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INTELLECTUAL PROPERTY BASIC MANUAL FOR RESEARCHERS IN UNIVERSITIES



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Intellectual Property Basic Manual for Researchers in Universities

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PREFACE

Technology transfer is one of the main areas in which many engineers are involved; thus, every researcher has to know the basic information regarding technology transfer in order to generate a complete technology transfer cycle. This manual aims to give a big picture of this colossal topic, since the support of technology transfer office consultant is required in a real technology transfer case.

There are several projects that can become a commercial products and they only need to be redefined for a specific market. On the other hand, the project has to be protected to be implanted in a company.

This book is for all the engineers, researchers and students who want to learn about technology transfer. Technology transfer is one of the most important topics of this age, because it is the last stage in the process for getting a final product. This book is focused on the most important aspects in the technology transfer; it could be used as a reference book when a scientist needs to generate products for a specific market. There are some examples about how the technology transfer could be developed in Mexico but a complete review about different technology transfer conditions is presented. Hence, this book can be used for students and professors.

CONFLICT OF INTEREST

The authors confirm that they have no conflict of interest to declare for this publication.

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INTRODUCTION

When we have an idea and we want to develop it into a commercial product, there are some concepts that we must clearly define.

1. Decide the project reach. Idea evaluation and opportunity recognition. Is it really needed? Is there something similar already in the market? Would customers buy it?
2. Choose the approach and return wanted. Should we develop and manufacture it? Should we sell the idea? Should we look for a joint venture? Can we patent it?
3. Foresee Sustainability of the project. Can it be easily copied? Will we be able to compete with existing products in the market? Can we really protect it?
4. How well accepted will this new invention be?
5. Ownership of results generated in the project.
6. Identification of IP owned before the start of the
7. Access rights to Foreground and Background needed during and/or after the project or to further research.
8. Access rights to or the exclusion of “Side ground”.
9. Protection of Foreground.

One important part of our product is having the idea and developing it; however, before we can develop it we need to make sure it does not already exist. After that, we must make sure that we can protect it to get a profit when it is ready. All this has to do with technology transfer, a topic this document will guide us through.

Diffusion is the process by which an innovation spreads *via* communication channels over time among members of a social system [1]. Some innovations diffuse rapidly and others very slowly, depending on their advantages and compatibility with people’s beliefs. While uncertainty might prevent an invention to diffuse widely, providing enough information might diminish that uncertainty. However, failing to transmit that information can lead to the failure of the invention. The more observable an invention is, the easier it will be to diffuse among people. An example of this is the cell phone: people quickly adopted the use of cell phones, but a new vaccine might not be as easily seen and people might not accept it easily either. This should be taken into consideration when determining a project or invention. Will the industry accept the invention? Is it very different to what is used now? Is it worth using or is the advantage of using it so negligible that people could live without it?

In today’s knowledge-driven economy, technological innovation is the key to a country’s development. Science and Engineering are the strongest generators of patents around the

world. In order to achieve innovation, research and education in Engineering must be highly promoted.

In some highly developed countries, R&D has been supported by the government for many years, which has turned them into leaders of technology development. This leadership is now being threatened, however, because of reduction of investment in equipment, facilities and personnel, outsourcing of product development to other countries due to lower costs and lesser interest of students for Science and Technology due to the low compensation in salary after several years. We must understand that our private and public Institutions have to make a change right away, invest in research locally, incite Science and Engineering studies, provide laboratories with better equipment and technology, promote interdisciplinary research, and encourage more experimentation in engineering and facilitating the propagation of successful models and entrepreneurship skills.

“R&D and other intangible investments, such as investments in software, higher education, and worker training, are key inputs driving innovation” [2]. We can think of the innovation process as an “ecosystem”, since it depends on many factors which are never static. Composed by government funds, economic regulations, the Industry investment and needs, education institutions, communication media, the market conditions and all supporting institutions for National Innovation, a country can grow, generate jobs and competitiveness based on Innovation, as shown on Fig. (1).

According to the Intellectual Property Office of the UK, just between 2009 and 2010, 84 million pounds were generated directly from IP at universities in the UK. One example of this is Cardiff University, which has generated 7 million pounds from licenses and royalties for the last five years, through ventures with companies for healthcare systems [3].

Money is not the only reason to protect an invention in Universities, though; it promotes research, creativity and involvement from different areas within the same institution. It can also attract more students, companies or even the attention of the government, due to its participation in society.

The same occurs for companies. Of course, patenting provides a means for profit by manufacturing a product, which is very valuable to companies; filing for patents, however, can also be seen as a benefit when the company patents an idea early. That could prevent them from having to pay for licensing later, which provides freedom to move to new technologies and future businesses, or even to license it, if it is a product out of their business range. Some companies, like Qualcomm, focus only on technology innovation rather than manufacturing. They constantly innovate and force their users to keep paying for licenses. A patent can also be seen as an intellectual asset for a company to differentiate it from their

competitors for original services and products amongst competitors, which increases the value of companies [50].

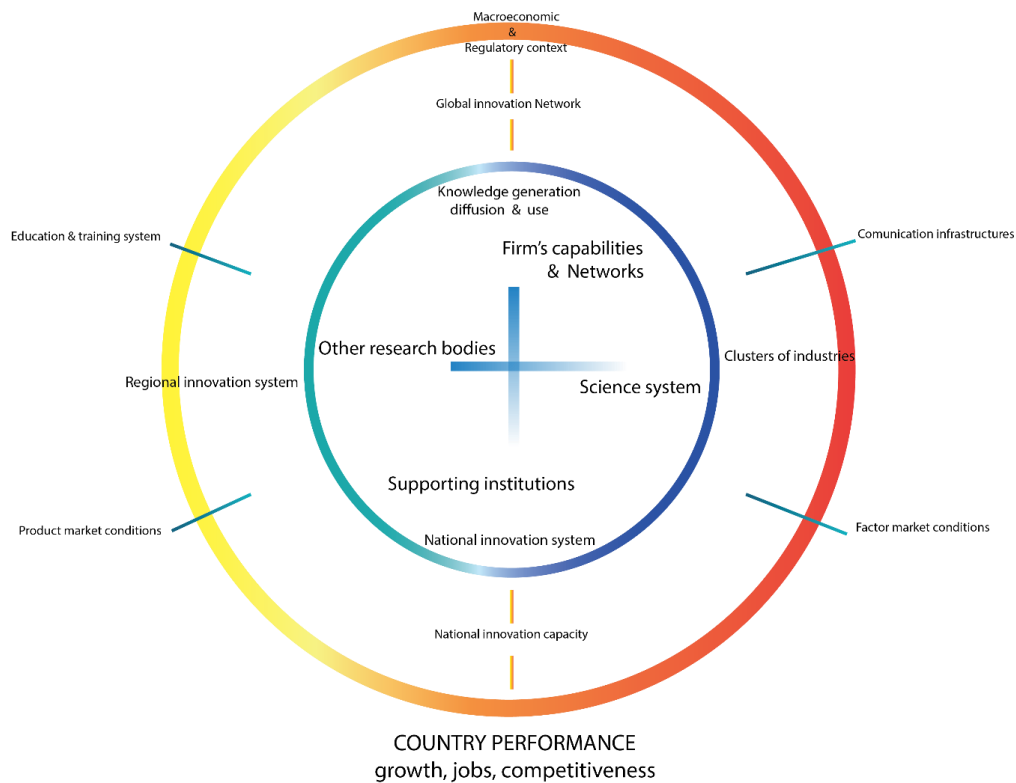


Fig. (1). Innovation ecosystem.

As reported by the World Intellectual Property Organization [4], during 2010 there were around 7.3 million patents in force, mainly granted by the USPTO (US Patent Office) and JPO (Japan Patent Office). Residents of Japan held 2 million patents and US residents held 1.46 million patents. Their share is around 48% of the world's total number of patents, while Mexico accounts for around 10% of the world's total.

Technology transfer does not only occur between the industry and Academia; it also happens between government and industry, for example, in the health sector. By 1993 AIDS was the leading cause of death of young people in the US (25-44 years old). Two scientists from a National Cancer Institute research program discovered the use of Didanosine to treat AIDS. They transferred the technology to a drug company that could rapidly develop the new drug. They offered the license, which was initially exclusive but would become non-exclusive prior

to the expiration of the National Institute of Health (NIH) patents. The company that obtained the technology transfer was Bristol-Myers Squibb, which developed the medicine Videx[®], that drastically reduced the incidence of AIDS and deaths in the US from 1994 to 2000 [5]. The NIH Office of Technology Transfer uses a Confidential Disclosure Agreement with companies for reviewing patent applications to ensure rapid commercialization and benefit the public.

Table 1 shows an overview of total (resident plus applications abroad) IP activity by origin, in 2010.

Table 1. Total number of patents applications by country of origin in 2010.

Origin	Patents	Marks	Designs
Germany	5	1	1
China	3	3	2
United State of America	2	2	5
France	6	5	4
United Kingdom	7	4	7
Japan	1	10	9
Italy (1)(2)(3)	11	7	3
Switzerland (2)(3)	8	9	6
Republic of Korea	4	14	10
Netherlands	9	8	12
Mexico	38	26	45

Technology Transfer in Universities

Abstract: One of the better known missions of university is to teach and create knowledge; however, in today's world, it also needs to focus on research to generate development for society's growth. Universities are now making Intellectual Property (IP) and patenting their research, either to generate profit and transfer that technology by licensing it or selling it to the industry to commercialize it or to help the economic development of their region. Specialized offices are created within the university to facilitate the interaction between the university researchers and the industry. Universities in Mexico have started to follow the path of Technology Transfer, but there is still so much to learn to achieve the international levels and to meet the industry needs. Thus some new guidelines and process are introduced to the researchers to identify the potential future of an investigation.

Keywords: Agreements, Commercialization, Industry-academia, Intellectual property, IP guidelines, Licensing, Management, Patenting, Technology transfer, Universities.

Several universities worldwide, but mainly in the United States, have understood the need for technology transfer and are creating companies and patenting their research. Table 1.1 shows international applications from academic institutions through the Patent Cooperation Treaty (PCT) from 2008 to 2010 [4].

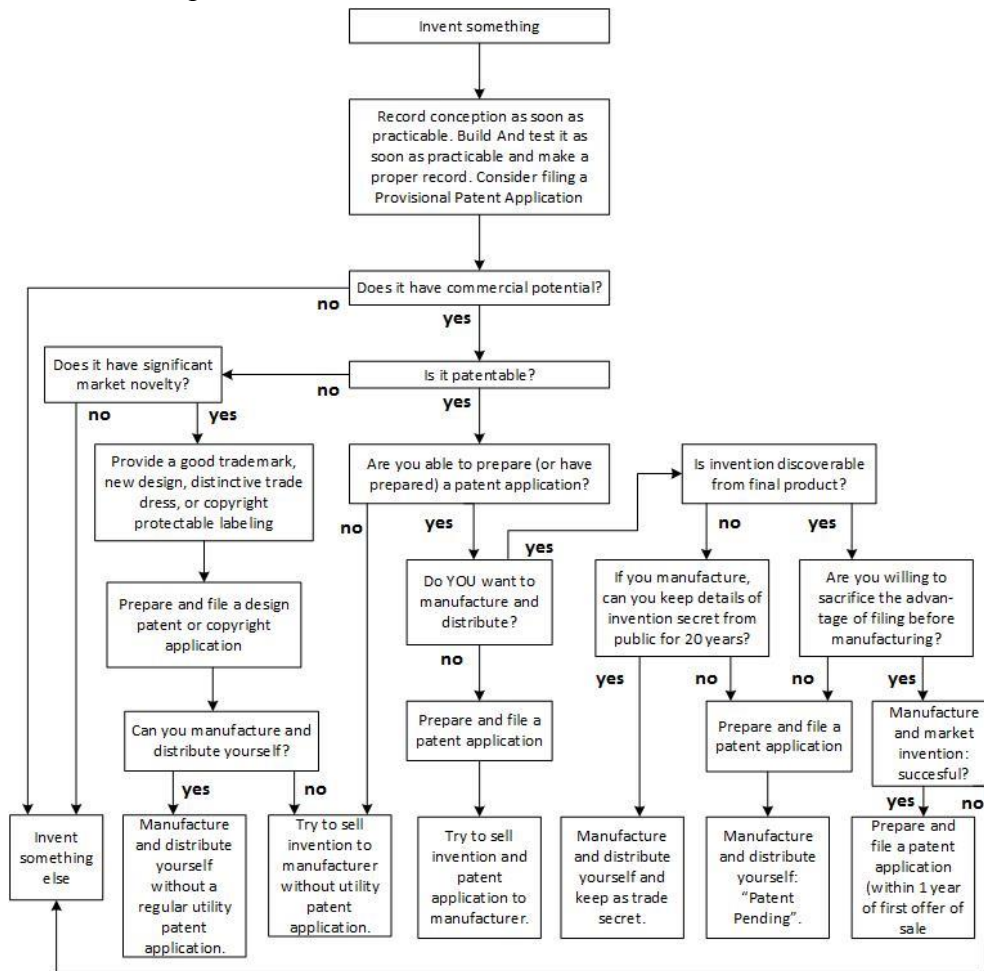
The products from university research impact our daily life, from toothpaste, seat belts, computers, radio, internet, internet search engines, scientific tools, new construction materials, medicines and treatments, vaccines, to medical practices like open heart surgery, medical devices and crime warfare; thousands of products have been created in the most important universities around the world [40].

Table 1.1. International applications from academic institutions through PCT from 2008 to 2010.

Overall Rank	Applicant's Name	Country of Origin	Number of PCT Applications		
			2008	2009	2010
39	UNIVERSITY OF CALIFORNIA	United States of America	347	321	304
100	MASSACHUSETTS INSTITUTE OF TECHNOLOGY	United States of America	189	145	146
115	UNIVERSITY OF TEXAS SYSTEM	United States of America	159	126	129
143	UNIVERSITY OF FLORIDA	United States of America	127	111	107
144	UNIVERSITY OF TOKYO	Japan	71	94	105
156	SEOUL NATIONAL UNIVERSITY	Republic of Korea	72	76	97
167	COLUMBIA UNIVERSITY	United States of America	130	110	91
167	HARVARD UNIVERSITY	United States of America	110	109	91
176	JOHNS HOPKINS UNIVERSITY	United States of America	81	87	89
198	CORNELL UNIVERSITY	United States of America	49	70	81
205	UNIVERSITY OF MICHIGAN	United States of America	70	61	79
211	UNIVERSITY OF PENNSYLVANIA	United States of America	99	80	76
284	OSAKA UNIVERSITY	Japan	57	38	60
284	ARIZONA STATE UNIVERSITY	United States of America	31	37	60
289	UNIVERSITY OF UTAH	United States of America	60	66	59
289	UNIVERSITY OF ILLINOIS	United States of America	68	52	59
325	LELAND STANFORD JUNIOR UNIVERSITY	United States of America	83	67	54
344	KOREA ADVANCED INSTITUTE OF SCIENCE AND TECHNOLOGY	Republic of Korea	24	43	51
349	CALIFORNIA INSTITUTE OF TECHNOLOGY	United States of America	82	52	50
349	PURDUE UNIVERSITY	United States of America	36	45	50
366	DUKE UNIVERSITY	United States of America	46	38	48
375	WISCONSIN ALUMNI RESEARCH FOUNDATION	United States of America	89	64	47
375	UNIVERSITY OF SOUTHERN CALIFORNIA	United States of America	59	64	47
375	KYOTO UNIVERSITY	Japan	44	44	47
384	ISIS INNOVATION LIMITED	United Kingdom	35	45	46
384	HANYANG UNIVERSITY	Republic of Korea	19	27	46
402	UNIVERSITY OF MARYLAND	United States of America	47	36	44
413	HEBREW UNIVERSITY OF JERUSALEM	Israel	44	33	43
421	UNIVERSITY OF NORTH CAROLINA	United States of America	37	38	42
429	TOHOKU UNIVERSITY	Japan	34	39	41
442	SWISS FEDERAL INSTITUTE OF TECHNOLOGY	Switzerland	26	36	40
447	TEL AVIV UNIVERSITY	Israel	41	47	39
460	YONSEI UNIVERSITY	Republic of Korea	43	51	38
460	UNIVERSITY OF MASSACHUSETTS	United States of America	44	41	38
460	NORTHWESTERN UNIVERSITY	United States of America	49	32	38
460	HOKKAIDO UNIVERSITY	Japan	35	33	38
460	KEIO UNIVERSITY	Japan	28	34	38
483	UNIVERSITY OF WASHINGTON	United States of America	52	52	37
483	INDIANA UNIVERSITY	United States of America	22	24	37
496	OKAYAMA UNIVERSITY	Japan	26	24	36
496	MIAMI UNIVERSITY	United States of America	20	30	36
514	CAMBRIDGE UNIVERSITY	United Kingdom	28	27	35
525	UNIVERSITY OF COLORADO	United States of America	29	38	34
525	EMORY UNIVERSITY	United States of America	40	24	34
525	UNIVERSITY OF QUEENSLAND	Australia	33	29	34
525	NAGOYA UNIVERSITY	Japan	28	27	34
559	STATE UNIVERSITY OF NEW YORK	United States of America	51	39	32
559	OHIO STATE UNIVERSITY RESEARCH FOUNDATION	United States of America	40	43	32
577	ISRAEL INSTITUTE OF TECHNOLOGY	Israel	45	66	31
577	POSTECH FOUNDATION	Republic of Korea	32	39	31
577	NIHON UNIVERSITY	Japan	21	22	31

According to Forbes' list of the most entrepreneurial colleges in the US in 2011 [6], Stanford, MIT and Harvard were identified as the most productive universities, their alumni having founded more companies with 10 or more employees:

1. **Stanford:** One of its alumni is the founder and CEO of Capital One Financial (2011 revenue: 18.5 billion dollars).
2. **MIT:** As of 2006 there were 25,600 active companies founded by MIT alumni, employing approximately 3.3 million people.
3. **Harvard:** Has produced 10 self-made billionaires.



(a)

Fig. 1.1 contd.....

Intellectual Property

Abstract: Throughout this chapter different kinds of Intellectual Property will be discussed. Each kind will be defined, the cases in which any of them may apply will be shown, and also some of the steps to follow for the application will be revised. These kinds of intellectual property are: patents, copyrights, trademarks and trade secrets, and each one is different within different countries. Finally the importance of the intellectual property within companies is discussed, as for the impact of this has to their economic development.

Keywords: Application, Companies, Copyright, Indautor, Infringement, Invention, Laws, Licensing, Patent, Process, Protection, Software protection, Trademark, Trade secret, Utility.

A research made by the Advancing Science Serving Society (AAAS) in 2007 [23] shows that Academia is second, after Industry, to obtain Intellectual Property in Life Sciences. Their method to transfer IP is mainly through Material Transfer Agreements (MTA), while the Industry uses more exclusive and non-exclusive licensing. Industry takes longer to acquire technology than Academia, Government or Nonprofit Organizations. Industry also has more difficulties in Acquiring Last Patented Technology due to overly complex negotiations.

Fig. (2.1) and Fig. (2.2) [23] show how Patent is the most used method for protection in almost every field, especially in the industry in the United States.

Some technologies combine different kinds of Intellectual Property protection. For example: software might have a patented algorithm, a copyrighted computer code and a trademarked name. Fig. (2.3) [24] summarizes the different forms of Intellectual Property.

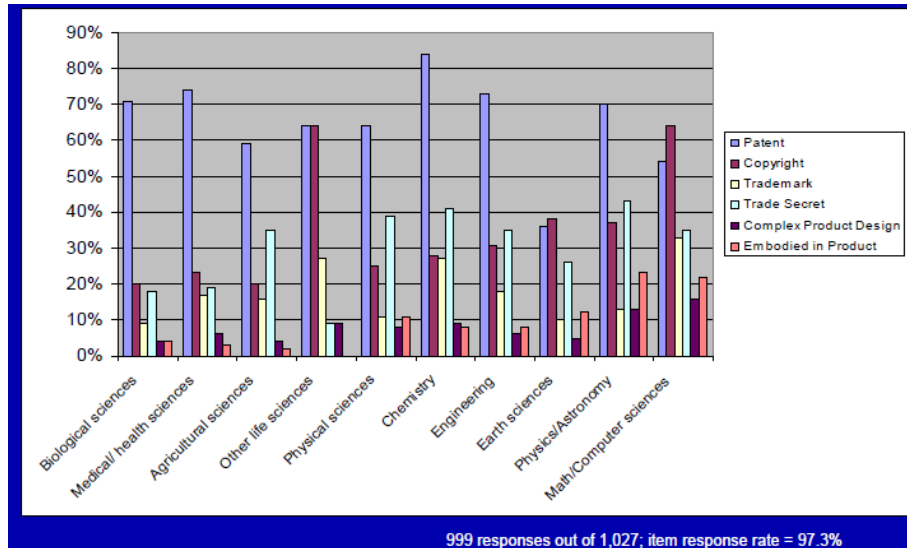


Fig. (2.1). Method of protection of last innovation (by field).

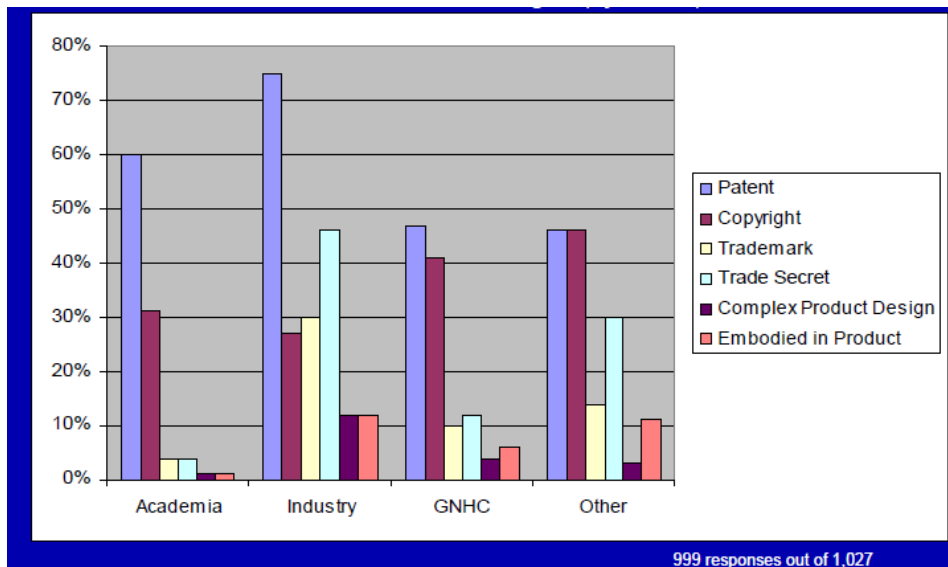


Fig. (2.2). Methods of protecting IP (by Sector).

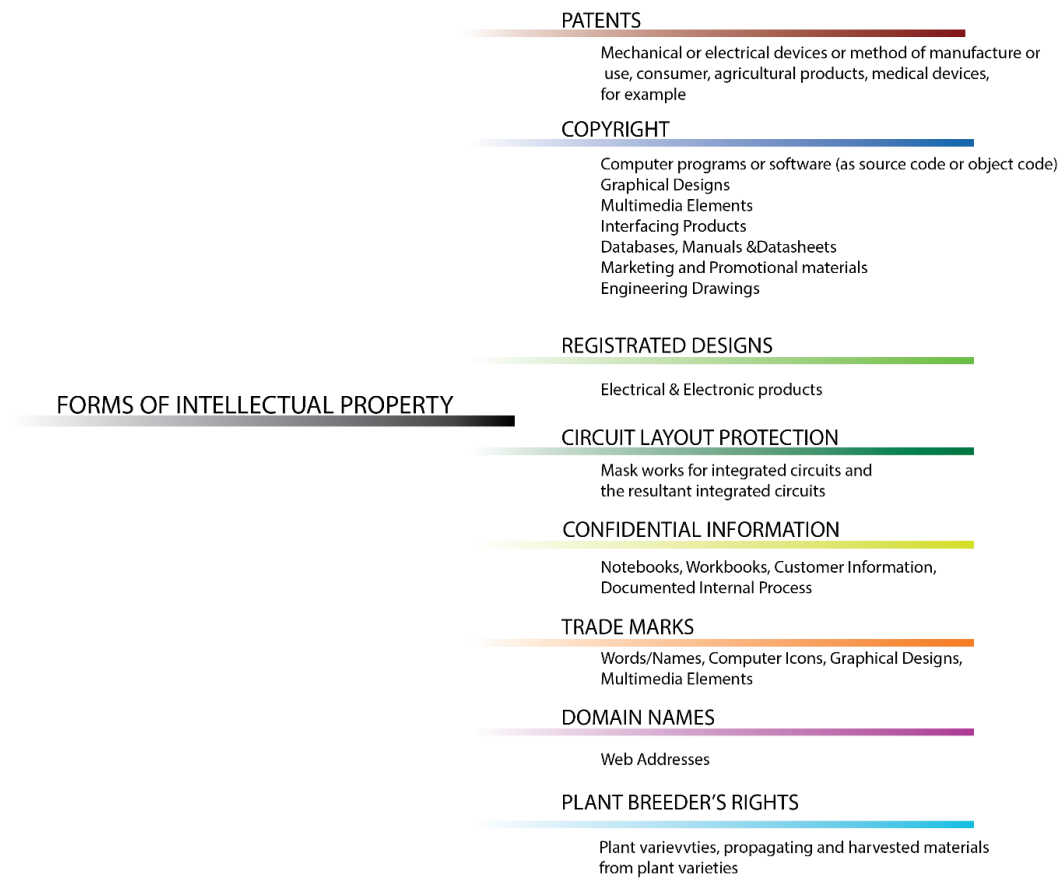


Fig. (2.3). Different forms of intellectual property.

2.1. PATENTS

A patent is an intellectual property right that excludes others, for a limited time, from making, using, offering for sale, or selling an invention, in exchange for public disclosure of the invention when the patent is granted [25]. A patent can be considered as a contract between the government and the inventor, which grants monopoly of the invention for 20 years. There are three types of patents:

1. **Utility Patent:** Granted to inventions, discoveries, processes and machines, article of manufacture or composition of matter.
2. **Design Patent:** Granted to new and original design for an article or manufacture.

Steps to Search for Patents of a Product

Abstract: One of the very first steps before writing or submitting a patent is searching for any similar patents already registered. This step is crucial because if any similar patent exists, the new patent has to be a specific percentage different to be considered a new invention otherwise it will be rejected and valuable time and money will have been wasted. In this chapter some recommendations are made to help you search for patents already registered either for a specific country or internationally.

Keywords: Applications, Cost, Evaluation, Factors of marketability, Internet, Market, Office of patents, Patent, Patent searchers, Products, Research, Search engine, USPTO.

3.1. IDEA SELECTION

Following the aforementioned description to generate, evaluate and select an idea, we will have an idea to start from.

3.2. PERFORM A RESEARCH FOR THE PRODUCT

It is very important to ensure that the new product does not already exist on the market or that it has not been patented already. Do the following research:

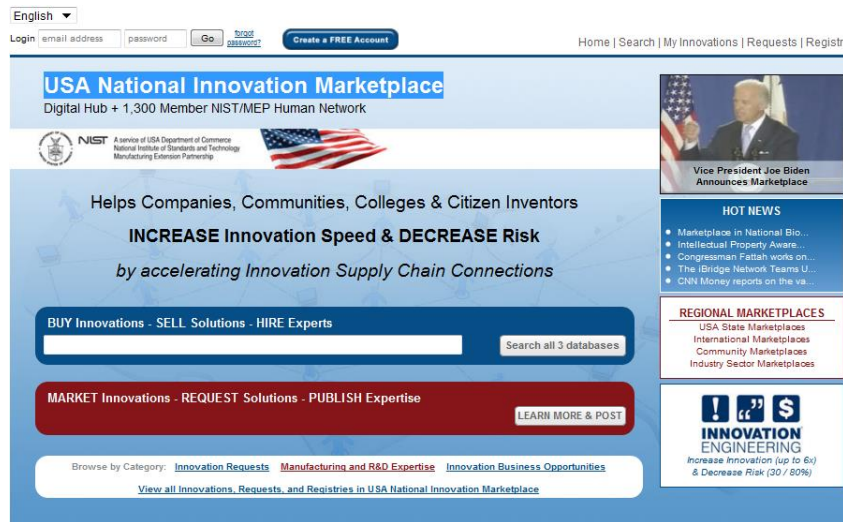
3.2.1. Internet

Research for the product in any internet search engine, like Google or Yahoo. Enter different words to describe the product to make sure it does not exist.

3.2.2. USA National Innovation Marketplace

This website allows us to look for inventions in the market. Follow the link

http://innovationsupplychain.com/ and type the product in the first field and click search.



3.2.3. USPTO

The **United States Patent and Trademark** is an agency of the United States Department of Commerce that issues patents and trademark registration for product and intellectual property identification.

Go to the website: <http://www.uspto.gov/> and click on search patents.



Look for both patented products and those that have been filed for patent but are still being evaluated.

Click on Quick search and enter the information we are looking for.

We present here an example of a patent pointing at some important information:

Industrial Property in Mexico

Abstract: As explained in the previous chapters, every country has their own laws regarding industrial property and different guidelines for applying to them. In this chapter the whole process of industrial property will be focused on Mexico, from the steps to write and fill an application format to what happens to a patent when it reaches the expiration date. Finally some policies about intellectual property that the Tecnológico de Monterrey follows are shown.

Keywords: Development, Formats, Idea, IMPI, Industrial design, Innovation, Invention, Mexico, Patent guide, Protection, Public domain, Tec de Monterrey, Third parties, Trade secret, Utility model.

The IMPI (Industrial Property Mexican Institute) is the Mexican public institution that protects industrial property rights.

Industrial Property in Mexico protects **inventions** (*e.g.* Patents, Utility Models, Industrial Design, Layout Design of Integrated Circuits) and **distinctive signs** (*e.g.* Trademarks, Commercial Names). Patents and Utility Models can be protected in different countries when filing an application in that specific country.

Table 4.1 shows the different ways to protect Industrial Property (IP) in Mexico [32], their scope, term, and some benefits (*the information of Table 4.1 was literally taken from www.impi.gob.mx*).

4.1. MEXICAN PATENT GUIDE

This is a guide that shows how an application for a patent should be done in Mexico at the offices of the IMPI.

Table 4.1. Types of intellectual property in Mexico.

Type of Protection	Scope and Term	Example	International Rights	Benefits
Patent	<p>A patent defines the invention of a product or procedure that usually has a practical use, a new and previously unknown feature, and must represent an innovation step, that is, a creative process whose results that are not readily apparent.</p> <p>In Mexico, scientific theories, mathematical methods, vegetal and animal derivatives, discoveries of natural substances and commercial or medical treatment methods are not patentable.</p> <p>A patent will have a non-renewable term of 20 years from the date from the date of filing and will be subject to payment of the corresponding fees.</p>	<p>A tortilla manufacturing machine.</p> <p>Patent number: 227655</p>	<p>A patent granted in Mexico provides protection only within national borders.</p> <p>There are two options to protect inventions in other countries:</p> <ul style="list-style-type: none"> - File a patent application in target countries within the next 12 months after the date of filing in Mexico. - File an international application according to the Patent Cooperation Treaty (PCT) administered by the World Intellectual Property Organization (WIPO) at the IMPI offices. 	<p>A patent gives us the right to stop others from using or selling our invention.</p> <p>We can manufacture or commercialize our invention or grant one or more licenses to others.</p>

(Table 4.1) contd....

Type of Protection	Scope and Term	Example	International Rights	Benefits
Utility Model	<p>These are objects, utensils, devices or tools that, after a change in their arrangement, configuration, structure, or form, have a different function regarding its parts, or a utility advantage.</p> <p>The registration of utility models will have a non-renewable term of 10 years from the date of filing and will be subject to payment of the corresponding fees.</p>	A utility model for a device to siphon liquids from large jugs (containers).	<p>A utility model registered in Mexico provides protection only within national borders.</p> <p>There are two options to protect inventions in other countries:</p> <ul style="list-style-type: none"> - File a utility model application in target countries within the next 12 months after the date of filing in Mexico. - File an international application according to the Patent Cooperation Treaty (PCT) administered by the World Intellectual Property Organization (WIPO) at the IMPI offices. 	A utility model gives the right to stop others from using or selling it. We can manufacture or commercialize the utility model or grant one or more licenses to others.

Case Studies

Abstract: Some of actual research projects in the Tecnológico de Monterrey that followed an intellectual property process are shown as case studies in this chapter. Each case demonstrate different requirements of protection depending of the final use for the patent, either to commercialize it on its own country of invention or internationally. The projects are: Exoskeleton controlled by brain signals, intelligent control toolkit for LabVIEW, climate control for greenhouse and its control system, intelligent wheelchair, reconfigurable micro machine tool.

Keywords: Agreement, Business plan, Case study, Commercial product, Contracts, Control system, Design process, Inventor, Licensing, Market, Patent, Product, Product cycle, Profit, Royalty, Software.

5.1. EXOSKELETON CONTROLLED BY BRAIN SIGNALS

The following Case Study will help to illustrate the process to patent a project.

1. Project Scope:

Create a device that will help a paraplegic person to walk. It will consist of an exoskeleton for human legs controlled by an Artificial Intelligence control that senses the brain signals for walking and activates actuators in hips and knees to walk.

2. Research:

- a. Internet - Use Google to search for exoskeleton.

The screenshot shows a Google search interface. The search bar contains the text "exoskeleton for human legs". Below the search bar, it indicates "Search About 500,000 results (0.33 seconds)". The results are categorized by type: Web, Images, Videos, News, and More. The top result is a web link from wired.com titled "Lightweight Exoskeleton Gives Paraplegics New Legs | Gadget Lab ...". Below this, there are several PDF links from roboticsproceedings.org and biomech.media.mit.edu, all related to exoskeleton design for human legs. A location dropdown menu is visible on the left, set to "Mexico City, Distrito Federal".

b. USA National Innovation Marketplace – This website allows us to look for inventions in the market.

i. Follow the <http://innovationsupplychain.com/> and type the product.

The screenshot displays the homepage of the USA National Innovation Marketplace. At the top, there is a navigation bar with a language dropdown set to "English", a login section for email and password, and a "Create a FREE Account" button. The main header features the site's name and tagline: "USA National Innovation Marketplace Digital Hub + 1,300 Member NIST/MEP Human Network". Below this, a central message states: "Helps Companies, Communities, Colleges & Citizen Inventors INCREASE Innovation Speed & DECREASE Risk by accelerating Innovation Supply Chain Connections". A search bar is prominently displayed with the text "BUY Innovations - SELL Solutions - HIRE Experts" and "exoskeleton" entered. To the right, there are several informational boxes: "HOT NEWS" with a list of recent updates, "REGIONAL MARKETPLACES" listing various marketplaces, and a logo for "INNOVATION ENGINEERING" with the tagline "Increase Innovation (up to 6x) & Decrease Risk (30 / 80%)".

ii. The results will show as following:

The screenshot shows the USA National Innovation Marketplace website. The main heading is "Innovation Business Opportunities". The featured innovation is "Noninvasive Neural Decoding of Human Bipedal Locomotion (PS-2010-072)", described as a non-invasive method for extracting and decoding brain signals. Below the description is a table with sales forecasts and innovation status.

Annual Sales Forecast for USA *				Innovation Status		Idea
Sales & Marketing Support Level	Conservative 80% odds of selling	Most Likely 50% odds of selling	Aggressive 20% odds of selling	Development Status	Proprietary Protection Status	Concept Score
Ultra Low	\$0	\$35,000	\$240,000	1 of 5 In Development	2 of 5 Patent Pending	40 29 is Average
Low Support	\$500,000	\$1.1 M	\$2.1 M			
Medium Support	\$4.8 M	\$8.0 M	\$13.0 M	Remaining Time & Cost to First Sale		
High Support	\$12.9 M	\$22.2 M	\$34.8 M	Unknown	Unknown	
Ultra High	\$24.3 M	\$41.7 M	\$65.3 M			

Noninvasive Neural Decoding of Human Bipedal Locomotion (PS-2010-072) - non-invasive method for extracting and decoding brain signals
Final Decision Maker: hospitals

In the past two decades, significant advancements have been made in the development of wearable robots or "exoskeletons" for medical rehabilitation training (restoration of walking and running after spinal cord injury, for example), and for motor performance enhancement applications in which the exoskeleton is not permanently integrated with the body (e.g. "super soldiers"). However, while the evolution of exoskeleton hardware has proceeded at a rapid pace, controlling these devices has lagged significantly behind.

c. USPTO - The **United States Patent and Trademark** is an agency from the United States Department of Commerce that issues patents and trademark registration for product and intellectual property identification.

i. Go to the website: <http://www.uspto.gov/> and click on search patents.

Basic Glossary of Patent Terms

(The main information about definitions was taken from Patent Savvy for Managers: Spot & Protect Valuable Innovations in Your Company, Kirk Teska, Nolo, Nov 7, 2007 - Business & Economics - 296 pages). If you need more information about definitions, please review the above reference.

Abstract is a text that shows a consisted description of the patent.

Abandonment is an action that appears when the inventor has given up all claims to a patent on the invention.

Actual damages is a legal process for covering an injury or economical loss.

Answer is a legal process for admitting or denying a the allegations.

Best mode is the way that the invention is embodied.

Board of Appeals is the tribunal of judges at the PTO.

Cease letter is defined normally as the request of all infracting activity.

Clear and convincing proof are proofs that release from serious doubt.

Complaint is generally called causes of action and filled with a court clerk.

Compositions of matter are normally chemical compositions.

Conception is the idea that is the initial stage in an invention based on the mental part of inventing.

Confidentiality agreement (nondisclosure agreement) an agreement to no-disclose certain information about the invention.

Continuation application is a new patent application.

Continuation-in-Part (CIP) is used when information (new matter) is included.

Continuing Prosecution Application (CPA) a continuation based on a patent application.

Contributory infringement is applied when material component of a patented invention is sold.

Copyright is a legal protection to prohibit others to use or sell your inventions if they do not have a legal agreement.

Counterclaim is normally a legal claim.

Court of Appeals for the Federal Circuit is the federal court that deals with in patent appeals.

Date of invention is the earliest date in which the inventor can prove that the invention was build or a patent was filled (those are the most important ways for fixing a date of invention).

Deposit date is the date when the PTO gets a patent application.

Deposition it could be an oral or written testimony of a party or witness.

Design patent normally covers the visible shape of a non-natural object.

Examiner's answer is a summary done by a patent examiner to response to an applicant's brief.

Final office action is the examiner's response to the first amendment of applicant.

Generic is an entire class of related species or items.

Grace period is generally a period of time when the normal period for taking action has passed.

Invention is normally a novel article, machine, composition, or process.

Machine a system used for accomplishing a specific task.

Patent is a grant from a government that allows an inventor to omit others from making, using, selling, importing, or offering an invention for sale for a fixed period of time.

Patent application is a set of documents for describing an invention and they can be used for filling in a patent office.

Provisional Patent Application is an interim document that describes how to make and use the invention.

Utility patent a rule excusing an inventor from the one-year bar provided that the alleged sale or public use was primarily for the purpose of perfecting or testing the invention.

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