

Mr Mike Richardson  
Intellectual Property Policy Directorate  
The Patent Office  
Concept House  
Cardiff Road  
Newport  
NP10 8QQ

6-9 Carlton House Terrace  
London SW1Y 5AG

tel +44 020 7451 2592  
fax +44 020 7451 2692

www.royalsoc.ac.uk

*From the Physical Secretary and Vice-President Professor JE Enderby CBE FRS*

30 April 2002

Our ref: L204304G

Dear Mr Richardson

I welcome the consultation on the issue of grace periods for patents. It is a topic that is of great interest to many in academe. The Royal Society is in the process of refining its thinking on many aspects of intellectual property, and the arguments expressed in this letter will undoubtedly form part of our final conclusions. We will endeavour to identify any changes in the current framework that would produce a more optimal system. Answers to specific questions in the consultation document on the web are appended. There are strong arguments both in favour of the introduction of a grace period, as well as for there to be no extension beyond the minor forms currently accommodated in UK and European patent law.

1. Most in academe feel passionately that free interchange of ideas should be encouraged, and many believe that recent trends towards patenting inhibit valuable discussions. Introduction of a comprehensive grace period (that would include more than just disclosure at certified international exhibitions) would allow many to feel that they could discuss work with others without prejudicing the chance of obtaining valid patents.
2. A grace period could be of value for many in academe, lone inventors, and small and medium-sized enterprises (SMEs) if there is inadvertent disclosure, if the invention at an early stage would benefit from non-confidential discussion, if development cannot be carried out under conditions of confidentiality, or if advice must be sought as to the value of an invention. These factors are of lesser but still considerable importance for large industry – that does, in fact, obtain most patents.
3. There would be some merit in there being consistent rules regarding grace period around the world. However, this benefit would not outweigh the need to choose an optimal system. Some in academe are concerned that the lack of a grace period in the UK leaves them disadvantaged, compared with their counterparts in the US. This is not in general true – UK scientists could also discuss their work and then file in the US; and



President Lord May of Oxford AC FRs  
Executive Secretary Stephen Cox cvo

Founded in 1660, the Royal Society is the independent scientific academy of the UK, dedicated to promoting excellence in science

Registered Charity No 207043

US scientists who discuss their work prior to filing cannot subsequently file in, for example, Europe. There is a perception that American courts demand a high standard of proof of date of invention when the invention claimed has been made outside the United States. Nevertheless, in some ways those in the US are disadvantaged due to misunderstanding the complexities - many patents are restricted to the US because their US-based inventors have not appreciated that a graced disclosure will prevent patenting in most of the rest of the world.

4. It is difficult to estimate the extent to which a world-wide consistent system of grace period would be used. It has been argued that a grace period is almost never relied upon in those countries (principally the US and Japan) where it is available; though this may have much to do with the fact that a valid patent could then not be obtained in the majority of countries, including European Member States. But another factor likely to play a role is that non-confidential disclosures before filing a patent application can prompt action by competitors. If, in reality, it was rarely used, the uncertainty and complexity that it would introduce for all would mean that it should not be introduced.

5. It has been argued that introduction of a grace period in Europe could be used to get the US to change from the first-to-invent to a first-to-file system. I do not, however, know of any convincing evidence that those using either system are likely to change to the other. In a first-to-invent system the critical factor is who invented first, but this is often difficult and expensive to establish. A grace period is logically consistent with a first-to-invent system but is not consistent with a first-to-file approach. It is therefore more dangerous to use in a first-to-file system because competitors can file between the disclosure and filing by the inventor and may obtain significant rights.

6. There is no doubt that in some instances graced disclosures could take place without any harm, and that they would aid useful transfer of information and prompt building upon ideas. It is also true that it might frequently lead to the inventor making the disclosure losing the right to a valid patent, due to, for example, the disclosure leading to the prompt filing by others of applications based on their similar but independently discovered inventions. This is particularly likely in active, competitive fields. It may also lead to discord and legal disputes due to differing perceptions as to who disclosed what and when, and to what extent that contributed to the work claimed in another's patent application.

7. Use of a grace period is thus extremely risky and it frequently will not address the needs of those advocating it. It is a widely held misconception that a graced disclosure confers some priority. It does not; and if disclosures meet the aims of stimulating interest and research, graced disclosures can lead to the filing of improvements on the disclosure, before a filing from the inventor of the graced disclosure. (This is particularly likely to damage lone inventors and SMEs whose smaller resources may mean that big companies can discover improvements and file sooner.) In such situations the person who made the

graced disclosure can be left without a useful patent, the value of their work effectively being transferred to those who learnt of their work through the graced disclosure.

8. Thus, if an inventor discloses something by publishing, or by a formal presentation at a scientific meeting, or informally to friends at a coffee break:

- without a grace period, in a first-to-file system, it would have been disclosed, and thus be unpatentable;
- with a grace period that allowed such disclosures, it would still be patentable within, say, 12 months; but that patent application would have to be novel with respect to any disclosures (apart from those of the applicant) prior to filing. It seems that many advocates of a grace period do not appreciate that disclosures from third parties, often prompted by their own disclosure, can reduce the scope of their own application.
- Furthermore, third parties can file applications and though the graced disclosure will form part of the prior art, this can result in subsequent patent applications by the one who made the graced disclosures being of little value.

9. A grace period can, thus, aid or hinder the acquisition of a valid patent by lone inventors and SMEs. A patent is not however, in general, a useful objective in itself. It is a way of allowing inventors to exploit their inventions without competition from others, and a grace period is likely to have implications for the exploitation of inventions by all relevant parties.

10. The principal ways in which a grace period may limit exploitation by an inventor with a valid patent include the diminished scope that may be achieved and the greater burden of costs due to disputes about the contribution to an invention. Taken together, the grace period available in the US and its first-to-invent system lead to expensive legal disputes (“interference proceedings”) that few academic institutions, SMEs or lone inventors could readily afford.

11. Grace periods can complicate and delay innovation by others. Without a grace period an innovator knows that 18 months after a publication or other open disclosure he or she can launch a product based on that disclosure without fear that the open disclosure has also been patented. With a grace period, the 18 months is extended by the length of the grace period unless there are specific provisions, as suggested below, to bring publication forward from the normal 18 months after filing a patent application. The patent system exists in large measure to encourage innovation and a grace period, without specific safeguards, would be an inhibiting factor. Furthermore, although those intending to file a patent application may see it as a benefit, the use of a grace period by others can reduce their confidence to proceed with commercialisation.

12. Third parties will experience longer uncertainty about whether their competitors will file a patent, and the extent of its scope, unless a form of grace period is chosen that

does not delay publication. The graced disclosure does of course precede filing and in most proposals publication is 18 months after filing. Uncertainty can be increased by up to the length of the grace period, unless the priority year is deemed to have started (although priority is not in fact conferred) by the graced publication.

13. A grace period would cause fewer problems if it did not extend the period of uncertainty for third parties and the final filed application was essentially identical in scope and emphasis to the graced disclosure. This is rarely likely to be the case, and in general, if it were, the grace period would not deliver the benefits sought by lone inventors and SMEs, of being able to develop their inventions.

14. If a grace period were to be introduced, it might be appropriate for it to be lengthy – since, for example, the desired benefits of development or market assessment may not be achievable, by lone inventors, in just three or six months. To avoid third parties being disadvantaged by an increased period of uncertainty, publication should occur as usual, at 18 months – but from the date of the initial graced disclosure, instead of from the date of filing. To ensure that third parties have the benefit of the search that is normally included (by the UK Patent Office, at least) at publication, and so that patent offices are not under greater pressure, the final draft (including those for foreign filing) should be filed within 12 months of the first graced disclosure. In effect, those who make graced disclosures some months before their initial application would lose that time from their priority year. They would have, in effect, exchanged the benefit of some or all of their priority year for an equal length of time of a quite different benefit.

15. A system that would, more simply, confer most of the advantages of a grace period, with few of its disadvantages, would be for inventors to file at an earlier stage. If, for example, just prior to giving a lecture, inventors filed the lecture as a patent application (it costs nothing, at the UK Patent Office) they would have immense benefits over invoking a grace period. The most important are that they would have immediately established a priority date, and there would be a clear record of what was being claimed, and when. It might well be appropriate to file several improvements within the priority year since the initial filing may well not have had the consideration normally afforded an initial application.

16. Similarly, the difficulties experienced by lone inventors and SMEs, who want a grace period because they must currently develop their ideas under conditions of confidentiality, could be attenuated by filing a patent application. This (or a succession of them) can be filed during the first 12 months, and form a basis for a final patent application, and foreign filing. Such applications make it relatively clear what was known, and give complete protection against disclosure or filing by third parties between a grace-period-protected disclosure, and filing.

17. To ensure that disclosures in the priority year could not be considered to be prior art, relevant to the novelty or obviousness of the claims in the final filing, it would be necessary to return to the original interpretation in Section 6 of the UK Patents Act 1977. Today, some disclosures might be relevant, due to the European Patent Office's Decision G3/93. That decision allowed disclosures of the subject matter of an application, within its priority year, to be cited as prior art that might be relevant to the final (and foreign) filings with regard to both novelty and obviousness if some of the claims in the final application are different from, e.g. broader than, those foreshadowed in the first patent application. Section 6 of the UK Patents Act 1977 avoided this problem.

18. Use of such a system would not address the desire for a system that would accommodate informal disclosures, but that is only a part of the need and, if made without a confidentiality agreement, is likely to lead to great lack of clarity about who contributed exactly what and when. Within universities, for example, confidentiality agreements might allow discussion while avoiding loss of the right to a patent due to information being in the public domain.

19. Most of the world uses a first-to-file system for patent applications, not because it is seen as intrinsically fairer than first-to-invent, but because it is clearer, and thus cheaper and in practice fairer. It is likely that introduction of a grace period that was used to any significant extent would lead to a great reduction in clarity, and high legal costs. The risks involved are not apparent to inventors; and it is generally unclear exactly what has been disclosed and when – particularly if an invention is developed over time. The contributions of different parties can be extremely hard to establish. It may well lead to fewer, rather than more, patents being granted to lone inventors and SMEs because the high costs and greater complexity are likely to lead to third parties benefiting more frequently than the inventor invoking a grace period.

It is my view that the disadvantages of the introduction of a grace period would outweigh its advantages, and many of the attractive features could be better achieved by changes in current patent law as suggested above. However, I should point out that our consideration of the framework of IP is still in progress and there may be other arguments adduced and taken into account. Nevertheless, a grace period should not be introduced unless that is an essential requirement for actually (not just perhaps) persuading the United States to move to a first-to-file system; and the system suggested above, of thorough use of the priority year, is not acceptable to them. It would be most regrettable to give away a significant bargaining chip unless there was concurrent unification on a first-to-file system.

John Dineen

John Enders

**Appendix to Professor John Enderby's letter of 30 April 2002**  
(Policy document 14/02, responding to the Patent Office's consultation on grace periods)

**Answers to the consultation questions that the Patent Office placed on the web**

A1: Are you in favour of the introduction of a grace period?

Answer: No

The strongest arguments in favour are 2, 3 and 1 of Annex B. The strongest argument against is the lack of clarity that results due to unwritten and even written graced disclosures; they are likely to lead to delays in obtaining clearly valid patents, and expensive litigation - both of which work against effective exploitation. This may be what is encapsulated in 'risks and confusion' in Argument 6. Other strong arguments are 5, 1 and 4. Argument 3 is also strong if the grace period were, as is normally considered, of the type likely to cause delay.

A2: Would a grace period necessarily have any adverse effects on third parties?

Answer: Yes

A grace period may be helpful and unhelpful, in different ways, to third parties. For example, it may be helpful because it may alert the third party to the potential content of applications, well before an application is published. Furthermore, a grace period may encourage publication because authors may feel that they can do so without prejudicing a future patent application, if they should decide to make one. There can also be disadvantages for third parties. Unless publication of a filed application is required to be within 18 months of the disclosure (please see Question B9), third parties would be disadvantaged by a longer period of uncertainty. A second and in fact potentially more important way is the prevention of a third party obtaining a patent, because of the prior art from the disclosure; or the limitation of the scope of the third party's planned patent application due to a necessary limitation of its scope. There would in many cases be delay in clarity about freedom of action and exclusivity, and increased legal costs, due to the complexities that arise due to there being a grace period.

A3: The effect of the Internet

Answer: Assuming that a graced disclosure could not be claimed due to a transient availability of information during transmission, the Internet has only a minor effect on the arguments regarding grace period. Since information can be added, removed and altered on web sites, it does complicate somewhat the proof by an applicant claiming a graced disclosure that specific information was available at a certain time. On the other hand, if information is subsequently removed, it is not then available, as intended, for third parties.

A4: Are there any other general considerations which you think should be taken into account when devising a grace period system for use in the UK?

Answer: The benefits of a grace period might well outweigh the disadvantages if it led to the United States adopting a first-to-file system (with, of course, a grace period). Two general considerations are therefore that introduction of a grace period in the UK is necessary and (probably with other factors) achieves movement of the US to a first-to-file system; that the grace period is consistent with the US system; and that a similar system is introduced across Europe.

A5: Did you make your views known to the Commission at the time of the Hearing in 1998?

Answer: No

- A6: Would the introduction of a grace period change the strategy of you or your company/institution/employer to filing or not filing patent applications?
- Answer: Yes, we currently file patent applications, but a grace period would encourage us to file more patent applications.
- A7: Please tell us about yourself. Tick one which best applies
- Answer: The Royal Society is an academy with a fellowship of eminent scientists. It has therefore elements of the first option above.
- B1: Of the five models presented earlier as examples for possible grace period systems, which one most closely represents your preferred option?
- Answer: Model B
- B2: What should be the objective of a grace period?
- Answer: It should be all the above - not "only".
- B3: Whose disclosures during any grace period should be excluded from invalidating a patent application for lack of novelty?
- Answer: Those by the first applicant for a patent application.
- B4: Which disclosures during any grace period should be excluded from invalidating a patent for lack of novelty?
- Answer: Any disclosure anywhere.
- Innovators have different needs for disclosing prior to filing a patent application, and it is illogical and inappropriate to limit the benefits of a grace period to particular types of disclosure.
- B5: How long should any grace period be?
- Answer: 12 months giving good opportunity to find backers, test prototypes and test the market before going to the expense of drafting an application.
- *would a shorter period suffice?*
- Shorter periods would confer some of the benefits, and would encourage speedier filing and thus reduce the chance that applicants would find that applications by others (between the graced disclosure and their own filing) were harmful; but if a grace period were to be introduced, it would be unconstructive to limit it to less than 12 months. It should not be more than 12 months, to ensure that the period of uncertainty is not increased (B9).
- B6: What should be the effect of third party action within any grace period?
- a) If the first inventor wishes to rely on the grace period in securing a patent application, should a disclosure of the same invention, developed independently and co-incidentally by another ("third party") prevent any patent application by the first inventor despite the grace period?
- Answer: Yes
- b) If the third party has been using or preparing to use their invention, and then finds that the first inventor has filed a patent application, should they be restrained from using their technology if the first inventor's patent is later granted?

Answer: No

Much technology is used without a patent and its continued use should not be constrained by a subsequent patent.

B7: From which date should any grace period be measured?

Answer: The priority date for the patent application (i.e.: if the first patent application was filed abroad, its effective filing date in the UK is treated as being the same as the earliest foreign filing date).

B8: Should applicants have to declare that they have disclosed their invention prior to filing if they want to rely on the privileges of a grace period, and if so when?

Answer: Yes, at initial filing.

B9: When should a patent application be published?

Answer: At 18 months after the disclosure which initiates the grace period (*i.e.* the usual 18 month publication interval is shortened by the length of the grace period)

B10: Are there any other essential conditions which a grace period should satisfy?

Answer:

B11: Is there an alternative to the grace period?

Answer: A better alternative is to encourage provisional applications and agree that subsequent disclosure of the subject matter of the provisional application during the priority year cannot be cited as prior art when considering the final filing (which normally occurs close to the end of the priority year).

I do not wish my comments to remain confidential.

Name: Professor John Enderby FRS

Organisation: The Royal Society

Address: 6-9 Carlton House Terrace

Country/State/Province: London

Country: UK

Postcode/Zipcode: SW1Y 5AG