

Module 2 Patents, licences and other legal information. Intellectual property



The aim of this chapter is to broaden the knowledge of researchers, academics and non-academics as entrepreneurial entrepreneurs about patents, licences and trademarks and to highlight their differences. It is important to note that it is useful to know where and how to look for specific legal information. Of course, when it comes to the research carried out by scientists, it is also necessary to discuss the importance of intellectual property, what it is and how to protect it.

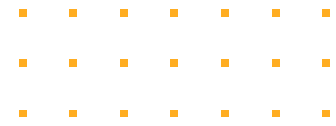
This section will also focus on introducing researchers to the concept of start-ups and spinoffs: where to start for success?

Once a scientist has conducted research and developed a prototype, his or her journey is just beginning. The process of bringing your idea to the market requires a certain amount of knowledge. Scientists who understand the value and purpose of intellectual property seek to protect and secure exclusive rights to the results of their research and prototypes. The patent is the key tool that enables them to do this. A patent gives a researcher the exclusive right to use the idea or product he or she has developed and to prevent others from copying or using it without the author's permission. Therefore, once a scientist has developed a prototype, questions often arise as concerns about how to patent it put it into production and bring the products to market before competitors researching on a similar topic do so. A key function of the patent system is to ensure the coordination of the innovation process, beyond ensuring that appropriation is restored. In some ways, patents provide a framework for designing innovations that are open and combine the following two essential properties: patents provide for the protection and disclosure of new knowledge. Both of these properties mean that patents have the potential to strengthen the process of coordination of market and out-of-market inventions.

However, to scale up quickly and to ensure business development, scientific entrepreneurs should consider licensing their patents, trademarks, copyrights and intellectual property. This will ensure access to existing infrastructure and business organisations. In essence, the entrepreneurial scientist must understand what legal solutions are available, where these solutions are available and what benefits they can bring to successfully develop their business.

- Copyrights – a form of protection for creative and intellectual works like books, music or a painting; copyright does not require registration
- Trademarks – a sign (word, logo or slogan) which is used to identify a brand from its competitors
- Patents – a new invention that has not been created before

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So a scientist with entrepreneurial skills will sooner or later come to the need to create a business. This could be a start-up or a spinoff. So in this section we will also look at what a start-up and a spinoff are and how they differ.



Patent

A scientific entrepreneur considering applying for a patent covering a product he or she has developed may be deterred by the complexity and cost of the process. However, it is recommended to seriously consider this option as the benefits of a patent usually more than offset the costs. Therefore, it is important to have an understanding of what a patent is in the first place. According to the investment education website Investopedia, a patent is "a government licence that gives the owner exclusive rights to a process, design or new invention for a specified period". This means that a scientist-entrepreneur who has patented a prototype he or she has developed is protected against competitors infringing on his or her intellectual property. In other words, it protects against the process by which the same product is created, replicated or copied and resold to another company with greater resources for production. A patented invention is a product that has already been developed. Ideas cannot be patented. Although a researcher must take into account the requirements of his country to patent his inventions, and these requirements are different between countries, the patent authorities require that the ideas being patented either take the form of tangible property or a design, through the creation of a prototype, or the provision of detailed plans and specifications. Many different patent offices are available, although no one institution can issue a worldwide patent.

Researchers applying for a patent have to pay attention to the type of patent they are applying for. Different countries not only have different requirements, but they also grant different types of patents: utility patents, design patents, invention patents, plant patents etc.



Design

Protects the design or exterior look of an invention.



Utility

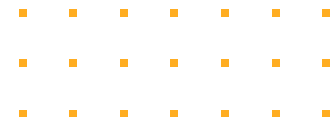
Protects inventions such as machines, processes, or systems.



Plant

Protects the invention of new plant variants.

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According to the European Union platform, the registration of a patent typically grants exclusive ownership of your patented invention for up to 20 years. During this period, no one else can manufacture, use, market, sell or import the patented products invented. On the other hand, a patent licence agreement provides others with permission to temporarily use the patented invention. In addition to licensing, a patent may alternatively be sold to others. It is very important to mention that at the end of the patent term, the patent is not renewable. The patent also protects these rights for the research entrepreneur:



The right to claim damages



The right of sale



The right to grant license use

- Right to claim damages - The owner of a patent is legally allowed to demand compensation for infringement if the unauthorised use of its invention. Alternatively, the patent owner may be legally able to claim damages if the infringer's invention is essentially comparable to the original invention.
- Right of sale: Owners of patents have the freedom to sell, import or manufacture their inventions as they choose.
- Right to grant a license: The owner of a patent is free to licence the exploitation of the invention to a third party. Allowing the third party to legally use and benefit from the patent.

A patent can be protected at the level of one or more countries. For example, registration at national level should be made with the local patent office. If protection is needed throughout Europe, the patent should be registered at the European Patent Office (EPO). The European patent must also be validated by the national patent office of in each country in which protection is necessary. According to national law, translation or payment of certain fees may be required by a particular deadline. If international protection is required, the World Intellectual Property Organisation (WIPO) must be contacted.

A researcher submitting a prototype patent application should remember that the process involves a financial investment. The possible expenses may include:

- The application fee;
- Fees for other related professional related services (e.g. worldwide professional patent research, professional attorney support, technical assistance for drawing production or prototype production, etc.).

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It is important for every scientific entrepreneur to consider that regulations are constantly changing, so entrepreneurs and scientists should therefore keep up to date with the new developments in international institutions.

Patents can enhance the coordination between the market and the innovation processes:

- Coordinating the market. Patents are a tool to ensure the growth of technology markets. The patent system ensures that manufacturing companies can sell their technologies under licensing agreements.
- Non-Market Coordination. Patents can also be a tool used to encourage collaboration and knowledge sharing. The reason for this is that patents indicate the existence of relevant knowledge, thereby making it facilitating the ability of companies to identify partners and establish coordination based on a common focal point. By protecting technology, it facilitates agreements between companies.

Recommendation. *Have you developed a prototype? You should take your time to apply for a patent. The wise thing to do is to do some homework first and spend some time searching for comparable patents worldwide. This will save money and time by ensuring that there is no other similar product or concept which is already patented or has not yet been granted a patent. Searching for patents should not be limited to a single country, as the invention you create to be patented has to be worldwide unique, and therefore the global search has to be conducted.*

Copyright refers to a type of intellectual property protected for original works of authorship, as soon as the original author captures the work in a tangible form of expression. Copyright law includes many different types of works, including paintings, photographs, illustrations, musical works, sound recordings, computer programs, books, poems, blog posts, films, architectural works, plays, and many more!



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Three requirements are required for a work to be protected by copyright:

- Original: To an original work, it has to be created independently. This is because it must be original in its own right. There is no requirement that the work be new (as in patent law), or unique, novel or inventive. To meet the concept of originality, it only needs a very small amount of creativity.
- Copyright work: In order to be considered a copyright material for the purposes of copyright protection, a work has to be a product of creative self-expression and must fall under the category of copyrightable objects. A wide range of creations fall within the scope of copyright.
- Fixed: To be eligible for fixation, a creation must be fixed in a tangible medium of expression. The protection of an eligible creation is automatic from the moment the work is fixed. A piece of work is considered fixed as long as it is permanent or stable enough to be perceived, reproduced or otherwise communicated for more than a short period of time.

Works examples that are eligible for copyright protection:

- Audiovisual works, such as TV shows, movies, and online videos
- Sound recordings and musical compositions
- Written works, such as lectures, articles, books, and musical compositions
- Visual works, such as paintings, posters, and advertisements
- Video games and computer software
- Dramatic works, such as plays and musicals

Trade marks

A trade mark refers to a sign that distinguishes a company's products or services from other companies products or services. Trademarks are protected by intellectual property rights. National, regional or EU trade mark application may be used by research entrepreneurs to expand the protection internationally, to any country that is a signatory of the Madrid Protocol.

Advantages of registering a trade mark:

- Protects the value of the brand
- Builds an asset
- Defends against rival marks
- Defines the rights of the researcher
- Prevents counterfeiting and fraud

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Licences

A licence is considered a written agreement. This agreement grants permission to use, manufacture or sell an invention, trademark or creative work. Licences can be either exclusive, allowing only one company to use or non-exclusive, enabling several different companies to use, make or sell the invention. Many factors are involved in why companies need to obtain the licences and permits they need. For example compliance requirement, when the government may require the acquisition of licenses and permits to collect income, manage business facilities and set regulations in particular areas. Or evidence of reliability. Licensing is also useful for scientific entrepreneur SMEs as it provides proof of your legal business identity and credibility. It gives more confidence customers to engage with a licensed company to prevent fraud and legal problems.

An important consideration is that a patent owner can sell the rights at the time of licensing, but not the entire prototype covered by the patent. He may licence or pass on part of the patent. The licence holder disclaims the right to the IP, which is usually for a specified period. Within that time, the licence recipient is allowed to manufacture or sell the invention or design. The licence also enables the licensee to profit from the intellectual property during the licence period.

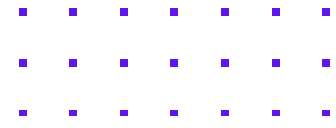
Four types of licences are available:

- exclusive licence;
- semi-exclusive licence;
- non-exclusive licence;
- open licence.

Advantages: While not all researchers are willing to manufacture or sell products or their designs. Licensing allows profiting from the rights to the prototype. For example, royalty payments on sales. Manufacturing a product or design is potentially expensive. At the same time, it may involve significant risks. Licensing allows transferring the risk to someone else. Few researchers can manufacture products on a large scale. Licensing can bring the product to a larger market. It may also be useful for distributing the invention worldwide. This is a popular tactic for entrepreneurs and start-ups.

Disadvantages: Being the patent owner, the entrepreneur might also want to exploit his/her intellectual property rights. Licensing can become part - and parcel - of a business plan. But first, a licensee or a manufacturer must be found.

Assignments



1 assignments

Go to the website of the patent office (you can use one of the useful links provided, or find the website of the patent office in your country) and search for a patent for a similar prototype to the one you are working on. Did you find it? If so, please briefly describe the prototype you found.

2 assignments

After browsing the website of the Patent Office, find and write down the documents needed to register a patent:

3 assignments

How do I know if licensing is right for a scientific entrepreneur? Those entrepreneurs who do not have sufficient financial resources to manufacture and market their patented product on their own, or simply have no interest in doing it themselves, often choose the licensing approach.

Before you consider licensing an invention, consider whether you have the necessary capital, expertise and/or desire to commercialise your invention, and whether it makes sense for you to protect the rights to the patent. Finally, it is important to consider the importance of licensing as a means of making your invention commercially available, despite a lack of business knowledge and capital.

#1

Questions for the discussion?

1. What is the difference between patents, copyrights and trademarks?
2. Which one do you think is more useful to you as a science entrepreneur?
3. Have you ever considered filing a patent application when thinking about your research and prototypes?
4. Where do you think you can go for help with patents?
5. Is your organisation interested in patenting, transferring or licensing research?

#2

Useful links

- Search for patents, legal, business information, application for patent and other useful information about European Patent Office may be found: <https://www.epo.org/>
- The International Patent System may be found in World Intellectual Property Organization (WIPO): <https://www.wipo.int/patents/en/>
- Proof of creations by Datasure, Qualified Trust Service Provider (QTSP): <https://www.copyright.eu/>
- EU Copyright Office: <https://www.eucopyright.com/>
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#3

Become a co-author

This handbook is unique in that we invite everyone to co-author it. If you are an expert and work in the field of entrepreneurship, if you want to share useful information with the readers, if you are a creator of unique tasks and believe that you can contribute to entrepreneurship in one way or another, we invite you to share your information and we will add a new chapter to the handbook that you have created.

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