Grace Period and Invention Law in Europe and Selected States

I. What is a Grace Period?

One of the main and necessary requirements for the patentability of an invention is its novelty.[1] An invention is novel when it does not form part of the state of the art. In European Patent Law, novelty is meant in the absolute sense. Every publication which makes an invention available to the public before the priority date of the patent application - which is usually the date of filing or the date of an earlier national or international application[2] - eliminates its novelty and, as a result, its patentability. That applies to every disclosure by means of an oral or written description, by use or in any other way all over the world.

Some countries, like the U.S. and Japan, do traditionally recognise a general so-called grace period which heals the consequences of a rash or inconsiderate publication. The grace period offers a specific period of time (six or twelve months) in which a patent application may be filed in spite of the previous disclosure of the invention by the inventor/applicant or his/her successor in title. As a result, novelty is not destroyed and a patent may still be granted, provided all other requirements of patentability (no exception to patentability, inventive step, industrial application) and formalities are fulfilled.

In contrast to the U.S. and Japanese patent systems, the European Patent Convention (EPC) and the Member States' patent laws do not, for several reasons, offer a general grace period. However, its implementation into the European patent system is currently being discussed. The following paper gives a short and summarised overview of the underlying conflicts regarding science and research, the recent state of law and discussion, the arguments for and against implementation and, finally, what must be taken into account as long as Europe does not offer a general grace period. The overview also applies to the planned community patent as its patentability requirements will be governed by the European Patent Convention.[3]

II. Basic conflicts

Inventors and Scientists, especially at universities and public research organisations, often find themselves in conflict with the principle of absolute novelty. Every researcher's primary aim is to increase scientific knowledge. Therefore, research work and the publication of research results are key elements of his scientific activities. Publications are, particularly, fundamental for the evaluation and distribution of the knowledge generated and are, furthermore, decisive for a researcher's academic career and reputation within the scientific community.

In order to contribute to scientific discourse and not to endanger the success of their publications, researchers often follow the traditional strategy of a quick publication. Questions of commercial exploitation - if they are considered at all - are usually secondary. This leads to situations where researchers often overlook the fact that the prompt and ill-considered distribution of an invention without a previous patent application will cause the complete and irremediable loss of all patent rights, and, finally, the fundamental limitation of economic usability. This is one of the main reasons why the inventions generated at universities and research organisations are rarely patented, although they are often valuable and exploitable.

Another main conflict between the interests of research and science and the requirements of a proper patent application is the chronological discrepancy between the patentability of an invention and the possibility of publishing the underlying research results. An invention is only patentable if it is capable of industrial application.[4] This requirement is regularly met by final research results. Preliminary or intermediary results - which, in fact, could be valuable for scientific publications -do not often meet this condition. As a result, an invention can be publishable, but not yet patentable. The strategy of a quick publication as described above can tempt researchers to publicise preliminary or intermediary results without considering the novelty-destroying consequences. This situation has been intensified by the possibilities created by the information societies, which enables research results to be published within minutes via the Internet. A grace period would, within a specific period of time, allow researchers and scientists to both: follow their primary interests in publishing their results as soon as possible, and preserve their economic interests and those of their employing bodies' by patenting the published results afterwards.

The same applies to situations where the economic potential of a patentable invention is only revealed after its publication or

where the author is not aware of its enormous economic value prior to this. Currently, the principle of absolute novelty prevents lost patentability from being resolved.

A further problem researchers, and in particular SMEs, are faced with is the necessity to disclose patentable inventions within contractual or license negotiations prior to an application. This is due to the fact that researchers and SMEs do not often have sufficient financial means to apply for patents. They are then forced to raise funds from third persons by presenting or handing over their invention for its technical and commercial potential to be evaluated. Even though a confidentiality agreement in these cases offers protection to a certain degree, it cannot cure every unforeseen disclosure by any party.

III. Recent legal situation in Europe

1. European Patent Convention and most Member States' Patent Law

Currently, European and the Members States' patent laws do not offer a general grace period. Only in two specific cases is a grace period provided. For the European Patent, this is set out in Art. 55 EPC. Member States' patent laws contain verbatim or similar regulations.

According to these rules, the disclosure of an invention is not taken into account if it occurred no earlier than six months before the filing of a European patent application:

(1) in so far as a third person has disclosed the invention in an abusive way which obviously harms the applicants' interests, for example, by a publication on the part of a third person without the will and acceptance of the inventor or other authorised person.

This specific grace period is, especially, able to solve the problem of publications which have been made in spite of a confidentiality agreement. This regulation also applies to disclosures by employed researchers against or without the intentions or approval of his employee or employing body (e.g. universities, research organisations, SMEs etc).

(2) in so far as the applicant has displayed the invention at an official international exhibition falling within the terms of the Convention on international exhibitions.

In this case, the filing of a patent application within the grace period is only possible if the applicant states, when filing the European patent application, that the invention has been so displayed and at the same time files a supporting certificate.

When calculating the six-month grace period, the date of the actual filing of the European patent application is Ear-relevant.[5]lier publications will still damage novelty.

Only where the priority date of an earlier national or international application for the same invention can - within a 12-month period after the earlier filing - be claimed,[6] is a patent application still possible.

2. Portugal and Spain

Even though Portugal is a member of the European Patent Convention, Portuguese patent law shows a deviation from Art. 55 EPC in, additionally, stating that the novelty of an invention shall also not be eliminated by communications made before scientific societies or professional technical associations or for the purpose of Portuguese or international competitions, exhibitions or fairs which are official or officially recognized in any country of the Union, if the application for the respective patent is filed in Portugal within 12 months.[7] Furthermore, the grace period for abusive disclosures does not have any time limit.

Another additional six-month grace period in relation to the EPC is offered by the Spanish patent law[8] for tests carried out by the applicant or by his legal predecessor, provided that they do not imply working the invention or offering it for sale and that they were carried out during the six months preceding the filing of the application.

However, applicants using these specific grace periods to apply for a Spanish or Portuguese patent should bear in mind that these exceptions to the principle of absolute novelty are limited to the national laws concerned. Consequently, they are not able to successfully file a European or other national patent application which does not offer a comparable grace period.

3. Utility Models

The possibility of protecting a published invention by means of a grace period is also offered under the utility model law, which is a cheaper and easier - but weaker - instrument for protecting inventions outside of patent law.

However, in spite of repeated efforts to implement a Community Utility Model and to harmonise the Member States' utility model law,[9] a pan-European framework for utility models does not yet exist. As a consequence, great differences between Member States' laws will persist for an undefined time: while some Member States do not have a utility model law at all (U.K., Sweden, Luxembourg) others - although providing utility model protection - do not provide a grace period. Only some Member States (e.g. Germany[10], Austria[11], the Czech Republic[12] and Hungary[13]) provide for a general six-month grace period to file a utility model after the disclosure of an invention. Their utility model law can be used to protect inventions even if they have lost their patentability due to an earlier publication. However, it has to be considered that the scope of national utility model protection is limited to the territory of the Member State concerned and cannot be widened to Member States not offering a grace period or utility model protection. As a consequence, the European-wide protection of disclosed inventions -beyond the exceptions described above - cannot presently be reached either by patent law or the utility model law.

IV. Legal situation in selected states outside Europe

1. United States

For a better understanding of the current legal situation on grace periods in the United States one has to be aware that the U.S. patent system operates with the "first-to-invent" -system, which is fundamentally different from the European "first-to-file" system.

The "first-to-file" system in Europe implies that the person whose application has the earliest priority date - i.e. the date of filing or an earlier national or international application[14] - owns the patent rights no matter whether he is the inventor or an entitled person or not.[15]

Due to the "first-to-invent" system the patent right is granted to the first inventor or an authorised person. The relevant date for ascertaining the novelty of the invention is the date of the invention, and not the date of filing the application as in the European patent system. With the application, the inventor or an authorised person has to supply evidence regarding his entitlement.[16] Under U.S. patent law, a previous disclosure by any means and by whomsoever cannot destroy the novelty of the invention, if it is made less than one year prior to the filing of the patent application.[17] The grace period is actually used for 20 % of all patent applications in the United States filed by researchers, universities and public research organisations.[18]

However, the greater patent activity of U.S. universities in comparison to European universities is not only derived from the existence of a grace period. It is also caused by a greater awareness of the advantages of protection rights as well as the existence of transfer offices assisting and consulting universities and research organisations in connection with inventions and their protection and exploitation.

2. Japan, Canada and Russia

Although Japan (six months),[19] Canada (one year)[20] and Russia (sixth months)[21] all use the "first-to-file" system, they still include a general grace period in their patent laws.

3. China

The Chinese Patent Law offers a specific sixth-month grace period for inventions which have been disclosed in an obviously abusive way or disclosed at a "prescribed academic or technological meeting" or at an international exhibition, if it is "sponsored or recognized by the Chinese Government".[22]

V. State of discussion in Europe

In order to support innovation, the introduction of a general grace period into the European Patent Law is currently being discussed with regard to the European patent system,[23] as well as in the context of worldwide harmonisation by the WIPO.[24] Universities, public research institutes and also SMEs particularly favour its implementation.

Considering the example of the U.S., it is expected that a grace period would increase patent activity by universities and SMEs as it would resolve the basic conflict between the fundamental interests of research and science, financial demands and the need to protect inventions and research results for exploitation purposes. For SMEs, a grace period presents the further advantage of providing the opportunity to evaluate the technical and commercial potential of an invention by market analysis or by handing it over to third parties for testing purposes before patenting it.

Although in Japan about 50 % of the patent applications which have used the grace period have been filed by big companies, European industry is predominately against the incorporation of a general period into European patent law. The main argument is the adverse affect a general grace period would have on legal certainty:

- Third parties would fear claims for damages after using published inventions, if they were later patented using a general grace period.
- Publishing an invention before an application would postpone the decision on its economic exploitation until the existence and scope of the patent was known.
- Third parties could no longer rely on novelty searches in patent information databases etc.
- A general grace period would only grant ostensible certainty for publishing researchers and inventors. Clever competitors could indirectly or secretly use cognitions of the published invention for their own purposes. Furthermore, they would lose the possibility of acquiring a patent for states which do not offer a general grace period.

The supporters of a general grace period respond to critics by arguing that even the existing situation cannot provide full legal certainty:

- Oral disclosures or publications on the Internet are hard to prove.
- Currently, European patent applications are not published until eighteen months after filing.[25]
- Until the end of the patent granting procedure - which can last several years - it is neither clear whether a patent will be

granted at all nor what scope it will have.

- Experiences in several states offering a general grace period - even countries operating with the "first-to-file" system (e.g. Japan and Canada) - do not give rise to any concerns.

However, both sides underline that the use of a grace period should be an exception. It should not create an earlier priority date, but rather an immunity period. Otherwise, its introduction would lead to a "first-to-invent" -system, which is unanimously refused. A general grace period would be seen as a "safety net" to be used exceptionally.

VI. Alternative: provisional patent application

Instead of a grace period, European industry proposes another legal instrument as an alternative which also originates from the U.S. patent system: the so-called provisional patent application.[26]

The possibility of a provisional application was introduced in U.S. patent law in 1995. In contrast to a complete application, it requires only a description of the invention and is less expensive. A final application has to be submitted within the following twelve months. The priority date of the later "proper" application is fixed at the date of the provisional patent application. Consequently, no later publication - neither by the inventor himself nor by any other person - shall have any effect on the patentability of the invention.

A regulation similar to the "provisional application" is scheduled for Art. 80 EPC by the Revision Act 2000, in connection with Art. 25d (1) of the Implementing Regulation to the EPC[27], which is not still in force[28]. For constituting the date of filing - which is relevant for evaluating novelty – it will then be sufficient to hand in an application which includes an indication that a European patent is sought, information identifying the applicant and a description of the invention or a reference to a previously filed application.

A "provisional application" is a simple and quick instrument to secure patent rights before publishing inventions. It offers time to check the economic value of inventions and to get in contact with potential licensees. In contrast to a general grace period, it does not solve cases where an invention has been inadvertently or rashly disclosed before application or where its economic exploitability has first become apparent after publication. Otherwise, a provisional application guarantees a higher standard of legal certainty and is a capable and adequate instrument to complement a general grace period.

VII. What should be taken into account in the meantime?

What should be borne in mind as long as the European patent system doesn't provide either a general grace period or a provisional application similar to the U.S. patent system?

The principle of absolute novelty forces researchers and other inventors to keep their inventions secret until the date of filing. Therefore, the following should be noted:

- Before publishing research results by any means (written, oral, via Inter- or Intranet, by use or in any other way), carefully check or ask a patent expert to check if your publication contains a new, patentable invention.
- Do not publish research results including patentable inventions before filing a planned patent application.
- Never pass on patentable inventions or associated information to business partners or other third persons before applying for a patent without concluding a written confidentiality agreement.

To preserve the novelty of an invention in spite of its publication, it is absolutely necessary to file a patent application prior to publication at the European or a national Patent Office, fulfilling the conditions of Art. 80 EPC in its actual version. The signed application has to contain at least:

- an indication that a European patent is sought,
- the designation of at least one Contracting State,
- information identifying the applicant,
- a description and one or more patent claims.

1. Art. 52 (1) and Art. 54 European Patent Convention (EPC).
2. Art. 87 - 89 EPC.
3. See Recital 3, 4a and Art. 1 of the revised Proposal for a Council Regulation on the Community patent of 16.04.2003.
4. 4 Art. 52 (1) and Art. 57 EPC.
5. Case number G 0003/98 - EBA of 12 July 2000.
6. Art. 87 - 89 EPC.
7. 7 Art. 56 (1) Portuguese Industrial Property Code 2003.

8. Art. 7 (c) Spanish Patent Act 1986.
9. The proposed directive foresees no grace period.
10. § 3 (1) German Utility Models Act. Covers only knowledge made available to the public by means of a written description or by use in Germany.
11. § 3 (4) Austrian Utility Models Act 1991.
12. Sec. 4 (3) Czech Utility Models Act 1992.
13. Art. 2 (4) Hungarian Utility Models Act 1991. Covers only knowledge made available to the public by means of a written description or use.
14. Art. 87 - 89 EPC: The priority of an earlier national or international application can only be claimed if the later application is filed within a period of 12 months after the earlier application.
15. Art. 60 (3) EPC. The entitled person can claim for the rights to the patent with the help of a judicial decision adjudging him to be the entitled person.
16. §§ 115, 188 U.S. Patent Act.
17. 102 (b) U.S. Patent Act.
18. Deutsches Bundesministerium für Bildung und Forschung (Editor), Zur Einführung der Neuheitsschonfrist im Patentrecht - ein USA-Deutschland-Vergleich bezogen auf den Hochschulbereich, Bonn 2002, page 3.
19. Section 30 Japanese Patent Act.
20. Section 28.2 Canadian Patent Act.
21. Art. 4 (1) Russian Patent Act.
22. Art. 24 Chinese Patent Act.
23. European Commission, Report on The Hearing of 5th October 1998 on a Grace Period for Patents, Official Journal EPO 1999, page 155; European Commission, An assessment of the implications for basic genetic engineering research of failure to publish, or late publication of, papers on subjects which could be patentable as required under Article 16(b) of Directive 98/44/EC on the legal protection of biotechnological inventions, COM (2002) 2 final of 14.01.2002; Straus, Joseph, Expert Opinion on the Introduction of a Grace Period in European Patent Law, Munich 2002; Galama, Jan E.M., Expert Opinion on the Case for and against the Introduction of a Grace Period in European Patent Law, Eindhoven 2002.
24. World Intellectual Property Organisation; Standing Committee on the Law of Patents, Tenth Session, Geneva, May 10 - 14, 2004, Draft Substantive Patent Law Treaty, Art.9.
25. Art. 93 EPC.
26. § 111 (b) U.S. Patent Act.
27. The new rule is part of a worldwide harmonisation of patent law by Art. 5 of the Patent Law Treaty of 01.06.2000.
28. The Revision Act 2000 will enter into force three months after the deposit of the last instrument of ratification or accession by six States on whose territory the total number of patent applications filed in 1970 amounted to at least 180 000 for all the said States (Art. 169 sec. 1 EPC 2000).