

INTERNATIONAL FEDERATION OF INVENTORS' ASSOCIATIONS (IFIA)


WORLD INTELLECTUAL PROPERTY ORGANIZATION

# INVENTORS AT THE DAWN OF THE NEW MILLENNIUM: WIPO-IFIA INTERNATIONAL SYMPOSIUM 

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# SMALL AND MEDIUM ENTERPRISES (SMES), INVENTORS AND INTELLECTUAL PROPERTY: IN THE GLOBAL MARKETPLACE 

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## INTRODUCTION

1. In the last ten years intellectual property has experienced substantial changes that have been reflected in the majority of Latin American countries.
2. Those changes have centered on the expansion of intellectual property protection to new sectors of technology, especially computer programs and living matter, and also the universal introduction of certain minimum standards of protection applicable to most of the areas encompassed by intellectual property.
3. The universal applicability of certain standards of intellectual property protection achieved its ultimate expression with the adoption - as a part of the Final Act of the Uruguay Round in 1994 - of a far-reaching intellectual property agreement (the TRIPS Agreement), which links all Members of the World Trade Organization (WTO).
4. It might be asked to what extent the above changes affect small and medium-sized businesses in the Latin American region. To answer that question we have to establish what effect the various intellectual property titles have on the activities and inventions ${ }^{1}$ that predominate in the region.
5. It should be pointed out that a large number of Latin American countries have in the last ten years introduced substantial amendments to their intellectual property systems that have had the effect of broadening and strengthening protection, particularly in the case of patents, utility models and trade secrets.

## PATENTS

6. Patents have been the focus of recent debate on intellectual property, and indeed one of the causes of lively exchanges between industrialized and developing countries. Patents, to the extent that they concern us here, may be considered from three complementary viewpoints, namely as a medium for the protection of inventions, as a source of information and as an obstacle to imitation.
(a) Protection of inventions
7. Patents confer exclusive rights on their owner for a limited period of time (under the TRIPS Agreement at least 20 years from the filing date of the application). A registered patent prevents potential competitors from making use of the invention, and at the same time generates income during its term. It also prevents the appearance on the market of goods similar to the patented goods. The fact of enjoying a privileged position on the market is the quid pro quo with which the patent system rewards whoever has invested in the making of the invention, generally a company.

[^0]8. Patents have been a subject of considerable controversy in Latin America, especially in connection with the introduction of pharmaceutical patents. Many countries, on accepting the introduction of such patents, have tried to create machinery to guarantee certain margins for competition, for instance by provision for compulsory licenses and limited exceptions to exclusive rights.
9. Regardless of this controversy, patents applied for in developing countries, including Latin American countries, are few, on account of the low level of investment by those countries in research and development (R\&D) activities. Developing countries account for only about $3 \%$ of world R\&D investment.
10. Patents are granted for inventions, of course, in other words for ideas that have to be new in world terms, be the result of an inventive step (or not be obvious to an expert in the field) and be applicable in industry (including agriculture, fishing or mining).
11. There are very few technological advances that are made in the region and meet the above patentability requirements, as in Latin America there is not so much actual inventing as adaptation and improvement of imported or existing technology.
12. To invent something, it is generally necessary to have resources available and also considerable technological capacity, and to devote much effort to $\mathrm{R} \& \mathrm{D}$ work. There are very few companies in Latin America with the size and capacity necessary for engaging in such work. Many of those that are large enough to make investments of that kind operate in areas in which $\mathrm{R} \& \mathrm{D}$ is not important, namely because they are technologically developed areas (like the textile and food sectors), or because the companies are involved in the production of goods, and also services, that are not marketed on an international scale.
13. The great majority of Latin American SMEs lack the capacity and the necessary resources with which to carry out R\&D activities; consequently it is not surprising that little use is made of the patent system. That does not mean of course that SMEs working in high technology areas (such as biotechnology) are capable of achieving patentable results.
14. The low level of invention is reflected in the patent statistics of Latin American countries, with only small numbers of patents being registered in comparison with the corresponding numbers in industrialized countries. In addition, as we have already said, the owners of the great majority of those patents are in fact foreigners.
15. It is not only difficult for an SME to reach patentability levels. After having done so it has to contend with another difficulty deriving from the territorial nature of industrial property. That means that a patent granted in Peru, for instance, is valid only in that country. If you want to protect the same invention in other countries - including the major markets in the United States and Europe - you have to have it registered in each country. ${ }^{2}$
16. In view of this territorial scope of industrial property, one important question is to work out in what countries protection should be applied for.

[^1]17. The international registration of a patent not only presupposes the capacity for processing it; the cost is also high. There are three types of cost:

- costs associated with securing registration abroad, which are considerable;
- the cost of the annual fees for the maintenance of patents, which vary according to the country of registration;
- costs arising from the maintenance of the title or from legal proceedings instituted against infringers.

18. The last-mentioned type of cost can be particularly substantial and unpredictable. There is no point in having a patent if it cannot be enforced against infringers. Litigation abroad especially in industrialized countries - is extremely expensive and the results are uncertain.
19. On account of the above costs, it is difficult for an SME to contemplate a very broad geographical coverage. The main problem is therefore to decide in what countries, in additon to one's own, it is really worth obtaining protection. Generally those countries will be the ones to which exports may be made during the life of the patent, in itself something that is difficult to determine in advance, but for which there are certain parameters. At the same time it has to be borne in mind that in countries in which the patent (or the utility model, the industrial design or the trademark) is not registered, the subject matter concerned will be public property.
20. So, in essence, the use of patents as an instrument of protection for the inventions of SMEs is not necessarily either an immediate or a simple solution, but it cannot be left out of any corporate strategy, especially in the case of companies operating in areas of technology that are constantly evolving. Patents do have a second function, however, which concerns SMEs more directly, namely as a source of information. We shall see below that there are also other intellectual property titles (like utility models) that may be of great interest to Latin American SMEs.
(b) Source of information
21. One of the basic principles of the patent system is that exclusive rights are granted in exchange for information on the patented invention being brought to the notice of the public by disclosure of a description.
22. The information contained in registered patents is an extremely important reference for monitoring technological development, especially in the areas that evolve the most.
23. Patentdocuments include the claims, that is, a precise description of what the inventor regards as being his contribution, in which he sets forth what was already known before (the "prior art" or "state of the art") and explains the differences between it and that which he claims as being patentable.

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24. Depending on the areas concerned, access to the documents of registered patents can be of particular importance in determining innovative and marketing strategies. Some patent offices (like the National Institute of Industrial Property of Brazil) have actively promoted the dissemination of patent information throughout the industrial sector. Many offices in Latin America have recently improved their information systems to make for easier private-sector access. ${ }^{3}$
25. On account of the type of technology (generally developed) with which SMEs work, or lack of practice in the perusal of patents, there is a relatively low level of effective use of this sort of information in the region. This was revealed by a survey of 30 companies (see Table 1) that work in the field of biotechnology in five countries of the region (Argentina, Brazil, Chili, Colombia and Uruguay).

TABLE 1

## Assessment of the Various Sources of Information <br> (\% of affirmative replies)

| Source of information | A | B | C |
| :--- | :---: | :---: | :---: |
| Books and specialized periodicals |  | 20.0 | 76.7 |
| National information on patents | 60 | 30 | 6.7 |
| International patent information | 43.3 | 39.9 | 13.3 |
| National advisory and consultative services | 23.3 | 39.9 | 13.3 |
| Foreign advisory and consultative services | 33.3 | 19.9 | 39.9 |
| Personal contact with national investors | 16.7 | 33.3 | 43.3 |
| Personal contact with foreign investors | 13.3 | 33.3 | 43.3 |
| Personal contact with employees of other <br> biotechnology companies | 39.9 | 36.6 | 13.3 |
| Contacts with providers | 23.3 | 30 | 49.9 |
| Contacts with users | 39.9 | 30 | 59.9 |
| Licensing from foreign companies | 33.3 | 30 | 26.7 |
| Technical assistance from outside |  | 23.3 |  |

A: Little importance
B: Relative importance
C: Great importance
Compiled from the replies from 30 companies.
Source: Correa, Carlos and collab. (1996), Producción y comercio de biotecnología en América

Databases are also available on CD-ROM, for instance that distributed by the European Patent
Office containing applications published by the Office.
Office containing applications published by the Office.
26. The survey showed, as may be deduced from the table, that national patent information counts for very little among the information sources of the companies concerned. Only $6.7 \%$ considered it to be of great importance and $60 \%$ regarded it as having little importance. The table does on the other hand reveal the importance of providers and clients as a source of information for companies.
(c) Obstacles to imitation
27. A third function of patents, which is nothing more than a different way of looking at the exclusive rights that they confer, relates to their relevance to imitative practices such as "reverse engineering."
28. The existence of a process patent only prevents the use of the process to make a particular product, not the manufacture of the same product using other processes. Product patents on the other hand confer stronger rights, as the protection relates to the products regardless of the process used to manufacture them.
29. In principle it is not possible to use an invention without the owner's permission. That means that companies undertaking innovative activity or working with processes or products that may be protected have to undertake a prior examination of the situation in order to avoid legal conflicts. The cost of litigation can be considerable, and may result in investment already made being frozen on account of infringement proceedings.
30. The permission of the owner of the patent can be obtained by direct negotiation, resulting in the grant of a license, which will usually be subject to the payment of royalties.
31. The principle of the owner's permission does not apply in certain circumstances. For instance, no authorization is required for research work or work of an experimental nature (in so far as it does not involve the marketing of the protected product) or - in countries that recognize the principle of "international exhaustion" - for the import of goods that have already been lawfully marketed in other countries ("parallel imports"). ${ }^{4}$
32. Under various legal instruments - such as Decision No. 344 of the Andean Group, the laws of Argentina, Brazil and Uruguay, etc. - "non-voluntary licenses" can also be obtained, which constitute State authorization to use an invention even without the consent of the owner of the patent concerned.

## UTILITY MODELS

33. While patents are in all cases a form of intellectual property that seems - owing to the strict criteria involved ${ }^{5}$ - to be of little concern to the majority of SMEs, the same is not true of utility models, sometimes called "petty patents," and industrial designs.
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34. "Petty patents" protect a new three-dimensional shape or the arrangement of the components of a product, especially tools and working implements. Protection is provided for the functional value that the shape or the arrangement confers on the product concerned.
35. The requirements for obtaining such "petty patents" tend to be less stringent than in the case of normal patents (as far as absolute novelty or inventive step are concerned), and the titles are moreover granted for a shorter period that normal patents. "Petty patents" are better suited to "minor" innovations of incremental character which, as we have already said, are the type most prevalent in Latin American countries.
36. Utility models have been used in various industrialized countries, including Germany, Japan and Spain. In Latin America they have predominated for a number of years in Brazil, Uruguay and Costa Rica, and more recently have been introduced in Argentina, Mexico and the Andean Group.
37. Decision 344 , for instance, defines utility models as:
"...any new shape, configuration or arrangement of components of any device, tool, implement, mechanism or other object, or any part thereof, that makes for improved or different operation, use or manufacture of the object incorporating it, or which endows it with any usefulness, advantage or technical effect that it did not have previously" (Article 54).

## INDUSTRIAL DESIGNS

38. Unlike utility models, industrial designs protect the ornamental aspect of a product, not its functional value. In some countries designs can also be protected by copyright provisions. There are moreover certain special systems, such as that for designs for the textile industry in Italy.
39. Generally, those designs that are original qualify for protection (although in some countries an element of novelty has to be present). Designs can be a particularly important cause of competition, even though they do not constitute "hard" technology. The case of Italy - a country noted for its designing capability ${ }^{6}$ - is an example of this.

## INDUSTRIAL SECRETS

40. A third form of intellectual property protection that applies to SMEs as well as to major companies is that of "trade secrets" (or "confidential information").
41. To obtain this kind of protection for technology, there is no requirement that it be "new" or "original" or that it "involve an inventive step." The only thing required is:

- that the information should have commercial value;

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- that the information should be undisclosed in the relevant industrial sector;
- that the holder of the information should take measures to avoid its disclosure;
- that a third party should resort to improper trade practices to gain access to the secret information.

42. In Latin American law (based on Roman law) there is no recognition of a property right in secret information; it can only be protected by means of the legislation on unfair competition, namely that which punishes dishonest trade practices.
43. Mexico, Argentina and the countries of the Andean Group, among others, have also legislated recently on this subject with a view to implementing the provisions of the TRIPS Agreement (Article 39).

## CONCLUSIONS

44. A number of main conclusions may be drawn from the above presentation.
45. First, the intellectual property system is a subject of definite interest to industrial businesses in Latin American countries, including SMEs.
46. Secondly, the system is important to industrial SMEs on the one hand for the patents, which may be used essentially as a source of information, and on the other hand for the barrier that it represents to third-party imitations of other people's inventions. There are nevertheless other forms of intellectual property protection that are at least as suitable for SMEs as patents, if not more so.
47. Thirdly, the forms of protection that up to now have been hardly widespread in Latin America but are provided for in recent legislative reforms include utility models, industrial designs and trade secrets.
48. Fourthly, SMEs should be trained to make proper use of these titles. Both universities and official bodies could contribute to the better knowledge and wider use of intellectual property titles that are of interest to SMEs, and in that way promote the strengthening of the technological and competitive capacity of such entities.

[^0]:    1 This presentation deals with the intellectual property titles most closely related to inventions. It does not therefore consider other titles that could be of particular importance to smaller businesses, such as trademarks and geographical indications.

[^1]:    2 In the case of Europe, however, one can opt for the filing of a single application with the European Patent Office. The Patent Cooperation Treaty (PCT) confers international scope on registration. Certain Latin American countries, namely Brazil and Mexico, have acceded to the Treaty.

[^2]:    4 Such imports are expressly allowed by the Andean Common Provisions on Industrial Property (Decision 344) and by the recent Argentine Patent Law (of May 1995), among others.
    5 It should nevertheless be mentioned that in many patent offices patentability requirements are applied flexibly, which allows patents to be granted for "minor" advances.

[^3]:    ${ }^{6}$ While the Italian technology balance is in deficit in almost all areas, the exception is the "design" area, in which this country enjoys a surplus.

