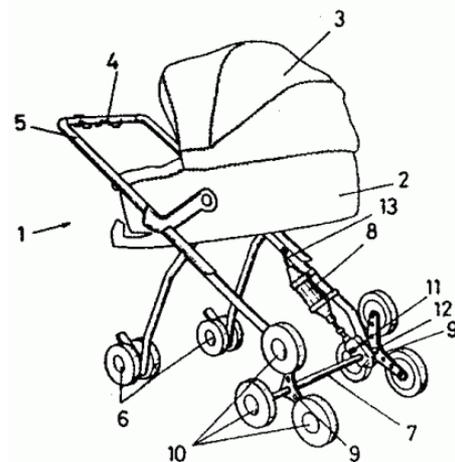


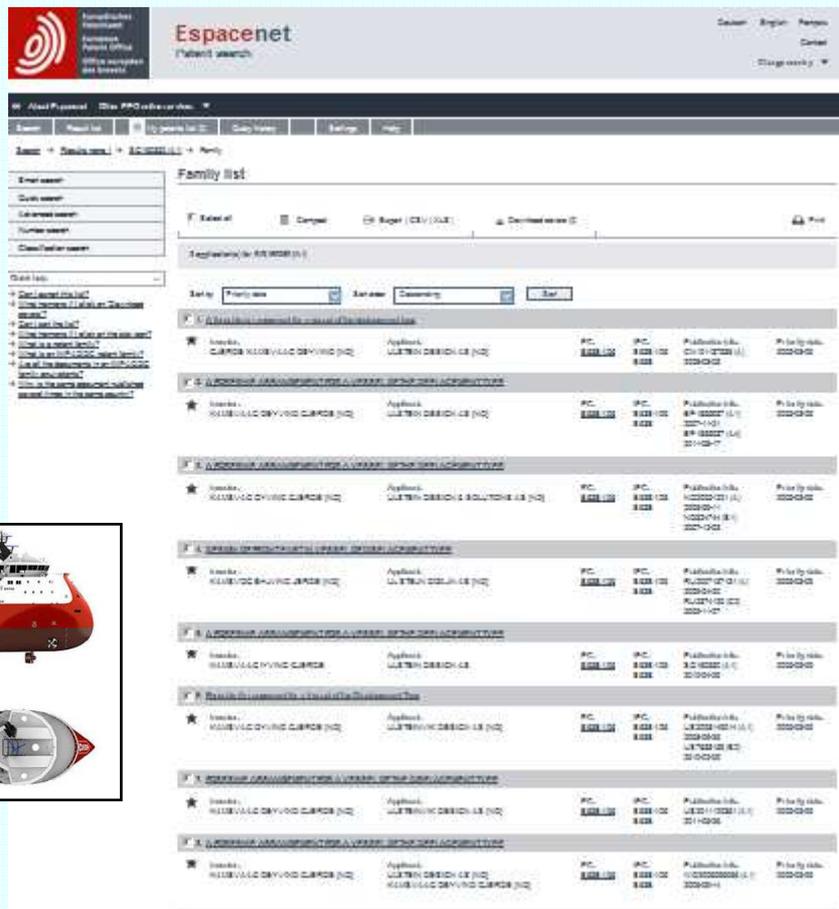
FIG. 1

What is a patent family?

A patent family is "a set of patents taken in various countries to protect a single invention (when a first application in a country - the priority - is then extended to other offices)." In other words, a patent family is "the same invention disclosed by a common inventor(s) and patented in more than one country."

A FORESHIP ARRANGEMENT FOR A VESSEL OF THE DEPLACEMENT TYPE

The patent family list of the famous ULSTEIN patent, the X-BOW® hull line design, as listed in SPACENET databases is the following. At October 2011, it was formed by 8 patents

IPC Class.	IPC Class.	Pub. No.	Pub. Date
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22
B63H 1/00	B63H 1/00	US 2007/0141221 A1	2007-05-22

Just over six months I have submitted a patent application in Spain and I want to extend my business internationally but I can only cover EU commercially. On the other hand, I have been advised to apply also in USA and Japan because these are countries with large population and high income consumers, although due to the size of my company, I will not be able to manage these markets. Is it worth to apply for protection in these two countries?

In theory the protection in these markets will allow you to take advantage of the exclusive rights that protect you from your competitors but if your business structure

does not allow you to introduce you into these markets a priori one would think that would be a waste of money. But this is not true because having applied for a patent in these markets, will allow third parties to license the production and economic benefit from that TT. Since it is very difficult to know in those markets where you sell your products, a very suitable procedure is the PCT, which lets up to 30 months delay making decision on which countries want to patent and while you do the studies you think appropriate to see if it is possible that your product is sold (or licensed) in certain markets.

On the other hand we must take into account the product / process patent and its importance in each market. So for example if the patent is referring to a machine for the production of olive oil, we'll probably settle for a patent in Spain, Italy, Greece and Portugal that group 80% of olive oil produced in the world.

What is the way for the international protection of my invention?

There are basically three ways for the international protection of inventions:

- The national route, by filing a patent application in the individual countries in which protection is desired.
- Regional route. In the case of UE countries, European route, by European patent application designating those European states where protection is sought, and are part of the European Patent Convention (38 countries).
- The PCT VIA. Cooperation Treaty Patent (PCT) is a multilateral treaty in force since 1978 and is administered by the World Intellectual Property Organization (WIPO). The States Parties to the Treaty (142 countries on January 1, 2011) constitute a Union for cooperation in the filing, searching and examination of patent applications. The PCT facilitates the processing of applications for the protection of inventions where such protection is desired in many countries, establishing a system for the presentation of a single application has the same effect as if such application had been submitted in each of the countries want and designated by the applicant. This is not a granting patent procedure, but it is a system of unification of the pre-processing granting, which replaces the country by country processing cost.

Is it possible to file a patent in several countries simultaneously?

When applying for patent protection for the same invention in several countries, the priority principle is very useful, since the applicant does not apply in several countries simultaneously. The Paris Convention for the Protection of Industrial Property provides that once an application has been filed in a country party to the Convention, are entitled to claim priority for a period of 12 months and the date of that first application is considered the "priority date. " Therefore, when applying for protection in other Member States (Paris Convention) during those 12 months, the date of filing the first application is considered to have "priority" over other claims submitted after this date. In this case, the applicant retains the priority in other States, even when other applications are filed before the date of submission of its application in those countries. Some countries outside the agreement of the Paris Union and therefore in these countries will not apply the priority date.

Where can I apply for the European patent?

In general, the European patent application may be submitted, in the European Patent Office in Munich, in his Department in The Hague, or Berlin. Also at the National Patent offices of countries which belong to the European Patent Convention.

If I can submit my application for an European patent at the Spanish Patent office you mean I can submit my application in Spanish?

European patent applications have to be submitted in one of the official languages of the European Patent Office (English, French and German), becoming the chosen language, the language of the proceedings. However, applicants domiciled in Contracting States whose languages are different from the official European Patent Office may submit the application in the language of the State concerned, for example in Spanish, but it has to be provided a translation into one of the official languages of the European Patent Office within three months from the application or, if priority is claimed, thirteen months from the priority date. When the patent is granted, is required to file a translation of claims into the other two languages

Do I have to file a translation of the European patent?

Yes, when the European Patent Office has granted a European patent that includes designated States whose official language is other than German, French and English, the European patent holder must comply with the requirement to file a translation of the issue in the Office designated national of any State that has established such a requirement. Once a European patent is granted, it should go to the process of national validation in each of the states (about 37), including translations into the national languages.

Can I get a European patent in a non European country (UE member) with the European patent procedure?

Yes, if it is a member of the European Patent Convention. At present the number of member countries stands at 38. However, it is not necessary to request protection for each and every one of the Member States. Protection can be obtained for only some of them, which will provide for reduced fees.



A European patent is the same as a Community patent?

No, The European Patent Convention does not create a uniform law for protection, but leads to protection in many member countries of the Convention as the applicant wishes. Also, do not provide for the existence of a competent court at the European level to settle patent litigation, which presents the risk those courts in the Member States to dictate different resolutions. The Munich Agreement (for Community patent) provides benefits, including a centralized procedure for the issue based on a uniform

law, which takes place in a single language of procedure, a reduction of security costs if it is to get the patent for several Member States and a high-protection law.

A Community Patent in the near future?

The creation of a unitary patent at the European Union is a project that has been in progress for decades and whose primary purpose is to create conditions for the functioning of a unified system for the protection of inventions, allowing -among other things- to users (companies, institutions and individuals) to reduce costs and at the same time trying to promote innovation. One of the relevant objectives of a possible Community Patent (European patent community) is to reduce costs and processing requirements of this kind of files, since the current European patent system has the disadvantage that, once the patent is granted, it is necessary to validate the case in each member state in which the patentee is willing to obtain protection of the invention, and then patents become an individual national patent, which final fate and legal effects are almost completely decoupled from both the original European patent as well as other national patents product of the said validation procedure. This means that the holder of a European patent must assume the costs associated with the validation procedure in each state, which are linked to the payment of professional fees for hiring local IP agents, paying official fee, but mainly to the cost related to the translation of the text of granted European patent into the official language of each country. In order to solve the problem of high costs and in view of the difficulties encountered in reaching an agreement on an eventual community patent, other resources have been proposed to



validation costs for granted European sense, the London Agreement of May introduced a series of measures and which significantly reduce the requirements for validation, but in agreement was obtained by which countries completely suppress or translation requirement of the entire

European patent granted, only to the claims. At government level, in recent years Spain and Italy have been a fervent opponents of both the London Agreement and the eventual unified system for the Community patent, objecting in particular, that the official languages remaining to be English, French and German, and requesting the inclusion of Spanish and Italian as one of the official working languages for both, the current European patent system as well as to any other in the future. For this reason, Spain has not accepted nor signed the London Agreement, and (along with Italy in it own), is pressing to include Spanish as a working languages in the current patent prosecution system and in the eventual new European Community patent system. Precisely, in May 2011 Spain and Italy have challenged before the European jurisdiction, the trilingual system on which the recent regulation that establishes a system for “Enhanced Cooperation” between the states of the European Union for the creation of a protection of inventions by means of a unitary patent. This regulation has been signed by 25 of the 27 member states comprising the European Union.

reduce patents. In this 2008 proposals procedures and particular an high number reduce text of the

Differences between US and European patent law

First to invent vs first to file

The most important difference between the two systems is that in the United States, the person granted the patent is the person who invented it first, while in Europe, the person who files for the patent first is the person who is granted it. This means that if two people file for a patent on the same invention, in the United States an investigation into who invented it first would occur, while in Europe there would be no investigation, and whichever application was filed first would be granted.

The novelty requirement

In the United States, you have a one year grace period between announcement of an invention and when you must file for the patent in order for it not to be considered invalid for lack of novelty. In the EU, you must file before announcement anywhere in the world, because if you file afterwards, you will be found to be lacking in the novelty requirement. There is one exception to this, however; by treaty, in some cases, if a patent is filed in the U.S. and then announced, you will be granted the same one year grace period as you would be in the U.S.

In some countries like the U.S., there is a year of making public from an invention until the patent is sought, provided that the applicant matches the discloser.

In other countries

CHINA

(Also the websites that follow can be visited for litigation cases and assistance <http://www.chinaipr.gov.cn/>; <http://www.china-iprhelpdesk.eu/>)

We have got two ways (actions) to take

- **Administrative Action**

The administrative option involves filing a complaint with the State Intellectual Property Office (SIPO) or their local equivalent in the particular province, autonomous region, or municipal. A party may make an application to the SIPO or local equivalent to act as a mediator between parties involved in a patent dispute. SIPO's role is to assist the parties to reach a mediation agreement. If both parties sign and seal the mediation agreement this will be a legally enforceable document. The SIPO also has statutory powers to order a party to cease their infringing acts. If SIPO does order a party to cease infringing they will specify the type, object, and scope of the infringement.

- **Legal Action**

Legal action is where a party whose patent is being infringed may file a lawsuit with the courts. The Intermediate People's Courts, and those People's Courts designated by the Supreme People's Courts, are the courts that hear patent infringement cases of

first instance. A party filing the patent infringement claim has the burden of proof. This means that samples of the patent infringement, details of infringers, proof of patent rights, and other evidence must be filed with the courts. Pre litigation protection measures are available for patent owners i.e. injunctions, evidence preservation and property preservation. If pre litigation protection measures are used then a lawsuit must be filed within 15 days of such measures becoming effective. The court may adopt evidence preservation and/or property preservation measures in the event that an injunction is granted.

TECHNOLOGY TRANSFER. HOW TO DEAL WITH

4. TECHNOLOGY TRANSFER. HOW TO DEAL WITH

4.1. Introduction

Only companies that continue to provide better products and services at a lower price will be competitive, profitable and maintain an edge in a market economy that is globalized, fast moving and demanding. A better product may be a new product or it may be a superior product. A superior product may result, for example, from an improved manufacturing process that increases cost-effectiveness by reducing production time and/or using fewer resources. Such a product may be superior by virtue of its new features, higher quality, lower cost or a combination of these.

In our days the only way to get such a products, when the traditional drivers of economic growth: land, labor and capital, are no longer sufficient to provide the necessary competitive advantage, is the innovation. In this document we are going to deal just with technological innovation.

Innovation may be defined as exploiting new ideas leading to the creation of a new product, process or service. It is not just the invention of a new idea that is important, but it is actually “bringing it to market”, putting into practice and exploiting it in a manner that leads to new products, services or systems that add value or improve quality. Innovation also means exploiting new technology and employing out-of-the-box thinking to generate new value and to bring about significant changes in society.

Such innovation may be acquired either through research and development undertaken by the company itself, in cooperation with others, or by acquiring technology developed by others which may be on offer in the market. Often, it is prudent to obtain technology from others instead of investing the time and resources to find the perfect solution oneself.

Further, a company that has come up with a new or better product or process will do well to know that there may be others searching for such a solution and it could be a good business option to transfer that knowledge and earn a bonus from an additional source of income. In fact, a number of companies have either shifted from manufacturing of products to licensing of intellectual property in the form of patents and know-how or have been set up with the sole objective of creating and licensing intellectual property without manufacturing any products. In other words, the technology becomes the product. Today, even the largest companies are no longer doing everything in-house and depend on outside sources not only for key components and services but also for technologies. Some other companies just develop technology and outsource the manufacture of the products to other companies in their own country or abroad by entering into a technology transfer agreement for this purpose.

Technology transfer can be defined as the process of sharing of or acquiring/providing/licensing skills, knowledge, technologies, intellectual property, methods of manufacturing, samples of manufacturing and facilities among governments, companies, research institutions and other organizations to enable the accessibility of scientific and technological developments to a wider range of users who can then further develop and exploit the technology into new products, processes, applications, materials or services.

4.2. Licensing Technology

Technology licensing is a contractual arrangement in which the licensor's patents, trademarks, service marks, copyrights, trade secrets, or other intellectual property may be sold or made available to a licensee for compensation that is negotiated in advance between the parties. This compensation, or royalties, may be a lump sum royalty, a running royalty (royalty that is based on volume of production), or a combination of both.

Companies frequently license their technology to companies that then use it to manufacture and sell products in a country or group of countries defined in the licensing agreement.

A technology licensing agreement usually enables a firm to enter a foreign market quickly, and poses fewer financial and legal risks than owning and operating a foreign manufacturing facility or participating in an overseas joint venture.

Licensing also permits firms to overcome many of the tariff and nontariff barriers that frequently hamper the export of manufactured products. For these reasons, licensing can be a particularly attractive method of "exporting" for small companies or companies with little international trade experience, even though licensing is profitably employed by small and large firms alike. Technology licensing can also be used to acquire foreign technology such as, cross-licensing agreements or grantback clauses awarding rights to improved technology developed by a licensee.

As a form of "exporting," technology licensing has certain potential drawbacks. One negative aspect of licensing is that control over the technology is weakened because it has been transferred to an unaffiliated firm. Additionally, licensing usually produces fewer profits than exporting actual goods or services. In certain developing countries, there also may be problems in adequately protecting the licensed technology from unauthorized use by third parties.

In considering the licensing of technology, it is important to remember that licensees may attempt to use the licensed technology to manufacture products in direct competition with the licensor or its other licensees. In many instances, licensors may wish to impose territorial restrictions on their licensees, depending on antitrust laws as well as the licensing laws of the host country.

As in all overseas transactions, it is important to investigate not only the prospective licensee but the licensee's country as well. The government of the host country often must approve the licensing agreement before it goes into effect. Some governments prohibit royalty payments that exceed a certain rate or contractual provisions barring the licensee from exporting products manufactured using the licensed technology to third countries.

The prospective licensor must always take into account the host country's:

- Foreign patent, trademark, and copyright laws;
- Exchange controls;
- Product liability laws;

- Possible countertrading or barter requirements;
- Antitrust and tax laws; and
- Government attitudes toward repatriation of royalties and dividends.

Whether or not a restraint is reasonable is a fact-specific determination that is made after consideration of the availability of:

- Competing goods or technology;
- Market shares;
- Barriers to entry;
- The business justifications for and the duration of contractual restraints; and,
- Valid patents, trademarks, and copyrights.

Given the intangible character of technology, its use by one does not detract from its use by another (see first chapter of this deliverable: **The technology is subject to indivisibilities and there is no rivalry in consumption**). In other words, it can be used simultaneously by many users for the same or different purposes without impacting in any way on its quality or functionality. Therefore, the owner of technology could potentially license the use of his technology to as many licensees as he wishes, maximizing the earning potential of his technology constrained only by the terms of the agreements that he enters into with the potential licensees.

The ways of technology transfer depend on the involved parties and the reasons behind technology transfer.

Just as an example the advantages for licencing technology can be:

- Licensors

Trying out potential new businesses or geographical markets with relatively small upfront risk entering a market or extending your existing market for a product for which your SME owns the rights to a patent, utility model or know-how protected by a trade secret, then authorizing another to use your process or product through a technology licensing agreement

Maintaining control over an original creation

Academic and research institutions engage in technology transfer for a variety of reasons, such as:

- Recognition for discoveries made at the institution
- Attraction and retention of talented faculty
- Local economic development
- Attraction of corporate research support
- Licensing revenue to support further research and education

- Licensees

Shorten product development time improving the quality of your product or manufacturing a new product by using the rights owned by others in the form of a patent, utility model, or know-how protected by a trade secret,

- Gain entry into otherwise protected industries
- Enhance quality of products and processes
- Increase sales revenue
- Build competitive advantage
- Expands existing business capabilities

4.3. Steps for Technology Transfer Agreements

As in any kind of business transaction, the due diligence is the first step for a future technology transfer agreement. We can define it as a reasonable investigation about what exactly we are going to “buy”/“sell”, how can we “buy”/“sell” it and how much we must to “pay”/“received”

Such an exercise is the process of gathering as much information as possible on the potential licensor or licensee, the technology and other similar technologies available in the market or being developed, the market, the legal and business environment (local or international, as the case may be) and any other information that would enable the potential licensor or licensee to be better informed.

As told in the first chapter of this document, Technological knowledge (the technology), as a public good, raises a number of problems, one of them is that trade of technology arises problems of adverse selection, understood as the opportunistic behavior of agents involved in the process.

We can find many examples of technology transfer agreement looking up on Internet, in the following pages, we will try to point out the key points which have to be included in a agreement. Of course, the right model it depends on the specific technology, how is protected, etc.

Licence agreement. Key points

0. INTRODUCTION

- Identification of the contracting parties. It is necessary that the contracting parties are identified and ensure that the signatories of the contract are duly authorized by the parties they represent
- What technology can provide the licensor to the licensee? It is extremely important in technology transfer agreements, the parties to ensure that the other party, in effect, owns the rights to exploit the good or service concerned and can distribute it to third parties
- Agreement reached between the parties. After identifying the contracting parties should be fixed in a clear and concrete way, why and for what of the contract. It will establish the interests of each party. Identify the contract and the purpose of it is very important, because in case of a mismatch between the parties, it will be easier the interpretation of the contract.

1. DEFINITIONS AND LICENSES GRANTED

- Definition of the territory for which the license will be granted for both manufacturing and marketing.
- What includes the licensed technology and how is protected
- What includes "technical assistance" and how is offered
- What kind of license is granted (exclusive, assignable, etc.) and what is the purpose of it (manufacturing, marketing, etc.).
- Clearly establish that the license is granted exclusively for the explicitly stated.

2. RIGHTS AND OBLIGATIONS RELATING TO KNOW-HOW and technical reports.

- Confidentiality
- Agreement on legal procedures on third parties
- Information on new patents on the technology as well as product improvements.
- Documentation relating to the transferred technology and care to be observed by the licensee. The documentation will be included in an annex of the contract and it will be delivered only after signing the contract.
- Conditions on the documentation provided by the licensee (confidentiality, non-disclosure, etc.). Obligation to sign a confidentiality clause in the case of having sub-license by the licensor.
- The obligation for the licensor to not participate in R & D projects involving some of the aspects of the licensed technology and may interfere with the operation of the same field.
- Compensation and termination of the contract if the technology is disclosed by the licensee or subcontractor of it.
- Whether or not the licensee can grant sublicenses to third parties within the territory.
- Location of manufactured products. Conditions.
- Opportunities to outsource some elements. Conditions and documentation provided to the subcontractor.
- Conditions of quality. Adapted from manufacturing to technical information provided by the licensor
- Responsibility of the products offered by the licensee.

3. PAYMENT AND REPORTING OF ROYALTIES.

- Method of payment (down payment, royalties, etc.), Including taxes or not.
- Currency used. Changes
- Payment Terms
- Communication of the statement.
- Interest on royalties due and not paid on time.
- Termination of contract in case of failure to pay on time.
- Mandatory registration for the licensee.
- Permits the licensee to the licensor regarding verification of commitments.
- Annual increase in price (inflation correction, etc.).

- Make it clear whether the amounts to be delivered will be free from taxes or other charges.

4. CONTRACT DURATION AND TERMINATION OF THIS AGREEMENT.

- Entry into force
- Delivery schedule of documentation
- Renovation and extensions
- Termination for failure to comply
- Termination in case of legal proceedings (suspension of payments, bankruptcy, etc)
- Possibilities of joint venture.
- Disposal of stocks at the end of the contract.

5. OTHERS

- Transferability of the contract
- Information on unauthorized manufacturers from the licensee to the licensor.
- Changes in the conditions of the contract, if any , between the licensor and third parties, more favorable
- Courts in case of litigation.
- References to the licensing of products.

ANNEXES

ANEX I. PCT PROCEDURE

The national or regional patent office at which the applicant enters the PCT national phase initiates the granting procedure according to prevailing national law. Statistics associated with PCT national phase entry offer information on international patenting strategies. Statistics for national phase entry are based on data supplied to WIPO by national and regional patent office several months after the end of each year.

Therefore, the latest available data refer to 2009. Some data shown in this section might be estimated, as not all offices have provided statistics.¹¹ The national phase entry section briefly describes the global trend before reviewing national phase entries by applicants' country and region of origin and by patent office.

2-.Procedure Steps

The PCT procedure consists of two main phases:

The international phase, takes place before the receiving Office, the International Bureau (WIPO) and the Authority of the international search and international preliminary examination. The national phase, takes place at the designated offices. Upon receipt of the international application, the receiving Office granted a filing date and check whether the application meets the requirements of the Treaty and its Regulations. After it is necessary send the original to the International Bureau and the search copy to the International Searching Authority. Search Administration made a report, called "international search" which aims to find out what documents in the state of the art-collection of scientific and technical knowledge made accessible to the public by any means until the date of the application-may be relevant for assessing novelty and inventive step of the invention to which international application. These two phases are the so-called Chapter I of the PCT. The Chapter II consists of an international preliminary examination is made by the authorized offices at the request of the applicant. This test determines whether the claimed invention is new, inventive step and is industrially applicable. If it is still not possible for nationals and residents in Spain benefit from this Chapter II.

2.1. Who can file an international application?

Any person or entity, national or resident in a Member State of the Treaty can file a PCT international application to the competent receiving Office. Each Member State determines PCT receiving office is responsible.

2.2 Where to submit

An applicant must file a PCT application at a receiving office (RO) and choose an International Searching Authority (ISA) that will provide an International Search Report (ISR) and a written opinion on the potential patentability of the invention. The International Bureau (IB) of WIPO publishes the application and communicates it, along with the necessary supporting documents, to patent offices of countries (or regions) party to the PCT system. After receiving the ISR and written opinion, the applicant can

choose to 1) request a supplementary international search by a Supplementary International Searching Authority (SISA), 2) file a demand for international preliminary examination with an International Preliminary.

Top 15 Receiving Offices are located in:

- United States of America
- Japan
- European Patent Office
- China
- Republic of Korea
- International Bureau
- United Kingdom
- France
- Canada
- Sweden
- Germany
- Australia
- Spain
- Finland
- Israel

Examining Authority (IPEA) or 3) take no further action. The applicant has, in general, 30 months from the priority date to enter the PCT national phase in the countries or regions in which protection is sought.

2.3. Display language

The international application must be written in a language accepted by the RO.

2.4. Designation of States

The geographical coverage of the international application is dependent on the States in which protection is sought, to be designated in the application. All can be designated in an international application, taking into account in this regard that the payment of 10 designation fees cover the designation of all of them. There is the possibility of designating all states and may, within fifteen months, then paying to confirm such appointments confirmation rates, the amount is higher than the rate of initial appointment.

2.5. Advantages of the PCT international application

The international applicant can delay the onset of processing your application in each designated office until a period of twenty months. During this period the applicant can assess with greater certainty the economic and commercial significance of his invention, taking decisions, all without incurring costs that may be useless. Since, in a relatively short time, the applicant has the international search report on its application, may, in the light of the report, knowing the state of the prior art relevant to your invention and to assess whether it is really new and enjoy the inventive, ie not obvious to an expert in the technical sector. The international application is a substantial cost

savings for the protection of inventions that would normally be met by preparing the same for each of the offices. To the extent that the international application effects of a national application in the designated States, the applicant does not need to incur the expenses incurred in the preparation and submission of an application for each state in which you want to get protection. No need to modify the international application in order to comply with the formal requirements of specific national legislation. The international application fee includes the presentation, the international search and the publication of the application and may be paid in the currency of the receiving office, in our case, Spanish currency.

3.-The international search report

INTERNATIONAL SEARCH REPORT aims, as stated above, to discover the prior art relevant to the content of the international application. This search is performed based on the demands of the international application and taking into account the description and, where appropriate, the drawings that accompany it. The search is conducted on the minimum documentation contained in Rule 34 of the PCT which includes more than 20 million patent documents and non-patent literature.

The international search report can only elaborate those offices or agencies that have been designated by the PCT Union Assembly and Administration with capacity to handle these reports and have concluded a corresponding agreement with the World Intellectual Property Organization. In 1995 the authorities of searching the world are as follows:

European Patent Office, patent offices in USA, Japan, Russia, Austria, Australia, Sweden, China and Spain. The international competition is made to search the attributes each office receiving a particular search management international search for their applications. Applicant is free to choose one or another office at the time of application.

Applicants for Spanish-speaking countries whose offices have been designated to host the SPTO as International Searching Authority is not required to make translation of your application if you opt for the SPTO as Searching Authority.

The SPTO is acting as International Searching Authority for international applications filed with the National Institute of Industrial Property in Mexico.

3.1. Language of international search report

The international search report is done in the same language as the international application is published.

3.2. Usefulness of international search report

The international search report comes at the hands of the applicant within approximately four to five months (or ten if not the priority of a previous filing in the application) as from the date of filing. While not containing an appreciation of the invention on their novelty or inventive step, serve to give an accurate indication of it to

the applicant, to the extent that the report cites the documents of the state of the art prior to the date application that may affect the content of the international application. This information, which provides the holder of a PCT international application specified in advance, you can evaluate the possibility of obtaining protection for the invention and, in particular the actual level of patenting it. Thus, the applicant has sufficient information to make decisions on investment that requires international protection of their invention. If the international search report is favourable to the patentability of the invention contained in the international application, the applicant may decide to continue processing the same, taking into account the positive outlook for the international search report predicts. If, however, the report is unfavourable, the applicant has the opportunity to amend the claims and even choose not to continue with national procedures to the designated offices thereby avoiding costs of preparing copies, with translations to initiate the relevant procedures to the offices designated in the international application.

4. - International Publication

EIGHTEEN MONTHS FROM THE DATE OF THE INTERNATIONAL APPLICATION at the PRIORITY INTERNATIONAL PUBLIC OFFICE APPLICATION, although the applicant may request the Office that his application is published at any time before the expiry of that period. If the search report is available at the time of publication of the application, the publication also published it. The publication languages are German, CHINESE, SPANISH, FRENCH, ENGLISH, Japanese and Russian. If the international application is filed in a language other than these, namely, Dutch, Danish, Finnish, Norwegian and Swedish languages that are filing applications, but not international publication, the international application is published in English translation. The publication of an international application has, in relation to any State designated in the same, the effects of the laws of that State provides for the compulsory national publication of its own national applications. These effects can be linked, by a designated State, the provision of a translation language that is official in this State when the language is different from the language of international publication in which case the effects are postponed until the date of submission of the translation (for Spain, vid. Art. 16, RD 1123/1995, of July 3).

5. - Proceedings before the designated Offices

5.1. Actions to be taken

If the applicant, in view of international search report, has a reasonable chance of success and value of your invention, start the procedure before the designated office within twenty months from the priority date or the international filing date. MADE TO POSTPONE THE TWENTY MONTHS OF ENTRY TO EXTEND CONSIDERABLY OTHER FOREIGN OFFICE WITHIN THE PRIORITY OF CONVENTION PARIS UNION THAT, YOU KNOW, is twelve months. To kick off the national stage, the applicant, within the deadline, you must perform before each designated office the following actions: A translation of the international application in the language of the State in which protection is sought. Before the European Patent Office, the translation must be submitted in one of the languages of proceedings (English, French or

German). Pay the fee established by the office designated for national or regional application, if necessary (EPO). Comply with the standards that each state has established over representation or appointment of a trustee. With the SPTO, as designated Office, there is no need to submit a copy of the international application, as it already is sent by the International Bureau. If the applicant does not meet these requirements within a specified period of twenty months, will stop in the designated State the effects of a regular national application, which amount to a withdrawal of an application by the applicant.

5.2. Applicable requirements for designated offices

The procedure by which to file an international application, once initiated the national phase. Is the standard procedure applied to national applications provided by each law. National legislation determines the state of the art, the requirement of unity of invention as well as other requirements for patentability. You can also determine the need for another set of formal policy requirements such as production of documents evidencing legal circumstances of great importance for the effectiveness of the patent on the identity of the inventor, the transfer of the right to request, obligatory to be represented by an agent appointed to the office, or the verification of the request for a translator, etc. However, no national law may require that the international application complies, in terms of its form or content, with different requirements than those provided for in the Treaty or the Regulations or these additional requirements. In no case may an international application be rejected on the ground that does not meet the requirements of the PCT or its Regulations or the national law without first giving the applicant an opportunity to correct the request to the extent and in accordance with the provisions national law by that identical situations that arise in dealing with national applications. As regards the time limit for completing the requirements under national law, the PCT does not define the term should be given to the applicant, but provides that it shall be, in any event, reasonable

6. - Using Euro-PCT system

For Euro-PCT route refers to the combined use of the PCT and European patent system.

AN APPLICATION OF EURO-PCT PATENT APPLICATION INTERNATIONAL IS THAT WHICH THE APPLICANT WISHES TO OBTAIN A EUROPEAN PATENT.

The Possibility of contact during the international phase (receiving office search and Administration) with the SPTO facilitates the communication of applicant. If the applicant under Chapter II with the completion of the exam and getting preliminary delay the entry into national or regional phase until 30 months has a significant cost reduction because the rate of the European Patent Office for examining new.

ANEX II. European patent Procedure

The European Patent Convention makes it possible to obtain patent protection in about 40 European countries on the basis of a single application. The applicant selects the countries in which he wants protection.

European patents are granted by the European Patent Office in a centralized and thus cost-effective and time-saving procedure conducted in English, French or German, its three official languages.

They have the same legal effects as national patents in each country for which they are granted. Every European patent undergoes substantive examination and can be obtained for countries which otherwise have "registration-only" systems, thus providing strong protection.

The term, scope of protection, binding text and grounds for revocation of European patents are the same for all contracting states to the European Patent Convention.

1.-How do you get a European patent?

All the contracting states to the European Patent Convention offer the possibility, as a first step, of applying for a national patent. Filing an application with a national patent office has the advantage that entry to the procedure is relatively cheap and that applicants can deal with a patent authority in their own language. If they decide that they also need protection in other countries, they have twelve months from the date of first filing to file applications for the same invention elsewhere.

They can claim the priority of the date of first filing for such subsequent applications. A European patent application can claim the priority of a national application or, as is less commonly the case, may itself be a first filing.

A European application can also be derived from an international application filed under the Patent Cooperation Treaty (PCT). This treaty offers a simplified patent application procedure for over 140 countries worldwide. It enables inventors to file a single international application designating many countries, instead of having to apply separately for national or regional patents. In this international phase, an international search and – on request – international preliminary examinations are performed. In the national or regional phase, the patent granting procedure is then carried out by the relevant national or regional patent offices, for example the European Patent Office.

2.-Contracting states to the European Patent Convention

The following states are member of European Patent Convention:

Albania, Austria, Belgium, Bulgaria, Switzerland, Cyprus, Czech Republic, Germany, Denmark, Estonia, Spain, Finland, France, United Kingdom, Greece, Croatia, Hungary, Ireland, Iceland, Italy, Liechtenstein, Lithuania, Luxembourg, Latvia, Monaco, Former

Yugoslav Republic of Macedonia, Malta, Netherlands, Norway, Poland, Portugal, Romania, Sweden, Slovenia, Slovakia, San Marino and Turkey.

European patent applications and patents can also be extended at the applicant's request to the following states:

Bosnia-Herzegovina, Montenegro and RS Serbia.

Contracting states to the European Patent Convention are automatically member states of the European Patent Organization.

3.-The grant procedure

3.1.-Filing a European patent application

European patent applications can be filed at the European Patent Office in Munich, The Hague or Berlin or at the central industrial property office of any contracting state. They may be filed online, by post or by fax or delivered in person.

3.2.-The language of a patent application

A European patent application may be filed in any language, but it will be processed in one of the three official languages, English, French and German. Therefore if it was filed in any other language, a translation in English, French or German needs to be filed within two months.

3.3.-Components of a European patent application

European patent applications consist of four or five parts: a request for grant; a description of the invention; one or more claims; any drawings referred to in the description or the claims; and an abstract. After filing, the subject-matter of a European patent application cannot be extended beyond the content of the application as filed.

3.3.1.-Request for grant

Requests should be made using the official "Request for grant" form, which is obtainable free of charge, accompanied by explanatory notes, from the European Patent Office and the patent offices of the contracting states.

The form can also be downloaded at: www.epo.org/forms

3.3.2.-Description of the invention

The description must describe the invention clearly and completely enough for a person skilled in the art to be able to carry it out. The description forms the basis for the claims.

3.3.3.-Claims

The claims must define the subject-matter for which patent protection is sought in terms of its technical features. They must be clear and concise and be supported by the description.

3.3.4.-Drawings

The application may also contain drawings. These form a useful addition to the description when they illustrate the features of the invention.

3.3.5.-Abstract

The abstract is purely for technical information and is not used to assess the patentability of the invention.

4.-Filing and formalities examination

The first step in the European patent grant procedure is the examination on filing. This involves checking whether all the necessary information and documentation has been provided so that the application can be accorded a filing date. The following are required: an indication that a European patent is sought, particulars identifying the applicant and a description or a reference to a previously filed application. If no claims are filed, they need to be filed within two months.

This is followed by a "formalities" examination relating to certain formal aspects of the application, including the form and content of the patent application, the translation, the designation of the inventor, the appointment of a professional representative and the payment of fees due.

In parallel with the formalities examination, a European search report is drawn up, listing all the documents available to the Office that are considered relevant for assessing novelty and inventive step. The search report is based on the patent claims but also takes into account the description and any drawings.

Immediately after it has been drawn up, the search report is sent to the applicant, together with a copy of any cited documents and an initial opinion on whether the claimed invention and the application meet the requirements of the European Patent Convention.

The application is published – normally together with the search report – 18 months after the date of filing or the priority date. Applicants then have six months from the date of mention of publication of the search report to decide whether or not to pursue their application by requesting substantive examination. Alternatively, an applicant who has requested examination already will be invited to confirm whether the application should proceed, unless he has waived this invitation.

From the date of publication, a European patent application confers provisional protection of the invention in the states designated in the application as published. However, it may

be necessary under national law to file a translation of the claims with the patent office in question, and to have this translation published.

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