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AN INTRODUCTION TO PATENTS FROM A BUSINESS PERSPECTIVE
INCLUDING REFERENCE TO REGIONAL PROTECTION AND
THE PATENT COOPERATION TREATY (PCT)

prepared by the International Bureau of WIPO

INTRODUCTION TO THE PATENT SYSTEM

A. What is a patent?

1. A patent is an exclusive right granted for the protection of an invention. The patent provides its owner the exclusive right over the exploitation of the invention for a limited period of time in return for disclosing the invention to the public. Thus, in general, the patent owner (patentee) can prevent others from making, using, offering for sale, selling or importing for those purposes the patented invention without the patentee's permission. This exclusive right is granted for a limited period of time, generally for 20 years from the filing date, as long as annual maintenance fees are paid, and has no effect beyond the territory of the country in (or the region for) which the patent was granted.¹

B. Conditions of patentability

2. An invention must meet several criteria to be eligible for patent protection. These include, in particular, that the invention must consist of patentable subject matter, that the invention must be capable of industrial application (be useful), that it must be new, that it must involve an inventive step (be non-obvious), and that the disclosure of the invention in the patent application must meet certain requirements.

Patentable subject matter

3. Patents are granted for inventions. Generally speaking, an invention may be described as a solution to a technical problem. In any event, it is important that the invention comprises some form of human intervention. Thus, merely finding something that already exists in nature would, under many laws, be considered as a mere discovery, not as an invention. For example, a substance extracted from a plant existing in nature and subsequently purified may be an invention. Under many national laws, the term "invention" is not positively defined, but rather described in terms of a non-exhaustive negative list, i.e., by excluding subject matter that is not regarded as an invention. Examples for such excluded matter are:

- discoveries, scientific theories and mathematical methods;
- aesthetic creations;
- schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers;

¹ The following explanations should be read in light of the fact that national/regional laws differ in terms of both formal and substantive requirements.

- presentation of information.

4. In principle, patents shall be available for any inventions in all fields of technology. In many countries, however, certain inventions are excluded from patentability in view of the objective of the patent system and broader public policy considerations, i.e., to encourage innovative activities while taking into account the legitimate public interests. Depending on the national law of each country, some of the following inventions may be excluded from patentability:

- inventions the prevention within the territory of the commercial exploitation of which is necessary to protect public order or morality. However, such exclusion should not be made merely because the exploitation of the invention is prohibited by law;

- diagnostic, therapeutic and surgical methods for the treatment of humans and animals;

- plants and animals other than microorganisms, and essentially biological processes for the production of plants or animals other than non-biological and microbiological processes. However, the protection of plant varieties should be provided either by patents or by an effective *sui generis* system or by any combination thereof.

Novelty

5. An invention is new (or novel) if it does not form part of the prior art. “Prior art” is, in general, all the knowledge that has been made available to the public prior to the filing date (or the priority date) of the relevant application. The definition of “prior art” differs from country to country. In many countries, any information made available to the public anywhere in the world in any form, for example, in written form (ex. publication), by oral communication (ex. oral presentation at a conference), by display or through use (ex. public demonstration), constitutes prior art. Thus, in principle, the publication by the inventor of his invention in a scientific journal before the filing date of the patent application can destroy the novelty of the invention, and consequently, render it not patentable.² Novelty safeguards the public interest against re-monopolizing public domain material.

Inventive step (Non-obviousness)

6. “Inventive step” (also referred to as “non-obviousness”) means that, having regard to the prior art, the invention must not be obvious to a person skilled in the art.

² Many countries provide a grace period of up to six or 12 months prior to the filing date (or the priority date) during which certain types of disclosures of the invention may be made without affecting the patentability of the invention.

The expression “inventive step” conveys the idea that it is not sufficient that the claimed invention is new, that is, different from what exists in the state of the art on the filing date (or the priority date), but that the difference must be a qualified one. Non-obviousness should ensure that patents are only granted in respect of truly inventive achievements, and not to developments that a person with ordinary skill could easily deduce from what already exists.

Industrial applicability (Utility)

7. An invention must be capable of being made or used in some kind of industry. This means that it must be possible to apply the invention for practical purposes. The term “industry” is meant in its broadest sense as anything distinct from purely intellectual or aesthetic activity. Thus, industrial applicability means the possibility of the application of an invention by technical means on a certain scale. Thus, industrial applicability underlines the need for patented technology to be of practical value.

8. Typical examples of inventions not being capable of industrial application are: (1) those which appear to be impossible to carry out because they contravene the laws of nature (for example, a perpetual motion machine); and (2) those concerning methods which could be considered to fall entirely within the private or personal sphere.

9. In some countries, instead of industrial applicability, an invention must have utility. One of those countries considers that the utility requirement is met if the applicant has asserted that the invention is useful for any particular practical purpose (i.e., it has a “specific and substantial utility”) and the assertion would be considered credible by a person of ordinary skill in the art.

Disclosure of the invention

10. Another requirement is that the application must disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art. This means that, on the basis of the explanations in the application, a person skilled in the art can make or use the invention without undue experimentation. Since one of the functions of the patent system is to disseminate knowledge to the public, sufficiency of disclosure of the invention in the application is an important requirement to be complied with.

C. Obtaining a patent

Preparation and filing of a patent application

11. The first step to obtain a patent is to file a patent application with a patent Office. One needs to be familiarized with both technology and law in order to draft a patent application properly and to proceed with the application before the Office. Therefore, although it is, in certain cases, possible to file a patent application without the help of a

patent attorney, it is highly advisable to consult a professional not only for drafting the application, but also for the prosecution before the patent Office. Some countries require that persons who do not have a domicile in the country be represented by a patent attorney authorized to practice before the Office.

12. It is of utmost importance not to disclose the invention to the public prior to the filing of the patent application, since in many countries, such a disclosure may destroy the novelty of the invention.

13. In general, a patent application consists of the following elements: a request, a description, claims, drawings (if necessary) and an abstract. The request contains the title of the invention and bibliographic data such as the applicant's name and his address. The description, together with the drawings, if any, provides the detailed explanation of the invention and sets out at least one mode for carrying out the invention.³ The claims are the most important part of the application, since they define the subject matter for which patent protection is sought. This means that, once a patent is granted, the scope of protection is determined by what is written in the claims. Therefore, the claims shall be written in a clear and concise manner. The abstract is a concise summary of the application, which should merely serve the purpose of information.

Grant of the patent

14. Once an application has been received, the patent Office generally takes a series of steps prior to granting the patent. There are three main activities, namely, a formality examination, a substantive examination and the grant and publication of the patent.

15. The formality examination consists of checking whether the application contains all the relevant information from the formality point of view and whether any other necessary documents have been submitted. The applicant is given the opportunity to correct any defects identified during the formality examination, and if such defects are not corrected within a specific time, the patent Office rejects the application.

16. The aim of substantive examination is to ensure that the application satisfies the conditions of patentability, such as novelty, inventive step and industrial applicability, before granting a patent. The applicant is given an opportunity to remove any objections raised during the substantive examination. Not all the patent Offices carry out a substantive examination. Patent Offices in a number of countries grant patents on the basis of the formality examination and the compliance with certain requirements, for example, that the claimed invention is not excluded from patentable subject matter. Under such a system, the actual validity of the patent and whether it

³ In some countries, the best mode known to the applicant should be provided in the description.

meets the requirements of patentability are only verified by the courts in case of dispute.

17. When the examination process has reached a conclusion favorable to the applicant, the patent Office will grant a patent. The details of the patent are entered into the patent register, and a certificate of grant is issued to the applicant. Further, the patent Office publishes the patent for public inspection. In a number of countries, in order to ensure the earlier dissemination of the technical information contained in patent applications, patent applications are published 18 months after the filing date (or the priority date).

Review and revocation of a patent

18. When the applicant does not agree with the final conclusion made by the Office, he may appeal to a court for a judicial review. Similarly, if, for example, one finds that a patent is granted to his competitor with respect to an invention which does not meet all the patentability criteria, he may request the revocation of that patent by a court. In some countries, a quasi-judicial procedure, which is usually cheaper and quicker than a judicial procedure, is established before the patent Office in order to review the final decisions made by the examiners.

D. Rights conferred by a patent

19. Generally speaking, a patentee acquires the right, enforceable by law, to decide who shall and who shall not exploit his patented invention. The patentee can prevent others from making, using, offering for sale, selling or importing for those purposes the patented invention without the patentee's permission. He retains this right for a limited period of time, generally for 20 years from the filing date, provided any necessary maintenance fees are paid. This exclusive right of the patentee has two main applications in practice, namely protection against infringement, and the possibility of assigning or licensing the right, in part or in whole.

20. An infringement of the patentee's exclusive right involves the unauthorized exploitation of the patented invention by a third party. The initiative for enforcing a patent rests exclusively with the patentee. Thus it is he who is responsible for detecting infringements and for bringing them to the infringer's attention. The remedies which may be available to the patentee are usually provided in the patent law and included generally civil and criminal sanctions. Civil sanctions normally available include the award of damages, the grant of an injunction, or any other remedy provided under the law such as the seizure and destruction of the infringing products or the tools used for the manufacture of those products. The usual forms of criminal sanction are punishment by imprisonment or by a fine, or both.

21. The national laws of most countries provide limited exceptions to the exclusive rights conferred by a patent. These exceptions are provided carefully so that they do not unreasonably conflict with the normal exploitation of the patent and do not

unreasonably prejudice the legitimate interests of the patentee, taking account of the legitimate interests of third parties. Depending on the national law, they include, for example, acts of exploiting the patented invention for the sole purpose of personal use or for scientific research and experimental use, or the acts of exploiting the patented invention under a non-voluntary license.

E. The right to a patent, in particular, employees' inventions

22. In many countries, the inventor or his successor in title has the right to the patent. Therefore, any natural person or legal entity may be entitled to the right to a patent by virtue of transfer of the right from the inventor, such as through assignment, donation, inheritance, bankruptcy and the like.

23. The question of inventions made by an employee or which were commissioned to, for example, an independent consultant is regulated in different ways in different countries.

24. In many countries, the employer owns an invention made by his employee if the invention was made in the performance of the employment contract, unless the employment contract stipulates otherwise. In other countries, conversely, the right belongs in principle to the employee inventor, unless otherwise agreed. In some countries, the employee inventor retains the right to exploit the invention, but the employer is often given a non-exclusive right to use the invention for its internal purposes. Further, in some countries, the employee inventor has the right to a fair and reasonable remuneration for his invention if the employer exercises the rights in respect of his invention.

THE INTERNATIONAL PATENT SYSTEM

25. The traditional patent system requires the filing of individual patent applications for each country for which patent protection is sought. The first basic international agreement taking into account the international dimension of patents was the Paris Convention for the Protection of Industrial Property ("Paris Convention") concluded in 1883⁴. While stressing the independence of national patent systems and the territorial limitation of rights granted under those national systems, the Paris Convention nevertheless contains some basic principles (for example, national treatment (Article 2) and the right of priority (Article 4)⁵), which all Contracting States must follow. Accordingly, a

⁴ 167 States are currently Contracting Parties to the Paris Convention. In accordance with Article 2.1 of the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), Members of the WTO shall also recognize the right of priority of the nationals and residents of other Members of the WTO.

⁵ The right of priority means that, on the basis of a regular application filed by a given applicant in one of the Contracting Parties of the Paris Convention, the same applicant (or his successor

[Footnote continued on next page]

major effect of the creation of the Paris Convention was to ensure that member countries provided non-discriminatory access to their industrial property system for nationals of all other countries. The norms of the Paris Convention were extended during the various revisions of the Convention, but they still cover only some aspects of patent protection. The filing of patent applications under the traditional system means that every single patent Office with which an application is filed has to carry out a formal examination of every application filed with it. Where patent Offices examine patent applications as to substance, each Office has to make a search to determine the state of the art in the technical field of the invention and has to carry out an examination as to patentability.

26. In particular due to the increasing globalization and interdependence of national economies, the consequential necessity to extend patent protection to a growing number of countries, and the need for further reduction of costs, additional harmonization of patent protection systems and cooperation among countries became a more and more important issue to the users of the patent system over the years. Among the efforts undertaken to that effect, a number of regional systems were set up, some of which are described below:

The European Patent Convention (EPC) was adopted in 1973 and entered into force on October 7, 1977. It established a unified procedure for the grant of European Patents by the European Patent Office. However, the European Patent is subject to national law after grant and has, therefore, neither a unitary effect nor a common jurisdiction. Therefore, the European Commission launched a new initiative in 1997 with a set of measures, one of them being the introduction of a single community patent, which would have unitary effect for the entire European Union, i.e. it could be granted, transferred or invalidated only for all member States of the European Union. Other examples of regional agreements which have achieved harmonization or unification of substantive and procedural patent law, or cooperation on patent granting procedures, can be found in Africa, Latin America, the region of the ex-Soviet Union and the Arab States: the Agreement on the establishment of an African Intellectual

[Footnote continued from previous page]

in title) may, within 12 months, apply for patent protection in all the other Contracting Parties. These later applications will then be regarded as if they had been filed on the same day as the earliest application. The filing date of the earliest application is called the "priority date." Hence, these later applications enjoy a priority status with respect to all applications relating to the same invention filed after the priority date. They also enjoy a priority status with respect to all acts accomplished after that date which would normally be apt to destroy the novelty or inventive step of the invention.

The right of priority offers great practical advantages to applicants desiring patent protection in foreign countries. The applicant is not required to present all applications at home and in foreign countries at the same time, since he has 12 months at his disposal to decide in which countries to request patent protection. The applicant can use this priority period to organize the steps to be taken to secure patent protection in the various countries of interest in each particular case.

Property Organization (OAPI), concluded in Libreville in 1962 and revised in Bangui in 1977; the Harare Protocol adopted in 1982 in the framework of the African Regional Industrial Property Organization (ARIPO); decisions adopted by the countries of the Andean Community (Bolivia, Colombia, Ecuador, Peru and Venezuela) which contain, among others, uniform substantive and procedural patent provisions; the Eurasian Patent Convention adopted in 1995; and the establishment of the Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC) in 1999.

27. Beyond these regional agreements, a number of broader international treaties in the field of patents have been concluded over the past decades: the Agreement on the Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), concluded in 1995 as an integral part of the WTO Agreement, the Patent Cooperation Treaty (PCT) concluded in 1970 and the Patent Law Treaty (PLT) concluded in 2000. In addition to these already adopted treaties, it may be noted that discussions on further harmonization of patent law and practice beyond formalities (covering for example patentability issues, such as the definitions of prior art, novelty and inventive step/non-obviousness) have started at the World Intellectual Property Organization (WIPO), where member States have been considering a so-called draft Substantive Patent Law Treaty (SPLT) since 2001.

A. The TRIPS Agreement

28. A major development in the international intellectual property protection was the conclusion of the Agreement on Trade-Related Aspects of Intellectual Property Rights (“TRIPS Agreement”), which went into effect on January 1, 1995, as an integral part of the WTO Agreement.⁶ It contains minimum requirements in all major fields of intellectual property, e.g. in patents, it provides some important obligations concerning the duration of a patent, its coverage as well as further requirements (for instance a patent term of 20 years, the obligation of Members to grant patents in all fields of technology or a number of conditions to be met where compulsory licenses are granted).

B. The Patent Cooperation Treaty (PCT)

29. The PCT was concluded in 1970. Its basic objective is to provide a single procedure for the filing of international applications, which has proven very successful, since, in 2003, some 110’000 international applications were filed under the PCT. There are at present 123 Contracting States to the PCT, compared to 18 when the PCT became operational in June 1978 and 45 at the end of 1990. The PCT establishes an international system which enables the filing, with a single patent Office (the “receiving Office”), of a single application (the “international application”) in one language having the effect of a national application in each of the Contracting States of

⁶ Currently, WTO has 147 Members as of April 23, 2004.

the PCT. It provides for the formal examination of the international application by a single patent Office (the receiving Office), and subjects each international application to an international search which results in a report citing the relevant prior art as well as to a written opinion as to whether the claimed invention appears to meet certain international criteria for patentability; it further provides for the centralized international publication of international applications with the related international search reports, as well as their communication to the designated Offices; and it provides an option for an international preliminary examination of the international application, which gives to the Offices that have to decide whether or not to grant a patent, and to the applicant, a report containing an opinion as to whether the claimed invention meets certain international criteria for patentability. An international application has the effect of national applications in all designated Contracting States of the PCT.

30. The main advantages of the PCT are that applicants may file their application in their own country (or, where applicable, with the competent regional Office, or with the International Bureau as receiving Office) with effect in foreign countries and have up to 30 months to make up their minds as to those foreign countries in which they wish to seek protection, and in a typical case they have spent much less money in the stage prior to granting than otherwise. If the applicant does not use the international procedure offered by the PCT, he must start preparations for filing abroad three to six months before the expiration of the priority period. He must prepare translations of his application and must have them put into a different form for each country. Under the PCT, the applicant files only one application (the international application), within the priority year, with effect in all States he has designated; that application, which may be filed until the last day of the priority year, may be identical both as to language and form with his own national application.

C. The Patent Law Treaty (PLT)

31. One of the most recent treaties which has been adopted under the auspices of WIPO is the PLT, which was adopted at a Diplomatic Conference on June 1, 2000.⁷ The PLT is designed to streamline and harmonize formal requirements set by national and regional patent Offices for the filing and processing of national and regional patent applications, the maintenance of patents and certain additional requirements related to patents or patent applications, for example, the requirements concerning electronic filing, representatives and recordation with the patent Office. With the significant exception for the filing date requirements, the PLT provides maximum sets of requirements, which the Office of a Contracting Party may apply. This means that the Office may not require any other formal requirements in respect of the matters dealt covered by the PLT. However, a Contracting Party is free to apply fewer, or more user-friendly, requirements than those prescribed in the PLT. Therefore, applicants

⁷ The PLT has been signed by 54 States and one intergovernmental organization. It will enter into force once 10 States have ratified or acceded to it. Presently, eight States have ratified or acceded to the PLT.

and owners are assured that, for example, an application that complies with the maximum set of requirements under this Treaty will comply with the formal requirements applied by any Contracting Party.

32. Users of the patent system will be the first beneficiaries of the Treaty. They will be able to rely on predictable, uniform and simple procedures for filing national and regional applications and for maintaining patents. The simple procedures will further result in a reduced risk of error. Users will enjoy the opportunity to correct errors without loss of rights. On the other hand, the simple procedures provided by the PLT will allow patent Offices to operate in a more efficient manner. These advantages are expected to lead to cost reductions for both the users of the patent system and the patent Offices.

RELEVANCE OF THE PATENT SYSTEM FOR BUSINESS

33. The patent system provides various advantages to business and companies, among which are the following:

- Protection of products and services: such a protection contributes to the creation of a strong market position through the exclusive rights, allowing a company to prevent others from commercially using the patented invention, thereby reducing competition and establishing the company in the market as the (or one of the) major player(s).

- Generating cash: instead of commercializing a given technology itself, a company may prefer to license the rights to other companies or to sell those rights in order to generate income. Another possibility offered by a patent is that it can be used to establish a security interest.

- Research and development: exclusive commercialization leads to returns on often considerable investments, thus securing future investments.

- Creating bargaining power: often, companies develop large patent portfolios in order to negotiate cross-licenses. This bargaining power may also be relevant in the context of avoiding being sued for patent infringement or to settle a dispute relating to the infringement of someone else's patent.

- Positive image for the enterprise: business partners, investors and shareholders may perceive patent portfolios as a demonstration of the high level of expertise, specialization and technological capacity. This may prove useful for raising funds, finding business partners and raising the company's market value.

- Use of patent information: The use of patent information may be advantageous in many respects: patent information can help avoiding unnecessary expenses in

researching what is already known, identifying business partners, including licensing partners and is a tool for monitoring activities of competitors. It can also be used to avoid infringement of others' patents and to oppose the grant of patents wherever they appear to conflict with one's own patents. For further details, reference is made to paragraph 46.

GENERAL ISSUES TO BE CONSIDERED BY BUSINESS

34. The decision to patent or not to patent an invention, and where to patent it, requires thorough reflection. Beyond general issues which need to be addressed, such as whether a patent is the adequate protection for the invention under consideration, the identification of the core bits of the innovation to be protected or the question of whether the subject matter under consideration is patentable at all, some further aspects which would require consideration by a company when defining a patent strategy are briefly mentioned below.

A. Costs

35. The costs for obtaining and maintaining patents may be considerable. They include, in particular: (i) application fees and other prosecution fees to be paid to the patent Offices; (ii) the costs relating to patent attorneys; (iii) the costs of translation where an application is filed with a foreign patent Office the official language of which is different from the language of the original application; and (iv) the costs of maintaining the patents after grant.

36. Therefore, the prognosticated advantages of the patent should pay off the costs. To analyze the potential value of a patent, the following elements may, *inter alia*, be taken into consideration: the availability of alternative technology, the potential of creating a new market, the investment needed for marketing the invention, etc. Another possibility available in certain countries which is cheaper than a patent is the so-called utility model. This title of protection protects "smaller" inventions, in that it requires a lower level of inventive step and has a shorter duration.

B. Identify the need to patent abroad

37. The rights conferred by a patent are territorial rights. This means that a patent granted in one country is enforceable only in that country. For example, a patentee who has obtained a patent with respect to a certain invention in France cannot sue a third party who is using that invention without his consent in the United States of America for the infringement of his patent, unless the patentee has an equivalent patent granted by the patent Office of the United States of America. This is why it may be worth considering filing a patent application not only in the domestic country, but also abroad. The desirability of protecting the invention abroad should be considered carefully in view of the costs and the time necessary for protecting the invention in

different countries, the nature of the invention, the international dimension of the business activity, etc.

38. As already mentioned earlier, in certain regions, regional patent Offices for obtaining patent protection within the region with a single application have been established.⁸ A regional patent can be considered as a “bundle of national patents,” since it has the effect of a national patent in the member States designated in the application⁹ or in each of the member States of the regional agreement.¹⁰ The regional patent, however, is not a supranational title of protection. Therefore, the rights must be enforced in each member State, and the invalidation of the patent has effect only in the member States concerned.

C. Obtaining patents abroad

39. There are essentially three procedures for applying for patent protection in foreign countries. The first two options are to file patent applications with each national Office of the country in which patent protection is sought or with each regional patent Office of the region in which patent protection is sought, respectively. A third option is to file an international application under the PCT which simplifies the procedure for simultaneously seeking patent protection in a large number of countries, provided the applicant is a national or resident of the Contracting State of that Treaty (further information on the PCT is contained in paragraphs 29 and 30).

40. The preparation and prosecution of patent applications in foreign countries can be very costly and time consuming. Each application may have to be translated into a prescribed language of each country. Sufficient financial resources should be available, since fees need to be paid to each national/regional Office. It may be necessary to engage a patent attorney in each country to prosecute the applications. Therefore, a company will have to make a detailed analysis in respect of which countries and markets it wants to cover in terms of patent protection.

SOME SPECIFIC STRATEGIC ASPECTS TO BE CONSIDERED BY COMPANIES

41. There are many strategic issues surrounding the question of obtaining and maintaining patent protection as well as of exploiting existing patents. The following paragraphs briefly explore a non-exhaustive list of such issues, divided into one category relating mainly to company-internal matters and a second one relating to

⁸ African Regional Industrial Property Office (ARIPO) [<http://aripo.wipo.net/>], African Intellectual Property Office (OAPI) [<http://oapi.wipo.net/>], Eurasian Patent Office (EAPO) [<http://www.eapo.org/>] and European Patent Office (EPO) [<http://www.european-patent-office.org/>].

⁹ This system applies to ARIPO, EAPO and EPO.

¹⁰ This system applies to OAPI.

issues where a company needs to consider its strategy vis-à-vis its external relations (market, competitors, etc.).

A. Company-internal issues

Internal disclosure

42. It is important for companies to set up an internal “disclosure culture,” in the sense that employees should be encouraged to disclose their inventions to the company. This can be done, for example, through financial incentives to the inventing staff, such as the payment of a lump sum or a percentage of the income generated by the exploitation of the invention. Inventors may also be asked to keep records of the development of their inventions, such as laboratory notes. This is of particular relevance in countries applying the so-called first-to-invent system. Some companies also organize regular meetings between a specialized patent attorney and the concerned technical personnel in the company in order to identify potential developments which might be worth patenting.

Transfer of rights to the company

43. An aspect related to the one raised in the previous paragraph concerns the obligation of staff to assign the rights in their inventions to the company, where this is not the case already under the applicable law. This can be done by requiring the staff concerned to sign a contract to that effect. Similar contracts may need to be signed with external parties, such as suppliers, joint-venture partners or persons which have been commissioned to develop something for the company.

Confidentiality within the company

44. Since the disclosure of an invention to the public may lead to the loss of the possibility to patent it, it is important to train the staff in terms of confidentiality. A confidentiality policy may include, in particular, the following elements: the signature of confidentiality agreements at least with the technical staff, and preferably, with all employees, covering a confidentiality obligation for both during and after the duration of the employment contract; regular information of the staff about the company’s confidentiality policy; review of important publications and speeches before they are made available to the public; and, introduction of safety measures, such as locking secret documents and labeling them accordingly.

B. Issues in respect of a company’s external policy

Confidentiality vis-à-vis external contacts

45. The confidentiality referred to in paragraph 44 also needs to be implemented in respect of external contacts. In particular, inventions should, as a general rule, never be disclosed outside the company before filing a patent application. Where this is not

possible, for example, because the invention needs to be tested outside, must be disclosed to potential business partners/investors or has been developed with external researchers, it is of the utmost importance to conclude confidentiality agreements with the external persons who are given access to, or information on, the invention. Such agreements should also contain a clause defining precisely the allowed use of the invention.

Use search tools for screening the prior art

46. At the latest once patented, but often when a patent application is published by the office (in general 18 months after its filing), detailed technical and legal information about the patented invention becomes available. Since these publications constitute a comprehensive collection of classified technological data, it is useful for a company to keep abreast with the latest technological developments. From the viewpoint of the commercial strategy, patent information can help avoiding unnecessary expenses in researching what is already known, identifying business partners, including licensing partners and monitoring activities of competitors (in order to become aware of current technical trends). It can further be used to avoid infringing others' patents and to oppose the grant of patents wherever they conflict with one's own patents or business. In addition to screening existing publications, monitoring the market as such permits to discover whether someone infringes the company's patents by, for example, marketing infringing products.

Filing a first application

47. If the search in the prior art mentioned in the previous paragraph reveals that the development under consideration does not exist yet, a first application (often national) would have to be filed as soon as possible in order to secure an early filing (or priority) date, which will be the determining date, in particular, for the assessment of novelty and inventive step, at least in the vast majority of countries that apply the so-called first-to-file principle (all countries except the United States of America).

Decide whether to file in foreign countries

48. After filing a first application, consideration needs to be given to the question of protection abroad. For further details, reference is made to paragraphs 37 to 40.

Set up a licensing policy

49. A company policy with respect to the licensing of the company's patented inventions can constitute an important source of income. This could be done by a program run by internal staff on salary, and, in the case of large companies, it may also be worth considering, in terms of incentives, setting up an independent profit center, the staff of which could be remunerated on the basis of the income it generates through licensing. In addition, and without going into the details, the following aspects, among others, may be considered: what products are covered by the license(s)? What is the

exact scope of the rights licensed? What is the amount of the remuneration, in which form is it due (percentage of sales, lump sum, etc.), and when is the payment due? Is the license to be an exclusive or a non-exclusive one? Is there an obligation to disclose improvements of the licensed invention? Consideration should further be given to the applicable competition laws as well as to tax laws, in particular in the case of international transactions.

Ensure enforcement against infringement

50. The possibility of screening the market in order to identify possibly infringing goods has already been mentioned in paragraph 46. In view of the cases where infringement was identified, a company may wish to consider establishing a strategy on enforcement. Some elements of such a strategy may be the following: an important question to answer at the outset, once the company has decided to take action, is whether there is any possibility of amicable settlement or whether litigation is the only alternative. Since litigation almost always entails substantial risk and unpredictability, both in terms of cost and time, a thorough analysis of the risks is indispensable, in particular, if the company does not dispose of unlimited financial resources. There are various possible outcomes of litigation: the plaintiff may obtain an injunction against further infringement and/or damages. But he may also obtain nothing at all, and, in addition, be confronted with a counterclaim by the defendant that the plaintiff's patent is invalid, which conclusion may be taken by a court and the patent invalidated, if a ground of invalidity is found.

Avoid infringement of patents held by others

51. Before spending important amounts of money to develop and market new products and services, a company should ensure that its developments don't infringe the patents of others. In many cases, this may be done either by screening the existing patents and published applications. In certain areas, however, one should be aware that finding relevant prior art may be difficult, for example, in the area of software patents, where the existing prior art is still relatively small and where the terminology used may not always be standardized.

Monitor patent activities of competitors/third parties

52. This aspect has already been partially addressed under earlier headings. In addition to the fact that such a monitoring permits to avoid the violation of existing rights as well as the infringement of the company's own rights, it further allows to know what already exists (and thus to identify technologies which could be used under a license agreement or whether a given technology is in the public domain), to identify the most recent developments in a given technology, to know in which countries an invention is already protected and to develop improved inventions based on the existing body of knowledge. Many of these factors may have a direct impact on financial considerations of a company, since they can influence the company's decision on investment and avoid duplication of research and development of already

existing products. Finally, more refined searches in the patent documentation also allow to identify in which sectors certain competitors are particularly active in terms of seeking patent protection, and thus to identify the most “dangerous” competitors.

Patents as a defensive instrument

53. A patent protects only subject matter claimed in the patent, and thus leaves room for competitors to apply for patent protection for developments that may be close to a company’s own invention or, at least, in the same area. In order to minimize such risks, companies sometimes use patent strategies in order to prevent competitors to enter a given market. One of the most common strategy is to “invent around” one’s own patent and to patent these developments as well, in order to prevent competitors from inventing around your own patent. A variant of this approach is to invent around an important patent of a competitor and to patent these new inventions (which may be only small innovations compared to the basic patent), thereby in effect blocking the commercial exploitation and marketing of the competitor’s basic patent. The owner of the “invent-around patents” may then be in a more favorable position in order to negotiate cross-licenses. In certain cases, peripheral inventions are protected by utility models, or the company simply publishes peripheral technology in order to prevent others from protecting it.

53. Other strategies include the so-called “blanketing,” where a company would systematically turn a whole area into a jungle or a minefield of patents, thus preventing the entry of that market by competitors, and the so-called “fencing,” where a certain line or direction of research and development chosen by a competitor is blocked with one’s own patents, thus preventing the competitor from developing products in that particular area.

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