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**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
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## **STANDING COMMITTEE ON THE LAW OF PATENTS**

**Fourth Session**  
**Geneva, November 6 to 10, 2000**

**SUGGESTIONS FOR THE FURTHER  
DEVELOPMENT OF INTERNATIONAL PATENT LAW**

*Document prepared by the International Bureau*

## I. Introduction

1. The Program and Budget for 2000-2001 includes, under Sub-Program 09.1, "Law of Patents," the following activities, *inter alia* (see document A/34/2-WP/PBC/2, page 80, emphasis added):

"Convening of four meetings\* of the SCP (and any Working Group set up by this Committee), to consider issues relating to the law of patents, including:

- the finalization of the draft Patent Law Treaty and draft Regulations, using wherever possible solutions adopted for PCT procedures: convening of a Diplomatic Conference for the conclusion of the Patent Law Treaty, and *consideration of the desirability and feasibility of further harmonizing patent law;*  
..."

2. During the 1998-1999 biennium, the Standing Committee on the Law of Patents (SCP) devoted its time to the negotiation and finalization of the Patent Law Treaty (PLT), which was adopted at the Diplomatic Conference for the Adoption of the PLT, held in Geneva from May 11 to June 2, 2000.

3. Concerning the future work of the SCP, during its earlier sessions as well as at the PLT Diplomatic Conference, a considerable number of delegations and representatives have expressed their wish to consider issues related to further harmonization of substantive requirements of patent law after the conclusion of the PLT.

4. The present document contains suggestions for issues related to further harmonization of patent laws for consideration by the SCP at its fourth session (the first time the SCP will meet during the 2000-2001 biennium), and at its future sessions.

## II. Issues related to further harmonization for consideration by the SCP

5. A number of delegations and representatives had expressed the position, at the first session, first part, of the SCP (June 15 to 19, 1998), that discussions concerning further harmonization, in particular harmonization of substantive issues of patent law, should be resumed as soon as possible after the conclusion of the Diplomatic Conference (see document SCP/1/7, paragraphs 24, 25, 27, 33, 34, 35, 37, 40, 44, 55, 56, 57, 58 and 73). In this context, it may be noted that, at its third meeting held on May 4 and 5, 2000, the Industry Advisory Commission of WIPO adopted a Resolution calling for "work, in the medium term, on a treaty on the harmonization of substantive patent law, with a view to facilitating greater mutual recognition of search and examination results by patent Offices." In addition, the Policy Advisory Commission of WIPO made several recommendations at its meeting of June 15, 2000, among which one reads as follows: "that efforts should be made towards further substantive harmonization in the field of industrial property law, in particular, patent law."

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\* One of these four sessions has been replaced by the Diplomatic Conference for the Adoption of the Patent Law Treaty.

6. It should be noted that the Patent Cooperation Treaty (PCT), which has established a system for the filing of international patent applications having the same effect as national applications filed in each of the PCT Contracting States designated in the international application, contains a number of principles of substantive patent law applicable to the international phase provided under the PCT. However, it may also be noted that PCT Article 27(5) allows a Contracting State to apply any substantive conditions of patentability as it desires during the national phase.

7. In response to international calls for harmonization of national and regional patent laws, negotiations had started, as early as 1985, on a draft Treaty Supplementing the Paris Convention as far as Patents are Concerned (hereafter referred to as “draft Patent Harmonization Treaty 1991”), which was discussed at the first part of a Diplomatic Conference in 1991, but never concluded. The draft Patent Harmonization Treaty of 1991 included substantive as well as formal aspects of patent law. Some of its provisions, for instance those on patentable subject matter, rights conferred, term of protection and reversal of burden of proof for process patents, were incorporated into the Agreement on Trade-Related Aspects of Intellectual Property Rights (TRIPS Agreement), concluded in 1994. Nevertheless, a number of issues in respect of national and regional patent law have neither been addressed by the TRIPS Agreement, nor by any other worldwide international treaty on patent law, in particular not by the recently adopted PLT, which covers only patent formalities. For the sake of completeness, it should be added that important steps in respect of such harmonization have been achieved in the framework of certain regional systems, such as the European Patent Organisation (EPO), the Eurasian Patent Organization (EAPO), the African Regional Industrial Property Organization (ARIPO) and the Organisation africaine de la propriété intellectuelle (OAPI), as well as through the harmonization of national laws within certain regional systems, as for instance the Andean Pact.

8. The need for further patent harmonization beyond the PLT arises mainly from the fact that the costs of obtaining broad patent protection on an international level have become extremely high. The objective of further harmonization should therefore be to lower costs. This goal can, however, only be envisaged if a number of basic legal principles underlying the grant of patents are harmonized.

9. In view of the present situation and the objective mentioned above, the International Bureau suggests that at least the following basic issues underlying the grant of patents, which are of particular importance to the further development of the international patent system, could be included in the discussions of the SCP: the definitions of prior art, novelty, inventive step (non-obviousness) and industrial applicability (utility); sufficiency of disclosure; and the structure and interpretation of claims.

10. In order to facilitate discussions of the SCP concerning the desirability and feasibility of further harmonizing patent law, each of the six mentioned issues are described below by (1) explaining the basic issue, (2) giving examples of the present status of laws and practices between different systems showing the existence of, or need for further, harmonization, and (3) indicating the relevant provisions under the first draft Patent Harmonization Treaty of 1991 and the solution proposed therein. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 and the Regulations are presented, for information purposes, in document SCP/4/3. The Notes for the Basic Proposal for the draft Patent Harmonization Treaty of 1991 and the Regulations are contained in document SCP/4/4.

A. Prior art

*The basic issue*

11. Prior art is generally understood to constitute the body of knowledge which was available to the public before the filing date or, if priority is claimed, before the priority date, of a patent application. Identifying the relevant prior art is one of the cornerstones of patent examination, since such prior art will be evaluated during examination to determine the patentability of the invention concerned. It is by comparing the invention for which protection is sought with the prior art that novelty and inventive step (non-obviousness) of the invention are established. Furthermore, prior art will, after the grant of a patent, be determining in order to evaluate the validity or invalidity of the patent.

12. Some of the issues to be considered in the context of prior art include, in particular, notions such as “availability to the public,” “person skilled in the art,” and “means of making available to the public.” Further items to be considered are, in particular, issues such as non-prejudicial disclosures, the grace period, or the question of applications filed earlier than, but published after, the date of filing of the application concerned.

*Status of harmonization*

13. The PCT states in Rules 33.1 and 64 what the relevant prior art for the purposes of the international search and international preliminary examination under PCT Articles 15(2) and 33(2) and (3) shall consist of. However, the definition of the term “prior art,” as well as its use in patent practice, still varies widely in different patent laws. Such divergences do, obviously, have different consequences with regard to the examination of patent applications in different countries, which may, ultimately, lead to the grant of a patent in certain countries, while in others, for the same invention, no patent will be granted, or the patent may be invalidated after grant. The following examples may illustrate some of the existing differences:

(a) In certain countries, prior art is constituted by everything that has been made available to the public anywhere in the world by any means before the filing or priority date of the application. On the other hand, in other countries, non-written disclosures, such as oral disclosures, or use outside their jurisdiction, do not form part of the prior art, and thus do not constitute a bar to patentability.

(b) While certain patent systems require a concrete disclosure for complying with the standard of “availability to the public,” others provide that the theoretical possibility of having access to the information is sufficient.

(c) The law of certain countries provides for a general grace period, during which the invention may be disclosed without its patentability being affected, while other countries provide only for a grace period limited to certain specific cases. Another category of countries provides only for non-prejudicial disclosures in the cases of certain international exhibitions and evident abuse in respect of the applicant. In this context, it may be mentioned that Article 11 of the Paris Convention for the Protection of Industrial Property (Paris Convention) requires the countries of the Paris Union to grant temporary protection to inventions shown at certain international exhibitions.

(d) Applications, which have been filed before, but were published only after, the filing of the application under consideration, are considered in a different way in different countries as far as prior art is concerned.

*Draft Patent Harmonization Treaty 1991*

14. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 contained several provisions relating to prior art:

(a) Article 2(viii) contained a definition of the term “published,” and Rule 1(3) provided for certain details as to the meaning of “accessible to the public” with regard to certain documents contained in the files of an Office, such as an application, a search report, a patent or any change in a patent.

(b) Article 11(2)(b) stated that prior art shall consist of everything which, before the filing or the priority date, had been made available to the public anywhere in the world. Article 11(2)(c), however, provided that a Contracting Party was allowed to exclude from the prior art matter, which had been made available to the public orally or through use outside the territory of its sovereignty. This latter provision was, however, placed in square brackets.

(c) Article 12 contained a general grace period of 12 months preceding the filing or the priority date of the application, for disclosures by acts done by the inventor himself or derived directly or indirectly from the inventor.

(d) Article 13 stated that the whole content of an application filed in, or with effect for, a Contracting Party before, but published after, the filing of the application examined is to be considered as prior art, for the purpose of determining the novelty.

(e) Other provisions relating to the term “prior art” will be mentioned later in the context of the novelty and inventive step requirements.

B. Novelty

*The basic issue*

15. The requirement of novelty is one of the essential and universally recognized conditions of patentability. According to this principle, an invention shall be considered to be new if it is not comprised in the prior art. Novelty therefore results from the comparison between the existing prior art at the date of filing (or the date of priority) and the claimed invention. The underlying reason for the requirement of novelty is that nothing should be withdrawn from public use that already belongs to the public domain.

*Status of harmonization*

16. For the purposes of PCT international preliminary examination (but not necessarily of the national phase – see paragraph (6), above), the novelty requirement is contained in

Article 33(2) of the PCT, which states that an invention shall be considered novel if it is not anticipated by the prior art as defined in the Regulations. For the purposes of novelty, the relevant description of prior art is contained in PCT Rule 64. This shows how closely the novelty requirement is linked to the notion of prior art (see paragraphs 11 to 14, above), since anything which forms part of the prior art would, in principle, destroy the novelty of the invention. In light of the important divergences identified in the definition and application of the term “prior art” as described above, it is evident that the requirement of novelty is also defined and applied in different ways throughout the world.

17. Besides this close link to the prior art, there are further issues, which are closely related to the discussion on novelty: for instance, which kind of use should destroy the novelty of an invention. Such divergences may lead to the recognition of the novelty of the invention in certain countries, but not in others. The following examples may illustrate some of the existing differences:

(a) In principle, all of the differences mentioned under paragraph 13, above, in respect of the definition of prior art have a bearing on novelty, i.e., the definition of prior art itself, the requirements relating to the disclosure of the invention, the existence and nature of a grace period, if any, etc.

(b) Public use of the invention anywhere in the world destroys novelty in certain patent systems, while in others, this consequence depends on the place of use. According to certain laws, even non-public use may be prejudicial to novelty, while in others, non-public use could never lead to the destruction of novelty.

#### *Draft Patent Harmonization Treaty 1991*

18. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 contained the following provisions relating to novelty:

(a) Article 11(2)(a): According to this provision, an invention shall be considered to be new (or novel) if it does not form part of the prior art. Unlike the determination of inventive step, for the determination of novelty, items of prior art may only be taken into account individually.

(b) All the provisions related to prior art cited under paragraph 14, above, would, obviously, also influence the requirement of novelty.

#### C. Inventive step (non-obviousness)

##### *The basic issue*

19. The term inventive step (or inventive activity), called non-obviousness in some countries, is, like novelty, one of the fundamental requirements of patentability. It is, in principle, widely recognized throughout different patent systems. An invention is considered to involve an inventive step or to be non-obvious if, compared to the prior art, it is not obvious to a person skilled in the art. Thus, while the criteria of novelty is fulfilled as soon as there is any kind of difference between the claimed invention and the prior art, inventive step

is only found if there is a certain qualitative difference between the prior art and the invention. This may not be the case if the claimed invention would, at the date of filing or of priority, have been obvious for a person skilled in the art.

20. In a similar way as it is the case with regard to novelty, inventive step or non-obviousness is examined in comparison to the existing prior art at the date of filing or of priority of the application in question. Therefore, any difference between patent systems with regard to the definition of prior art will influence the result of any examination of inventive step or non-obviousness. Beyond this rather obvious conclusion, however, there are further divergences in the application of that term, the most important of which are summarized below.

#### *Status of harmonization*

21. For the purposes of PCT international preliminary examination (but not necessarily of the national phase – see paragraph (6), above), the inventive step requirement is contained in Article 33(3) of the PCT, which states that an invention shall be considered to involve an inventive step if, having regard to the prior art as defined in the Regulations, it is not, at the prescribed relevant date, obvious to a person skilled in the art. The relevant description of prior art is contained in PCT Rule 64. Nevertheless, as stated above, the examination of inventive step varies considerably in different systems depending on how prior art is defined. Some specific differences are outlined below:

(a) Not only the definition of the term inventive step as such, but also its practical application vary considerably. For example, certain systems apply the so-called “problem and solution” approach, comprising (1) the determination of the closest prior art, (2) the establishment of the technical problem to be solved, and (3) establishing whether, considering the technical problem and the closest prior art, the invention would be obvious to the person skilled in the art. Other systems have developed different methods for the examination of inventive activity.

(b) The notion of a person skilled in the art is not defined in the same way in all patent systems: sometimes, that term means a person with thorough knowledge of the relevant technical field (without necessarily being a specialist), while in other cases, the person skilled in the art may be close to a layman.

(c) While certain systems consider the contents of previously filed applications to destroy novelty and inventive step of a later filed application, others consider these contents only in respect of novelty, but not when assessing the requirement of inventive step.

(d) In certain systems, for the determination of inventive step, different items of prior art may be combined together, if such combination would have been obvious to the person skilled in the art.

#### *Draft Patent Harmonization Treaty 1991*

22. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 contained the following provision relating to inventive step/non obviousness:

Article 11(3): “An invention shall be considered to involve an inventive step (be non-obvious) if, having regard to the prior art as defined in paragraph (2), it would not have been obvious to a person skilled in the art at the filing date or, where priority is claimed, the priority date of the application claiming the invention.”

D. Industrial applicability (utility)

*The basic issue*

23. “Industrial applicability” or “utility” in certain countries is the third widely recognized requirement of patentability. Its objective is to exclude from patentability inventions, which have no utility in any field of industry, which do not achieve the objective, claimed by the invention (e.g., *perpetuum mobile*) or which may only be used for private purposes.

*Status of harmonization*

24. For the purposes of PCT international preliminary examination (but not necessarily of the national phase – see paragraph (6), above), the requirement of “industrial applicability” is contained in PCT Article 33(4), which states that an invention shall be considered industrially applicable if, according to its nature, it can be made or used in any kind of industry. The said provision further states that the term “industry” is to be understood in its broadest sense, as in the Paris Convention. In addition, it may be mentioned that certain systems use the term “utility” rather than “industrial applicability.” However, these terms do not have exactly the same meaning:

(a) In those systems which use the term “industrial applicability,” it means in general that the invention must be able to be used in any kind of industry, whereby the term “industry” has to be understood in a broad sense, including agriculture.

(b) The term “utility,” on the other hand, is a somewhat more complex notion, according to which it may be examined, in particular, whether an invention is able to do something, whether it works to solve the problem it is supposed to solve, and whether it has some social benefit.

*Draft Patent Harmonization Treaty 1991*

25. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 mentioned, in Article 11(1), industrial applicability or, at the option of the Contracting Party, utility, as the third condition of patentability besides novelty and inventive step. The draft Treaty did not contain further definitions or explanations of this requirement.



E. Sufficiency of disclosure

*The basic issue*

26. The disclosure of the invention to the public is considered to be the counterpart for receiving the exclusive right conferred by a patent. The disclosure allows the public to know the most recent technical developments and to freely use the technical teaching after the expiration of the patent (or if the patent is not granted). Adequate disclosure is therefore an important obligation of the applicant.

27. In principle, where the invention is not, or is not sufficiently, disclosed, no patent may be granted, or a granted patent may be invalidated. As a general principle, and notwithstanding the further explanations under paragraphs 31 and 32, below, an invention is disclosed if it can be carried out by a person skilled in the art as fully claimed based on the patent specification, without need for any additional inventiveness. Furthermore, the disclosure must be such that it shows the way to safely and repeatedly achieve the claimed result. Thus, a causal link between the claimed elements and the alleged technical result must exist.

28. The disclosure does not need to be in the description or in the claims only, but may result from the whole patent specification, and in some cases also from teachings in the prior art. But what needs to be disclosed is the invention, and the invention is defined by the claims. This leads, at least in many legal systems, to the conclusion that the claims must be supported by the description.

29. One particular case related to the disclosure of the invention is the issue of broad claims. In certain cases, the claims are drafted so broadly that the invention cannot, even by using other parts of the specification, such as the description or the drawings, be carried out by the person skilled in the art. This occurs more frequently in particular fields, for example, chemistry and biotechnology. Patents may be invalidated, or at least partly invalidated, if the breadth of the claims exceeds the disclosure in the specification.

*Status of harmonization*

30. Article 5 and Rule 5.1(a) of the PCT state the following:

“Article 5  
The Description

The description shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art.”

“Rule 5  
The Description

5.1 *Manner of the Description*

(a) The description shall first state the title of the invention as appearing in the request and shall:

- (i) specify the technical field to which the invention relates;
- (ii) indicate the background art which, as far as known to the applicant, can be regarded as useful for the understanding, searching and examination of the invention, and, preferably, cite the documents reflecting such art;
- (iii) disclose the invention, as claimed, in such terms that the technical problem (even if not expressly stated as such) and its solution can be understood, and state the advantageous effects, if any, of the invention with reference to the background art;
- (iv) briefly describe the figures in the drawings, if any;
- (v) set forth at least the best mode contemplated by the applicant for carrying out the invention claimed; this shall be done in terms of examples, where appropriate, and with reference to the drawings, if any; where the national law of the designated State does not require the description of the best mode but is satisfied with the description of any mode (whether it is the best contemplated or not), failure to describe the best mode contemplated shall have no effect in that State;
- (vi) indicate explicitly, when it is not obvious from the description or nature of the invention, the way in which the invention is capable of exploitation in industry and the way in which it can be made and used, or, if it can only be used, the way in which it can be used; the term “industry” is to be understood in its broadest sense as in the Paris Convention for the Protection of Industrial Property.”

31. The main divergence in the definition and application of the disclosure requirement is that certain patent systems request a disclosure allowing a person skilled in the art to carry out the invention, while other systems require the application to disclose the best mode known to the inventor to carry out the invention.

*Draft Patent Harmonization Treaty 1991*

32. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 contained, in Article 25 “Obligations of the Right Holder,” two alternatives. Alternative A proposed to include no provision on this subject at all, while alternative B contained the following provision relating to the disclosure of an invention in Article 25(1):

“(1) The owner of a patent shall have at least the following obligations in addition to any other provided for in this Treaty:

(i) to disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art; the description shall set forth at least one mode for carrying out the invention claimed; this shall be done in terms of examples, where appropriate, and with reference to the drawings, if any; however, any Contracting Party may provide that the description set forth the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, priority date of the application; ...”

F. Drafting and interpretation of claims

*The basic issue*

33. The claims define the invention, and thus the scope of protection of the patent. They are therefore the heart of the patent. This is true in particular after the grant of the patent, since others may not commercially use what is covered by the claims, but may use any other information contained in the specification. It is therefore particularly important that claims contain all the important features of the claimed invention. The claims form the basis for the examination as to the patentability of the invention. In addition, they may be affected by partial renunciation or invalidity of the patent, and they are relevant for the question of unity of invention. They also play a role when defining the contents of two inventions in the case of dependency or priority contests under the first to invent system, and when assessing the identity of inventions in the framework of the prohibition of double patenting.

34. When talking about claims, there are two different aspects to take into consideration: firstly, the drafting of the claims, and secondly the interpretation of the claims.

*Status of harmonization*

35. Article 6 of the PCT states the following:

“The Claims

The claim or claims shall define the matter for which protection is sought. Claims shall be clear and concise. They shall be fully supported by the description.”

36. In addition, PCT Rule 6 contains, in particular, indications on the manner of claiming, on the numbering of claims, as well as further details. In the context of claims, it may be mentioned that PCT Rule 13 deals with the issue of unity of invention.

37. Nevertheless, both the drafting and the interpretation of claims diverge significantly in different legal systems, which may lead to different scopes of protection for the same invention, and to different results in the case of invalidity determinations. Some of these differences are described below.

### Drafting of claims

- (a) Certain systems require that only the *technical* features of the invention be contained in the claims, but not other features, such as economical or other elements. This is not the case for all patent systems. It has to be noted, however, that not all systems require an invention to have a technical character.
- (b) While certain patent systems require a two-part form of the claims (the first part containing the designation of the subject matter belonging to the prior art, the second part being the characterizing part indicating the new technical features for which protection is claimed), other systems do not require this kind of structure, so that the prior art basis does not always appear in the claims.
- (c) Certain patent laws allow for a plurality of closely related independent claims reflecting a single inventive concept to be contained in the same application (“unity of invention”), while according to other laws, the respective provisions are applied in a very narrow manner.
- (d) While certain legal systems allow for different categories of claims, such as for instance product, process or apparatus claim, to be included in the same application, other patent systems have restrictions in this respect.
- (e) Certain patent systems provide for restrictions on the dependency of sub-claims, which lead to a high number of dependent claims and, in certain offices, to high costs due to additional fees to be paid for each claim in excess of a certain number.
- (f) Certain systems allow the lack of support of the claims by the description to be a ground for rejection or invalidation of the patent.

### Interpretation of claims

- (a) In most patent systems, the literal text of the claims forms the basis for the determination of the scope of protection of the patent. However, while certain systems do not allow an interpretation of the claims to go much beyond their wording, others have developed a broad way of interpreting the claims.
- (b) In certain systems the claims have to be interpreted in an objective manner, while in others, what the inventor subjectively had intended to say is taken into consideration.
- (c) In certain patent systems, only the description and the drawings may be used in order to interpret the claims. In other systems, further - or additional - means of interpreting the claims may be allowed.
- (d) While certain legal systems provide that equivalents are covered by the claims, other legal systems do not provide for equivalents. In many systems, the doctrine of equivalents has been developed by case law, and is not to be found in statutory law. Systems vary widely as to the scope of equivalents applied.
- (e) The possibilities to amend the claims during examination, as well as after the grant of the patent, vary considerably in different systems.

*Draft Patent Harmonization Treaty 1991*

38. The Basic Proposal for the draft Patent Harmonization Treaty of 1991 contained the following detailed provisions related directly or indirectly to claims: Articles 4 (“Claims”), 5 (“Unity of Invention”) and 21 (“Extent of Protection and Interpretation of Claims”), and Rules 3 (“Manner of Claiming”) and 4 (“Details Concerning the Requirement of Unity of Invention”).

IV. Conclusion

39. In view of the above, the SCP is invited to note and consider the suggested issues related to the further development of international patent law. The SCP is invited, in particular, to express its guidance to the International Bureau as to whether and to what extent the mentioned issues should be included in the future work of the SCP.

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