The Debate Regarding the Grace Period in International Patent Law: A Reminder

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Use of the term

The term 'general grace period' is understood as a period of time (six or twelve months) preceding the filing of a patent application, during which disclosures by any means (in writing, orally, by use, on exhibitions, etc.) of the invention for which the patent application is filed by the inventor or his/her successor in title do not constitute prior art in respect of the patent application at hand. In principle, such ‘non-prejudicial’ disclosures do not establish a priority date, i.e. do not provide for immunity for the inventor/applicant against parallel or later independent disclosures, including patent applications of third parties. Immunity is granted to the inventor himself against inconsiderate or rash publication. In spite of previous disclosure of the invention by the applicant or his/her predecessor in title, novelty is not destroyed. An invention is novel when it does not form part of the state of the art.

Importance

Public research institutes, universities with a high number of co-operations, small and medium size companies have demonstrated their need to disclose their invention before filing a patent application. The main idea is that the grace period promotes innovation while seeking to guarantee the rights of the inventor.

Research workers believe that the disclosure of their invention as quickly as possible by publication is a healthy procedure that advances

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1 "Generally speaking, prior art is technology that predates the filing of a patent application on an invention. If the prior art render an invention obvious to a person skilled in the relevant technology, either a patent cannot be obtained or if a patent did issue, then the issued patent is treated as being invalid". See Ladas & Parry, Patent Perspectives, www.ladas.com/Patents/patpers.html.
access to knowledge\textsuperscript{2} and makes it possible for the inventor to ameliorate his/her findings. Besides, in many countries researchers are poorly informed about the otherwise complex Patent Law. Individual inventors by disclosing the state of their work can \textit{obtain funding} and carry out tests to \textit{check whether the invention works}.

Moreover, \textit{the value of an invention may not be immediately apparent} to those who first produce it. When there are no definite results in a research project, and preliminary or intermediary results do not meet the conditions for patenting, researchers do not feel necessary engage into the procedure of patenting.

In general what young researchers need is the prompt publication for the development of their career, and in some cases they even defy the economic aspects of their invention. A Report on the adoption of a grace period in higher education in Germany and the United States reveals that usually in Europe scientists from the University do not apply for a patent or for the potential commercialization of a research, where the importance of their work becomes evident only after publication. Sometimes the researches say they do not have the money or the time to file an application.\textsuperscript{3} In the absence of a grace period and in order to secure their work inventors enter into \textit{confidentiality agreements} with contractors, investors, suppliers, customers, etc.

The grace period is \textit{applicable under the national laws} of more than 40 States. Among them \textit{the United States of America}, \textit{Canada}, \textit{Japan}, \textit{China}, \textit{Russian Federation}, \textit{Brazil}, \textit{Argentina}, \textit{Australia}, \textit{Korea}, \textit{Mexico}, \textit{South Africa}, \textit{Turkey}, \textit{Spain}, \textit{Portugal}. According to the domestic legislation of these countries the inventor has a 6 or 12 months period from the date he/she first makes the invention ‘available to the public’


anywhere to place a patent application on file. An invention is ‘made available to the public’ if the means to make it are disclosed to a person who is free to put it into use, including a manufacturer or a banker, but not lawyers and other persons bound by a duty of confidentiality. The disclosure may also be unintentional.

The introduction of the grace period into domestic law operates only within the territory of a given State, and has no international effect. For the international (or universal) application of the grace period a treaty will be needed.

In the United States of America‘ whoever invents or discovers any new and useful process, machine, manufacture or composition of matter, or any new and useful improvement thereof, may obtain a patent’.5

The law speaks of an inventor to whom it allows a 12 months grace period before filing. The whole system is closely linked to the first-to-invent principle applicable in the United States. During that period the inventor may publish his invention. Such a publication does not invalidate the title as in Europe, but is rather evidence of being the first inventor. This enables an inventor to discuss with other colleagues and put to trial the quality of his/her work.

However, if during the twelve months grace period a third party files a patent application for the same invention, there will be a dispute as to which of the two contenders was – as a matter of fact – the-first to-invent. This leads to complex litigation – known in the US as Interference Proceedings – where the US Patent and Trademark Office (USPTO) adjudicates between the two claimants as to who actually made the invention first. Hence, the US system is known as the “first-to-invent system”. The first-to-invent applies in the USA about 3 times in 100 applications, while 1 out of 5 applications is made for a grace period.

Why in the US, inventors, including those from the academia, rush to fill an application for a grace period at a rate of 20% of all applications? The answer is: because they have good counsels.

The US system knows two other procedures of protection of the inventor before engaging in procedures of final patenting:

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(a) The ‘provisional patent application’, which is an alternative to the grace period. That possibility was introduced in the United States by law in 1995. In contrast to the conditions for a complete application (that anyway shall be filed within twelve months), the provisional application contains only a description of the invention and is less expensive. It provides immunity from later publication to the applicant and his/her successor. In contrast to the general grace period it does not secure the inventor from disclosures before application, or where its economic exploitation has first been apparent after publication. It is considered as a tool complementing the protection given by the grace period.

(b) The United States Patent and Trademark Office also delivers upon request by an inventor a ‘Disclosure Document’. By that Document the Office accepts to preserve for two years a paper disclosing an invention, as evidence of the date of conception of an invention. It must be underlined that the Disclosure Document is not a patent application, the date of its reception does not become the effective filing date of any patent application subsequently filed. It operates within the logic of the first-to-invent American system as evidence of the date of conception of an invention.

Many similarities to the U.S. system are found in other legal systems applying the procedure of the grace period. In Europe, the 1973 European Convention on Patents does not provide for a grace period and even States, such as Germany, that practiced that system, have abolished it in order to align with the Convention. Nevertheless, other States Parties to the 1973 European Convention are still applying variations of grace period in the territory under their jurisdiction.

The debate on the usefulness of adopting the grace period at least on the European level is still alive, and negotiations currently engaged in Geneva under the auspices of the World Intellectual Property Organization for a universal patent treaty include the problematic on this question.

Objections

The objections to the introduction of a grace period in the European system focus in a number of areas: First, on the lack of clarity on its legal effects that could lead to increased legal uncertainty. Second, that it could jeopardize the applicable in Europe system of ‘first-to-file’ an
application for patenting, and would carry further costs. Third, that it
could multiply situations of litigation and impede on fresh investment.

Dr. Jan Galama, head of intellectual property within Philips Interna-
tional, believes that the grace period is a double-edged sword for scien-
tists themselves. In certain fields such as biotechnology, pharmacy and
information technologies, the protection given by a grace period is
theoretical, and the risk of robbery high. He considers that global high-
speed communication through the Internet, the growing economic sig-
nificance of patents and world-wide competition require a clear-cut
patent system on which everyone can rely and that the present eco-

6 See the Report of Mr. J. Galama in Introduction of a Grace Period into European Patent Law—Submission of Expert Opinions from Professor Dr. J. Straus and Mr. J. Galama, European Patent Office, Doc. CA/41/00, Munich, 26/05/2000, pp. 1-23 at 11 et seq. See also discussion on the basis of Mr. Galama's opinion in European Patent Institute, Bulletin no 4, 1999.

7 Loc. cit.
gime as a mere race to the Patent Office, and say that in some national patent offices, the receipt of a patent application is determined by the hour and the minute it is received. Another author believes that “if universities wish to become players in the economic world they would discard some old habits”.

**Response of those in favour**

Those in favour of the introduction of the grace period in the European Patent Law stress the fact that more than 40 States (among them some European States parties to the EPC) listed in the Report of Professor J. Straus\(^8\) of the Max Planck Institute for Intellectual Property (Munich) have already introduced the grace period in their national patent laws. The system is applied within their proper territory but has no effect on the European level. And he adds that the grace period system currently existing in 40 national legislations on the basis of the *first-to-file* system (in the US the system being different) has not created problems in these countries and is working well. As for the argument of lack of legal certainty, this depends on the length of the period, and even the existing European Patent Law system as it stands, cannot guarantee absolute legal certainty. Professor Straus explains thoroughly the advantages of the grace period and analyses the field of application of the domestic legislation of most of the States having adopted the grace period.

Finally, the argument that large industry is not interested by the system of grace period is not convincing. For example, the Japanese authorities reported that in 1999 47\% of applications filed by large companies invoked the grace period.

**The 1973 European Convention on Patents\(^9\) and the EPO**

The 1973 *European Patent Convention* (EPC) as amended until 2001 is applicable in and within 31 States Parties plus 5 extension-States. The

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\(^9\) See text in [www.epo.org/legal/epc](http://www.epo.org/legal/epc)
EPC established the *European Patent Organization* (EPO), an intergovernmental organization located in Munich (31 member States). The *European Patent Office* is the executive branch of the EPO, and has the task of granting European patents in conformity with the EPO. These patents are not European Community/Union patents, or even Europe-wide patents.

According to its latest Report, 178,600 European patent applications were filed in 2004, compared with 167,400 in 2003. 45% of the applications led to the grant of a patent. The average time from filing to grant was 46.2 months, and not 18 months as believed by some experts. 26% of the applicants resided in the *United States*, 18.6% in *Germany*, and 16.6% in *Japan*. *Philips* filed 4,253 applications, *Siemens* 1,690 and *Matsushita Electric* 1,514. Early in the United Kingdom a Report by the *National Academies Policy Advisory Group* has warned about the potentially disruptive effect of patenting everything on freedom of publication and open debate at scientific conferences. It described the rush to fill applications for patenting by certain companies as a 'patent plague' that seeks to turn as quickly as possible applied scientific work of the academia into commercial goods.

If a comparison has any significance, it maybe characteristic that in the framework of the EPO 10% of all its patents that are sent to litigation are finally annulled, whereas for the US Patent and Trademark Office the figures are 50-50.

The European patent system is based on the *first-to-file* rule and, as it ignores the grace period, on *absolute novelty*. Scientific researchers in Europe often find themselves in conflict with the *absolute novelty* re-

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11 According to Art.52 EPC entitled ‘Patentable Inventions’: (1) European patents shall be granted for any inventions which are susceptible of industrial application, which are new and which involve an inventive step. (2) The following in particular shall not be regarded as inventions within the meaning of paragraph 1: a) discoveries, scientific theories and mathematical methods; b) aesthetic creations; c) schemes, rules and methods for performing mental acts, playing games or doing business, and programs for computers; d) presentations of information. 3) The provisions of paragraph 2 shall exclude patentability of the subject-matter or activities referred to in that provision only to the extent to which a European patent application or European patent relates to such subject-matter or activities as such. 4) Methods for the treatment of the human or animal body shall not be regarded as inventions which are susceptible of industrial application within the meaning of paragraph 1. This provision shall not apply to products, in particular substances or compositions, for use in any of these methods”.
requirement that is provided for the European Patent Convention. Never-
theless, the European ‘absolute novelty’ system is somewhat modulated
by the EPC provisions on ‘non-prejudicial disclosures’ (Art.55)\textsuperscript{12}: hence,
the disclosure of an invention is not taken into consideration if it was
due to a breach of confidence \(\textit{evident abuse}\), or was due to the display
by the applicant at a \textit{recognized} international exhibition.

Irrespective of the introduction of a grace period some experts be-
lieve that something has to be done to improve the existing regime
of the EPC. They propose to extend the notion of ‘evident abuse’ of Article 55(1)(a), which is currently too narrow and make it also cover uninten-
tional disclosures; update the expression \textit{official and officially recog-
nized international exhibitions} under article 55(1)(b) of the EPC (ap-
patent awareness} and introduce \textit{special courses in relevant educational
institutions}. Finally, the European States should make arrangements for
the increase of the number of experts in patent law.

It is also noted that Article 80 of the 1973 European Patent Conven-
tion as revised in 2000 but \textit{not yet in force}, presents some similarities
with the US ‘provisional patent application’.

The situation in the European Community/Union

Despite the 1989 \textit{Community Convention on Patents} there is \textit{no European Community Patent}; furthermore, efforts to establish a \textit{Community Utility Model} have failed (utility models are used in some European

\textsuperscript{12} Art.55 EPC: “(1) For the Application of Article 54 a disclosure of the invention
shall not be taken into consideration if it occurred no earlier than six months pre-
ceding the filing of the European patent application and it was due to, or in conse-
quence of: a) an evident abuse in relation to the applicant or his legal predecessor,
or b) the fact that the applicant or his legal predecessor has displayed the invention
at an official or officially organized international exhibition falling within the
terms of the Convention on international exhibitions signed in Paris on 22 No-
vember 1928 and last revised on 30 November 1972, (2) In the case of paragraph 1(b), paragraph 1 shall apply only if the applicant states when filing the European
patent application that the invention has been so displayed and files a supporting
certificate within the period and under the conditions laid down in the Implement-
ing Regulations”.

\textsuperscript{13} Text in www.bie-paris.org
countries to protect the inventions even if they have lost their patentability due to an earlier publication).

In the field of intellectual property the European Community /Union has enacted two Regulations on medicinal and plant protection products (1768/92 and 1610/96) and four Directives (on enforcement of IP rights 2004/48/EC, on patent of biotechnological inventions (98/44/EC), on criminal measures for the enforcement of IP rights (proposed), and patent of computer-implemented inventions (proposed, then rejected).

So far the position of principle of the European Community and its Member States regarding a grace period is found in a policy statement during the 2003 session of WIPO’s Standing Committee on Patent Law (SCP). The Presidency, speaking on behalf of the European Community and its Member States, stated that "the introduction of a grace period provision in the Substantive Patent Law Treaty (still under negotiation) could be beneficial to the users of the patent system, provided that it was introduced in the framework of a general first-to-file system. Such a grace period should, in particular, constitute only a safety net for applicants, be limited to six months prior to the priority date, and be claimed by the applicant, unless the applicant was not, and could not, be aware of the disclosure. In addition, third party rights should not be affected".

The quest for a universal regime: Expectations from the TRIPS Agreement

When in 1994 the Treaty establishing the World Trade Organization was adopted by the intergovernmental Conference in Marakesh (Morocco), many people believed that the TRIPS Agreement annexed to the treaty would encompass in a universal sphere the whole spectrum of international property rights, including patent law. This was a very optimistic approach, which has not been confirmed by subsequent practice (negotiations are held in Doha-Qatar). Yet there are two decisive factors that we should not underestimate: The first is that we live in an environment of open market economy that globalizes the world and otherwise permits the expansion of scientific and economic activities irrespective of State borders. The second factor, is that the cherished for centuries territoriality of the law is simply outdated.
We cannot anymore satisfy the current and future needs of scientific, economic and social life by solely confining regulations within domestic law, or only on a regional basis. We need universal, not merely international rules that would safely govern worldwide a wide range of activities, including research and development. Otherwise, human inventiveness and the spirit of enterprise will be selective, and jump from one country to another according to the legal advantages of the respective legislation, in a kind of choices similar to the well-known to lawyers ‘forum shopping’.

As an example of imaginative international regulation we welcome the 2005 Additional Protocol concerning Biomedical Research\textsuperscript{14} adopted by the Council of Europe within the Framework of the 1996 Oviedo ‘Convention on the Protection of Human Rights and Dignity with regard to the Applications of Biology and Medicine’.\textsuperscript{15} That Protocol inaugurates a breakthrough in the international protection of persons who are ‘within the jurisdiction’ of one of the States Parties, but ‘participate in research projects abroad’. Article 29 of the Protocol provides for the extraterritorial application of the Protocol to sponsors, and researchers who undertake research projects outside the territories of the States Parties\textsuperscript{16}. That means that a citizen of a State Party, wherever he engages in scientific research has to abide by the modern provisions set up by the 2001 Protocol.\textsuperscript{17}

WTO is dealing with commerce. It is not the Organization that could encompass the protection of all sorts of intellectual creativity. Hopefully, the international community will be heading towards a comprehensive system of protection possibly beyond WTO that will cover...

\textsuperscript{14} Text in coe.int/bioethics.


\textsuperscript{16} 2005 Additional Protocol to the Convention on Bioethics, Art.29. “Sponsors or researchers within the jurisdiction of a Party to this Protocol that plan to undertake or direct a research project in a State not party to this Protocol shall ensure that, without prejudice to the provisions applicable in that State, the research project complies with the principles on which the provisions of this Protocol are based. Where necessary, the Party shall take appropriate measures to this end”.

industrial and intellectual property as well. Such a mandate has been entrusted to the World Intellectual Property Organization.

The decisive role of the World Intellectual Property Organization (WIPO)

Intellectual Property Rights (IPR) are rights to make, use and sell a new invention, product of technology, art and literature, which are granted usually for a given period solely to the inventor or the corporation which files a claim on the inventor’s behalf. They generally take the form of patents, trademarks, copyright. The international community does not have a comprehensive regulatory instrument for all kinds of rights corresponding to patents, trademarks, copyright. Efforts are made by sectors in order to meet the requirement of a rapidly changing world.

The World Intellectual Property Organization founded in the 19th century, located in Geneva with 179 member States, is the most qualified United Nations specialized Agency for achieving the dream of a 'world' patent system. In addressing copyright in the digital era, WIPO already adopted in 1996 two ‘Internet’ treaties of limited effect. The WIPO convened a diplomatic conference that led in 2000 to the signature by a number of States (and the EPO) of the Patent Law Treaty (PLT). That treaty harmonizes and streamlines formal procedures in respect of national and regional (as the EPO) patent applications and patents, and makes such procedures more user-friendly. Already during the negotiation of the PLT the developing countries tried to introduce in the context of patent law the problem of disclosure of the country of origin for genetic material and the proof of the informed consent in their acquisition. In one word they tried to render operational the 1992 Rio de Janeiro Convention on Biological Diversity. They met an adamant refusal by developed countries and the industry. On legal grounds it could be said that these issues are part of substantive, and not of procedural law.

The draft Substantive Patent Law Treaty and Draft Regulations under the Substantive Patent Law Treaty

In the field of substantive patent law the WIPO has established a *Standing Committee on the Law of Patents* that now prepares a *Substantive Patent Law Treaty and Regulation under That Treaty*.

The WIPO invited its *Standing Committee on the Law of Patents* (SCP) to initiate work on the *harmonization of substantive law*. Until now the SCP has held more than 12 sessions with the participation of most of the member States and adopted a number of articles, while for some important issues agreement is far from being achieved. Prior art, the grace period, first to do what, novelty, inventive-step, sufficiency of disclosure, and genetic resources are questions pending before the Standing Committee. To these classical questions are added some ‘new’ ones, such as the transfer of technology, anti-competitive practices, safeguarding of public interest, flexibility, and genetic materials, issues advanced mainly by developing countries.

In a more general context we should remind that the TRIPS Agreement, like the European Patent Convention, states that patents shall be available for inventions ‘in all fields of technology’. On this point there is disagreement between the US and Europe. *First*, in the US business methods are patentable, while in Europe they are not, because they are not considered to represent a ‘technological progress’. The US insists in deleting from the projected treaty the words ‘in all fields of technology’ that already figures in the TRIPS and the EPC. *Second*, TRIPS as well as regional and domestic law exclude from patent inventions that offend morality or public order. This is a lip service paid by the law to ethics. Existing international instruments provide for some other exclusion from patenting. The US position is that in the new treaty States should reconsider exclusions to patenting. *Third*, as already mentioned, some developing countries called the ‘friends of development’ (Argen-

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20 Art.53 EPC provides for the following exceptions to patentability: “European patents shall not be granted in respect of: a) inventions the publication or exploitation of which would be contrary to ‘ordre public’ or morality, provided that the exploitation shall not be deemed to be so contrary merely because it is prohibited by law or regulation in some or all of the Contracting States; b) plant or animal or essential biological processes for the production of plants or animals; this provision does not apply to microbiological processes or the products thereof”.

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tina, Brazil, the Dominican Republic, Peru, and others) are keen, among other things, to secure financial income, by introducing further conditions to the test of patenting. They seek to repeat the requirements of the 1992 Rio de Janeiro *Convention on Biological Diversity* into the draft universal treaty on substantive law (disclosure of the country of origin of genetic materials and proof of prior informed consent).

In practice, the negotiation takes place mainly between the United States, Europe (*i.e.* the European Patent Office and the European Commission) and Japan. If I correctly understand the present situation, the US and the EPO delegations take the *first-to-invent/first-to-file* issue in conjunction with the grace period, while the US is not prepared to accept the exclusion of business methods and biotechnology from patenting. Some governments and experts believe that the grace period should apply only in 'exceptional situations'. Obviously, in entering the hard core of the negotiation, the Europeans have to be certain of what they are fighting for.

As the process is going on, we believe that our academic community should profit from possibilities, if any, offered by the WIPO's Standing Committee for the participation of the civil society in meetings such as the *Open Forum on the Draft Substantive Patent Law*, the latest session of which was recently held in Geneva.

**Draft Article 9 of the Substantive Patent Law Treaty**

The divide between the *first-to-invent* and the *first-to-file* rule remains decisive and if solved, it will be part of a package deal with the grace period. But many components of the system of the grace period are not yet clearly defined in draft Article 9.\(^{22}\) It is believed that some uncertainties attributed to the grace period system could be minimized by procedural means. Questions remain as to the period of six or twelve months. It also seems that a declaration invoking the grace period will be mandatory. The grace period will include situations of publication

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by the applicant and/or his/her predecessor in title, the Office, or third parties (direct and indirect disclosure). Proof and prior user rights are also under discussion. Obviously Article 9, and the other provisions related to it, to be effective, should be drafted with great care and expertise.

The European position is that the safety net to be workable should be six months and in the context of the first-to-file system. In the interest of transparency for the public, the applicant should be required to submit a declaration invoking the grace period, even though in some cases it might be difficult for the applicant to know if his/her invention has been made available to the public.

All the studies relating to the problems of patenting underline the revolutionary role of the Internet in the fields of information and dissemination of knowledge. Apart its usefulness the Internet has created many serious problems that the international community, for the time being, either cannot or is not ready to address. As far as the intellectual property rights (including the various aspects of human rights and ethics) are concerned, it is reported that “In contrast to more traditional paper publication, three facts are often difficult to ascertain for an Internet disclosure: (1) on which date did the disclosure take place? (when); (2) what has been disclosed on that date? (what); (3) how has been disclosed (how). The legal environment in which the Internet, as well as the communications by satellite, operates is far from being clear, nationally and internationally.

For those who are not optimistic for the outcome of the negotiation in the framework of a universal treaty on patent law, the suggestion could be that European States as well as the European Community proceed to amendments of the European Patent Convention so as to include the grace period. Yet those in Europe who object the system

could only go along with provisions establishing it if the consensus were to be universal.

In any case a harmonized grace period system should be beneficial for the inventors, the economy as well as for the public, and promote science and technology in all countries.