

Europäisches Patentamt European Patent Office Office européen des brevets

Workshop Report

# The economic effects of introducing a grace period in Europe

**initiated by the EPO Economic and Scientific Advisory Board** Munich, 26 November 2014



Report EPO Economic and Scientific Advisory Board Workshop on the economic effects of of introducing a grace period in Europe Munich, 26 November 2014

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#### EPO Economic and Scientific Advisory Board

While the EPO's main focus is on its core business of delivering services under the European Patent Convention, it also has a strong interest in the broader economic and social ramifications of the patent system. This interest should be pursued in a collaborative way together with individuals and organisations that have shown a high level of expertise in the areas concerned. It is for this reason that the EPO set up an Economic and Scientific Advisory Board to address important economic and social issues relating to patents in a more dedicated and selective way than hitherto possible.

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The objective of the EPO's Economic and Scientific Advisory Board is to contribute to a comprehensive analysis of the patent system in its economic and social context. The Advisory Board addresses issues that are closely related to the patent system and of significant interest to the European economy and society at large. It is the responsibility of the Advisory Board to come up with a scientifically grounded, independent assessment of these issues. The Board advises the EPO on the scope and set-up of relevant economic and social studies, provides guidance on related research projects and evaluates their impact. Using studies and analyses supplied by the EPO and other external partners, the Advisory Board is responsible for providing early warning signals on sensitive developments and issues. Moreover, it presents policy recommendations for dissemination to relevant media and stakeholders.

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#### Scope of work

The Advisory Board is independent within the scope of its mandate and is able to choose to address particular issues on its own initiative. Detailed information on the Board's previous work can be found at: http://www.epo.org/about-us/office/esab.html

At its second annual meeting on 1 February 2013, the Board decided to address the topic of the economic impact of introducing a grace period in Europe. To that end the Board decided to commission a study and hold a workshop on the economic effects of the introduction of a grace period in Europe. This workshop was held in Munich on 26 November 2014. The preliminary findings of the economic study, which was completed in November 2014, were presented during the workshop. The present report summarises the discussions of the workshop participants, which consisted of over 60 international IP experts and practitioners.

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Photos taken during the meeting at the EPO Isar Building

#### 1 Introduction

On 26 November 2014, a workshop was held at the European Patent Office ("EPO") in Munich, to discuss the economic effects of introducing a grace period in Europe, inter alia on the basis of the findings of a study mandated by the European Scientific and Advisory Board ("ESAB") of the EPO and completed in draft version in November 2014.

#### 1.1. Background on the grace period

A grace period in patent law is a period of time prior to the filing or priority date of a patent application, during which an inventor can divulge his invention without this destroying the novelty of his invention for patenting purposes. Europe and China stand out as two major jurisdictions in the world without a full-fledged grace period encompassing wilful disclosures by the inventor/ applicant. In most systems, the operation of the grace period simply removes from the prior art the item disclosed by the applicant during the grace period and there is no need to analyse the disclosure's content.

In Europe, Article 55 of the European Patent Convention ("EPC") provides very limited exceptions pursuant to which, after disclosure of the invention, an applicant may still obtain a valid patent under the EPC: where the disclosure is a result of an evident abuse in relation to the applicant, or where it occurs at an officially recognised international exhibition. As these cases are extremely rare, it is as a result very easy to determine whether or not a document is comprised in the prior art, provided it is dated. Thus, Europe enjoys a high degree of legal certainty, clarity and efficiency, both pre- and post-grant, which simplifies matters for third parties and patent offices alike. The downside is that voluntary disclosures by the inventor cannot be envisaged, and no patent protection can be obtained in case of accidental disclosure of the invention.

Most other industrialised countries have a grace period, but as there are many ways in which a grace period can be defined, the international landscape in this respect is a patchwork of different regimes. The grace periods in the US and in Japan provide examples of how grace periods can be implemented, as well as how they can differ. The Appendix to this report shows an overview of the current provisions regarding grace periods in the five major patent systems (IP5). Global players do not use grace periods strategically, presumably because the absence of a full-fledged grace period in Europe and China acts as a disincentive. They will, however, use grace periods in case of accidental disclosure. Indeed, pre-filing disclosures anywhere in the world would prevent the patentability of the invention in those two markets of 600 million and 1.3 billion respectively. Thus, global players presently use the grace period world-wide as a safety net only. So that it is unknown what the impact of an internationally harmonised grace period might be.

In the international context, a grace period is seen by some as an essential element in ongoing efforts to achieve international substantive patent law harmonisation. It is widely considered to constitute the crux of international substantive patent law harmonisation, the key to a global patent system, and one of the most difficult issues to address. Currently, substantive patent law harmonisation is being considered within the so-called "Group B+", composed of the delegates from over 40 industrialised countries, as well as from the EPO and the EU.

There is pressure on Europe to adopt a grace period, particularly from the partners of the EPO in the Trilateral Cooperation: the US and Japan. They have also informally made clear that a substantive provision on a grace period will form part of the requests they will make of the European Union within the IP Chapters of the Transatlantic Trade and Investment Partnership (TTIP) and the EU-Japan Free Trade Agreement, respectively.

Hence the pressure on Europe to consider the adoption of a grace period, as well as the interest in Europe in gaining a more in-depth understanding of the economic effects of a grace period as well as of its absence in Europe. For more information on policy issues and recent and current harmonisation initiatives, see Appendix.

#### 1.2. Economic study

Whilst the legal issues have been analysed at length, there is as yet little empirical evidence about the possible economic and social effects of introducing a grace period in Europe. To this end, the ESAB aimed at reviewing the economic effects of introducing a grace period in Europe, should this come to pass. As part of this assessment, the ESAB commissioned an economic study which involved a literature survey, an on-line survey of users of the European patent system from Europe, Japan and the US, as well as qualitative evidence gleaned from structured interviews with users. The study also aimed at identifying the effects of possibly introducing a grace period in Europe for various stakeholders, including large companies, SMEs, universities and public research organisations inside and outside Europe.

At a more detailed level, the purpose of the study was to provide further qualitative and quantitative evidence on the possible economic and social effects of introducing a grace period in Europe.

The research questions of the economic study were:

- What are the views of various stakeholders (including large companies, SMEs, universities and public research organisations from Europe, the US and Japan) on the desirability of a grace period in Europe? How do they regard different possible definitions of a grace period?
- What would be the future economic costs and benefits of introducing a grace period in Europe? What are the economic costs and benefits of not having one? Would Europe benefit from a harmonisation at international level?
- Which filing strategies and what behaviour are various applicants adopting in the absence of a grace period? What are the consequences of these strategies for the EPO and for different types of users of the European patent system? How would these strategies and the observed behaviour change with the introduction of a grace period in Europe?
- How do the economic benefits and costs of introducing a grace period in Europe differ for the various types of users of the European patent system, for example domestic and international applicants?

The intention of ESAB was to use the results of the study to make an assessment of the likely economic effects of introducing a grace period in Europe. In addition to the economic study, the ESAB organised a workshop during which the findings of the study were presented in slide form (Annex 1) to the participants, although the report itself was only available to ESAB members and not yet to participants.

# 1.3. Organisation of the workshop report

This report provides a summary of the deliberations which took place during the workshop under Chatham House Rules; the list of participants is however included in this report. The discussions are presented thematically, as well as the conclusions which can be drawn from them. Accordingly, where useful and appropriate, additional background information is given to clarify the context of an intervention, but in such a manner that individuals cannot be identified.

The report itself is divided into three parts:

- Section 2 gives an overview of general considerations;
- Section 3 provides a summary of the advantages (section 3.1) and disadvantages (section 3.2) of adopting a grace period in Europe, as well as of how the grace period might be used in Europe if adopted (section 3.3);
- Section 4 presents a review of discussions considering the grace period in an international context, including the elements of a grace period definition which participants believed would be important to harmonise; and finally
- Section 5 summarises the main workshop conclusions.

#### 2. General considerations

At the outset, it must be emphasised that there was no agreement amongst participants on whether from purely European perspective, there was a true need for a grace period. European users generally appear not to experience pressing problems as a result of not having one. On the other hand, many participants thought that a grace period would be "nice to have" in situations where accidental disclosures occurred, and some felt that a grace period would be essential in situations where disclosures are required or difficult to avoid too early in the patenting process.

Against the backdrop of requests for the inclusion of a grace period from the US and from Japan, within the context of bilateral free-trade agreements and ongoing harmonisation work on the topic taking place within the so-called Group B+, of which users of the patent system are keenly aware, discussions on the grace period in this workshop could not be divorced from their political context.

#### 2.1. The harmonisation process

In one of the workshop break-out sessions, participants expressed the view that harmonisation theoretically could also mean that the world agreed to an international norm eliminating the grace period world-wide, underscoring the remaining controversial nature of the grace period in Europe.

In that same session, the Chair asked how many participants were in favour of a unilateral change of the EPC to include a grace period, without a substantive patent law *quid pro quo*, and the unanimous answer was negative. Also in the plenary discussions, the general consensus was that the unilateral adoption of a grace period per se was not in the interest of Europe.

First, an undisputed conclusion was that the grace period only made sense for Europe if its conditions were internationally harmonised, not merely approximated or brought down to a minimum standard. Global fragmentation should be replaced by a globally harmonised grace period. Thus, the grace period was most effectively addressed in a multilateral process.

Moreover, a unanimous view expressed was that the grace period could not be and should not be considered in isolation: it was just one element in the context of current global harmonisation efforts. If an internationally harmonised grace period were achieved, then it should be accompanied by a worldwide, classical first-to-file system. Everything was linked and it should be endeavoured to harmonise multilaterally as many elements of the patent system as possible - not just the grace period. Europe should consider what it might be able to achieve in other areas if a compromise was reached on the grace period.

In particular, in view of the pressure from the US regarding the grace period, multilateral negotiations would give Europe a better chance of obtaining change from the US, for them to modify their own grace period, than under a bilateral trade agreement such as the TTIP. Several participants expressed a fear that the grace period would be "used to re-introduce a first-to-invent system through the back door".

One practitioner reported having had 10 or 15 instances (over an entire career) where the absence of a grace period had spelled disaster for his SME clients. Even though he believed that a grace period constituted best practice, he clearly opposed a unilateral move by Europe, unless in particular the US agreed to deliver on other aspects of substantive patent law harmonisation.

If one wanted to benefit SMEs in the European market, that constituted a "very small" reason for establishing a grace period system limited to Europe, without harmonisation.

If there were a global system, it would be easier for inventors to learn how to patent according to a single set of rules. However, it was mentioned that there was a high risk in engaging in compromises in a harmonisation process. It was essential to pay attention to small details, as they could adversely affect the benefits of the harmonisation package.

#### 2.2. Geographic scope

It was agreed by all that the geographic scope of an internationally harmonised grace period should be broad. If world-wide harmonisation proved unrealistic, then harmonisation within the IP5 jurisdictions was considered to be a minimum: Europe, the US, Japan, Korea and, most of all, China. Several participants were adamant that since China was the biggest market, any internationally harmonised grace period which did not encompass China would be useless, even if it extended to Japan and the US. Looking towards the future and the potential importance of including other jurisdictions, it was discussed whether other emerging markets, such as Russia, Malaysia, and in particular India, should also be considered as necessary. Views were divided on this issue.

One break-out group concluded that a grace period in a harmonised global patent system could be useful for companies active world-wide, but that there was no real benefit in adopting a grace period confined to Europe.

#### 2.3. The nature of the grace period

Those favouring a grace period in principle appeared to be unanimous that the grace period should be defined as a safety net, with consistent interpretation and operation needed world-wide.

The participants who expressed an opinion on the current US grace period model, which was qualified as a "first-to-publish" system, unanimously found it to be unsatisfactory, and not in line with Europe's needs.

In case of international harmonisation, one participant found it preferable to choose a grace period along the lines of a model which already existed, in order to avoid introducing something totally new and untested.

On the one hand, it was reflected that a grace period would produce positive effects by allowing more innovations and more inventors into the patent system, whilst stemming the rush to the patent office.

On the other hand, it was considered that if there were fewer patent applications and patents granted, there was more freedom to operate for competitors, which also brought benefits to the public.

The vast majority of participants believed that the risks associated with pre-filing disclosure should be borne by the applicant/patentee.

#### 2.4. The needs of academia

Under the EPC at present, it was pointed out that there is a tension between early scientific disclosure and the pursuit of global patent protection.<sup>1</sup> Nevertheless, not all university-based participants were in favour of the grace period. Researchers had to be constantly educated, partly because of the large turnover of personnel. In terms of message, it was far easier to educate researchers and academics that "if you publish, you lose". For non-patent law specialists, this was a much simpler message, and compliance with that simple policy was likely to be much higher than if a more sophisticated approach became necessary under a grace period.

An issue was raised about the delay between the submission of an article and its publication. If the article was proposed to several editors prior to actual publication, would that be considered a prior publication making the article and its contents available to the public? It was widely considered that if this article was sent to an editor under a seal of confidence, there would be no problem. One academic confirmed that where the article was submitted prior to filing and published only thereafter, there was no problem as confidentiality upon submission of an article was respected, and the article circulation was confined to the limited number of persons involved in peer review, also bound by an obligation of confidentiality.

One practitioner in an industry with experience in joint ventures with public research organisations and universities reported that experience showed that academic disclosures were not a problem. Typically, the most problematic disclosures were those made by marketing departments.

1 After the workshop, one ESAB member pointed to an article in which the typical delay time is reported. In a survey of 210 US and international life-science companies from 1994 (D. Blumenthal, N. Causino, E. Campbell, and K. S. Louis (1996), "Relationships between Academic Institutions and Industry in the Life Sciences An Industry Survey" Engl J Med 1996; 334:368-374), 58 per cent of the respondents revealed that companies typically require academic investigators to keep information confidential for more than six months in order to file a patent application. However, a report from the European Commission (REPORT FROM THE COMMISSION TO THE EUROPEAN PARLIAMENT AND COUN-CIL - 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 [SEC(2002) 50]), surveying 154 academic scientists and organisations, 48 companies, large and small, and 30 patent professionals in the genetic engineering sector, reported that of those respondents that had ever used the patent system, only 8% of the private-sector and 20% of the academics had actually experienced a 'considerable delay' in scientific publication to occur when patenting was envisaged. Furthermore, in some cases the patent system had actually facilitated publication of research results that would have been kept secret without patent protection.

#### 2.5. Provisional patent applications

One academic pointed out that the grace period should be looked at as an instrument to decouple publication activity from patenting activity.

It was queried by several break-out groups whether provisional patent applications might not be an alternative to the grace period for Europe, with regard to the needs of the academic community. If an academic was under pressure, a cheap, easily prepared, provisional application could be filed at the USPTO, sufficient to establish a priority right.

One practitioner disagreed: the EPO's strict practice regarding the identity of the invention disclosed in a priority document and that contained in the EPO application, made the filing of provisional applications problematic and dangerous. In the absence of a clear unambiguous disclosure in the hastily drafted provisional, priority could not be validly claimed from it for a subsequent filing at the EPO.

# 2.6. Criticism of the findings of the study

The findings of the economic study presented in the morning (see Annex 1) were criticised by some participants. In particular, although some participants found the results of the survey interesting and felt it contained useful information, other participants seriously doubted that it formed a solid basis for policy-making purposes. First, it was argued that there were only 820 responses, although over 12,800 applicants were approached. This 6.4% response rate was perceived by non-economists in the room as being a very low return, raising the issue of possible biases and an insufficient basis for reaching general conclusions. Moreover, the sample was criticised as being non-representative, as only EPO applicants in Japan, the US and Europe had been approached, excluding both patent attorneys and lawyers. These were argued to have often a more balanced view of the patent system. The presentation of qualitative views might have yielded more persuasive results. During the workshop there was little opportunity for the economic researchers who had presented their findings to react to these criticisms.

# 3. Introduction of a grace period in Europe

# 3.1. Advantages of the introduction of a grace period in Europe

During one of the workshop break-out sessions, participants were asked what the advantages were of introducing a grace period in Europe. There were a variety of opinions on the subject.

Some participants responded that there were no advantages. One participant from large industry stated clearly that the patent system in Europe did not need a grace period, and although it was recognised that some branches of technology might experience challenges, adopting a grace period which made the assessment of the validity of patents more difficult for all stakeholders was not considered desirable or appropriate.

Others were more nuanced, and believed that if considered only within the context of Europe, there would be no advantage for Europe to adopt a grace period. However, if considered world-wide and if the grace period were itself internationally harmonised, then there might be some benefits for Europe.

Other participants felt on the contrary that the grace period could yield some benefits. One member of large industry reported that 10 years ago, their company was against the grace period as a source of legal uncertainty benefitting the few, but their view had changed, partly because the ability to keep information secret in some sectors of technology was diminishing. Digital technology provided new opportunities for theft of information, and in some sectors such as pharmaceuticals, regulatory authorities required the disclosure of more data which could no longer be kept confidential.

One of the problems with assessing the impact of the absence of a grace period in Europe, and thus the potential advantages in adopting one, was the fact that a number of European applications were not filed after a first filing in the US, simply because a publication was found which was old enough to invalidate the US application, in which case the US application would be dropped as well. Thus, any study focusing on filings in the US, and not on granted patents in the US, which were not followed up in Europe, would give a distorted picture.

#### 3.1.1. Remedy in case of accidental disclosure

The advantage attracting the broadest consensus was that the grace period could bring benefits in case of accidental disclosure, where something went wrong. By providing a safety net in such cases, the grace period could allow inventions to enter the patenting process despite accidental disclosure prior to filing, which attenuated the harshness of the European patent system in case of a catastrophic malfunction and assisted SMEs ignorant of the patenting process. However, many argued that the grace period should be structured in such a way as to be confined in practice to a safety net in case of accidental disclosure. It should be like an "orange light" in traffic: do not cross if you can actually stop.

It was also argued that in certain areas of technology and for certain types of businesses which necessitate carrying out validation trials, construction of prototypes or cooperation with other technical advisers it is difficult to avoid pre-filing disclosures. Hence, the grace period could be a useful tool in those particular circumstances.

#### 3.1.2. Faster knowledge flow

Some believed that a grace period allowed faster knowledge flow, since disclosures could be made earlier than under the present system in Europe.

It was considered how the public at large could potentially benefit from the introduction of a grace period in Europe. On the one hand, there was an earlier flow of information and dissemination of knowledge. Early access to the knowledge of scientists presented advantages in cooperation projects between universities and industry. However, it was pointed out that even in an open innovation context, the grace period did not take away one of the major issues of such collaborations, which was that of determining the respective knowledge contributed by each party. In this respect, the registering of an "envelope Soleau" in France, or under the similar system available at the Benelux Office prior to the beginning of any such cooperation, for instance, could be useful.

## **3.1.3.** Promotion of collaboration between industry and public research organisations

For start-ups and public research organisations, it was assumed that a grace period could promote collaboration with industry. Currently in Europe, many problems were addressed through confidentiality agreements, but it was alleged that often, these were not respected. That was a deterrent to collaboration with universities, which had a culture of dissemination. Another user thought that confidentiality agreements would not disappear under a grace period system: merely, the grace period would offer another line of protection against premature disclosure.

It was queried whether the large number of hightech start-ups in the US was partly explained by the existence of a grace period there. On the other hand, it was observed that the prevailing problem for start-ups and public research institutions was the cost of patenting rather than the careless disclosure of inventions. Many of these entities had learned the rules of the patent system so that the grace period was much less of a pressing issue than it had been in the past.

One participant argued that for universities using taxpayers' money to do basic research, a grace period would increase the potential for higher returns through patenting. Basic research tended to be complex, and in the early stages, the potential for commercial exploitation of research results might not be immediately apparent. The grace period could help in this regard. Also, complex research usually meant large teams, which then were likely to entail difficulties in keeping information confidential.

## **3.1.4.** Possible beneficial influence on the "quality" of patent applications

Some participants suggested that the grace period gave applicants some flexibility to improve their priority filing and additional time to draft an application, which would have a positive impact on the quality of the application. This was, however, questioned by others.

It was also argued that earlier consumer input might lead to substantive improvements to the invention and assist the inventor in drafting more meaningful and effective claims with sufficient breadth. In the business environment, the pace of business dealings was increasing. It was sometimes difficult to prepare a high-quality patent application in a very short time frame. The grace period could potentially alleviate this pressure. Some participants expressed scepticism, as their experience was that applicants – or their attorneys – tended to wait until the last minute to prepare communications, file priority documents and so on. Thus, the time frame might be expanded, but there would still be a rush at the end.

## 3.1.5. The particular issue of disclosure of trial data to regulatory authorities

Some participants believed that a grace period would help alleviate the perils of regulatory authorities requiring the disclosure of data for product marketing authorisation purposes. In a system which was requiring an increasing level of data and transparency, it was becoming more difficult to control confidentiality.

The issue of the change in the transparency policy of the European Medicines Agency, which would enter into force on 1 January 2015, was addressed, particularly since the agency took the view that clinical trial data did not generally constitute "commercially confidential information". At least one participant, representing large industry, acknowledged being against the grace period, but shifting views in light of these new policies. Another user pointed out that other regulatory agencies in the world were taking similar approaches, with regard to pharmaceuticals as well as agrochemical products.

This problem was compounded by the fact that the results of clinical trials, which were needed to show that a compound was effective, or to show new uses for old compounds, needed to be included in the priority application. This was a problem for second medical uses as well as for medical devices for use in treatments on human and animal bodies. All these rules combined did not encourage research. A distinction was made between clinical trials, which were sometimes carried out as part of the inventive process, and agrochemical field trials, which were aimed at testing reproducibility and in which some degree of control over the subject-matter which was being disclosed might exist. One user in favour of the grace period believed that solutions to problems identified should not be technology specific, but should cover all technologies, and a uniform, internationally harmonised grace period, applying to disclosures prior to the priority date, used in a purely defensive manner, could be a solution.

Several participants suggested that wherever an applicant was forced to disclose data for regulatory purposes in the public interest in the early disclosure phase of regulatory information, then such disclosure should not be used to invalidate a patent. The addition of a specific statutory exception in this regard to Article 55 EPC would be preferable to adopting a general grace period as it might be possible to achieve some of the policy goals without unduly increasing legal uncertainty.

Some users opined that this was not a problem intrinsic to the patent system, but rather to the regulatory environment, and it was in that area that solutions should be adopted. Another stated that the problem was the necessity to include clinical trial data in the priority application, combined with the new transparency requirements. If either one of these conditions were modified, the problem would disappear, so the grace period was not necessarily the best answer to this problem.

#### 3.1.6. Other comments

One participant opined that there were three fields of interest: validation that the invention works, prototyping, and attracting venture capital. The grace period could potentially help in all three phases.

Some participants suggested that the main "advantage" of the introduction of a grace period in Europe would be to generate more income for lawyers and patent attorneys.

Theoretically, different countries with different structures, for instance with a bigger academic base rather than industrial base, might benefit differently from a grace period system in Europe.

The argument was made that a grace period allows more effective transfer of technology, but scepticism was also expressed. One participant pointed out that the most effective transfer was to shout it out at the market, which was a cost-free mechanism.

## 3.2. Disadvantages of the introduction of a grace period in Europe

One difficulty with assessing the pros and cons of the grace period was that its benefits focused on helping individual inventors save the patentability of their invention in circumstances in which a pre-filing disclosure had occurred. This was intuitively attractive. In contrast, however, the disadvantages of the grace period were more abstract and systemic in nature, more pervasive, and they impacted on all other stakeholders, such as third parties, competitors but also on patent offices, thus in turn affecting all users of the system. For this reason, it was difficult to assess the social cost of the introduction of a grace period: the matter was extremely complex.

The question to be addressed was whether Europe would gain more from patenting inventions which otherwise could not be protected, or from benefitting from other people's mistakes, sometimes occurring in foreign jurisdictions.

#### 3.2.1. Elimination of "freeloading"

At the outset, it was stated that it was not completely clear that the current lack of a grace period was a disadvantage for European industry as a whole. It was possible that the lack of a grace period in Europe might indeed bring a competitive advantage for Europe vis-àvis other countries.

One example put forward was the patent granted to Stanford University in the US on recombinant DNA invented by Cohen and Boyer, for which it was alleged that no equivalent could be obtained in Europe due to a pre-filing disclosure at a conference, subsequently reported in a Science magazine. This allowed competitors throughout Europe to use the invention without paying any licensing fees.

Adopting a grace period in Europe would result in the loss of this advantage, although there was no evidence as to how prevalent it was. This angle should be the object of further study, perhaps on the basis of concrete case studies of particular inventions patented elsewhere, which had not been patented in Europe due to the lack of a grace period.

In particular, it was suggested that European companies benefit more from the absence of a grace period in Europe since they then do not need to pay royalties to foreign inventors who availed themselves of the grace period in their countries, thereby precluding the patenting of their inventions in Europe. In this regard, it was necessary to look at the global picture and the long term.

One participant observed: Europe's interest was to develop industry, not grant patents. If there was a spill-over effect from carelessness abroad, it was argued that this was not a problem from a European perspective. Another participant concluded: "Europe does well enforcing a strict system."

## **3.2.2. Increased legal uncertainty and its consequences**

From a legal perspective, under a grace period, an invention could be put into the public domain by the inventor, then taken back out of it again and appropriated, which had a destabilising effect on the patent system.

One participant from large industry stated that the grace period applied only to a very small number of cases. However, the introduction of a grace period, to benefit these few applicants, would result in a higher level of legal uncertainty which in turn entailed social costs affecting all stakeholders. This was considered the most important disadvantage of the introduction of a grace period in Europe. The increased legal uncertainty had several facets: there would be uncertainty in ascertaining the prior art, both pre- and post-grant and some participants felt there could be increased uncertainty in the outcome of litigation, although the extent of this uncertainty depended on how the grace period was defined.

Asset management was important in industry, and to do this effectively, decisions needed to be taken quickly on the basis of clear answers in terms of whether technology was appropriated or not. If there was increased legal uncertainty, this would have a negative effect on investment in R&D, as several participants noted that investors tended to be risk-averse.

However, some participants believed that if the grace period were well designed, legal uncertainty might be kept within acceptable limits. In this regard, several participants felt that legal uncertainty could be mitigated if a mandatory declaration was adopted, requiring that it be filed in a timely manner and contain an indication of both the date of the disclosure and its content, i.e. the subject-matter disclosed.

#### **3.2.3.** Increased cost and reduced reliability of "Freedom to Operate" opinions

It was necessary to consider the grace period from the perspective of an applicant invoking it, but also from that of the competitor attempting to determine his freedom to operate. A grace period made the assessment of the validity of patent rights held by third parties difficult to assess for the purpose of drawing up Freedom to Operate opinions, and for this reason, the latter would become more costly and less reliable.

In that sense, it was unsurprising that the vast majority of universities were in favour of the grace period: they wished to publish prior to filing, but did not have competitors in the marketplace, so there were no risks for them associated with an increase in legal uncertainty.

Yet one participant whose large company was involved in joint ventures with universities believed that the grace period could only be a "concession with a narrow scope after a hard negotiation on harmonisation". He estimated that his company spent half of its IP budget on Freedom to Operate opinions, and recalled that no matter how many patents a company held, more patents would be owned by competitors.

For third parties, the introduction of a grace period in Europe would bring no advantages whatsoever, on the contrary. One might need a Freedom to Operate opinion simply to determine the impact of a particular document, based on its origin and the circumstances in which it was made available to the public. Freedom to Operate opinions would become generally more complex and free new prior art within the public domain would be more limited.

One participant believed that companies might change some of their strategies, depending on the definition of the grace period. For instance, most companies currently carried out fairly comprehensive Freedom to Operate searches. If as a result of a harmonised grace period, these were to become so complicated and unreliable, companies would simply stop looking at prior art to determine their freedom to operate, and take more risks in regard to damages for innocent infringements. This would be an unintended consequence, but such behaviours could be limited if there were a tightly constrained, safety net grace period.

## 3.2.4. Increased complexity of the European patent system

Several participants expected that a grace period would add further complexity to the European patent system, and that the patenting procedure would become lengthier and more complicated. Absent a mandatory declaration requirement, additional communications between the applicant and the examiners might be necessary just to ascertain the prior art, before any search results could be finalised and substantive examination started.

Moreover, it was observed by several participants that a grace period made company policy potentially complicated to explain. When employees were told categorically not to disclose any information, this was a clear and unequivocal instruction. Imparting a message concerning a grace period became more complicated, in that potential risks had to be mentioned, a deadline for filing had to be kept in mind, etc.

#### 3.2.5. Increased litigation costs

It was predicted that litigation would become more frequent, lengthy and expensive, due to extra issues needing to be resolved. It was also pointed out that where budgets are limited, funds spent on litigation cannot be invested in innovation.

#### 3.2.6. Disincentive to early filing

The grace period was argued to produce disincentives for applicants to file timely patent applications. Moreover, there was the risk of strategic "gaming" of the system by applicants, producing delays and additional systemic imbalances.

If Europe adopted a grace period, the filing of patent applications might be delayed, and thus the public dissemination of the enabling disclosure contained in the patent application, published at 18 months would also be delayed, as opposed to a perhaps obscure making available of the invention to the public through a pre-filing disclosure.

#### 3.2.7. Possible changes in applicant behaviour

On the one hand, the mere fact of allowing the patentability of inventions to be saved where there was an accidental prior disclosure, did not seem to conceal any deleterious effects in itself. However, there was concern that the availability of a grace period would make applicants change their behaviour and begin using the grace period strategically.

One participant reported that since the broadening of the definition of the grace period in Japan in 2011, there had been a considerable increase in the use of the grace period. Conversely, a recent decline in the use of the grace period in Japan in sectors which intensively used the PCT was also reported, perhaps showing the deterrent impact of the lack of a grace period under the EPC and in China in foreign jurisdictions having a grace period.

If the paradigm changed to disclosing first and filing later, this would have serious negative systemic consequences, but it was agreed that this could be controlled to some degree by ensuring a safety net definition of the grace period.

#### 3.2.8. Possible risks for applicants

Even amongst those participants who favoured the grace period on principle, it was agreed that the grace period should be as narrow as possible so that a few applicants were not advantaged at the cost of the public or third parties. In particular, prior user rights were necessary to ensure that third parties did not bear the brunt of the safety net.

Since a safety net grace period was the only definition which participants appeared prepared to consider as an option for Europe, the question arose of the possible impact of the balancing features intended to deter applicants from modifying their paradigm of filing first and disclosing later.

It was observed that the grace period brought advantages to applicants in the early stages of the patenting process, but that it might also bring additional risk for such applicants later on, for instance, in litigation.

If a grace period gave SMEs and universities a false sense of security, or became a source of error, it would harm those which it was meant to help. Many participants raised the issue of whether patent owners could be certain about the applicability of the grace period to their pre-filing disclosures. Inventors could disclose their invention prior to filing, under the false impression that this was without risk (e.g. ignoring potential difficulties due to possible invalidating intervening disclosures by third parties or acquisition of prior user rights), and that lawyers could then sort out all outstanding problems later. This would, as now, be a particular threat for SMEs and small inventors which tended to be inexperienced and to lack knowledge about the patent system.

## **3.2.9.** Procedural features possibly mitigating expected disadvantages

Beyond the substantive issues of the definition of the grace period which would determine the frequency and manner of its use (duration, declaration requirement, status of intervening disclosures by third parties and availability of prior user rights), procedural features adapted to minimize the negative systemic impacts of a grace period were discussed.

One idea was that the publication of applications should occur within 18 months of the graced disclosure, thus reducing the period of legal uncertainty. However, some argued that such a rule would not be workable in practice as in some cases, the date of earliest disclosure would be difficult to ascertain and might not even be known to the applicant. Moreover, if there was a graced disclosure and the applicant then made full use of the 12 month priority period, patent offices would have to publish the application immediately upon filing, which would be logistically difficult and result in a glut of applications published without a search report. Others argued that immediate publication was technically possible, and that the EPO received many applications at the end of the 12-month priority period, and the application was then published, usually with the search report, within 6 months of the filing at the EPO.

One of the more benign forms of gaming resulting in additional social costs might consist in using the grace period to prolong the period of protection for important inventions – an issue which should be kept in mind in discussing the rights of third parties in the grace period interval. This led to the suggestion that the term of the patent should begin not from the filing or priority date, but where the benefit of the grace period was invoked, and should run 20 years from the first disclosure. The workability of this rule was also questionable due to uncertainty as to the determination of the date of first disclosure.

A further feature which was proposed to limit the impact of legal uncertainty was to make it mandatory to request accelerated examination where the benefit of the grace period was invoked.

#### 3.2.10. Other comments

For some users, the issue of the disadvantages to Europe were directly linked to what *quid pro quo* was included in the harmonisation package – i.e. what concessions could be obtained from other jurisdictions as a result of moving to a grace period. If this brought about mandatory 18-month publication and a true first to-file system in the US, it might be a huge step forward and offset some of the disadvantages of a grace period. Politically, the grace period was the crux of harmonisation. However, in practical terms for applicants, the grace period was not the most important issue.

#### 3.3. Use of a grace period in Europe

#### 3.3.1. General considerations

At present, there were a small number of cases in which the grace period was invoked. However, this was because the grace period was not harmonised. If a global grace period were created, there might be considerably more use of the grace period. Applicant behaviour changed as a function of the adjustments which took place in their statutory and regulatory environment. How much behaviour would change could be controlled as a function of the definition of the grace period.

In this regard, opinions were unanimous that a global grace period should not be modelled on the current US grace period under the America Invents Act of 2011 (AIA), but should be defined as a safety net, to be used only when absolutely necessary, and to discourage strategic uses of the grace period which ran counter to the objectives of the patent system.

Ideally, if a grace period were adopted, it would be so that users did not "use" it, but occasionally "benefitted" from it, for instance, where accidental disclosure occurred. A grace period should entail high risk which would prevent users from using it strategically. One user stated that companies would mainly use the grace period to perfect patent applications without needing to rush to the patent office with "half-baked" applications. In response another participant wondered whether there were not too many policy objectives being packed into the instrument of the grace period.

Another user stated that whether or not his company would use a grace period in Europe depended on its definition. One important element was the matter of the disclosures to which the grace period would apply. If re-publication of the applicant's invention by a third party was not graced, this would have an influence on whether the grace period would be used. Clear rules would be needed in this respect.

Yet another user from large industry stated that duration of the grace period was not the most important issue. If his company conducted public trials, it would not use the full 12-month period, but would file as soon as possible after the disclosure, once the trials were terminated and the data secured. He was convinced that if Europe adopted a grace period, it would be used as a safety net, and not strategically.

## 3.3.2. "Dagger prior art" an unforeseen use of a grace period

One participant opposing the grace period argued that it was open to all sorts of abuse, and mentioned a strategy which prevailed in the UK under the 1949 Act and might be tempting if a grace period were now adopted in Europe: that of "dagger prior art". An inventor could make a pro-active, complete disclosure in an obscure journal online, document well the fact that the invention was made available to the public in an enabling manner at a certain date. He could then remove or hide it, allowing him to file safely within the grace period, thereby extending his term of exclusivity, whilst retaining the option to stab others with this hidden prior art if necessary.

Several participants reported cooled feelings about the grace period after hearing this. Currently, most global players used existing grace periods exclusively as a safety net. Should there be an internationally harmonised grace period, it could be assumed that if possible, it would be used offensively and strategically for purposes which might go beyond the original intent in adopting a grace period, which is why it was important to fully explore the potential effects of a global grace period before deciding on its features.

# 4. An internationally harmonised grace period

The workshop explored the eventuality of the adoption of a grace period in Europe which was itself internationally harmonised. Of course, there was overlap between this discussion and that in Section 3 above.

# 4.1. Advantages of an internationally harmonised grace period

If there were an internationally harmonised grace period, it would be easy to operate for inventors. A harmonised rule, whatever it was, would also reduce the complexity of global patenting.

A harmonised grace period would give inventors an extension of their protection period. In the pharmaceutical and agricultural industries, it would alleviate some of the problems in regard to regulatory requirements with respect to disclosure of field trials and clinical trials data. As mentioned above, however, several participants believed that the resolution of specific regulatory problems was perhaps best addressed by solutions in the affected regulatory field, rather than by modifying the patent system.

It was argued by some that earlier disclosure of the invention might lead to possible earlier use of the invention by the public, but then again, the converse argument was also made that the grace period might extend the period of protection before the invention fell into the public domain.

There would also be better technology transfer between universities and industry, earlier funding (venture capital) and licensing possibilities.

Assuming that an internationally harmonised grace period was defined as a safety net, the disappearance of the US definition under the AIA, characterised as a "first-to-publish" system, was considered an advantage.

For the public at large, not involved in innovation as an inventor or a competitor, it was doubted whether they would be aware, or even care whether there is a grace period or not. On the other hand, it was possible that with a grace period, more inventions would be deployed and commercialised. If a globally harmonised patent system emerged, the cost of patenting across broad geographic areas would be expected to be reduced (quite independently of whether there was a grace period or not). Some participants also expected that the fact of international harmonisation might help reduce the overall cost of litigation as well.

If a harmonised grace period reduced forum shopping, that would be an advantage in itself, but then again, the same advantage would arise if there were a harmonised absence of a grace period.

For third parties and competitors, the prevailing opinion was that there would be no direct benefits should an internationally harmonised grace period be adopted.

# 4.2. Disadvantages of an internationally harmonised grace period

Some opined that there would be no negative impact, provided the grace period was not internationally harmonised in isolation. It would be potentially dangerous to have a harmonised grace period with all other features of substantive patent law not being harmonised.

There would be a risk that inventors would have a more relaxed approach vis-à-vis confidentiality if there were a safety net, so that pre-filing disclosures might increase. Depending on the details of the grace period, large corporations which had until now operated on a "file first, disclose later" model, might very well change their patenting strategies.

On the other hand, if a safety net grace period were adopted which balanced advantages for inventors with protection for third parties, inexperienced users of the patent system might be misled by a false sense of security into behaviours which might be dangerous for them, so that the need to educate SMEs, universities and individual inventors would not disappear with the adoption of a grace period.

A patent attorney recalled that the message in Europe to users of the system was clear and simple: do not disclose before filing. In the presence of a safety net grace period, this message became more complex and more difficult to impart to the inexperienced. In addition, a culture of early disclosure might trigger intervening prior art and reduce investor interest. As far as the interests of third parties were concerned, Freedom to Operate determinations would become much more complicated, and therefore more costly. An increase in litigation, including oppositions, would be expected. It would become more difficult and risky to attack patents, due to the difficulty of assessing the potential prior art.

For the public at large, one disadvantage would be a potentially longer term of exclusivity for those important inventions for which patents are maintained for the full term of protection.

Every patent system had a period of uncertainty because the public did not know the contents of pending applications between the priority or filing date and publication of the application at 18 months. However, if an internationally harmonised grace period was added, depending on its duration, it could prolong the uncertainty up to 30 months. This might have important negative implications for the early adoption of new technology.

It was surmised that the public at large might see higher prices as a result of the grace period, if it entailed that more innovation is protected. However, others doubted this, as R&D and patenting budgets were definite and one could not assume that the adoption of a grace period would entail their increase. Thus, a re-allocation of resources to the patenting of perhaps different inventions would be a likely outcome, rather than an overall increased volume of patents.

# 4.3. Elements of the grace period which would require harmonisation

#### 4.3.1. In principle: all elements

There was unanimous agreement that full, worldwide harmonisation of all the key elements of the grace period should be achieved. Agreeing on minimum standards as proposed by the US and Japan was insufficient and might even be harmful, as it could result in an unbalanced system and take the momentum out of harmonisation efforts. It was thus rejected as an inacceptable course of action.

#### 4.3.2. Duration

Two of the break-out groups were unanimous that if a grace period was adopted, its duration should be as short as possible. Also, whilst there was general agreement that the harmonisation of the duration was absolutely vital, there was no consensus on its optimal duration, some being in favour of 6 months, others in favour of 12 months.

Some argued that a 3-month grace period should be considered as it would suffice to draw up an application in case of an accidental disclosure or of a compelling reason to publish quickly in an academic setting. At 3 months, a grace period would cause minimal collateral damage in terms of legal uncertainty, which arguably grew in proportion with the length the grace period.

It was suggested that 3 months and 12 months were two extremes, 6 months appeared to be a reasonable compromise. A full year was argued by some to invite abuse, whilst others argued that 12 months had the advantage of being easier to compute. Some felt that the most important feature of duration was that it be harmonised, regardless of its length, whereas others felt that 12 months could only be considered if all the safeguarding features of a safety net grace period were provided.

The duration had to be adjusted depending on the policy goals pursued. For difficulties with field trials, 12 months might be preferable. For an academic, 3 months would be ample time to publish research results first and then patent.

Regarding the AIA, some in-house counsel clarified that they still require in-house inventors not to disclose inventions prior to filing. There might be opportunities, but it was not recommended, because of the risk of intervening independent disclosures which did not fall within the AIA saving clause of sub-paragraph 102(b)(2) (B), which tended to lull inventors into a false sense of security. The longer the delay was between disclosure and filing, the higher the risk for the inventor, so that some argued that it would actually be in the interest of inventors to limit the grace period to 6 months.

#### 4.3.3. Date from which computed

Opinions were also split as regards the date from which the grace period should be computed. Some preferred the priority date, on the grounds that an applicant should have the full benefit of the grace period, followed by the full benefit of the duration of the priority period under the Paris Convention. This mirrored the majority of responses of both the Tegernsee and the ESAB surveys.

Others felt the duration should be computed from the filing date, as was the case for the limited exceptions under current Article 55 EPC.

#### 4.3.4. Types of disclosures covered

If a general, globally harmonised grace period were to be introduced, it was agreed that all types of disclosures by any means by the inventor or his successor in title should be covered.

The issue of whether the publication of an application in due course by an office at 18 months should be graced was raised in one break-out session, but the participants rejected the idea.

One issue which would need to be addressed would be the treatment of re-disclosures by third parties, based on an initial disclosure by the applicant. On the one hand, it could not be the case that a republication of the earlier invention as such could haunt the applicant (an example was given, such as a cut-and-paste reproduction of the applicant's disclosure on a third parties' website). On the other hand, gracing re-disclosures led to further complexities and complications. In any event, a combination of the earlier invention with a further feature or incremental improvement emanating from a third party might not be graced. Drawing the line, however, would probably be difficult in some cases, leading once again to fears of added complexity and legal uncertainty. The present situation avoids the issue altogether, within the granting process as well as in post-grant litigation.

Moreover, re-publications of the invention by third parties were unlikely to be included in the declaration by the applicant, who might not be aware of them. This should not lead to them not being graced, but had the potential to complicate matters for all stakeholders.

#### 4.3.5. Declaration

Perhaps the most effective measure to enhance legal certainty for third parties in a grace period context was a mandatory declaration requiring the applicant to list all the pre-filing disclosures of which he was aware, even though there might always be a residual uncertainty, which, it was observed, existed even now.

Views were split regarding the declaration requirement, but were conditioned by the consequences which were assumed to exist in case of an omission.

One proponent of the grace period opined that if the grace period was to operate as a safety net, there should be no declaration, no formality, on the assumption that the sanction for not listing a pre-filing disclosure would be, as currently the case in Japan, that the disclosure was not graced.

This was refuted by another participant who argued that a declaration, even if mandatory, did not prevent the grace period from operating by law. The declaration would not be a constitutive element of the right to invoke the grace period, but an administrative formality, which would be sanctioned, if appropriate and applicable, by an administrative penalty, not with the failure of the grace period to operate with regard to an unlisted item. Any other conception would lead to the grace period failing to protect a person who had been the unwitting victim of a breach of confidence or theft of confidential information, which was intolerable. Even Article 55 EPC in its present state provided protection in this case.

It was suggested, for instance, that if failure to list a disclosure occurred, which then impacted on the patent granting process, the penalty might be to pay a fee to cover any extra work caused by the omission, such as a second search fee or a second examination fee. One user from large industry suggested that omissions might have a limited impact on the enforceability of the patent in certain circumstances.

It was suggested the declaration should be re-labelled a "disclosure statement". For future discussions on a disclosure statement to be more fruitful, its characterisation as a purely administrative requirement, rather than a constitutive element of the right to enjoy the effect of the grace period, should be clarified. Other participants strongly felt that a mandatory declaration was important, and should indicate not only the date of the disclosure but also its content. The purpose of the declaration was mainly to benefit third parties by increasing legal certainty. For each disclosure listed, the declaration provided clarity, so that even post-grant, third parties were able to ascertain whether a disclosure constituted a graced publication. This was considered fair.

For a list of disclosures to have the desired effect, it needed to be filed in a timely manner. Some stakeholders believed it could be filed after the filing date, at the latest by the time the patent application was published, to put third parties on notice as to which prior art was graced. One EPO official argued that it would be preferable to file the declaration at the same time as the application, as any indication as to graced prior art would be valuable to examiners and reduce the potential for complications and delays within the patent granting procedure, particularly in the early stages where swift clarity was so vital for the applicant.

It was agreed that it was the duty of patent offices to find prior art but nevertheless, the declaration could also be of considerable importance in areas of nonsearchable prior art, such as company brochures and prior use, particularly in the post-grant phase.

#### 4.3.6. Independent disclosures

There was unanimous agreement that disclosures by independent third parties should form part of the prior art and thus the grace period should not protect the applicant from such disclosures by gracing them. This would create a high risk for applicants and prevent the grace period from bestowing a priority right of sorts, as was currently the case in the US, which Europeans definitely rejected.

#### 4.3.7. Prior user rights

Most participants took the view that the grace period could only be addressed together with prior user rights.

As far a prior user rights were concerned, first the preconditions for the rights to arise should be harmonised, but in the longer term, some argued there should also be an effort to create a global prior user right, starting in Europe with the creation of a prior user right applicable to the entire territory of the unitary patent.

Also, the issue of the substantive conditions for the prior user right to arise would need to be harmonised (e.g. whether actual use; serious and effective preparations to use the invention, denoting investments in need of protection, etc.).

Prior user rights protected the interests of competitors in good faith, but were also apt to provide a deterrent for the use of the grace period. Most participants were of the opinion that prior user rights should arise even if knowledge of the invention was derived from the applicant, in good faith, although one patent attorney in a break-out session opposed this. One participant reflected that the legal status of the invention, at the date it began being used by the prior user, was that it was in the public domain. It was agreed that it would be essential to harmonise this issue.

#### 5. Workshop conclusions

Some participants criticised the survey findings that were presented at the start of the workshop as an opinion poll, rather than an economically weighted analysis. Likewise, the workshop itself was more focused on an exchange of ideas and opinions, rather than on an attempt to analyse the underlying economic issues and potential effects should a grace period be introduced in Europe.

There was no agreement amongst participants as to whether there was a true need for a grace period in Europe. However, as a harmonisation measure, there was unanimity that (a) the adoption of a grace period should only be envisaged within a multilateral forum; (b) as a means to obtain compromises on a broader set of substantive patent law issues; (c) be itself internationally harmonised; (d) defined as a safety net; and (e) have the broadest possible geographic scope, with the IP5 jurisdictions being considered a minimum: Europe, the US, Japan, Korea and China.

It was generally agreed that one advantage of the adoption of a grace period in Europe would be to provide a remedy for applicants in case of accidental disclosure. However, participants were divided as to whether the following advantages would accrue: (a) a relieving of the tension between early scientific disclosure and the pursuit of global patent protection, which could enhance collaboration between industry and public research organisations; (b) faster knowledge flow, which could enhance incremental innovation; and (c) a possible beneficial influence on the "quality" of patent applications.

With regard to the issue of early disclosure of trial data to regulatory authorities, some participants believed a grace period might alleviate the problems caused for applicants. Others either argued that a specific exclusion added to the limited scope of Article 55 EPC would be a superior approach, or preferred that these regulatory issues be solved within the regulatory frameworks themselves.

Participants were unanimous that the main disadvantage for Europe in adopting a grace period would be an increase in legal uncertainty, although some believed that it could be kept within reasonable limits if the grace period were well designed. It was agreed that a grace period in Europe would increase the cost and reduce the reliability of Freedom to Operate opinions and increase the complexity of the European patent system. Increased litigation costs were predicted by some participants, as well as a disincentive to early filing, and it was pointed out that the grace period might not only bring benefits for applicants using it, but might create risks which might harm those it was meant to help. It was feared that possible changes in applicant behaviour might ensue, such as a shift away from filing first and disclosing later, which would have serious negative systemic consequences. If a grace period were adopted, any advantages which might arise from the possibility of "freeloading" off inventions which could not be patented due to the absence of a grace period would disappear.

It was generally agreed that a harmonised rule on a grace period (or on the absence thereof) would reduce the complexity and cost of global patenting. Should such harmonisation occur, it was also agreed in principle that all the elements of the grace period should be harmonised: duration, date from which it was computed, types of disclosures covered, declaration requirement, treatment of independent disclosures and availability of prior user rights. However, again, participants had diverging views as to the details of the optimal substance of these points.

#### Appendix

For reference, the grace periods which exist in the countries which are the members of the IP5 are described below:

US: Under the America Invents Act of 2011 ("AIA"), the US grace period has a 12-month duration, no declaration requirement, subsequent disclosure during the grace period interval of the same invention independently made by a third party is not invalidating, and prior user rights are only taken into account if the prior use occurred at least 1 year before the earlier of the priority date or the date on which the claimed invention was disclosed to the public in a manner that qualified for invoking the grace period, while no prior user rights are acknowledged if the patent is owned by a university. Thus, no prior user rights may accrue during the grace period (see 35 USC § 102(b) and § 273).

**Japan:** The grace period has a 6-month duration, there is a mandatory declaration requirement and any disclosure by a third party prior to the priority or filing date forms prior art which may destroy the novelty of the invention. Prior user rights may arise until the priority or filing date, although not where the knowledge of the invention has been derived from the applicant, even in good faith (see Articles 30 and 79 of the Japan Patent Act).

**Korea:** The grace period has a 12-month duration from the filing or priority date, and covers only disclosures of the invention either made by the person entitled to a patent or made without his consent, subject to a mandatory declaration. Prior user rights may arise until the priority or filing date, although not where the knowledge of the invention has been derived from the applicant, even in good faith (see Article 30(1) and 103 of the Korean Patent Act).

**China:** A limited 6-month grace period exists in China, gracing disclosures where the invention is: exhibited for the first time at an international exhibition sponsored or recognised by the Chinese Government; published for the first time at a specified academic or technological conference; or disclosed without the consent of the inventor/applicant (see Article 24 of the Patent Act of the People's Republic of China).

Europe: Non-prejudicial disclosures are limited to disclosures which are a result of an evident abuse in relation to the applicant, or if the invention has been displayed at an officially recognised international exhibition falling within the narrow confines of the Paris Convention on International Exhibitions, in which case the applicant must submit a supporting certificate. The six-month period is calculated from the filing date at the EPO, not the priority date (see Article 55 EPC, and cases G3/98 and G2/99). A third party which has in good faith used or made effective and serious preparations to use an invention prior to the filing or priority date of an application made by another, enjoys prior user rights under the national law of the EPC contracting state in which such activities have occurred.

#### Annex 1 Economic analysis of the grace period (Europe Economics) – slides





#### Approach

- Methodology and data sources:
- 820 answers to an on-line survey of users of the European patent system in Europe, the US and Japan (12,846 applicants approached)
  - 452 responses from Europe
  - 205 from US
  - 163 from Japan
- Survey responses were analysed and reported separately by:
  - Type of organisation
  - Country of origin
- · Whenever appropriate, responses analysed through multivariate regressions
- Qualitative evidence from 30 structured interviews with patent users

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#### Positive impacts

- No risk of accidental novelty-destroying premature/incautious disclosure
- · Possibility of activity resulting in disclosure before filing
- · Earlier research dissemination
- Possibility to reduce costs of patenting by selecting the most promising inventions for protection
- Step towards harmonisation of international patent law with respect to grace periods

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#### Negative impacts

- Increase in legal uncertainty, disputes over entitlement, costs of freedom to operate opinions and litigation costs
- Complication of the patent system
- Postponement of the moment at which the invention will fall into the public domain
- · Potential operational impact on the granting procedure
- Increased risk of unintentional infringement of competitors

#### Annex 2

Introduction to the grace period (EPO) - slides







### Rest of the world

- Europe and China stand out as two major blocs without a GP in patenting terms, the two biggest markets in the world
- All other industrialised countries have a GP, but international landscape = patchwork of different regimes
- · Examples:
  - <u>USA</u>: 12 months, no declaration requirement, subsequent disclosures of invention independently made by third parties are not invalidating, no prior user rights (PURs) may arise during GP
  - Japan: 6 months duration, mandatory declaration requirement, any disclosure by a third party prior to priority/filing date may invalidate, PURs arise until the priority/filing date









#### *)*)

#### Grace period – Position of European Users

- EPO Hearing: Majority of European users could envisage safety-net grace period as <u>compromise</u>:
  - Mandatory PURs available until the priority/filing date
  - 6-month duration
  - Computed from priority/filing date
  - Mandatory declaration
- · Provided such a grace period were:
  - Itself internationally, multilaterally harmonized
  - Part of SPLH package including both
    - · "Classical first-to-file" and
    - · Mandatory 18-month publication



#### **Tegernsee Survey results**

- · Optimal duration: 6 months
  - JP: 64.6%; Europe: 56.7% / U.S.: 23.3%
- In favour of mandatory declaration:
  - JP: 64.1%; Europe: 61.9% / U.S.: 32.9%

#### Regional convergence:

- · Computed from the filing or priority date
- Prior user rights (PURs) arising until the priority/filing date
  JP: 75.2%; U.S.:65.5%; Europe 72.3%
- Gracing subsequent independent disclosures of invention in GP interval (AIA):
  - Minority view: JP: 29.9%; U.S. 37.6%; Europe: 18.2% in favour
  - Deduced that users prefer classical approach: independent disclosure by third party prior to the filing/priority date should <u>not</u> be graced







#### Tegernsee results presented to Group B+

 Agreed to take up work on a package of SPLH issues within Group B+, a multilateral forum

- Creation of a "Sub-Group":
- CA, DE, DK, EPO, ES, HU, JP, KR, UK (Chair), US
- User involvement to be decided by the Chair on an ad hoc basis

#### First Sub-Group Meeting – Washington, 19.11.14

- Issues: "Tegernsee +": GP, 18-month publication, conflicting applications, prior user rights + definition of prior art
- First task: Document on "higher principles" applicable to issues addressed
- Important: transparency and user involvement

#### Annex 3

#### List of participants at the Economic and Scientific Advisory Board's workshop on the economic impact of a grace period in Europe

Date: 26 November 2014

First name	Surname	Affiliation
Jim	Boff	Partner, Phillips & Leigh
John	Brown	Past President of Chartered Institute of Patent Attorneys
Pieter	Callens	Associated Partner, Eubelius
Alfonso	Calles Sanchez	Policy Officer, European Commission, DG for Internal Market, Industry, Entrepreneurship and SMEs
Jacques	Combeau	IP Advisor, Air Liquide
Marie-Noëlle	de la Fouchardière	Head of Infringement Analysis, Technicolor
Béatrix	de Russé	Board Member, Technicolor
Giustino	de Sanctis	IP expert
Matthew	Evans	Statistician and Patent Examiner, UK Intellectual Property Office
Stefano	Ficco	Senior Consultant, Europe Economics
Chiara	Franzoni	Associate Professor, Politecnico di Milano
Andrea	Friedrich	Senior IP Counsel, Ludwig Maximilan University Munich
Heinz	Goddar	Partner, Boehmert & Boehmert
Bronwyn H.	Hall	Professor, UNU-MERIT and University of California at Berkeley
Catriona	Hammer	Senior Counsel Intellectual Property, GE Healthcare
Dietmar	Harhoff	Director, Max Planck Institute for Innovation and Competition Law
Christian	Helmers	Assistant Professor, Santa Clara University
Stefan Rolf	Huebner	Partner, SR Huebner & Kollegen
Robin	Jacob	Professor, University College London
Gregor	Knöner	Senior IP Counsel, Siemens AG
Michael	Kock	Head of Global Intellectual Property, Syngenta International AG
Jean-François	Lacoste- Bourgeacq	CEO, Qiventiv Systems
Gabriele	Leißler-Gerstl	epi Vice-President
Tim	Lemper	Clinical Professor of Business Law, Indiana University – Kelley School of Business
Francis	Leyder	Member of the Harmonisation Committee, Institute of Professional Representatives before the EPO
Bernhard	Lippert	Head of Unit, German Rectors' Conference
Peter	Martinsson	European Patent Attorney, Ericsson AB
Shane	McCollam	Project Manager, Science Business
Patrick	McCutcheon	Senior Policy Officer, European Commission, DG Research and Innovation
Silke	Meyns	Head Patents and Licensing, ETH Zurich
Jan	Modin	CET Special Reporter on International Patent Matters, FICPI
István	Molnár	Partner, Danubia Patent and Trademark Attorneys
Rongping	Mu	Director General, Center for Innovation and Development, Chinese Academy of Sciences

First name	Surname	Affiliation
Sadao	Nagaoka	Professor, Hitotsubashi University
Ауşе	Odman Boztosun	Head of Private Law Division, Akdeniz University Law Faculty
Stefan	Peter	Manager IP biologics, Bioeq GmbH
Marina	Rossi	Academic Associate, Projektträger Jülich GmbH
Giuseppe	Scellato	Professor, Politecnico di Torino
Uwe	Schriek	Division IP Counsel, Siemens AG
Chris	Smith	Senior Consultant, Europe Economics
Gill	Smith	Group IP Director, Dyson Technology Ltd.
Mariagrazia	Squicciarini	Senior Economist, Head of unit, OECD
Leo	Steenbeek	Principal IP Counsel, Philips Intellectual Property & Standards
Lothar	Steiling	European Patent Attorney, Boehmert & Boehmert
Paul	Steverink	Managing Partner JPWaVe
Tony	Tangena	President, Institute of Professional Representatives before the EPO
Hanns	Ullrich	Visiting Professor, College of Europe, Bruges; Affiliated Researcher Max Planck Institute for Innovation and Competition
Geertrui	van Overwalle	Professor, Centre for Intellectual Property Rights, University of Leuven (Belgium); Visiting Professor, University of Tilburg (The Netherlands)
Bruno	van Pottelsberghe	Dean, Solvay Brussels School
Pedro	Velasco Martins	Deputy Head of unit, European Commission, DG Trade
Guido	von Scheffer	Managing Director, IP-Strategists GmbH
EPO participants		
Margot	Fröhlinger	Principal Director Patent Law and Multilateral Affairs

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George	Lazaridis	Financial Controlling and Statistics
Stefan	Luginbuehl	International Legal Affairs
Raimund	Lutz	Vice President Legal / International Affairs
Minna	Nikolova-Kress	European Co-operation
Heli	Pihlajamaa	Patent Law
Bettina	Reichl	Financial Controlling and Statistics
Victoria	Rivas Llanos	European Patent Academy
Ilja	Rudyk	Chief Economist unit
Sylvie	Strobel	International Legal Affairs
Karin	Terzić	Chief Economist unit
Theon	van Dijk	Chief Economist, Secretary General of the ESAB
Stephan	Worack	Chief Economist unit

#### Acknowledgements

The European Patent Office and the EPO Economic and Scientific Advisory Board would like to thank all those who participated in the workshop for the fruitful discussions and their valuable contributions.

Special thanks go the speakers for their informative and inspiring presentations, the group chairs for guiding the discussions in the working groups and the plenary chairs for moderating the plenary sessions (see Annex 4).

#### Annex 4

# Programme of the ESAB workshop on the economic effects of introducing a grace period in Europe

#### 25 November 2014

19.30 Dinner at Le Fleuron in the European Patent Office on ground floor

#### 26 November 2014

#### **09.00 Opening and welcome** Raimund Lutz, EPO Vice President Legal and International Affairs Dietmar Harhoff, Max Planck Institute for Innovation and Competition Law, ESAB Chairman Theon van Dijk, EPO Chief Economist, ESAB Secretary General

## **09.20 Plenary 1** | *Dietmar Harhoff, ESAB Chair* Introduction

*Sylvie Strobel , EPO: Introduction to the grace period Europe Economics: findings of the study "Economic analysis of the grace period"* 

#### Short comments (5 mins each)

Andrea Friedrich, Ludwig Maximilan University Lothar Steiling, Boehmert & Boehmert Leo Steenbeek, Philips Intellectual Property & Standards Catriona Hammer, GE Healthcare Sadao Nagaoka, Hitotsubashi University **Short discussion** 

11.00 Coffee break

#### 11.30 Group work

#### Questions: 1. What are the advantages of introducing a grace period in Europe? 2. What are the disadvantages of introducing a grace period in Europe?

#### "Right holders" group (group 1 and 2)

3a. If there were a grace period in Europe, how would you use it?4a. What features of the grace period would influence your possible use of it: duration, mandatory declaration, risk of independent disclosures by third parties becoming prior art, prior user rights?

#### "Competitors" group (group 3 and 4)

3b. Assume that your main competitor regularly engages in pre-filing disclosures and uses the grace period to obtain patents. As part of your business strategy, you regularly engage in the early adoption of new technologies, which are produced by others but which are in the public domain. What safeguards would you need to have built in in a grace period, in order to be able to follow your business strategy and remain innovative and competitive?

4b. Assume you have invented a piece of machinery but are not sure that you want to patent it. You use it secretly in your production line for a while, until you see a publication showing similar technology, clearly invented by a third party. You check for pending applications, find none, and now offer your own piece of machinery for sale to others on your website. After that point in time, that third party files an application for the invention. Should a grace period allow a patent to be granted to the third party in such a case? Why? Assuming a patent to be granted, what rights should the patent holder be able to enforce against you?

Chair of Group 1: Robin Jacob, University College London Chair of Group 2: Pieter Callens, Eubelius Chair of Group 3: Béatrix de Russé, Technicolor Chair of Group 4: Uwe Schriek, Siemens AG

- 12.30 Lunch
- 13.45 Plenary 2 | Chair: Ayşe Odman Boztosun, Akdeniz University Law Faculty

Presentation of group work findings by group chairs

#### 14.45 Continuation of group works (same group chairs as above) Questions:

5. What are the advantages of an internationally harmonised grace period, for inventors, third parties and the public at large?

6. What are the disadvantages of an internationally harmonised grace period, for inventors, third parties and the public at large?

7. Assuming an internationally harmonised grace period, which elements would need to be harmonised, how and why? (Duration, date from which computed, types/means of disclosure, disclosures of independent inventions by third parties, mandatory declaration, prior user rights)

- 15.45 Coffee break
- 16.15 Plenary 3 | Chair: István Molnár, Danubia Patent and Trademark Attorneys

Presentation of group work findings by group chairs and discussion

17.30 Closing | Dietmar Harhoff, ESAB Chairman

#### **Rapporteur:**

Francis Leyder, Harmonisation Committee of the Institute of Professional Representatives before the EPO

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