

Patent Cooperation Treaty (PCT) Working Group

Fifth Session
Geneva, May 29 to June 1, 2012

THE PCT'S AIMS OF ORGANIZING TECHNICAL ASSISTANCE FOR DEVELOPING COUNTRIES, DISSEMINATING TECHNICAL INFORMATION AND FACILITATING ACCESS TO TECHNOLOGY; SUFFICIENCY OF DISCLOSURE

Document prepared by the International Bureau

INTRODUCTION

1. The Working Group at its third session from June 14 to 18, 2010 endorsed a series of recommendations to improve the functioning of the PCT system, based on a study prepared by the International Bureau entitled "The Need for Improving the Functioning of the PCT System" (document PCT/WG/3/2) and related submissions from certain Member States (documents PCT/WG/3/5 and PCT/WG/3/13). The Working Group's discussions are set out in the report of the session (document PCT/WG/3/14 Rev., paragraphs 14 to 137). The recommendations endorsed by the Working Group cover a variety of actions to make the PCT system more effective both for processing patent applications and for supporting technology transfer and technical assistance for developing countries.

2. The recommendation set out in paragraph 211*bis* (see paragraph 129 of document PCT/WG/3/14 Rev) reads as follows:

"211*bis*. It is recommended that a follow-up study be conducted by the IB to review and assess how well the PCT system has been functioning in terms of realizing its aim of disseminating technical information and facilitating access to technology as well as organizing technical assistance for developing countries.

“The study should also propose recommendations and suggestions on how to improve the realization of that aim, including on sufficiency of disclosure, for consideration by Contracting States at the 4th session of the PCT Working Group, recognizing that action on certain issues may require discussion in other WIPO fora.

“In this context, appropriate changes should be made in the proposed form for third party observations (document PCT/WG/3/6 Annex 2, p.2), including “sufficiency of disclosure” aspects, for discussion at the next session.”

3. This document sets out the review requested by the Working Group on how well the PCT has been functioning in terms of realizing its aims of dissemination of technical information and facilitating access to technology (see paragraphs 12 to 68, below). It also looks into the issue of sufficiency of disclosure (see paragraphs 69 to 96, below). As regards the review on how well the PCT has been functioning in terms of realizing its aims of organizing technical assistance for developing countries, see the following paragraphs 4 to 11, below.

THE FUNCTIONING OF THE PCT IN TERMS OF ORGANIZING TECHNICAL ASSISTANCE FOR DEVELOPING COUNTRIES

4. As regards the review requested by the Working Group on how well the PCT has been functioning in terms of organizing technical assistance for developing countries, it is recalled that the Committee on Development and Intellectual Property (CDIP), at its fourth session, held in Geneva in November 2009, had approved a project entitled “Project on Enhancement of WIPO’s Results-Based Management (RBM) Framework to Support the Monitoring and Evaluation of the Impact of the Organization’s Activities on Development” (see document CDIP/4/8/Rev., project code DA_33_38_41_01). One of the two components of that project is a review of technical assistance in the area of cooperation for development (hereafter referred to as the “External Review”).

5. In order to proceed in the most efficient and cost-effective manner, the International Bureau requested the external team of consultants undertaking this External Review to extend their work to assess the functioning of the PCT system in terms of realizing its aims of organizing technical assistance for developing countries. A report on the progress of the External Review was presented to the fourth session of the Working Group (document PCT/WG/4/6; the discussions by the Working Group at its fourth session are set out in the report of that session, paragraphs 117 to 121 of document PCT/WG/4/17).

6. The final report, entitled “An External Review of WIPO Technical Assistance in the Area of Cooperation for Development”, was published on September 1, 2011 (see the Annex to document CDIP/8/INF/1). It was considered by the CDIP at its eighth session in November 2011 (see paragraphs 357 to 397 and 562 to 569 of document CDIP/8/9 Prov.), during which the CDIP agreed to establish an *ad hoc* working group to review document CDIP/8/INF/1 in detail and to present a report on its findings to the ninth session of the CDIP. It was further agreed that the ninth session would set aside at least one day to discuss the External Review, the *ad hoc* working group’s report and the management response to the External Review by the Secretariat (see paragraph 10 of the Summary by the Chair of the eighth session of the CDIP). The ninth session of the CDIP is scheduled to meet from May 7 to 11, 2012. At the time of writing of the present document, the management response to the External Review by the Secretariat had been published (document CDIP/9/14) and the *ad hoc* working group had met for the first of a series of meetings planned to be held in the run-up to the ninth session of the CDIP.

7. In the view of the International Bureau, the issues relating to the provision of technical assistance to developing countries by the PCT are inseparably linked and interwoven with the issue of the provision of technical assistance to developing countries in the area of patents provided by WIPO as a whole. The question as to how well the PCT has been functioning in terms of realizing its technical assistance aims therefore is best answered in the context of the External Review.

8. As set out in the study prepared by the International Bureau entitled "Coordination of Technical Assistance and Financing of Technical Assistance for Developing Countries under Article 51 of the PCT", presented to the fourth session of the Working Group (document PCT/WG/4/5, reproduced for further discussion by the Working Group in Annex I to document PCT/WG/5/5), WIPO's approach to development cooperation and patent information changed considerably since the adoption of the PCT in 1970. Originally, the founders of the PCT envisaged that the task of organizing technical assistance for developing countries in developing their patent systems should be carried out under the "roof" of the PCT, supervised by the PCT Committee on Technical Assistance to be established under Article 51. This was despite the fact that such assistance was by no means limited to technical assistance specific to the PCT in light of the broader scope defined in Article 51(3)(a): "The task of the Committee shall be to organize and supervise technical assistance for Contracting States which are developing countries in developing their patent systems individually or on a regional basis". The coverage beyond PCT-specific technical assistance is also confirmed by the examples of technical assistance provided in Article 51(3)(b): "The technical assistance shall comprise, among other things, the training of specialists, the loaning of experts, and the supply of equipment both for demonstration and for operational purposes". However, with the creation of other WIPO bodies specifically devoted to organizing and supervising technical assistance activities for the benefit of developing countries, a decision was taken by the Executive Committee of the Paris Union and the WIPO Coordination Committee at their sessions in 1977 to coordinate the organization of such technical assistance with the WIPO bodies generally responsible for development-related activities (in essence, the predecessors of today's CDIP). This decision was followed, by the PCT Interim Committee on Technical Assistance, at its seventh and final session held in 1978, handing over the more general supervision of technical assistance for developing countries in developing their patent systems to the WIPO body responsible at the time for development cooperation related to industrial property (see document PCT/TAS/VII/2, paragraphs 2 and 3; the suggestions in the latter paragraph were noted with approval by the Interim Committee (see document PCT/TAS/VII/7)):

"2. The PCT was adopted in 1970. In the meantime, fundamental changes have taken place in WIPO's approach to the problems of development cooperation and patent information. Two new bodies have been created since then: the WIPO Permanent Committee for Development Cooperation Related to Industrial Property and the WIPO Permanent Committee on Patent Information. Most of the "technical assistance" activities which have, in the past, been considered, or also considered, by the PCT Interim Committee for Technical Assistance are now within the jurisdiction, or mainly within the jurisdiction, of the said two Permanent Committees and, naturally, of the competent bodies of WIPO itself and of the Paris Union for the Protection of Industrial Property."

"3. It is believed these new facts should lead to a consequential reorientation of the tasks of the PCT Committee for Technical Assistance, in order to avoid unnecessary duplication and the danger of conflicting decisions. In this connection, it may be of interest to note that the WIPO Coordination Committee and the Executive Committee of the Paris Union, when establishing (in 1977) the WIPO Permanent Committee on Patent Information, decided that the meetings of PCT Committee for Technical Assistance should be joint with those of the Permanent Committee for Development Cooperation Related to Industrial Property and that the activities of the two Committees should be coordinated (the text of the decision is reproduced in the Annex to this document). This decision was

taken in order to avoid unnecessary duplication and the danger of conflicting decisions. The consequential reorientation of the tasks of the PCT Committee for Technical Assistance, in the opinion of the Director General, should consist in asking for guidance from the PCT Committee only on those aspects of technical assistance to developing countries which have a direct bearing on the use of the PCT by such countries.”

9. Thus, since the start of operations of the PCT system in 1978, in line with the reorientation of the tasks of the PCT Committee for Technical Assistance, the organization of technical assistance to developing countries within WIPO in the area of patents has been coordinated with other development cooperation activities in the field of industrial property under the responsibility of the appropriate WIPO body established for organizing and supervising technical assistance activities for the benefit of developing countries. Besides being the largest income revenue for WIPO and thus the main source of funding for most of the development cooperation activities, the main contributions from the PCT to such technical assistance were (and are still today) limited to aspects which have a direct bearing on the use of the PCT by developing countries, such as legal advice to countries considering accession to the PCT on the compatibility of national laws and practices, and PCT specific training for Office staff and users of the system.

10. As stated above, in the view of the International Bureau, the question as to how well the PCT has been functioning in terms of realizing its aim of organizing technical assistance for developing countries can thus not be answered outside the context of a review of the technical assistance in the area of cooperation for development provided by WIPO as a whole. Such a review has been undertaken in the context of the “Project on Enhancement of WIPO’s Results-Based Management (RBM) Framework to Support the Monitoring and Evaluation of the Impact of the Organization’s Activities on Development” overseen by the CDIP. The findings of that review have been presented to the CDIP in the form of the study entitled “External Review of WIPO Technical Assistance in the Area of Cooperation for Development” (Annex to document CDIP/8/INF/1). While the focus of that study is on the provision of technical assistance across all parts of WIPO, it also reviews PCT specific technical assistance activities, that is, activities which have a direct bearing on the use of the PCT by developing countries.

11. It is therefore suggested that the Working Group considers the findings by the External Review of WIPO Technical Assistance in the Area of Cooperation for Development as the basis for its discussions on how well the PCT has been functioning in terms of organizing technical assistance for developing countries. In order to avoid duplication of effort, it is further suggested that the Working Group may wish to await the outcome of the detailed discussions by the CDIP of the External Review, the report of the *ad hoc* working group and the management response by the Secretariat before considering how to proceed with regard to the technical assistance related parts of the recommendation set out in paragraph 211*bis*.

THE PCT’S INFORMATIONAL AIM: DISSEMINATING TECHNICAL INFORMATION AND FACILITATING ACCESS TO TECHNOLOGY

12. The informational aim, in the language of the Preamble of the PCT, is “to facilitate and accelerate access by the public to the technical information contained in documents describing new inventions”, and “to foster and accelerate the economic development of developing countries through the adoption of measures designed to increase the efficiency of their legal systems, whether national or regional, instituted for the protection of inventions by providing easily accessible information on the availability of technological solutions applicable to their special needs, and by facilitating access to the ever expanding volume of modern technology”.

13. The Treaty's aim of facilitating and accelerating "access by the public to the technical information contained in documents describing new inventions" is further described in document PCT/PCD/2 "Summary and Advantages of the Patent Cooperation Treaty", prepared by the International Bureau as a post-conference document following the Washington Diplomatic Conference in 1970 which led to the adoption of the PCT (see paragraphs 11 and 12 of document PCT/PCD/2, reproduced in the "Records of the Washington Diplomatic Conference on the Patent Cooperation Treaty", WIPO publication No. 313, published in excerpts on the WIPO web site¹) as follows:

"11. Access to such information is facilitated not only by the publication of the international application but also by the fact that such publication is accompanied by the publication of an abstract and of the international search report. That report allows scientists and industrialists interested in the field, including the applicant's competitors, to understand the invention more easily and access its technical and economic significance."

"12. Access to such information is accelerated by the fact that international applications are generally published upon the expiration of a fixed and relatively short period of time, namely, 18 months from the priority date."

14. In addition to the tasks of publishing international applications and a Gazette as part of the operation of the PCT system, the informational aim set out in the Treaty includes the more general goal of disseminating technical information through patent information services. Article 50(1) states:

"The International Bureau may furnish services by providing technical and other pertinent information available to it on the basis of published documents, primarily patents and published applications (referred to in this Article as "the information services")."

15. Examples of the information services envisaged by the founders of the PCT are set out in paragraph 63 of document PCT/PCD/2:

"63. ... Among the types of information contemplated are: identification of documents relating to a certain technical field or problem; identification of documents issued in different countries but relating to the same invention; identification of documents showing the same person as inventor or applicant; identification of patents in force or no longer in force at a given date in any given country."

16. Article 50(3), recognizing that "easier and more rapid access to technical information is of particular interest to developing countries, which are generally in urgent need of technology" (see paragraph 13 of document PCT/PCD/2), states:

"The information services shall be operated in a way particularly facilitating the acquisition by Contracting States which are developing countries of technical knowledge and technology, including available published know-how."

17. The founders of the PCT envisaged that such services would be furnished at a cost, which would, however, be lower for developing countries, as detailed in Article 50(5)(a):

"Any service to Governments of Contracting States shall be furnished at a cost, provided that, when the Government is that of a Contracting State which is a developing country, the service shall be furnished below cost if the difference can be covered from profit made on services furnished to others than Governments of Contracting States or from the sources referred to in Article 51(4)."

¹

http://www.wipo.int/export/sites/www/pct/en/texts/pdf/washington_p739_to_764.pdf

REALIZING THE PCT'S INFORMATIONAL AIM

18. As shown in paragraphs 12 to 17, above, the aims of the PCT in the field of the dissemination of technical information extend beyond the provision of services related to the day-to-day operation of the PCT, such as the publication of international patent applications and information related to such applications. The founders of the PCT envisaged the provision by the International Bureau of much broader information services, notably to developing countries, covering technical and other pertinent information available to the International Bureau on the basis of patent applications in general, whether national, regional or international.

19. It appears impossible and well beyond the scope of the present document to describe all the activities undertaken by the International Bureau towards realizing the PCT's informational aim since the beginning of PCT operations in 1978. Over the years, the means and technologies available to disseminate technical information have greatly changed, moving from paper to data carriers such as microfilm/microfiche, CD-ROMs and DVDs to today's preferred electronic communication means, the Internet. With each technological advance, more services and products have been added, more countries and users have benefited from the services and products provided, and access to technical information has become easier and faster. Clearly, the services and products offered by the International Bureau today, in the age of electronic communication, provide information that could not possibly have been envisaged by the founders of the PCT. Rather than looking back, the present document thus focuses on the services and products provided by the International Bureau today and looks forward by discussing the work being undertaken to advance the PCT's informational aims even further.

20. Effective dissemination of technical information requires the fulfillment of several key conditions. First, in the age of electronic communication, it is essential to have *patent information systems* that can be accessible through the Internet or an electronic connection service suitable for the viewing and downloading of documents. Secondly, patent offices and interested members of the public need to have *access to technical databases* either free of charge or at an affordable cost taking into account individual needs. Thirdly, it is important that the *document coverage in technical databases* accessible electronically is comprehensive, without any gaps that would result in relevant prior art not being retrieved after performing a thorough search across the range of databases available to the searcher. However, the effective dissemination of the information disclosed in patent and other technical documents is only one part in successfully *facilitating access to technology*. The increased accessibility to legal information such as the territories where the patent is in force, any opportunities to obtain a license from the proprietor, and knowledge about the patenting situation across a given technical domain can all help bring about use of technology disclosed in patent documents.

21. The following paragraphs describe work being undertaken by the International Bureau in each of these four key areas: patent information systems; access to technical databases; document coverage in technical databases; and facilitating access to technology. Given the particular importance of the services provided for developing countries, reference is made to relevant recommendations of the WIPO Development Agenda adopted in 2007 (see Annex I for a list of the Development Agenda recommendations cited in this study), as well as to the relevant PCT Roadmap recommendations on how to improve the functioning of the PCT system endorsed by the Working Group at its third session in 2010 (see documents PCT/WG/3/2 and PCT/WG/3/14 Rev., paragraphs 14 to 137).

Patent Information Systems

PATENTSCOPE

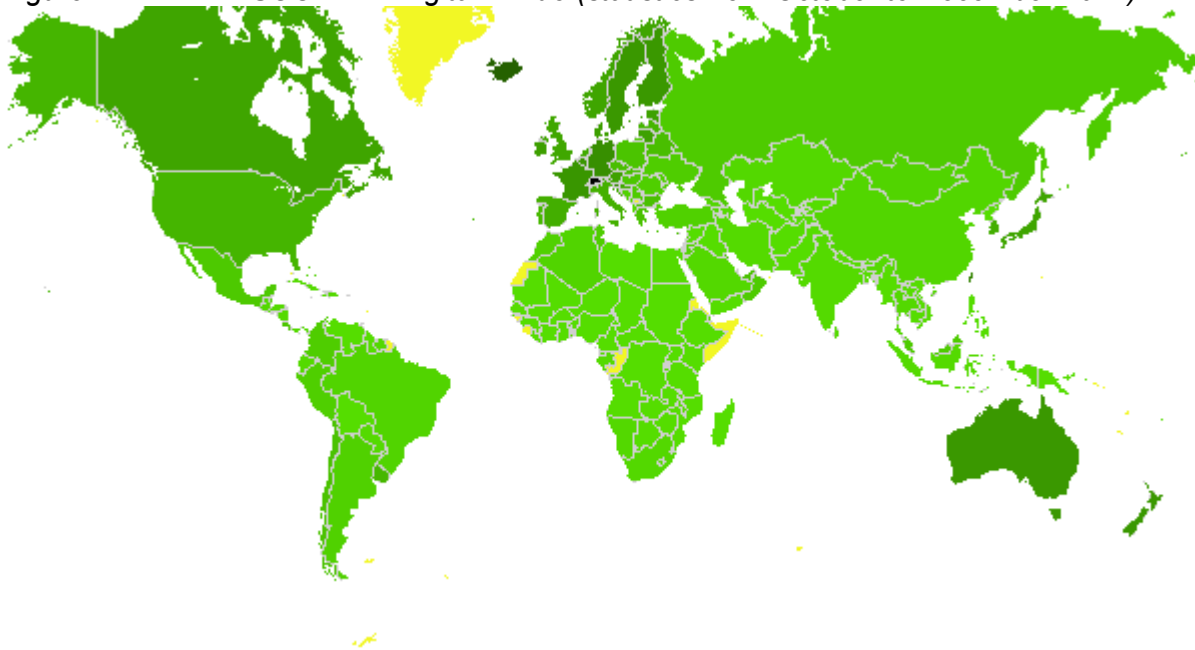
22. As of February 2012, the PATENTSCOPE system allows users to search more than 10 million patent documents free of charge, including over 2 million published PCT applications, thereby facilitating and accelerating access by the public to technical information relating to new inventions. The coverage of national patent collections and the language tools to enable multilingual searching and translation of patent titles and abstracts continues to grow. At present, PATENTSCOPE contains the patent collections from the following countries and regions: Argentina, Brazil, Chile, Colombia, Costa Rica, Cuba, Dominican Republic, Ecuador, El Salvador, Guatemala, Honduras, Israel, Jordan, Kenya, Mexico, Morocco, Nicaragua, Panama, Peru, Republic of Korea, Russian Federation (including data of the Union of Soviet Socialist Republics (USSR)), Singapore, South Africa, Spain, Uruguay, Viet Nam, and ARIPO, EPO and LATIPAT (WIPO-EPO regional project for Latin American countries on patent front page database). Further information and commentary on PATENTSCOPE can be found on pages 111 and 112 of the External Review of WIPO Technical Assistance in the Area of Cooperation for Development (Annex to document CDIP/8/INF/1).

23. The main features of PATENTSCOPE are the following:

- (a) full text search facilities for published international applications under the PCT back to the first publication in 1978 in an enhanced quality of data, and more than 25 national and regional data collections;
- (b) access to the file contents including international search reports and international preliminary reports on patentability, informal comments from the applicant on the written opinion, priority documents, etc.;
- (c) searchable national phase entry data for over 40 countries;
- (d) downloadable weekly collections of published applications through subscription services;
- (e) graphical view and presentation of search results;
- (f) Cross Lingual Information Retrieval (CLIR) function, allowing users to perform searches simultaneously in multiple languages (Chinese, Dutch, English, French, German, Italian, Korean, Japanese, Portuguese, Russian, Spanish and Swedish) using appropriate terminology according to the field of technology to improve accuracy;
- (g) integration with external machine translation providers to obtain gist translations of description and claims;
- (h) a machine translation tool which allows users to translate titles of inventions and abstracts from English to French and Chinese and vice versa;
- (i) RSS feeds to track technology developments in specific areas.

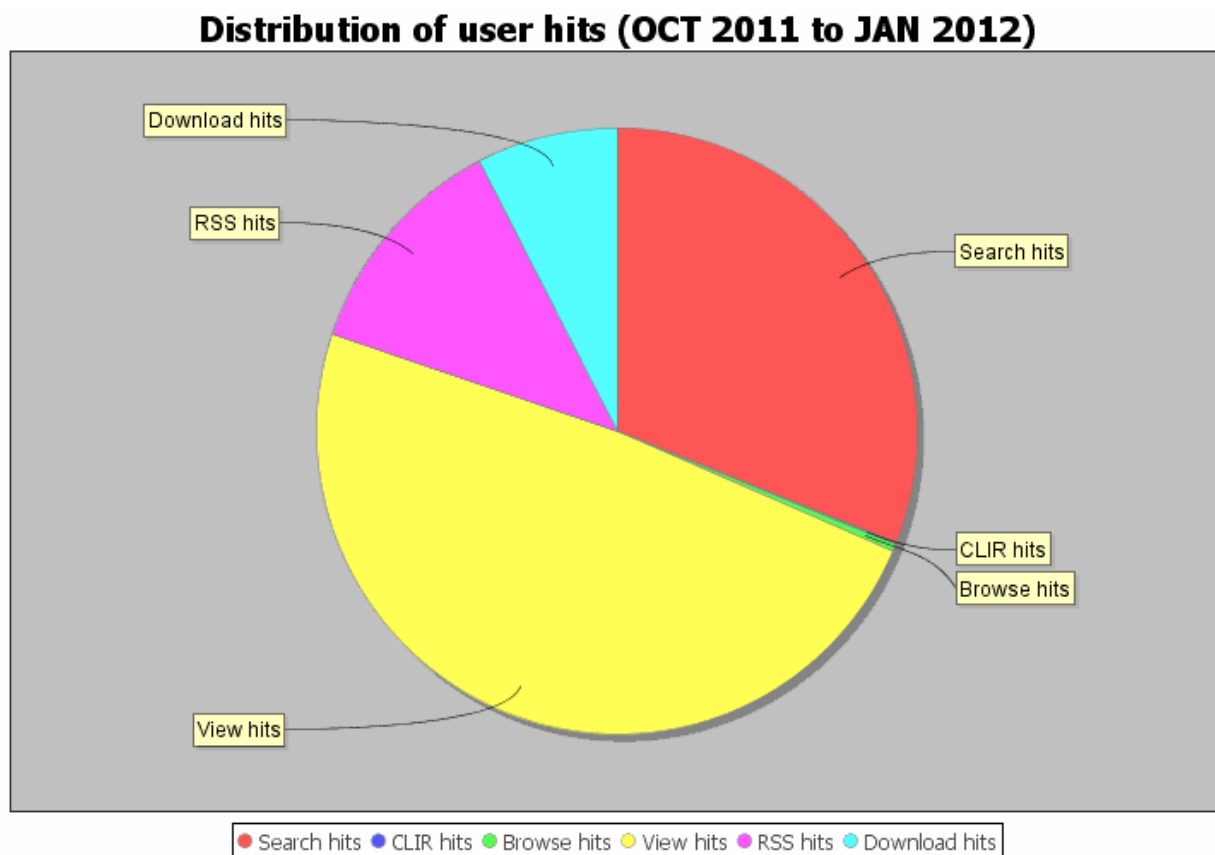
24. Figure 1 shows the utilization of PATENTSCOPE throughout the world, with darker shades representing countries with higher usage levels based on the number of unique visitors of each country divided by the number of country citizens. As can be seen from the figure, PATENTSCOPE is used in almost all countries in the world.

Figure 1: PATENTSCOPE IP Digital Divide (statistics from October to December 2011)



25. The distribution of user hits is shown in Figure 2. The statistics show that search queries or requests for further results of these queries (represented as “search hits”) and accessing pages displaying detailed information about a single patent application (represented as “view hits”) are the main uses of PATENTSCOPE, followed by “RSS queries” and “downloads of PDF or zip documents”.

Figure 2: Distribution of User Hits



WIPO CASE Platform

26. The WIPO CASE (Centralized Access to Search and Examination results) platform is another example of a technical facility developed by WIPO to improve access to patent information, providing a secure mechanism for groups of offices to exchange dossier information, sometimes of a confidential nature. Documents made available by one of the offices participating in the group can be searched and downloaded by the other offices in the group, thereby providing a platform for work-sharing and other collaborative activities. The WIPO CASE platform is being used by the Vancouver Group of Offices (IP Australia, Canadian Intellectual Property Office and the United Kingdom Intellectual Property Office). WIPO CASE is also under evaluation by the PROSUR (regional cooperation system on IP) members (Argentina, Brazil, Chile, Colombia, Ecuador, Paraguay, Peru, Suriname and Uruguay) in their efforts to develop the necessary infrastructure for further regional cooperation.

Relevant PCT Roadmap Recommendations

27. In order to increase availability of information contained in national search and examination reports, the PCT Roadmap recommendations set out in paragraphs 146 and 147 of document PCT/WG/3/2 encourage the increased availability of national search and examination reports on PATENTSCOPE. Actions should be taken by designated and elected Offices which conduct search and examination in the national phase to make their reports available, either by inclusion on PATENTSCOPE or in a way that permits a link to be added to PATENTSCOPE to a national file inspection system.

28. In line with those recommendations, the International Bureau continues to strongly encourage designated and elected Offices which conduct search and examination in the national phase to consult with the International Bureau on ways of inclusion of their final work products on PATENTSCOPE.

29. Furthermore, the International Bureau continues to encourage pairs or groups of Offices (existing or yet to be formed) wishing to exchange national dossier information using a common technology platform to consult with the International Bureau to explore possibilities on whether the WIPO CASE platform can assist those Offices in providing a secure mechanism for such an exchange.

Further Work

30. New facilities will be added to PATENTSCOPE to enhance the coverage of technical documents and other information associated with patent applications, and to improve the linguistic capacities of the system. This will include the addition of national collections with full text, notably from China, Japan and the United States of America, thereby enabling a more comprehensive search through PATENTSCOPE. In addition, the results of national patent searches, such as national search reports and search strategy documents, received from patent offices will be added, which can then be consulted by other patent offices and the public.

31. In relation to the WIPO CASE platform, the system will be upgraded in the near future to allow for references to documents in online digital libraries, which will eliminate the need to upload all documents into a central repository. Further upgrades will also take place to support a more powerful patent family search, and to include several other usability enhancements.

Access to Technical Databases

32. Within the broad aim of dissemination of patent information, an important element is facilitating access by national offices and intellectual property organizations to patent databases, in particular, in developing countries. This objective is reflected in recommendation 8 of the Development Agenda: "Request WIPO to develop agreements with

research institutions and with private enterprises with a view to facilitating the national offices of developing countries, especially LDCs, as well as their regional and sub regional intellectual property organizations to access specialized databases for the purposes of patent searches”.

33. As part of the implementation of recommendation 8, a Study Paper was finalized in 2010 (document CDIP/3/INF/2/STUDY/III/INF1). The Study Paper provides a broad overview of available online services offering the possibility to search and access patent and non-patent data, and, based on the results of a questionnaire, includes an analysis of the patent informational needs of intellectual property offices and users. A detailed “Guide on Technological Databases” focusing on database coverage, search and analysis functionalities developed from the Study Paper for the use of both intellectual property offices and users in general was also drafted and can be found on WIPO’s web site covering Technology and Innovation Support Centers (TISCs, see below). Other programs and projects particularly relevant to recommendation 8 are described below.

Access to Research for Development and Innovation Program

34. The Access to Research for Development and Innovation (ARDI) program was launched in July 2009 by WIPO in collaboration with 12 partners in the publishing industry with the aim of increasing the availability of scientific and technological information in developing countries. In 2011, the ARDI program became a full partner of the Research4Life (R4L) partnership, offering the potential for further growth in number of users. The program currently provides patent offices and academic and research institutions in 105 least developed and developing countries access to over 200 journals. For determining access costs, these countries are placed into two groups based on gross national income (GNI) per capita, Human Development Index (HDI) figures and United Nations Least Developed Country (LDC) status. Patent offices and academic and research institutions based in one of the groups have access to journals covered by the ARDI program free of charge, and those in the other group are eligible for access at a very low cost (1000 US dollars), with the possibility to benefit from a six-month free trial period. Where a country no longer belongs to one of the two qualifying groups, for example, due to an increase in GNI, institutions previously benefiting from the program may take advantage of a grace period of two years before their eligibility under the former conditions expires. The program welcomes additional publishers and organizations interested in providing scholarly content, providing training to end users in eligible developing countries and other assistance that support partnership objectives.

Access to Specialized Patent Information Program

35. The Access to Specialized Patent Information (ASPI) Program was launched by WIPO in September 2010 in collaboration with six commercial patent database providers to permit patent offices and academic and research institutions in 115 least developed and developing countries to obtain access to participating database providers’ flagship products. There are three groups of countries for access costs: patent offices and academic and research institutions in least developed countries can receive access to all products free of charge; for selected middle-income countries as defined by the World Bank, patent offices and academic and research institutions receive access at a cost of 1100 Swiss francs per year per institution for each product selected; and in certain other developing countries access at a nominal cost of 3300 Swiss francs per institution for each product selected is possible for patent offices only.

Technology and Innovation Support Centers

36. Technology and Innovation Support Centers (TISCs) are being established within the framework of the project implementing the objectives of the Development Agenda recommendation 8 to provide innovators in developing countries with access to locally based, high quality technology information services and other related services. As of February 2012, TISCs have been established in 20 countries: Algeria, Congo, Cuba, Democratic Republic of the Congo, Dominican Republic, Ecuador, Egypt, Georgia, Guatemala, Honduras, Kenya, Kyrgyzstan, Madagascar, Morocco, Mozambique, Nigeria, Philippines, Senegal, Tunisia and Viet Nam, and a further 10 countries have concluded Service Level Agreements providing the framework for activities to be carried out in establishing or developing TISCs. Within the context of a joint engagement with national and regional industrial property authorities, WIPO supports the effective operation of TISCs by facilitating access to specialized patent and non-patent databases, training local users through on-site and distance learning, providing information and training materials, supporting awareness-raising activities and disseminating best practices and experiences among TISCs.

Relevant PCT Roadmap Recommendations

37. The recommendation set out in paragraph 185 of document PCT/WG/3/2 endorsed by the Working Group at its third session recommends that the International Bureau and Contracting States continue to seek practical and affordable ways for national offices to develop online searching capabilities. All of the activities relevant to recommendation 8 of the Development Agenda described above are examples of initiatives taking forward that recommendation. In addition, a list of databases accessible through the Internet provided by other intellectual property offices is published on the WIPO web site (http://www.wipo.int/patentscope/en/dbsearch/national_databases.html).

Further Work

38. For the ARDI program, partnership building will be expanded with a view to increasing the number of publishers as well as the number of scientific and technical journals available. Public outreach activities will also be reviewed and strengthened with a view to increasing the number of eligible institutions in developing countries participating in and benefiting from the ARDI program so as to also increase the number of users accessing the program.

39. Public outreach activities are also being reinforced for the ASPI program so as to increase the number of eligible institutions and users in developing countries using ASPI. In addition, efforts will continue in the future to increase the number of patent database providers contributing to the ASPI program as well as the number of specialized patent database services available to users.

40. Future TISC developments include the establishment of a dedicated e-TISC platform which will include communication services to enable TISCs to share information, experiences, and best practices in a more efficient manner, as well as provide training services such as webinars designed to help TISC staff refresh and strengthen skills acquired through the regular on-site TISC training program. It will also provide easy access to resources including WIPO presentations, publications, and electronic products such as a new e-learning tutorial on using and exploiting patent information

Document Coverage in Technical Databases

41. In order to further the dissemination of patent information by enhancing patent databases, the International Bureau provides support to offices, on demand, for the digitization of patent documents and for the capture and formatting of patent bibliographic data.

42. The digitization of intellectual property rights is one component of a project under the Development Agenda project “Intellectual Property, Information and Communication Technologies (ICTs), the Digital Divide and Access to Knowledge” (see document CDIP/4/5 Rev.). This component is of particular relevance to recommendations 19 and 24 of the Development Agenda (see Supplementary Information for Thematic Projects on page 13 of the Annex to document CDIP/4/5 Rev.).

43. As part of this Development Agenda project, requests for digitization of documents were received from 23 IP offices. Assistance ranged from business needs assessments and/or supply of hardware and software to extensive exercises in digitizing back files of IP documents, provided in accordance with the specific needs of the IP office. Projects were completed in four IP offices for the digitization of their patent documents and the capture and formatting of patent bibliographic data for the purposes of dissemination and inclusion in patent search databases (namely Argentina, Colombia, Dominican Republic and Viet Nam). 14 IP offices were provided with the WIPOScan software to ensure high quality output conforming to WIPO standards for data exchange; further information about the WIPOScan digitization software package can be found on page 107 of the Annex to document CDIP/8/INF/1. For 2011, notable outputs of the project include the making available on PATENTSCOPE of patent documents from the African Regional Intellectual Property Organization (ARIPO), Argentina, Colombia, Dominican Republic, Kenya and Viet Nam. The Development Agenda project finished at the end of 2011 with outstanding digitization activities continuing under the principle of mainstreaming under the regular budget of WIPO. The project was also discussed at the eighth session of the CDIP (see paragraphs 154 to 165 of document CDIP/8/9 Prov.).

Relevant PCT Roadmap Recommendations

44. The recommendation set out in paragraph 165(c) of document PCT/WG/3/2 endorsed by the Working Group at its third session encourages Offices whose national patent documents are not readily available in electronic form to consider digitizing them and making them available to International Authorities and other Offices for search purposes. The International Bureau continues to encourage Offices to consult with the International Bureau on digitizing and making available their patent collections.

Further Work

45. Following the closure of the Development Agenda project on digitization, future work has been mainstreamed into the regular activities of the International Bureau under program 15. Deployments of the WIPOScan system will continue throughout the 2012/2013 biennium. Moreover, the International Bureau continues to provide technical advice and assistance to IP offices in order to enable them to improve the global dissemination of their patent information.

Facilitating Access to Technology

Study on Patents and the Public Domain

46. As part of an ongoing project “Intellectual Property and the Public Domain” (document CDIP/4/3 Rev.2) within the overall objective established by recommendations 16 and 20 of the Development Agenda, a Study on Patents and the Public Domain (document CDIP/8/INF/3) has been conducted by an external group of experts. The study had the objective “to deepen the analysis of the implications and benefits of a rich and accessible public domain and to explore the role of the patent system and patent information in identifying, accessing and using subject matter in the public domain”. It provides an overview of patents and the public domain, together with a number of country-specific accounts concerning the relationship between the public domain, national patent law and relevant information-retrieval mechanisms. The study was discussed at the eighth session of the CDIP in November 2011 (see paragraphs 472 to 481 of document CDIP/8/9 Prov.).

47. The Executive Summary of the study (see pages 3 and 4 of the Annex of document CDIP/8/INF/3) concludes: “Information which enters the public domain as a by-product of the patent system possesses a number of features which make it more readily identifiable and accessible than information at large.” Examples of such features are the coding of subject matter under the International Patent Classification Scheme, the increased reporting and availability on the Internet of legal rulings on the meaning and interpretation of contested patent documentation, the legal requirement that the description of an invention in a patent application should enable an addressee skilled in the field of implementation of the invention to put it into use, and the possibility to identify earlier patent documents cited by patent examiners from a patent application, thereby enabling members of the public to link more easily one invention with another. The Executive Summary further states that “there is an increasing awareness on the part of in particular developing countries, which may not have a long tradition of patent filing and documentation on which to draw, of the desirability of creating and maintaining a system for facilitating access to expired patents and other public domain materials”. Furthermore, while pointing to the absence of an international legal framework for cooperation in the development of the patent public domain as a resource in its own right, the study notes: “However, it is encouraging to note that patents are a field in which there is a strong tradition of cooperation between granting authorities at both national and regional level and that, since enhancement of patent public domain use is an objective which has the potential to benefit all users of the patent system and all members of the innovation community, it is not unreasonable to assume that this objective is attainable even if no formal international framework is constructed for that purpose”.

Feasibility Study on the Establishment of National Patent Register Databases and Linkage to PATENTSCOPE

48. A second part of the patent component of the “Intellectual Property and the Public Domain” project deals with patent legal status data. By informing the public of whether a given technology is protected by a patent or can be freely exploited, patent legal status data plays an essential role in technology transfer. The Feasibility Study on the Establishment of National Patent Register Databases and Linkage to PATENTSCOPE (document CDIP/8/INF/2) focuses mainly on the technical aspects of legal status data in order “to facilitate a better understanding of the specific difficulties and challenges that national and regional IP offices are facing in making such data available through their patent register databases, and the respective challenges in aggregating such data in a central database, i.e. a one-stop-shop for checking the validity of patents” (see paragraph 25 of the Annex of document CDIP/8/INF/2). The study was discussed at the eighth session of the CDIP in November 2011.

49. The conclusions of the study are outlined in paragraphs 12 to 23 of the Annex to document CDIP/8/INF/2. In particular, the study concludes that, in view of the fact that the majority of countries have national online registers, it is possible and feasible to create a global portal in PATENTSCOPE with links to national patent online registers, and indicates that the International Bureau should create a prototype of this portal and continue to enhance PATENTSCOPE in terms of its content and functions to facilitate patent information search regarding inventions in the public domain. In addition, the WIPO Secretariat will seek support from Member States to enhance public access to patent legal status data and continue to provide technical assistance to countries where resources and capacities are too limited to create online patent registers in accordance with WIPO Standards. Comments on the study made by delegations at the CDIP can be found in the draft report for the meeting (see paragraphs 398 to 414 of document CDIP/8/9 Prov.).

Patent Landscape Reports

50. Another Development Agenda project titled “Developing Tools for Access to Patent Information” (see document CDIP/4/6) aims to provide developing countries, including least developed countries, upon request, with services which will facilitate the use of patent information on specific technology for facilitating their indigenous innovation and R&D in cooperation with other intergovernmental organizations. This project is being undertaken within the overall objectives established by recommendations 19, 30 and 31 of the Development Agenda. A progress report of this project was presented to the eighth session of the CDIP (see Annex XII to document CDIP/8/2 and paragraphs 166 to 171 of document CDIP/8/9 Prov.).

51. Under this project, WIPO was mandated to prepare 12 patent landscape reports in the 2010-2011 biennium in areas of particular interest to developing and least developed countries, such as public health, food and agriculture, climate change and the environment. Patent landscape reports describe the patent situation for a specific technology in a given country, region or on the global level and are produced by conducting a state-of-the-art search for the technology of interest, followed by a detailed analysis of the search results to identify patterns of patenting activity or innovation in the technology through visualization of the results. For the purpose of preparing the reports, WIPO conceptualized as a first step the patent landscape reports approach, identified and engaged in dialogue with various intergovernmental and non-governmental organizations with expertise in the aforementioned areas and knowledge of the particular needs of developing countries, such as the World Health Organization (WHO), the Food and Agriculture Organization of the United Nations (FAO), the Medicines Patent Pool (MPP), the International Renewable Energy Agency (IRENA), the African Agricultural Technology Foundation (AATF). Together with these cooperation partners, WIPO developed the scope of each report, along with a particular patent search methodology, tailored to the specific needs of each particular partner and report in the form of Terms of Reference (ToR). The author of each report was selected through a public procurement procedure, based on the individual ToRs. In this framework, WIPO developed a roster of high-standards patent search experts in the relevant fields along with a tailored selection and evaluation system. WIPO refined and approved the reports throughout their preparation and coordinated the discussions with its partners. In 2011, patent landscape reports were produced on antiretrovirals (one on ritonavir and a second one on atazanavir), water desalination and the use of alternative energy, membrane filtration and UV water treatment, solar cooking, solar cooling, vaccines for selected diseases, and selected neglected diseases. These reports constitute WIPO Publications and are available online and also as free hard copies. Furthermore, WIPO has set up two pages on the web site covering patent landscape reports, one including a compilation of existing patent landscape reports on-line, prepared by various public and private sector actors in various fields, and the other providing information about on-going work by WIPO on patent landscape reports and prepared reports in the framework of the Development Agenda project. In the second of these pages, information can be found on the ToRs, the full reports in PDF format, the patent database of each report, along with an interactive visualization tool that allows users to break down the results of the reports by different criteria. A side event presenting the results of some patent landscape reports and providing more information to WIPO Member States on the project was organized during the eighth session of the CDIP, on November 15, 2011. Furthermore, the results of the patent landscape report “Desalination Technologies and the Use of Alternative Energies for Desalination” were presented during the International Conference on Water and Environment in a Changing World that was held in Marrakech, Morocco from November 20 to 24, 2011. WIPO also presented two patent landscape reports on the production of drinking water through desalination technologies, and selected purification technologies at a workshop held in Geneva on March 22, 2012 on the occasion of World Water Day.

Promoting Technology Transfer

52. A further project titled “Project on Intellectual Property and Technology Transfer: Common Challenges - Building Solutions” was approved at the sixth session of the CDIP in November 2010. This project takes forward Development Agenda recommendations 19, 25, 26 and 28. It includes a range of activities that will explore possible initiatives and IP-related policies for promoting technology transfer and the dissemination and facilitation of access to technology for development. It uses a “step-by-step” approach with the objective of adopting a list of suggestions, recommendations and possible measures for promoting technology transfer. The implementation of the project started in January 2011.

53. The five components of the projects are identified as follows:

- (a) organization of five regional consultation meetings;
- (b) elaboration of a number of peer-reviewed analytic studies, including economic studies and case studies on international technology transfer that will provide inputs for the High-Level Expert Forum;
- (c) organization of a High Level Expert Forum on “Technology Transfer and IP Common Challenges – Building Solutions”;
- (d) creation of a Web Forum on “Technology Transfer and IP: Common Challenges Building Solutions”; and
- (e) incorporation of any outcome resulting from the above activities into the WIPO programs, after consideration by the CDIP and any possible recommendation by the CDIP to the General Assembly.

54. The detailed description of the above five components are found in a project paper approved by the CDIP at its eighth session (document CDIP/8/7). According to the project paper, the Regional Consultation Meetings will represent a forum for exchange of expert views on the issues related to contemporary technology transfer challenges and to define suggestions and recommendations for their adjustment to the development goals of the United Nations and the world, in particular developing and least developed countries (LDCs). It will involve accredited organizations and new partners involved in all aspects of technology transfer in order to explore new and more efficient mechanism for IP collaboration and technology transfer. In prior consultations with Member States, the first two regional meetings will be organized in Singapore, Republic of Singapore on July 16 and 17, 2012, and Algiers, Algeria, in October 2012; the three others will be planned in 2013.

55. With respect to peer-reviewed analytic studies, the project paper identifies, in particular, studies on the following aspects:

- (a) a series of economic studies on IP and International Technology Transfer; these studies would focus on areas that have received less attention in the available economic literature and on identifying possible obstacles and suggesting possible ways in which technology transfer could be enhanced;
- (b) a study that will provide information on existing intellectual property right (IPR) related policies and initiatives found in the public and private sector of developed countries to promote technology transfer and R&D capacity in developing countries, including international IP standards pertaining to technology transfer;

- (c) a series of case studies of cooperation and exchange between R&D institutions in developed countries and in developing countries as well as a database of links to national institutions that already offer technology transfer opportunities or may offer such possibilities;
- (d) a study on Favorable Incentive Policies for businesses to become partners in technology transfer processes at the national and international level;
- (e) an analysis of transfer of technologies issues relating to existing and emerging issues of concern to developing countries and LDCs in order to identify their needs in certain specific regions or sub-regions;
- (f) a series of studies looking at alternatives for R&D efforts and support to innovation aside from the currently existing patent system; and
- (g) a review of the patent landscaping reports being prepared under the Project on “Developing Tools for Access to Patent Information” (document CDIP/4/6), with a view to identifying the possibilities of international transfer of technology in these areas; similar analysis of patent landscaping from the viewpoint of technology transfer in the areas of food and agriculture should also be undertaken.

56. These studies should not make existing internal or external efforts redundant, in particular, studies conducted in other WIPO committees such as the SCP. The above studies will be delivered in the first quarter of 2013.

57. Following the finalization of the six studies at the end of the first quarter in 2013, a Concept Paper will be provided as the basis for discussions at the High Level Expert Forum by the third quarter of 2013. The High Level Expert Forum will have the form of an international conference to initiate discussions on how, within WIPO’s mandate, to further facilitate access to knowledge and technology for developing countries and LDCs, including in emerging areas as well as other areas of special interest for developing countries, taking into account recommendations 19, 25, 26 and 28 (food, agriculture and climate change). The Forum would provide a framework for an open dialogue among independent experts who would make suggestions on possible measures for promoting technology transfer. The Forum is expected to be held in the third quarter of 2013.

58. Further, a Web Forum on “Technology Transfer and IP: Common Challenges - Building Solutions” will be launched in the first quarter of 2013 within the framework of the portal to be created under the Project on Innovation and Technology Transfer Support Structure for National Institutions. This Web Forum is intended to provide an interactive platform for exchange of experiences on technology transfer as well as feedback on the project process and studies.

59. The final stage of the Project is the incorporation of any outcome resulting from the above activities into the WIPO programs, after consideration by the CDIP, and the provision of any possible recommendation by the CDIP to the General Assembly.

60. The current status of the Project includes the preparation of the logistics for the two regional consultation meetings for 2012 as well as the commissioning of the six technology transfer studies. The revised project paper with redistributed budget and updated timeline will be made available for the ninth Session of the CDIP.

Relevant PCT Roadmap Recommendations

61. The recommendation set out in paragraph 207 as endorsed by the Working Group at its third session (see paragraph 129 of document PCT/WG/3/14 Rev.) recommends that the International Bureau works with national Offices to deliver effective patent status information for both PCT and non-PCT applications and subsequently granted patents (including information concerning opposition of patents, revocation and lapse of patents, issuance of compulsory licenses, etc) in order to integrate such information into a search system allowing technology which has fallen into the public domain to be identified more readily. The recommendation also indicates that the International Bureau will undertake to set up a pilot project to develop an integrated system for automatic updating of the status of the application by linking it with national offices/organizations.

62. The Feasibility Study undertaken in the framework of the Development Agenda and its follow-up contributes towards the realization of this recommendation and the further dissemination of patent information. The International Bureau also makes available and searchable in PATENTSCOPE the national phase status information relating to international applications, providing links to online registers or file inspection systems of other Offices wherever possible.

63. The recommendation set out in paragraph 211 of document PCT/WG/3/2 endorsed by the Working Group at its third session aims to improve the availability of patent status information by introducing a system whereby applicants can indicate on a register their willingness to license their potential patents. A new feature to implement this recommendation has been added to PATENTSCOPE in January 2012 which allows applicants to indicate their willingness to license the invention and information on any licensing terms. Licensing indications can be submitted electronically or by surface mail or fax at any time from the filing of the international application until the expiration of the period of 30 months from the priority date. The licensing indication is reflected in the bibliographic data of the application with a link to allow third parties to access its content, but the indication is not part of the published international application itself. The existence of licensing indications has also been added to the list of search criteria on PATENTSCOPE.

Further Work

64. Building on the “Study on Patents and the Public Domain”, the CDIP approved a “Project on Patents in the Public Domain” (document CDIP/7/5/Rev.) at its eighth session in November 2011. This project will study the effect of the patent system in the context of the public domain at the micro level, i.e. how do individual actors of the patent system actually behave in making choices over using, or not using, exclusive patent rights, and how those behaviors affect the public domain. In particular, the project aims to enhance understanding of the impact of certain enterprise practices in the field of patents on the public domain and the important role of a rich and accessible public domain.

65. The follow up to the Feasibility Study on the Establishment of National Patent Register Databases and Linkage to PATENTSCOPE is currently underway. In this regard, the International Bureau is developing the global portal for accessing national patent online registers and enhancing the provision of supplementary information, in particular, on how to retrieve patent legal status data where registers cannot be accessed online. Meanwhile, the WIPO Patent Information Service (WPIS) offers support in retrieving such data for selected patents, for example, the legal status of certain key patents covering HIV medicines and provided to the Medicines Patent Pool (MPP), in collaboration with member Offices.

66. The preparation of patent landscape reports will continue to be implemented under the 2012-13 biennium and be promoted through various channels, such as the web sites of the partner institutions for different reports, and presentations at different events. WIPO will also seek to involve further institutions as partners for selected reports addressing technologies and issues relevant for them.

CONCLUSION

67. The activities in the field of *disseminating technical information and facilitating access to technology* set out above provide examples of the International Bureau's work towards realizing the PCT's informational aims. The most tangible product of this work is, no doubt, the PATENTSCOPE database, providing online access not only to all published PCT applications but also to many other patent collections and other information facilitating access to technology. PATENTSCOPE makes available much of the information envisaged by the patent information services listed in Article 50, free of charge, going beyond the original expectations by the founders of the PCT of being able to furnish these services only "at a cost".

68. This section has also highlighted the basis in the Development Agenda for many of the current projects undertaken by the International Bureau towards disseminating technical information and facilitating access to technology. Progress on these projects is regularly reported to the Committee on Development and Intellectual Property. Several of the Development Agenda recommendations related to this work include aims similar to those recited in the Preamble to the PCT on furthering the accessibility to technical information and technology in developing countries. Finally, continued implementation of the recommendations to improve the functioning of the PCT system endorsed by the Working Group at its third session in terms of disseminating technical information and facilitating access to technology will further improve the functioning of the PCT in this respect.

SUFFICIENCY OF DISCLOSURE

69. The recommendation set out in paragraph 211*bis* (see paragraph 129 of document PCT/WG/3/14 Rev.; that recommendation was treated as having been inserted into document PCT/WG/3/2 as paragraph 211*bis*) suggested that the International Bureau should also, in addition to reviewing and assessing how well the PCT system has been functioning in terms of realizing its aim of disseminating technical information and facilitating access to technology, propose recommendations and suggestions on how to improve the realization of that aim, including on sufficiency of disclosure. Recommendations as to further work towards improved dissemination of technical information and facilitating access to technology are set out in the previous part of this document. This part deals with the issue of sufficiency of disclosure and explores ways in which the PCT might be able to contribute further to the examination by national Offices of international applications in the national phase with regard to their compliance with sufficiency of disclosure requirements under applicable national laws.

PRINCIPLE OF DISCLOSURE IN PATENT APPLICATIONS

70. The patent system is based around the grant of an exclusive right to the patent holder to prevent others from exploiting the patented invention. In return for the exclusive right, the patent holder is required to disclose information relating to the invention. The requirement for a patent applicant to disclose the invention sufficiently is therefore an essential element in the patent system to balance the interests of the applicant with those of society. As described by

Tim Roberts (Council Member, The Chartered Institute of Patent Attorneys, London) during his presentation at the Open Forum on the draft Substantive Patent Law Treaty, which took place in Geneva from March 1 to 3, 2006²:

“What is the purpose of the description in a patent specification?”

“We grant exclusive rights for an invention when we believe that the applicant has invented something new and useful. Part of the reason for doing so is that we think the applicant has something worthwhile to teach us, which we might not otherwise learn. The disclosure of the patent specification is the teaching.

“It teaches the public how to operate the invention. This is an important part of the consideration the applicant gives for 20 years of exclusive rights. Even before the patent expires, the public has use of the information: for private purposes, for experiment (in some degree), and in any way that falls outside the scope of the patent claims”.

71. The above statement focuses on the balance sought within an individual country’s patent system. In the context of the PCT, the statement appears equally valid. It is also important to note that, in contrast to patent protection which is territorial, the disclosure is global. The potential to use the teaching in a patent specification therefore extends to all countries, regardless of whether patent protection is sought or granted in the country.

72. In recent years, the importance of the disclosure function in the patent system has increased as a result of the development of information and communication networks such as the Internet. In addition to providing teaching to the skilled person to reproduce and further develop the invention in a patent specification, these new communication channels have been able to facilitate the dissemination of technical information and knowledge in published patent applications, to the wider benefit of the public.

DISCLOSURE REQUIREMENT AS A SUBSTANTIVE REQUIREMENT OF PATENTABILITY UNDER NATIONAL AND REGIONAL LAWS

73. Sufficiency of disclosure as a substantive requirement for the grant of a patent is one of the cornerstones of the patent system. Article 29.1 of the TRIPS Agreement describes the minimum standard to be applied by all WTO members in this context:

“Members shall require that an applicant for a patent 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 and may require the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date or, where priority is claimed, at the priority date of the application.”

74. Consequently, the provisions of national and regional patent laws dealing with the general principle of sufficiency of disclosure are largely harmonized, as can be seen from the examples of provisions under the various national or regional laws of countries set out in Annex II to this document (that Annex reproduces the relevant parts of the Annex to document SCP/17/2, presented to the seventeenth session of the Standing Committee on the Law of Patents (SCP), held in December 2011).

² Details of this meeting including the program and presentations from the speakers can be found at: http://www.wipo.int/meetings/en/2006/scp_of_ge_06/index.html

75. However, despite the harmonization of the provisions of national and regional patent laws dealing with the general principle of sufficiency of disclosure, there continues to be differences in the interpretation of those provisions and of national or regional practices, and consequently of the requirements to be complied with by applicants under the various national or regional laws. For example, while it is generally considered that the disclosure must enable “a person skilled in the art” to carry out the invention, there is no uniform practice on how to define this “person skilled in the art”, raising issues such as whether a person skilled in the art should be determined in the country concerned, the extent of his knowledge, the amount of experimentation he could be expected to undertake in order to perform the invention, or the date upon which the knowledge of the skilled person should be determined. These factors impact on the determination of what disclosure is considered to be “sufficient and complete”, and when the applicant needs to fulfill this requirement.

76. Moreover, national and regional laws differ over the requirement to disclose the “best mode” for carrying out the invention known to the applicant or inventor, both in terms of the inclusion of this requirement and also, among those states requiring the “best mode” in the patent application, on the consequences of non-disclosure on the validity of a granted patent. In this context, it should be noted that Article 29.1 of the TRIPS Agreement provides for the option of WTO members requiring the applicant to indicate the best mode for carrying out the invention known to the inventor at the filing date, or where priority is claimed, at the priority date of the application; consequently, some countries require the best mode to be indicated in the application, while other countries allow any mode for carrying out the invention (see Annex II to this document).

77. Noting that there is no universally agreed interpretation of the conditions to be fulfilled for an invention to be “sufficiently disclosed”, resulting in a variety of practices in different jurisdictions, discussions by Member States on the possible harmonization of those conditions have taken place but, to date, have not resulted in an agreed way forward. The issue of sufficiency of disclosure was included in the draft Substantive Patent Law Treaty (SPLT) as discussed by the Standing Committee of the Law of Patents (SCP) from its fifth session in May 2001 to its tenth session in May 2004. Article 10 (“Enabling Disclosure”) of the draft SPLT, as presented to the tenth session (document SCP/10/4), reads as follows:

“(1) [General Principle] The application shall disclose the claimed invention in a manner sufficiently clear and complete for that invention to be carried out by a person skilled in the art. The disclosure of the claimed invention shall be considered sufficiently clear and complete if it provides information which is sufficient to allow that invention to be made and used by a person skilled in the art on the filing date, without undue experimentation [as prescribed in the Regulations].”

“(2) [Parts of Application to be Taken Into Account for Assessing Disclosure] For the purposes of assessing sufficiency of disclosure under paragraph (1), the disclosure contained in the description, claims and drawings, as amended and corrected, shall be taken into account.”

78. The factors to be considered when assessing undue experimentation are listed in Rule 10 of the draft Regulations under the SPLT (document SCP/10/5), with further details given in the Practice Guidelines under the SPLT (document SCP/10/6, paragraphs 118 to 125). For ease of reference, the text of Article 10 of the draft SPLT, of Rule 10 of the draft Regulations under the SPLT, and the text of the relevant Practice Guidelines under the SPLT are reproduced in Annex III to this document.

79. The discussions by Member States during the tenth session of the SCP show the divergent views on these draft provisions. With regard to paragraph (1) of Article 10, some delegations questioned the use of the expression “made and used” and requested the International Bureau to study the matter and to explore possible alternative wording, such as “carried out”. There were also different opinions on whether or not “a person skilled in the art” should be expressly stated to be a person “in the country of grant”. Furthermore, a suggestion was made to state that the invention should be made and used “over the whole of its claimed range”. With regard to paragraph (2) of Article 10, discussions focused on whether the provisions should expressly state that deletions should not be taken into account for the purposes of disclosure. Furthermore, opinions were split on whether contents of Rule 10 should be moved to the draft Practice Guidelines (see document SCP/10/6, paragraphs 150, 155 and 159, reproduced in Annex III to this document).

DISCLOSURE REQUIREMENT IN THE CONTEXT OF THE PCT

80. At the outset, it is recalled that the PCT focuses on procedures, preserving the Contracting States’ right to prescribe substantive conditions of patentability. It is a procedural Treaty, making available a filing tool for applicants for foreign patent filings and a tool for effective processing of patent applications by Offices of PCT Member States willing to exploit work done by others. The Treaty deals with requirements relating to form and contents of international applications. It does not provide for requirements of substantive patent law. Rather, it provides tools (the international search report and international preliminary report on patentability) which allow Contracting States to deal more effectively with the requirements of their substantive national or regional patent laws.

81. To the extent that the PCT deals with issues relating to requirements of substantive patent law, for example, with the patentability criteria set out in Article 33(1) (novelty, inventive step (non-obviousness) and industrial applicability), it does so merely for the purposes of establishing preliminary and non-binding opinions on patentability, for the benefit of the designated and elected Offices willing to exploit those tools, and for the benefit of the applicant and third parties. As expressly stated in Article 33(5), any Contracting State may apply additional or different criteria for the purposes of deciding whether, in that State, the claimed invention is patentable or not.

82. The same principle applies in relation to the issue of sufficiency of disclosure. Both the Treaty and the Regulations under the Treaty, as well as the PCT International Search and Preliminary Examination Guidelines, contain specific provisions dealing with the issue of sufficiency of disclosure in international patent applications. However, the purpose of these provisions is for establishing preliminary and non-binding opinions on patentability which can then be used by designated and elected Offices willing to exploit those opinions in the national phase when examining applications with regard to their compliance with sufficiency of disclosure requirements under applicable national laws.

83. It is in this context that the requirements for an applicant to disclose the invention sufficiently in an international application as set out the Treaty and the Regulations have to be seen. Article 5 states that “[t]he 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 specifies the requirements any description has to comply with, such as specifying the technical field to which the invention relates; indicating background art known to the applicant regarded as useful for the understanding, searching and examination of the invention; disclosing the invention as claimed in such terms that the technical problem and its solution can be understood; briefly describing the figures in the drawings; and, when not obvious from the description or nature of the invention, indicating 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.

84. Rule 5 further specifies that the description shall “(v) set forth at least the best mode contemplated by the applicant for carrying out the invention claimed ...”, adding that “... 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”. This therefore provides the option to the applicant of not disclosing the best mode when protection is only sought in States without this requirement.

85. Further details of the application of the sufficiency of disclosure requirement are included in the PCT International Search and Preliminary Examination Guidelines. Paragraphs 4.10 to 4.13 provide guidance on the best mode requirement, on the description of the invention by its structure and function, and on sufficiency of disclosure. Paragraphs 5.45 to 5.58 discuss the requirements in Article 5 for clear and complete disclosure of the claimed invention in the description. Paragraph 5.58 clarifies that compliance with the sufficiency requirement (Article 5) and the requirement for support for the claims in the disclosure (Article 6) should be determined independently, noting that in some cases, where the claim is too broad to be supported by the description and drawings, the disclosure may also be insufficient to enable a person skilled in the art to carry out the claimed invention, resulting in non-compliance with both requirements. Concerning the requirements for support for the claims, the nineteenth session of the Meeting of International Authorities under the PCT, held in Canberra from February 8 to 10, 2012, agreed that the PCT International Search and Preliminary Examination Guidelines should be amended to make clear that International Authorities should make observations on lack of support for the claims (paragraphs 12 and 13 of document PCT/MIA/19/13).

86. Given the substantial differences in the interpretation of provisions in national and regional laws dealing with the issue of sufficiency of disclosure and of national or regional practices, there is an inherent need for PCT applicants to give the most complete explanation that might be required by the national law of any Contracting State in which protection is sought. While the PCT provisions dealing with the issue of sufficiency of disclosure appear flexible enough to accommodate that need, giving the most complete explanation “to cover all bases” by actively seeking additional background information for the person less skilled in the art carries its own risk, in that it may become more difficult to determine the actual invention in an international application from amongst an increased volume of text describing the background art.

FURTHER WORK IN THE CONTEXT OF THE PCT

87. Noting, on the one hand, the divergent interpretation and practical application of the sufficiency of disclosure requirement among Member States in the context of their national/regional laws and, on the other hand, the specific context in which sufficiency of disclosure requirements are being dealt with under the PCT, the question arises as to whether, and if so, how—pending agreement by Member States on how to come closer on sufficiency of disclosure requirements—the PCT can better contribute to the examination by national Offices of international applications in the national phase with regard to their compliance with sufficiency of disclosure requirements under applicable national laws.

88. The International Bureau did not receive, in reply to Circular C. PCT 1295, dated March 8, 2011, inviting Offices to submit proposals as to how to improve the usefulness of international search and preliminary examination reports, any indications that the way in which the issue of sufficiency of disclosure is being addressed by International Authorities in the international preliminary reports on patentability was an area of concern and in need of improvement.

89. This notwithstanding, possible areas of work to be considered in this context include:

- (a) a review of PCT Rule 5 with a view to further specifying the manner and order in which the description of international applications is to be drafted; or

(b) a review of the PCT International Search and Preliminary Examination Guidelines with the aim of modifying the instructions given to International Searching and Preliminary Examination Authorities on how to consider the issue of sufficiency of disclosure, so as to improve consistency in the way in which International Authorities deal with this issue, thereby increasing the usefulness of the international reports for designated and elected Offices.

90. It should, however, be noted that a successful review of either PCT Rule 5 or the PCT International Search and Preliminary Examination Guidelines on sufficiency of disclosure would require national Offices to provide additional and specific information on the way in which their national requirements on sufficiency differ from the way in which that issue is currently being addressed under the PCT and commented on in written opinions and international preliminary reports on patentability by International Authorities.

SUFFICIENCY OF DISCLOSURE IN THE CONTEXT OF THE PCT THIRD PARTY OBSERVATION SYSTEM

91. The recommendation set out in paragraph 211*bis* (see paragraph 129 of document PCT/WG/3/14 Rev.; that recommendation was treated as having been inserted into document PCT/WG/3/2 as paragraph 211*bis*) further included a specific suggestion that “appropriate changes should be made in the proposed form for third party observations (document PCT/WG/3/6 Annex 2, p.2), including “sufficiency of disclosure” aspects, for discussion at the next session”.

92. In this context, it is to be noted that, at its third session in 2010, the Working Group agreed that comments by third parties via the new PCT Third Party Observations System would initially be limited to citation of relevant prior art and an indication of how that prior art was relevant to the patentability criteria of novelty and inventive step. However, the system would be developed so as to permit fields for comments on other issues, such as clarity and sufficiency of disclosure, to be added at a later stage when experience had been gained with prior art references (see paragraph 150 of document PCT/WG/3/14 Rev.).

93. At the fourth session of the Working Group held in 2011, the International Bureau reported on how the PCT Third Party Observations System will commence in the form of an open-ended trial or pilot, to be reviewed at various stages over time (see paragraph 28 of document PCT/WG/4/7):

“28. The use of the system will be open-ended rather than there being a specifically limited trial period. However, the use of the system will be reviewed at various stages to determine whether it has proved useful or whether changes are required. The International Bureau will continually monitor use of the system through the early stages and may close the system down if significant problems arise in operation. The International Bureau will report to the PCT Working Group on the use of the system whenever appropriate and in any case at the first session following the system having been operational for a year. The International Bureau will welcome feedback from any Office, State or interest group on the use of the system at any time once it is available.”

94. During the discussions at the same session of the Working Group, the Secretariat again observed (see paragraph 141 of document PCT/WG/4/17):

“ ... that it had been agreed at the previous session that the initial system should be limited to comments on novelty and inventive step. However, the system would be implemented in such a way that it could easily be extended to accepting observations on any other subject if the Member States wished to do this following a review of the results of the pilot system. ...”

95. In view of the agreement by Member States on the way in which the PCT Third Party Observations System should be “rolled out”, it would appear premature at this stage, as had been suggested in the recommendation set out in paragraph 129 of document PCT/WG/3/14 Rev., to make any proposals for changes to the form for third party observations on sufficiency of disclosure aspects.

96. As is reported in document PCT/WG/5/7, the PCT Third Party Observations System is planned to go live on July 1, 2012, permitting observations on any international applications for which the time limit of 28 months from the priority date has not expired by that date. As stated before (see paragraph 80, above), the use of the system will be open-ended rather than there being a specifically limited trial period. However, the use of the system will be reviewed at various stages to determine whether it has proved useful or whether changes are required. The International Bureau will report to the Working Group on the use of the system whenever appropriate and in any case at the first session following the system having been operational for one year. In this context, the International Bureau will welcome feedback from any Office, State or interest group on the use of the system at any time, once it is available.

97. The Working Group is invited to note the contents of the present document.

[Annex I follows]

DEVELOPMENT AGENDA RECOMMENDATIONS

The following Development Agenda recommendations are cited in this study. The complete list of all 45 Development Agenda recommendations adopted by the WIPO General Assembly in 2007 can be found in document A/43/16, pages 151 and 152.

8. Request WIPO to develop agreements with research institutions and with private enterprises with a view to facilitating the national offices of developing countries, especially LDCs, as well as their regional and sub regional intellectual property organizations to access specialized databases for the purposes of patent searches.

16. Consider the preservation of the public domain within WIPO's normative processes and deepen the analysis of the implications and benefits of a rich and accessible public domain.

19. To initiate discussion on how, within WIPO's mandate, to further facilitate access to knowledge and technology for developing countries and LDS, to foster creativity and innovation and to strengthen such existing activities within WIPO.

20. To promote norm setting activities related to intellectual property (IP) that support a robust public domain in WIPO's Member States, including the possibility of preparing guidelines which could assist interested Member States in identifying subject matters that have fallen into the public domain within their respective jurisdictions.

24. To request WIPO, within its mandate, to expand the scope of its activities aimed at bridging the digital divide, in accordance with the outcomes of the World Summit on the Information Society (WSOS) also taking into account the significance of the Digital Solidarity Fund (DSF).

25. To explore IP related policies and initiatives necessary to promote the transfer and dissemination of technology, to the benefit of developing countries and to take appropriate measures to enable developing countries to fully understand and benefit from different provisions, pertaining to flexibilities provided for in international agreements, as appropriate.

26. To encourage Member States, especially developed countries, to urge their research and scientific institutions to enhance cooperation and exchange with research and development (R&D) institutions in developing countries, especially LDCs.

28. To explore supportive IP related policies and measures Member States, especially developed countries, could adopt for promoting transfer and dissemination of technology to developing countries.

30. WIPO should cooperate with other intergovernmental organizations to provide developing countries, including LDCs, upon request, advice on how to gain access to and make use of IP-related information on technology, particularly in areas of special interest to the requesting parties.

31. To undertake initiatives agreed by Member States, which contribute to the transfer of technology to developing countries, such as requesting WIPO to facilitate better access to publicly available patent information.

[Annex II follows]

(5) Sufficiency of Disclosure

Country	Sufficiency of Disclosure
Albania	An application shall disclose the invention in a clear manner and contain the necessary information for it to be carried out by a person skilled in the art.
Algeria	The description shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Andorra	The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Argentina	<p>The application shall:</p> <ol style="list-style-type: none"> 1. describe the invention with sufficient clarity and completeness for it to be carried out by an expert with average knowledge in the field concerned; 2. include a clear and accurate account of the best known method of carrying out and implementing the invention; 3. indicate the materials and components used.
Armenia	The description shall set out the invention in sufficient detail for it to be carried out.
Australia	<p>An application shall:</p> <ol style="list-style-type: none"> 1. describe the invention fully; 2. include the best method known to the applicant of performing the invention.
Austria	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Azerbaijan	The description shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Bahrain	<p>The description shall:</p> <ol style="list-style-type: none"> 1. be sufficiently clear and complete; 2. be supported adequately.
Barbados	<p>The description shall:</p> <ol style="list-style-type: none"> 1. be sufficiently clear and complete to enable the invention to be evaluated and tested by a person having ordinary skill in the art; 2. indicate at least one mode known to the applicant for using the invention.
Belarus	The description shall disclose the claimed invention in sufficient detail for it to be carried out.
Belgium	The description shall be sufficiently clear and complete for it to be carried out by a person skilled in the art.
Belize	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner which is sufficiently clear and complete to permit a person having ordinary skill in the art to carry out the invention; 2. indicate at least one mode known to the applicant in which the invention can be carried out.

Country	Sufficiency of Disclosure
Bolivia (Plurinational State of)	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete to be understood and for a person skilled in the technical field to be able to carry it out; 2. disclose the best method known to the applicant of carrying out the invention; 3. include the following information: <ol style="list-style-type: none"> (a) the area of technology to which the invention relates and the previous technology known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability. <p>An application shall disclose the invention in a manner sufficiently clear and precise for it to be carried out by a person skilled in the art.</p>
Bosnia and Herzegovina	
Brazil	<p>An application shall:</p> <ol style="list-style-type: none"> 1. clearly and sufficiently describe the invention, so as to permit its reproduction by a person skilled in the art; 2. indicate, where applicable, the best way of carrying it out.
Bulgaria	<p>The description shall contain:</p> <ol style="list-style-type: none"> 1. a clear and adequate disclosure of the essential technical features of the invention and its advantages, in such manner that the invention may be carried out by a person skilled in the art; 2. at least one example of an embodiment of the invention in support of its industrial applicability.
Canada	<p>A specification shall correctly and fully describe the invention and its operation or use in sufficiently full, clear, concise and exact terms to enable any person skilled in the art to carry it out.</p>
Chile	<p>The description shall be sufficiently clear and complete for an expert or a person skilled in the art to carry out the invention without need for any other information.</p>
China	<p>The description shall be sufficiently clear and complete to enable a person skilled in the relevant field of technology to carry it out.</p>
Colombia	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete to be understood and for a person skilled in the technical field to be able to carry it out; 2. disclose the best method known to the applicant of carrying out the invention; 3. include the following information: <ol style="list-style-type: none"> (a) the area of technology to which the invention relates and the previous technology known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability. <p>The description shall specify the invention in a sufficiently clear and complete manner that a person skilled in the art can carry it out and shall in particular indicate the best way the applicant knows how to carry it out, giving, if possible, one or more concrete examples and identifying, if applicable, that one which would give the most satisfactory results in terms of industrial exploitation.</p>
Costa Rica	
Croatia	<p>The application shall disclose the invention in a manner sufficiently clear and precise for it to be carried out by a person skilled in the art.</p>

Country	Sufficiency of Disclosure
Cyprus	The description shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Czech Republic	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Denmark	The description shall be sufficiently clear to enable a person skilled in the art to carry out the invention.
Dominica	The description shall: (a) be sufficiently clear to enable a person having ordinary skill in the art to carry out the invention; (b) indicate at least one mode for carrying out the invention.
Dominican Republic	The description shall: 1. disclose the invention in a manner sufficiently clear and complete for it to be assessed and for a person skilled in the corresponding art to carry out the invention; 2. indicate the following information: (a) the best mode known to the applicant for carrying out or put into practice the invention; (b) the prior art known to the applicant; (c) the technical problem and solution the invention provides, its advantages in relation to the earlier technology.
Ecuador	The description shall: 1. disclose the invention in a manner sufficiently clear and complete to be understood and for a person skilled in the technical field to be able to carry it out; 2. disclose the best method known to the applicant of carrying out the invention; 3. include the following information: (a) the area of technology to which the invention relates and the previous technology known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability.
Egypt	The description shall include: 1. a full statement of the subject matter of the invention; 2. the best way to enable an expert person to carry it out.
El Salvador	The description shall: 1. disclose the invention in a manner sufficiently clear and complete for it to be evaluated and for a person skilled in the art to carry it out; 2. state: (a) the area of technology to which the invention relates and the prior art known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and the manner in which it may be produced or used in any activity; (c) the best method known to the applicant of carrying out the invention.
Estonia	The description shall disclose the subject matter of the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Finland	The description shall be sufficiently clear to enable a person skilled in the art to carry out the invention.

Country	Sufficiency of Disclosure
France	The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Georgia	The description shall be sufficiently complete to enable the skilled person in the art to carry out the invention.
Germany	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Ghana	The description shall: 1. disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art; 2. indicate at least one mode known to the applicant for carrying out the invention.
Greece	The description shall be sufficient to enable the invention to be carried out by a person skilled in the art.
Guatemala	The description shall disclose: 1. the invention in a sufficiently clear and complete manner so that it may be carried out by a person skilled in the art; 2. the best way known to the applicant for carrying out the invention.
Honduras	The description shall disclose the invention in a manner sufficiently clear and complete for it to be evaluated, an opinion having been received from a person skilled in the art.
Hungary	An application shall disclose the invention in a manner sufficiently clear and detailed for it to be carried out by a person skilled in the art.
Iceland	The description shall be sufficiently clear to enable a person skilled in the art to carry out the invention.
India	An application shall: 1. fully and particularly describe the invention and its operation or use and the method by which it is to be performed; 2. disclose the best method of performing the invention which is known to the applicant.
Ireland	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Israel	An application shall describe the invention in a manner which enables it to be performed by a skilled person to perform it.
Italy	The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by any person skilled in the art.
Japan	The application shall describe the invention in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art.
Jordan	The description shall: 1. disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person having ordinary skill in the art; 2. state the best mode known to the applicant for carrying out the invention.
Kenya	The description shall: 1. disclose the invention in such full, clear, concise and exact terms as to enable any person having ordinary skills in the art to make use and to evaluate the invention; 2. include at least one mode for carrying out the invention.

Country	Sufficiency of Disclosure
Kyrgyz Republic	The description shall disclose the invention in a manner sufficiently complete for it to be carried out by a person skilled in the art.
Latvia	<p>The description of the invention shall:</p> <ol style="list-style-type: none"> 1. be clear and complete enough for a specialist to implement the invention without supplementary inventive work; 2. describe the technical level, as known to the applicant.
Liechtenstein	An application shall describe the invention in a manner which enables it to be carried out by a man skilled in the art.
Lithuania	An application shall disclose the invention in such full and clear terms as to enable any person skilled in the art to use the invention.
Luxembourg	The patent application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Malaysia	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in such terms that it can be understood and in a manner sufficiently clear and complete for the invention to be evaluated and to be carried out by a person having ordinary skill in the art, and state any advantageous effects of the invention with reference to the background art; 2. briefly describe the best mode contemplated by the applicant for carrying out the invention; 3. specify: <ol style="list-style-type: none"> (a) the technical field to which the invention relates; (b) the background art; (c) the way in which the invention is industrially applicable and can be made and used.
Malta	The application 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.
Mauritius	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner which is sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art; 2. indicate at least one mode known to the applicant for carrying out the invention.
Mexico	The description of the invention shall be sufficiently clear and complete to be fully understood and where appropriate to serve as a guide for a person with average skill in the art to make it; it shall also mention the best method known to the applicant of carrying out the invention when this is not clear from the description thereof.
Moldova (Republic of)	The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Mongolia	Content of description not prescribed.
Morocco	<p>The description:</p> <ol style="list-style-type: none"> 1. should disclose the invention in a manner sufficiently clear and complete for the invention to be carried out, without undue experimentation, by a person skilled in the art at the date of filing. A claimed invention is sufficiently substantiated by disclosed information where such information reasonably demonstrates to a person skilled in the art that the applicant was in possession of the claimed invention at the date of filing the patent application. 2. shall comprise: <ol style="list-style-type: none"> (a) an indication of the technical field to which the invention relates;

Country	Sufficiency of Disclosure
	<p>(b) an indication of the prior art known to the applicant which may be considered useful for understanding the invention;</p> <p>(c) a statement of the invention, as characterized in the claims, to enable the technical problem and solution the invention provides to be understood; its advantages in relation to the prior art, where applicable;</p> <p>(d) a brief description of the drawings, where they exist;</p> <p>(e) a detailed statement containing at least one embodiment of the invention; the statement should contain in principle examples and references to the drawings, where they exist;</p> <p>(f) an indication of the industrial applicability of the invention, where such applicability is not obvious from the description or the nature of the invention.</p>
Mozambique	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person skilled in the art; 2. indicate at least one way of carrying it out.
Netherlands	<p>The description of the invention shall be clear and complete and be of such a nature as to enable a person skilled in the art to understand it and carry it out the invention.</p>
New Zealand	<p>An application shall:</p> <ol style="list-style-type: none"> 1. particularly describe the invention and the method by which it is to be performed; 2. disclose the best method of performing the invention known to the applicant.
Nicaragua	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete for the invention to be understood and carried out by a person skilled in the art; 2. include the following information: <ol style="list-style-type: none"> (a) the area of technology to which the invention relates and the prior art known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability; (c) the best method of carrying out the invention known to the applicant.
Nigeria	<p>The description shall disclose the relevant invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.</p>
Norway	<p>The description shall be sufficiently clear and complete to enable a person skilled in the art to carry out the invention.</p>
Oman	<p>The description shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art.</p>
Pakistan	<p>The specification shall:</p> <ol style="list-style-type: none"> 1. fully and particularly describe the invention and the methods by which it is to be performed; 2. disclose the invention which is known to the applicant and for which he is entitled to claim protection; 3. end with a claim or claims concisely defining the scope of the invention for which protection is claimed.
Panama	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete for the invention to be evaluated and carried out by a person skilled in the art; 2. disclose the best method of carrying out the invention known to the applicant;

Country	Sufficiency of Disclosure
	<p>3. include the following information: (a) the area of technology to which the invention relates and the prior art known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability.</p>
Papua New Guinea	<p>The description shall: 1. disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art; 2. indicate the best method known to the applicant for carrying out the invention.</p>
Peru	<p>The description shall: 1. disclose the invention in a manner sufficiently clear and complete to be understood and for a person skilled in the technical field to be able to carry it out; 2. disclose the best method known to the applicant of carrying out the invention; 3. include the following information: (a) the area of technology to which the invention relates and the previous technology known to the applicant; (b) the technical problem and solution the invention provides, its differences and advantages in relation to the earlier technology and its industrial applicability.</p>
Philippines	<p>The application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.</p>
Poland	<p>The description shall: 1. disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art; 2. specify the technical field to which the invention relates and the background art known to the applicant; 3. present the invention in a detailed manner, and indicate the way(s) of carrying it out.</p>
Portugal	<p>The description shall indicate in a clear and concise manner with no reservations or omissions everything of which consists the invention, including at least one detailed explanation of how a person skilled in the art can carry it out.</p>
Republic of Korea	<p>The description shall describe the invention clearly and in detail so that a person with ordinary skill in the art to which the invention pertains may easily work the invention.</p>
Romania	<p>An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.</p>
Russian Federation	<p>The description shall disclose the claimed invention in sufficient detail for it to be carried out.</p>
Saint Lucia	<p>An application shall disclose the invention in a manner which is sufficiently clear and complete for the invention to be carried out by a person skilled in the art.</p>
Serbia	<p>An application shall disclose the invention in a manner that is sufficiently clear and complete for the invention to be carried out by a person skilled in the art.</p>
Singapore	<p>An application shall disclose the invention in a manner which is clear and complete for the invention to be performed by a person skilled in the art.</p>

Country	Sufficiency of Disclosure
Slovak Republic	<ol style="list-style-type: none"> 1. An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. 2. The description shall contain the following: <ol style="list-style-type: none"> (a) the technical field which the invention relates and the existing state of the art; (b) the nature of the invention, its advantages or, possibly, disadvantages as against the existing state of the art and its methods of industrial application; (c) examples of performing the invention.
Slovenia	<ol style="list-style-type: none"> 1. An application shall describe the invention with sufficient clarity and detail to enable a person skilled in the art to apply it in a given field. 2. The description shall present the problem to be solved, the prior art and its deficiencies, and the solution to the problem.
South Africa	<p>An application shall:</p> <ol style="list-style-type: none"> 1. fully describe and ascertain the invention and the manner in which it is to be performed; 2. disclose the best method of performing the invention known to the applicant.
Spain	<p>The invention shall be described in the patent application in a sufficiently clear and comprehensive manner to enable a person skilled in the art to carry it out.</p>
Sri Lanka	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner sufficiently clear and complete for the invention to be evaluated, and to be carried out by a person having ordinary skill in the art; 2. indicate the best mode known to the applicant for carrying out the invention.
Sweden	<p>The description shall:</p> <ol style="list-style-type: none"> 1. be sufficiently clear for a person skilled in the art to carry out the invention; 2. indicate how the invention can be industrially exploited.
Switzerland	<p>The application shall disclose the invention in such a way that a person skilled in the art may carry it out.</p>
Syrian Arab Republic	<ol style="list-style-type: none"> 1. An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art. 2. Indicate the best way of carrying it out. 3. The technical problem and solution the invention provides its differences and advantages in relation to the earlier technology and its industrial applicability.
Thailand	<p>The description shall:</p> <ol style="list-style-type: none"> 1. be sufficiently complete, concise, clear and exact to enable any person ordinarily skilled in the art to make and use the invention; 2. disclose the best mode of carrying it out contemplated by the inventor.
The Former Yugoslav Republic of Macedonia	<p>The description shall disclose the invention in a manner sufficiently clear and precise for it to be carried out by a person skilled in the art.</p>
Trinidad and Tobago	<p>An application shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in a manner which is clear and complete enough for it to be performed by a person skilled in the art; 2. indicate at least one mode known to the applicant for carrying out the invention.

Country	Sufficiency of Disclosure
Tunisia	The description shall be sufficiently clear and complete for a person skilled in the art to carry out the invention.
Turkey	The description shall be sufficiently explicit and comprehensive for a person skilled in the art to carry out the invention.
Ukraine	The description shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
United Kingdom	An application shall disclose the invention in a manner which is clear and complete enough for it to be performed by a person skilled in the art.
United States of America	<p>The description shall disclose:</p> <ol style="list-style-type: none"> 1. the manner and process of making and using the invention in such full, clear, concise, and exact terms as to enable any person skilled in the art to make and use it; 2. the best mode contemplated by the inventor of carrying it out.
Uruguay	The application shall contain a clear and full description of the invention.
Uzbekistan	The description shall disclose sufficient information for the invention to be carried out.
Regional Offices	Sufficiency of Disclosure
African Intellectual Property Organization (OAPI)	The description shall disclose the invention so clearly and completely that a person having ordinary knowledge and skill in the art could carry it out.
African Regional Intellectual Property Organization (ARIPO)	<p>The description shall:</p> <ol style="list-style-type: none"> 1. disclose the invention in such terms that it can be understood; 2. set forth at least the best mode contemplated by the applicant for carrying out the invention 3. state: <ol style="list-style-type: none"> (a) its advantageous effects, if any, with reference to the background art; (b) the technical field to which the invention relates; (c) the background art known to the applicant; (d) the way in which the invention is industrially applicable and can be made and used.
Eurasian Patent Organization (EAPO)	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
European Patent Organisation (EPO)	An application shall disclose the invention in a manner sufficiently clear and complete for it to be carried out by a person skilled in the art.
Patent Office of the Cooperation Council for the Arab States of the Gulf (GCC)	The specification shall disclose the invention in a manner sufficiently clear and complete for the invention to be carried out by a person having ordinary skill in the art.

[Annex III follows]

DRAFT SUBSTANTIVE PATENT LAW TREATY
(Reproduced from document SCP/10/4)

Article 10

Enabling Disclosure

(1) [General Principle] The application shall disclose the claimed invention in a manner sufficiently clear and complete for that invention to be carried out by a person skilled in the art. The disclosure of the claimed invention shall be considered sufficiently clear and complete if it provides information which is sufficient to allow that invention to be made and used by a person skilled in the art on the filing date, without undue experimentation [as prescribed in the Regulations].

(2) [Parts of Application to be Taken Into Account for Assessing Disclosure] For the purposes of assessing sufficiency of disclosure under paragraph (1), the disclosure contained in the description, claims and drawings, as amended and corrected, shall be taken into account.

DRAFT REGULATIONS UNDER THE SUBSTANTIVE PATENT LAW TREATY
(Reproduced from document SCP/10/5)

Rule 10

Sufficiency of Disclosure Under Article 10

When assessing absence of undue experimentation under Article 10(1), the factors to be considered shall include:

- (i) the breadth of the claims;
- (ii) the nature of the claimed invention;
- (iii) the general knowledge of a person skilled in the art;
- (iv) the level of predictability in the art;
- (v) the amount of direction provided in the application, including references to prior art;
- (vi) the amount of experimentation required to make or use the claimed invention on the basis of the disclosure.

PRACTICE GUIDELINES UNDER THE SPLT
(Reproduced from document SCP/10/6)

*Guidelines Under Article 10 and Rule 10
(Details Concerning Enabling Disclosure)*

118. Article 10, paragraph (1). In addition to the so-called patentability requirements such as novelty, inventive-step (non-obviousness) and industrial applicability (utility), the claimed invention shall be fully disclosed in the application in such a manner as to allow a person skilled in the art to carry out the invention. Where the application refers to biologically ~~reproducible~~ material which cannot otherwise be disclosed in the application to meet the requirements prescribed in this paragraph and draft Article 11(3), to the extent that those requirements cannot otherwise be complied with, they shall be considered to be complied with by a deposit of such material. Details concerning the deposit of biologically ~~reproducible~~ material are prescribed in draft Rule 11 (see paragraphs 126 to 129). The notion of “a person skilled in the art” is prescribed in draft Rule 2 (see paragraphs 13 to 15).

119. The second sentence of this paragraph clarifies the phrase “sufficiently clear and complete for ~~the~~ that invention to be carried out by a person skilled in the art.” First, the disclosure is aimed at a person skilled in the art. This person shall, if necessary, use its general knowledge to supplement the information contained in the application (see draft Rule 2). Second, the disclosure must allow a person skilled in the art to both make and use the claimed invention. Therefore, if the disclosure of a claimed invention, for example, of a chemical compound or biological material which is isolated and purified, allows a person skilled in the art to reproduce such chemical compound or biological material, but is not sufficient to teach how it can be used, such a disclosure does not comply with the requirement under draft Article 10. Third, although a reasonable amount of trial and error is permissible, a person skilled in the art must, on the basis of the disclosure of the claimed invention and the general knowledge, be able to carry out the invention without “undue experimentation.” This is applicable particularly in the field of unexplored technologies. Factors to be considered in order to assess the absence of “undue experimentation” are listed in draft Rule 10 (see paragraphs 121 to 125). Fourth, it follows from the phrase “~~as of~~ on the filing date” that the disclosure shall be sufficient to carry out the invention on the basis of the knowledge of a person skilled in the art at the time of the filing date, not at the time of the examination or the grant of the patent.

120. Article 10, paragraph (2). For the purposes of assessing sufficiency of disclosure, the description, claims and drawings shall be examined on the basis of the disclosure made in the description, claims and drawings ~~on the filing date~~, as amended and corrected ~~under the applicable law~~. It goes without saying that amendments and corrections of applications should be in compliance with draft Article 7. In accordance with draft Article 5(~~3~~2), the abstract shall not be taken into account for the purpose of determining sufficiency of the disclosure. The sufficiency of disclosure shall be assessed on the basis of the claims, description and drawings as a whole. Therefore, where a claimed invention is sufficiently disclosed in the claims, description and drawings, but the description and drawings alone do not disclose the invention in a sufficiently clear and complete manner, the enablement requirement under draft Article 10 is met. However, in this case, the requirement concerning the relationship of the claims to the disclosure under draft Article 11(3), i.e., that the claims shall be fully supported by the disclosure of the description and drawings, may not be met.

Undue Experimentation

121. Draft Rule 10 provides a non exhaustive list of factors to be considered when assessing whether “undue experimentation” is required in order to carry out the invention on the basis of the disclosure in the application. Those factors are the following:

122. Item (i). The breadth of the claims is relevant to the determination of undue experimentation, since a person skilled in the art must be able to make and use the entire scope of the claimed invention. For example, the applicant is not entitled to claim everything within the scope of the invention, if the application only discloses how to make and use part of the claimed invention.

123. Items (ii) and (iii). The nature of the claimed invention, i.e., the subject matter to which the claimed invention pertains, is essential to determine the general knowledge of a person skilled in the art and the state of the art. For example, if the selection of the values for various parameters is a matter of routine for a person skilled in the art, such a selection may not be considered as requiring undue experimentation.

124. Items (iv) and (v). “The amount of direction provided in the application” refers to the information explicitly or implicitly contained in the description, claims and drawings, including working examples and references to other applications or documents. The more is known in the prior art by a person skilled in the art about the nature of the invention and the more the art is predictable, the less information in the application itself is needed in order to carry out the claimed invention. For example, there is predictability in the art if a person skilled in the art can readily anticipate the effect of a feature of the claimed invention.

125. Item (vi). In addition to the time and expenses needed for carrying out the experimentation, the character of the experimentation, for example, whether it constitutes merely routine work or goes beyond such routine, should also be considered.

STANDING COMMITTEE ON THE LAW OF PATENTS
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REPORT (extracts)
(Reproduced from document SCP/10/11)

Draft Article 10: Enabling Disclosure

Paragraph (1)

“151. The Chair summarized the discussions on paragraph (1) as follows: some delegations questioned the use of the expression “made and used”, and the International Bureau was requested to study the matter and to explore possible alternative wording, such as “carried out”. Some delegations proposed that the expression “a person skilled in the art” in the first sentence should be expressly stated to be a person in the country of grant, in order to take account of the different levels of technological capability in different countries and to have a comprehensive disclosure in all countries. In view of the divergent opinions among delegations on this proposal, the SCP agreed to include the words “in the country of grant” in square brackets at the end of the first sentence. One delegation suggested insertion of the words “over the whole of its claimed range” after the words “made and used” in the second sentence. While the objective of the latter suggestion was generally agreed, the SCP agreed that the International Bureau should examine how to best accommodate it in the text.”

Paragraph (2)

“155. The Chair summarized the discussions on paragraph (2) as follows: on the proposal of one delegation, the SCP agreed that the words “under the applicable law” be retained, followed by the insertion of the words “in accordance with Article 7”. One delegation proposed to delete the term “claims”. There was a debate on whether the provision should expressly refer to the fact that deletions should not be taken into account for the purposes of disclosure or whether the expression “as amended and corrected” covered deletions. The International Bureau was requested to examine whether the issue would be best dealt with in the draft Treaty, draft Regulations or draft Practice Guidelines.”

Draft Rule 10: Sufficiency of Disclosure Under Article 10

“159. The Chair summarized the discussions on draft Rule 10 as follows: opinions were split on whether this provision should be moved to the draft Practice Guidelines. The SCP agreed that the expression “make or use” should be re examined by the International Bureau.”

[End of Annex III and of document]