

International IP Strategy and Patent Attorneys

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This article demonstrates the role of patent attorneys in devising international IP strategies at various levels. Due to their technical and legal education and training, patent attorneys are enabled in a unique way to effectively advise and represent clients in the field of patent drafting, prosecution, defence and litigation. Patent law is a very special field of its own. Both the technological issues and the legal issues of patent law are often times of a highly complex nature, particularly in view of the fact that the legal systems throughout the world are anything but really harmonized. A lot of know-how and experience is therefore needed and provided by patent attorneys to cope with these challenges on a global scale.

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1. Introduction – The IP Universe

In the modern globalized economy no serious player on the market can afford not having a sound strategy in place that deals with intellectual property (IP) issues on an international scale. Indeed, almost all states of the world have established a national or supranational legal system providing protection for all categories of IP, i.e. technical inventions, designs, trademarks and copyright, to name just the most important IP categories.

It was recognized as early as in the 19th century that technical progress and innovation can be immensely promoted and fostered by providing an incentive to the creators of innovations in the field of technology, i.e. the inventors, by awarding them an exclusive right to their inventions for a certain period of time. Such protection can be and usually is provided in the form of a patent or a similar IP right (such as a utility model, a petty patent or the like). It was also recognized as early as in the 19th century that the field of IP law requires international cooperation and standardization to a particularly high extent. The history of international agreements in the field of patent law started with the Paris Convention for the Protection of Intellectual Property of 1883

(hereinafter called Paris Convention). That is, even long before the United Nations were established, there was already a multi-national agreement in place in the field of Intellectual Property. Further notable milestones of international cooperation in the field of patent law include

- the Patent Cooperation Treaty (PCT) of 1970, which now covers 142 member states
- the European Patent Convention (EPC) of 1973 establishing the European Patent Office as a single organisation granting a uniform patent for the entire territory of the 36 EPC member states, which include all states of the European Union and nine non-EU states such as Switzerland, Turkey and Norway,
- the subsequent establishment of supra-regional patent offices in the Gulf states and in Africa,
- the Agreement on Trade Related Aspects of Intellectual Property Rights (TRIPS) of 1995 as a part of the WTO agreement,
- the Community Patent Convention (not yet officially in force) and many EU directives and regulations in Europe relating to certain aspects of IP law and, finally,
- a plethora of bilateral agreements such as for

example the Patent Prosecution Highways (PPH) recently established between the patent offices of Japan, the United States and the EPO.

Note that this list is by far not exhaustive. Skilled professionals are therefore needed to guide companies through the complex ramifications of IP systems on a global scale and helping them to establish a sound international IP strategy. Ideally, it should be ensured that an invention made, for example, in Japan creates revenues through patent protection in all states where such invention is used either by the inventor himself or his company or by authorized third parties who have taken a licence in the patent granted to this invention.

These professionals are patent attorneys on the one hand and specialized attorneys-at-law on the other hand. Patent attorneys are of a particular importance in this regard. This is because they are, by way of their training and their technical and legal background, uniquely qualified to understand both the technical aspects of the invention and the legal implications of the patent system. Patent attorneys therefore widely represent applicants (both big and small companies and single inventors) before the respective patent offices in which they are admitted. In addition many countries also permit patent attorneys the right of audience in court, if the case is an IP-related matter. Patent attorneys in many states are therefore also heavily involved in patent litigation.

How do patent attorneys help to devise and actually shape international IP strategies? This question will be addressed in the following in more detail.

2. The Patent Application

Once an invention has been made, the first step is that a patent application must be drafted in order to obtain an exclusive right, i.e. a patent, and to generate revenues therefrom. This drafting process already includes a lot of strategic considerations, both on a national and on a global level, as will be apparent from the following.

A patent application consists of one or several claims,

a description and drawings, if applicable. Drafting a patent application and particularly drafting the claims is anything but a simple, mechanical process. Drafting good claims requires a high amount of technical and legal skills and a thorough understanding of the invention and the relevant market. A well-drafted patent application can be compared with a piece of art, and this applies particularly to the drafting of the patent claims. The claims define the subject-matter of the patent application and later the scope of protection of the patent. On the one hand, they should be broad enough to cover the invention and obvious variations thereof to the fullest extent possible. On the other hand, however, the subject-matter of the claim as a whole must be patentable, i.e. everything covered by the claim must be new, industrially applicable and involve an inventive step. These two requirements are often times contradictory, which means that a reasonable compromise must be found. Drafting a claim that takes these conflicting requirements into account is anything but trivial, and the difficulty is further compounded by the fact that the patent attorney drafting the application does not always have the complete state of the art at his disposal.

Moreover, the patent application and the patent must disclose the claimed invention in a manner sufficiently clear and complete for it to be carried out by a skilled person, i.e. the patent must enable the invention to be carried out throughout its entire scope (enablement requirement). A problem that frequently occurs upon drafting, particularly in the fields of chemistry and biotech inventions, is that the patent attorney does not always know to which extent the exemplary embodiments provided by the inventor can be generalized.

Yet another layer of complexity comes into play when considering the commercial objectives of the patent application. These commercial objectives have a strong impact on the strategy to be pursued by the individual patent application. Generally speaking, there are narrow “defensive” patent applications and broad “offensive” patent applications. Defensive patent applications serve

in the first place the purpose of protecting the invention against direct copying by competitors and help to secure the patentee's market exclusivity and freedom to operate. Conversely, broad and offensive patents mainly serve the purpose to disturb or impede the activities of patentee's competitors and may in an extreme case block an entire field of research.

A well known example of a fairly offensive patent strategy is Pfizer's patent application covering its Viagra® pill. The active ingredient of Viagra® is a compound having the International Non-Proprietary Name (INN) of Sildenafil. Sildenafil was a known compound and was used in clinical trials for angina and related cardiovascular diseases. The invention was based on the observation that Sildenafil also caused erections and could thus be used as an agent against impotence. However, the patent application drafted on the basis of this observation did not only cover the use of Sildenafil for the treatment of impotence, but indeed claimed the use of *any* inhibitor that worked via the same mechanism of action as Sildenafil, without even specifying the chemical structure of such inhibitors. Clearly, when a patent application is drafted as broadly as this and is then prosecuted and granted by some patent offices, then heavy litigation may be expected to ensue. This is indeed what happened in this case. In Europe, for example, the patent was opposed by no less than 13 opponents which ended with a complete revocation of the patent. In other countries such as Australia, Pfizer was more successful. In Japan and China, the broadest claims never proceeded to grant. In the United States a broad patent issued initially, but the matter has not been finally resolved there.

This example goes to show that the patent attorney drafting the individual application can exercise a decisive influence on the (international) IP strategy to be pursued in this particular case. It goes without saying that the IP strategy should fit to the invention which it is supposed to protect. Generally, a broad patent application will only be successful in the long run if the underlying invention indeed is of a very broad applicability and represents

a kind of pioneer invention rather than just a marginal improvement of existing technology. On the other hand, even an legally unsuccessful broad application can sometimes be an economic success on a competitive scale if it binds significantly more capacity of the opponents/competitors than own capacities. A lot of skill and experience is necessary to devise the right IP strategy for your invention at the very early stage of drafting.

An additional layer of complexity comes on top of this when the invention is to be patented on an international scale. This is because the patent laws in the individual countries are currently not and will probably never be 100% the same, despite all attempts for harmonisation. It would be naïve to assume that every invention or every patent claim that is considered patentable in Japan will also be considered patentable in the United States, in Europe and/or in China and *vice versa*. As a matter of reality, this is not the case and serious differences still exist, particularly in the field of pharma inventions, where for example method of treatment claims are allowable in the USA, but not in Europe or Japan, whereas use claims are not allowable in the USA but may be the appropriate format in Europe. The requirements of disclosure, i.e. the amount of data and information that should be in a patent application to enable a skilled person to reproduce the invention also differs significantly from country to country. As a general rule, Japan and China require more data to be present in the application for enablement and written description purposes than the USPTO or the EPO. The United States Patent Act requires that the best mode for carrying out the invention known to the inventor at the priority date must also be disclosed in the application. This requirement does not exist in Japan or the EPO. It is important, but at the same time also a challenge to take all of these numerous and partly differing requirements into account when drafting a new patent application.

3. International Prosecution

After the initial patent application has been drafted,

with the above strategic considerations in mind, it will be filed, usually as a priority application with the domestic patent office of the inventor's home country. Based on the Paris Convention of 1883, which is still in force today, it is possible to file within one year further patent applications directed to the same invention in any of the 173 member states of the Paris Convention, claiming the priority of the first application. Therefore an appropriate international filing strategy must be developed to meet the applicant's economic objective(s).

This strategy usually includes a decision on the countries in which protection is desired and on the best way how to obtain protection in these countries. For many countries, there are several options or routes to obtain a patent. For example, it is possible and quite popular today to file an international patent application under the Patent Cooperation Treaty (PCT) covering several countries with one application up to a certain stage of the examination process. Alternatively or in addition it is possible to directly file national or regional patent applications in the desired states or territories (e.g. in the EPO). Patent attorneys will advise their clients how to find the best prosecution strategy for the individual invention and/or will help to establish suitable Standard Operating Procedures (SOPs) for larger companies.

As the next step, applicant's domestic patent attorney or in-house IP department will usually be entrusted with coordinating the international prosecution of the application. This can be quite challenging at times. It happens quite frequently that new prior art is found by some patent offices and/or that objections are raised by one or several patent offices which require the application to be amended somehow. Some patent offices are more generous and some are less generous in allowing such amendments. The European Patent Office, for example, is notoriously critical in allowing amendments unless they are clearly and unambiguously based on the application as originally filed. In practice this means that applicants need a more or less literal support for any amendment that they try to introduce. The requirements

for inventive step are also different from country to country and sometimes even from examiner to examiner. It requires a lot of experience to successfully steer your way through inventive step objections on a global scale. You may have to amend your patent in one country and argue against the examiner in another country without amending the patent, but in the end you should always make sure that your argumentation is consistent and that contradictions are avoided. This is particularly important owing to the fact that certain patent offices, most notably the USPTO, require the applicant to prepare an 'Information Disclosure Statement' (IDS) wherein all prior art references, search reports, office actions and any other pre-published and post-published documents that may be material to the patentability of the US patent application must be disclosed. Failure to do so may result in unenforceability of the US patent and thus have quite dramatic consequences.

For the same reason, consistency of argumentation is very important and it may be better at times not to compromise with the examiner in one country if applicant prosecutes a broader application in the USA and believes that it has good chances to obtain a broader patent there. Otherwise there is a risk that the USPTO may take notice of applicant's compromising in that other country, which may prompt the US examiner to raise similar objections.

4. Post-grant challenges to validity

Assume that applicant has been successful in obtaining a patent to its invention in all desired states or territories. Can the patent attorney then be released because he has done his job? Not necessarily! A patent remains vulnerable and susceptible to invalidity attacks during its entire lifetime. Many countries have a post-grant opposition or re-examination system in place, which allows third parties to challenge the validity of a patent. As per such proceedings, the patent office will reconsider the merits of the patent. Opposition or reexamination proceedings can be quite lengthy

and challenging, and their outcome is uncertain. The European Patent Office, for example, revokes about one third of the opposed patents entirely and about one other third in part. Thus, the opponent has per se a good chance to prevail and there is no strong presumption of validity in Europe. In the United States, the situation is similar in these days. In the USA, a request for re-examination can only be filed by a third party if a new issue of patentability is raised, but this obstacle can be overcome quite easily. It is even possible that the Director of the USPTO files a request for re-examination *ex officio*, in which case the patent will be re-examined again by the patent office. However, so far the Director has filed such requests only in really exceptional cases. For example he did so in the case of Pfizer's Viagra patent which was initially granted with a very broad scope by the USPTO but then revoked in reexamination proceedings (appeal pending).

Usually, it will be a patent attorney who will guide the patent proprietor through such opposition or reexamination proceedings, either on a local level as patentee's representative or on a global level as a coordinator. Both roles are equally important: You may not wish to win proceedings in one country with an argument that is clearly deleterious to your case in another important country. However, this can quite easily be the case. Just consider the example that in country A the examiner argues that the application is too broad and does not contain sufficient data to enable the invention throughout its claimed scope. In such a case, applicant may feel tempted to argue that a skilled person had a good deal of common general knowledge which would have certainly enabled him to close any remaining gaps left in the patent specification. However, such an argument may hurt applicant badly in another jurisdiction where inventive step is challenged. In such a country applicant may rather wish to argue that the level of skill and the common general knowledge of the skilled person was so low that the invention would have been a big surprise to the skilled person and was anything but obvious. Therefore, it is very important

that you argue your case consistently, i.e. apply the same level of common general knowledge and the same claim interpretation world wide, even if some patent office or local practice may suggest to you to follow a different course. Such decisions can sometimes be very difficult to make, but the best person to make such decisions on the basis of his or her technical and legal training and experience will be a patent attorney.

5. Litigation

Suppose a patent has successfully withstood all validity attacks in opposition or re-examination proceedings. Can patentee then consider its patent safe and release its patent attorney? Again, not necessarily!

In the end, most patentees do of course like to generate some revenues from their patents. The patent attorney is ideally suited to help patentee with this as well. Namely, if there is a commercial interest in the patented invention, then patentee may be able to find a partner who is interested in taking a licence. His patent attorney, and if necessary, a specialized attorney-at-law may help patentee to formulate the optimal licence agreement that will withstand the challenges of competition law on a global scale and serve the commercial interests of both parties in the long run.

Other competitors may not be willing to take a licence and instead try to copy patentee's invention without its consent. And other competitors will perhaps slightly modify the patented invention such that it is no longer literally covered by the patent claims. In such a case the patentee should again have a strategy in place and, if his patent is infringed in more than one country, this strategy should again be a global one. This is because if and when it comes to litigation, many objections can and usually will be raised against the patent in suit. In addition there is usually an intense debate on what the terms used in the claim actually mean. If patentee advocates for a broad construction so as to cover the infringing embodiment, the opponent and infringement defendant will often argue that the patent is invalid if

such broad construction is applied, but not infringed if a narrow construction is applied. Thus the patent proprietor may find himself in a squeeze between invalidity and non-infringement through which he will have to find his ways. Again, a lot of technical, legal and forensic skills are required at this stage.

Other more legal objections which may be raised in at least some countries and which need to be rebutted in an infringement litigation include anticompetitive behaviour, inequitable conduct, patent exhaustion, lack of entitlement, laches, prior use and experimental use defences, if and where applicable. Patent infringement litigation can be very complex, time consuming and expensive, particularly if conducted in expensive jurisdictions such as in the United States or the UK. Therefore, patentee should better make sure that he has adequate responses to all possible challenges against your patent in place before indulging in such expensive litigation. Requesting an expert opinion by an experienced patent attorney may be very helpful for the proprietor to minimize his litigation risk and to get a better understanding of the chances of success, even though it will rarely be possible to provide a clear yes or no answer. Such an opinion can also be an important tool to determine the best litigation strategy.

Once litigation has started, the patent attorney will typically be needed to prepare the necessary trial briefs to the court and to draft the arguments in a way that a judge having no own technical background can easily comprehend them. Employing good and experienced patent attorneys at this stage is key to success. When it comes to litigation, problems of procedural law may also play an important role. For example, in some countries such as Germany or Austria, invalidity and infringement questions are handled separately and by different courts or tribunals, whereas in other countries such as in the UK infringement and validity are always heard and adjudicated by the same judge. Both variants may have important tactical implications and may be factors to consider when evaluating the question where to start infringement litigation.

Coordinating IP litigation is of particular importance in Europe. One might think that this should not be too difficult in the case of a uniform patent granted by the EPO. The European Patent Convention indeed provides for a single European patent in all designated contracting states which should be adjudicated according to the same principles: For validity, Art. 52-57 and 83 EPC apply, stipulating that the invention underlying the patent should be new, involve an inventive step, be industrially applicable and be sufficiently disclosed so that it is enabled. The scope of the European patent is governed by Art. 69 EPC stipulating that the claims determine the scope of protection and that the description and drawings are to be used to interpret the claims. Therefore, in principle the result of IP litigation in Europe should be the same in all EU states. But this is just theory. In reality, infringement and nullity actions are dealt with on a country-by-country basis (Art. 64 (3) EPC) and it often turns out that different courts come to different results even though the underlying case is the same. In addition, European courts move ahead with very different speeds and the courts involved have a very different degree of IP specialization and experience. The following table may help to gain a quick and rough overview:

	High	Medium	Low
Speed	UK, DE, ES	NL	IT, FR, AT
Costs	UK (very)	DE, FR, ES, NL	AT, IT
IP Experience	DE, UK, NL	FR, AT	ES, IT

In order to be successful it is vital that patentees take advice on where to best start litigation and where not. Moreover, they should carefully control their various IP litigations in Europe and make sure that the technical arguments are consistent. Many Japanese and US companies conducting multi-jurisdictional litigation in Europe or planning to do so therefore appoint an experienced IP law firm of patent attorneys and attorneys at law as a single communication and coordination window into Europe. This has proved to

be best practice and has been quite successful in many instances.

6. Conclusion

Patent attorneys have both a technical and a legal background and education. This enables them in a unique way to effectively advise and represent clients in the field of patent drafting, prosecution, defence and litigation. Patent law is a very special field of its own, at the boundary between modern technology and law. Both the technological issues and the legal issues are often times of a highly complex nature, particularly in

view of the fact that the legal systems throughout the world are anything but really harmonized. A lot of know-how and experience is therefore needed to cope with these challenges on a global level. But thanks to their comprehensive background, training and daily practice, patent attorneys are uniquely suited to tackle these complexities and to successfully steer their clients through all IP challenges so as to help them to generate revenue from their inventions. Putting the international IP strategy in the hands of capable and experienced patent attorneys is the best advice that will help to ensure optimum protection for your IP.