

International Patent Cooperation Union (PCT Union)

Assembly

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QUALITY-RELATED WORK BY INTERNATIONAL AUTHORITIES

Document prepared by the International Bureau

SUMMARY

1. This document contains a brief report on the ongoing quality related work by the International Searching and Preliminary Examining Authorities under the PCT ("International Authorities"), pursued mainly through the work of the Quality Subgroup set up by the Meeting of International Authorities at its seventeenth session in 2009.

ONGOING QUALITY-RELATED WORK

2. A fourth informal session of the Quality Subgroup took place in Tel Aviv in February 2014, just prior to the twenty-first session of the Meeting of International Authorities. The Summary by the Chair of that fourth informal session is reproduced in the Annex to this document.

3. Among the items discussed by the Quality Subgroup at its fourth informal session were various tasks in relation to improvement of quality that have been taken up by the Quality Subgroup at the request of the Meeting of International Authorities.

4. Under the header “Better Understanding the Work of Other Offices”, the Quality Subgroup discussed issues related to the sharing of search strategies (paragraphs 4 to 12 of the Summary by the Chair, reproduced in the Annex), the development of standardized clauses for use in international search reports (paragraphs 13 to 16 of the Summary by the Chair), and the use of sampling of cases in the quality assurance processes of International Authorities (paragraphs 17 to 19 of the Summary by the Chair).

5. With regard to “Quality Improvement Measures”, the Quality Subgroup continued its discussions on work towards establishing mechanisms for feedback by designated Offices on international preliminary reports on patentability where discrepancies had been found in search and examination results between the international and national phases of the PCT procedure (paragraphs 20 to 22 of the Summary by the Chair), and discussed the use of checklists in quality assurance processes (paragraphs 23 to 27 of the Summary by the Chair) and the need to further improve the International Search and Preliminary Examination Guidelines as to how to process complex cases of unity of invention (paragraphs 26 and 27 of the Summary by the Chair).

6. Finally, under the header “Quality Metrics”, the Quality Subgroup discussed the latest report by the International Bureau on characteristics of international search reports established by all International Authorities. This was the second such report prepared by the International Bureau as a “self-reflection” tool for Authorities, not to measure quality but to see what can be learned from those characteristics in order to assist direction of the work under way to improve quality, whether internally within individual Authorities or collectively between the Authorities (paragraphs 28 to 35 of the Summary by the Chair). Furthermore, discussions focused on the ongoing work with regard to the establishment of a PCT Quality Metrics Framework, aimed at developing metrics for a wide range of aspects of the entire PCT process covering the work of all Offices acting within the PCT system (receiving Offices, International Authorities, the International Bureau and designated/elected Offices) as well the interactions between the various Offices and applicants (paragraphs 36 to 41 of the Summary by the Chair). Last but not least, the Quality Subgroup noted an update report on phase 3 of the ongoing collaborative metrics project carried out by the European Patent Office (EPO) and the Japan Patent Office (JPO) (paragraphs 42 to 44 of the Summary by the Chair).

7. At its twenty-first session, held in Tel Aviv in February 2013, the Meeting of International Authorities noted with approval the Summary by the Chair of the fourth informal session of the Quality Subgroup and agreed with all recommendations of the Quality Subgroup. In addition, the Meeting of International Authorities approved the continuation of the Subgroup’s mandate, including the convening of a further physical informal session of the Quality Subgroup in 2015. It further agreed to the publication of annual reports submitted by International Authorities on their quality management systems, which are available on the WIPO web site at <http://www.wipo.int/pct/en/quality/authorities.html>. The Summary by the Chair of the twenty-first session of the Meeting of International Authorities (document PCT/MIA/21/22) is available on the WIPO web site¹.

8. *The Assembly of the PCT Union is invited to take note of the report on the Quality-Related Work by International Authorities as set out in document PCT/A/46/2.*

[Annex follows]

¹ See http://www.wipo.int/meetings/en/details.jsp?meeting_id=32122.

PCT/MIA QUALITY SUBGROUP
FOURTH INFORMAL SESSION
TEL AVIV, FEBRUARY 9 AND 10, 2014

SUMMARY BY THE CHAIR

(reproduced from Annex II to document PCT/MIA/21/22)

1. REPORTS ON QUALITY MANAGEMENT SYSTEMS UNDER CHAPTER 21 OF THE PCT SEARCH AND EXAMINATION GUIDELINES

1. Authorities reported on changes made in 2013 to their respective Quality Management Systems, with several Authorities highlighting their efforts to obtain ISO 9001 certification in the future and to improve communication with users by way of streamlining complaint handling procedures and carrying out user feedback surveys. Authorities expressed their general satisfaction with the current reporting mechanism and saw no need for changes to the reporting template.

2. The Subgroup noted that several Authorities had posted their quality policies and guidelines on the Subgroup's e-forum, following the establishment of a task under the lead of the Spanish Patent and Trademark Office and posting by that Office on the e-forum of information on its quality policy along with a document describing the eight quality management principles underlying ISO 9001.

3. The Subgroup recommended that Authorities which had not yet done so should share information on their quality policy and guidelines by posting it on the Subgroup's e-forum.

2. BETTER UNDERSTANDING THE WORK OF OTHER OFFICES

(A) SEARCH STRATEGIES

4. The Authorities reaffirmed that sharing information concerning search strategies was important in order to increase confidence in international search reports and to make them more useful to the end users. However, doubts remained about how best to provide information which was useful and accessible for end users without introducing significant additional work for International Searching Authority (ISA) examiners and potential for confusion among some readers. The potential users of such search reports included examiners at the designated Offices, applicants and third parties interested in the specific international application.

5. Most Authorities regarded examiners in the designated Offices as the primary target for search strategies. They would usually be skilled in understanding the general concepts and difficulties of online searching, even if they were not familiar with the specific searching languages or have access to the same databases as the examiner who carried out the international search. Some Authorities expressed the view that information useful to examiners should not be held back solely because of the risk of certain aspects of a full search strategy might be confusing or even misleading to non-experts. The International Bureau also suggested that detailed search strategy information may be useful to examiners from other Offices as a learning tool to seek tips in searching techniques best suited to particular subject matter.

6. On the other hand, it was agreed that examiners needed to be able to assess the most important aspects of the search strategy quickly and effectively. Too much information could actively prevent effective use. Some Authorities were also concerned about the effect that possible external evaluation of search strategies might have on the actions of examiners. The European Patent Office indicated that the pilot on collaborative searching had found that a clear and concise presentation of the databases, classifications and keywords used in a first search

had been the most important and effective way of assisting understanding between examiners at different Offices of the search done so far. Authorities noted that such an approach did not preclude ISAs from providing more information if they considered it useful to do so as long as the main information was presented in a readily accessible way and several Authorities encouraged those others not already doing so to provide search strategy information in whatever format was already generated internally.

7. At present, Authorities saw little value in trying to harmonize the presentation of fuller search strategy information. Work should concentrate on identifying the substance of what was useful. Authorities were not ready yet to set minimum requirements. Based on discussions in the Subgroup's e-forum, the International Bureau had provided a list of detailed information items which it might be appropriate to include. For the reasons indicated above, several Authorities suggested that large volumes of information might be unhelpful and that some, such as details of exactly which search query results had been viewed by the examiner, might be impossible to extract automatically from existing systems.

8. Some Authorities indicated that they had experimented with different depths of information about online searches for internal purposes. In general, three quarters of a page to two pages had been found appropriate for a useful record of a typical search. It was noted that this would usually involve some manual effort by the examiner, but that this was limited to selecting portions of records to cut and paste. It was found that different examiners went to different lengths to "clean up" search records to eliminate "blind alleys" which had not been found useful; this had been left as a matter of individual examiner discretion with little difficulty.

9. The International Bureau agreed that information should not be provided if it was unhelpful and that IT development or imposition on examiner time should only be done if the benefit clearly justified it. However, while it was important to find improvements which could be achieved quickly, the discussions should also set out useful goals for the future and not be limited by what was easy with existing IT systems or lay within the "comfort zone" of ISAs.

10. The United States Patent and Trademark Office provided suggested definitions of the terms "search statement", "search listing", "search strategy" and "search history" or "search record" to assist future discussions of these issues in the Subgroup.

11. The Subgroup recommended that the European Patent Office should lead a contact group to complete the details of a proposal for a pilot whereby participating ISAs would provide database, classification and keyword information in a harmonized manner and to make proposals as to the most efficient way to present such data, while noting that the extraction of such data should be automated to limit the burden on examiners. The contact group would seek to evaluate the effectiveness of this approach for Offices and usefulness for applicants. The results of this evaluation would be reported at the next session of the Meeting of International Authorities in 2015 with a view to beginning a one year pilot. The IB would support the contact group in its work, using the Subgroup's electronic forum.

12. In the meantime, the Subgroup encouraged further Authorities to make their fuller search strategies available on PATENTSCOPE and for the Subgroup to further discuss the extent to which they found such information useful and whether additional content should be provided. The aim should be to make recommendations for preparing useful search strategy information in a manner which minimizes the manual effort required by examiners at the ISA.

(B) STANDARDIZED CLAUSES

13. Authorities welcomed the draft set of standardized clauses covering novelty and inventive step considerations in Box No. V and objections under PCT Articles 5 and 6 in Box No. VIII of written opinions and international preliminary reports on patentability which had been posted by

the International Bureau on the Subgroup's e-forum, subject to minor drafting issues which should be addressed via the e-forum. Many Authorities indicated their intention to use those standardized clauses once a final wording had been agreed and subject to a sufficient lead time required for implementation, notably with regard to necessary changes to internal IT systems, any required translations and training for examiners. Authorities stressed the optional nature of those clauses and the need for continued flexibility and discretion for the examiner to address all relevant issues in a manner which was deemed appropriate in the given case.

14. While some Authorities expressed their interest in working towards the establishment of further standardized clauses covering other texts in written opinions and international preliminary reports on patentability, the Subgroup recommended to await implementation of this first set of clauses and experiences gained by Authorities, designated Offices, the International Bureau and users of the system before further extending this project.

15. Noting the currently limited set of standardized clauses and their optional nature, Authorities considered it premature at this stage to formally include this first set of clauses in the International Search and Preliminary Examination Guidelines and to revisit the question of possible inclusion in the Guidelines at a later stage. With regard to any required translations of the standardized clauses for inclusion in reports established in languages other than English, the International Bureau stated that it would work together with the Authorities concerned in preparing such translations.

16. The Subgroup recommended that:

(a) Authorities should submit any further comments on the wording of the draft set of standardized clauses to the International Bureau via the Subgroup's e-forum before the end of April 2014;

(b) the International Bureau should then finalize the clauses, taking into account any comments received, and formally communicate the final wording of those clauses to all Authorities by way of a Circular; the date of actual first use of those clauses in reports should then be left to each Authority, depending on its specific implementation needs.

(C) SAMPLING OF CASES IN QUALITY ASSURANCE PROCESSES

17. Authorities discussed the use of sampling of cases in their quality assurance processes, noting the usefulness and value of sampling if carried out in a balanced and not too formalistic manner. Authorities reported on their different sampling rates applied in different cases, depended on many factors, varying from low (often randomized) minimum percentage rates up to 100 per cent in certain cases, such as formality review, unity of invention cases or where a first international search had only revealed "A" citations. It was noted that the issue of sampling might also be governed by the ISO 9001 certification for Authorities which had obtained or were seeking such certification.

18. While all Authorities which took the floor on the matter agreed on the usefulness of further sharing of information on the different sampling practices by Authorities and invited Authorities which not had done so to post related information on the Subgroup's e-forum, Authorities expressed their preference for not pursuing any further work at this stage towards establishing "best practices" in this area, noting the different circumstances in which Authorities operated and the existing need for flexibility.

19. The Subgroup recommended that Authorities which had not yet done so should share information on their sampling practices and sampling rates by posting it on the Subgroup's e-forum.

3. QUALITY IMPROVEMENT MEASURES

(A) PROGRESS REPORT ON WORK FOR ESTABLISHING MECHANISMS FOR FEEDBACK AND ANALYSIS ON WOISA/ISR

20. The Japan Patent Office presented a progress report² on its work towards establishing a proposed mechanism for designated Offices to provide feedback on international preliminary reports on patentability in respect of international applications where discrepancies had been found in search and examination results between the international and national phases of the PCT procedure, drawing heavily on the experiences gained from the collaborative analysis conducted together with the European Patent Office as part of Phase 3 of the Collaborative Metrics Study. It encouraged all Authorities to participate in a project to pilot such feedback and analysis mechanism, notwithstanding the considerable investment this would require in human resources for the mainly manual analysis to be carried out. Such a pilot would be entirely optional for both Authorities and designated Offices willing to receive and to provide such feedback, respectively, and to collaboratively carry out the required analysis of the applications in respect of which discrepancies were found.

21. Authorities welcomed the report by the Japan Patent Office, stressing the value of feedback and subsequent thorough analysis of the root causes for discrepancies in search and examination results and the importance of such mechanism for improving the quality of international reports and thus further developing the full potential of the PCT as a work sharing tool for Offices. Two Authorities expressed their concern about the possible impact of feedback received by an Authority on a patent granted by that Authority at a later stage in its capacity as a designated Office.

22. The Subgroup recommended that:

- (a) Authorities should submit any comments on the draft Quality Feedback Form established by the Japan Patent Office via the Subgroup's e-forum;
- (b) the International Bureau should, via the e-forum, invite Authorities in their capacities as both International Authorities and designated Offices to participate in what in essence would be bilateral projects (between an Authority and a designated Office) to pilot the proposed feedback and analysis mechanism;
- (c) Authorities (in their capacity as both International Authority and designated Office) should report back in general terms at the next session of the Subgroup about experiences gained and results obtained from the pilot project.

(B) CHECKLISTS IN QUALITY ASSURANCE PROCESSES

23. Authorities supported the optional use of checklists in the Authorities' quality assurance processes which had been posted by the International Bureau on the Subgroup's e-forum.

24. Noting the need to maintain the required flexibility and discretion for Authorities, Authorities did not at this time see sufficient value in further work towards the establishment of sample guidance checklists or a set of minimum elements and common format for such lists. However, further examples of checklists used by Authorities might be useful for information.

² available from the WIPO website at www.wipo.int/meetings/en/details.jsp?meeting_code=pct/mia/21

25. The Subgroup recommended that:

(a) the International Bureau should include the proposed draft modifications to Chapter 21 of the International Search and Preliminary Examination Guidelines to provide for the optional use of checklists in the Authorities' quality assurance processes in its upcoming Circular to all interested parties for the purposes of consultation on other proposed modifications of those Guidelines.

(b) Authorities should post to the Subgroup's e-forum examples of checklists which might provide useful examples for other Authorities.

(C) UNITY OF INVENTION

26. Authorities supported the proposal by IP Australia, posted on the Subgroup's e-forum, for further work by Authorities to improve explanations and examples for complex cases of unity of invention, noting that the current examples given in the International Search and Preliminary Examination Guidelines, while generally seen as very useful in most cases, did not provide sufficient guidance for examiners in such complex cases.

27. The Subgroup recommended that:

(a) Authorities which had not yet done so should share existing guidelines, training materials and other information relevant to the consideration of cases of unity of invention by posting such material on the Subgroup's e-forum;

(b) the International Bureau should create a task on the Subgroup's e-forum to commence work by Authorities towards improving explanations and examples for complex cases of unity of invention, and to invite Authorities interested in leading this task to inform the International Bureau accordingly.

4. QUALITY METRICS

(A) CHARACTERISTICS OF INTERNATIONAL SEARCH REPORTS (CIRCULAR C. PCT 1398)

28. Many Authorities indicated that they had found the report on characteristics of international search reports very valuable as a "self-reflection" tool. Careful scrutiny was worthwhile to find information which allowed better understanding of the Authority's work and to identify areas where unexpected results were found, inviting deeper investigations.

29. The volume of information in the report made this difficult, but all of the information was found useful by at least some. Although most of the information was initially intended to allow Authorities to see trends within their own Offices, several Authorities found comparisons with other Authorities useful and preferred that the charts containing information for all Authorities continue to be provided together, rather than being separated out into separate reports for each Authority.

30. Consequently, there did not seem to be a need to fundamentally change the nature of the report. However, it would be useful to make the underlying data easier to identify and access. The European Patent Office indicated that an organization concerned with the semiconductor industry had indicated its interest in information specific to its sector and suggested that this might be a good technical field to use as a test bed for improving access to the breakdowns of information by field.

31. One major concern about the reports was that the information was old and it would take several years before the data would allow Authorities to see the effects of any actions which they might take to improve specific matters seen as problems, such as the citation of non-patent literature. Unfortunately, little prospect was seen of improving this situation until Authorities

were able to deliver citation information to the International Bureau in a machine-readable format which could be imported directly into a database from which the statistics could be prepared.

32. The International Bureau noted a desire for tools to allow deeper study of particular subjects, such as breakdowns in further ways or identification of individual international applications which had specific characteristics. However, it saw little prospect of delivering specific tools in the near future and suggested that interested Authorities use the European Patent Office's PATSTAT database, from which most of the information concerned was derived.

33. The Subgroup recommended that the International Bureau should continue to prepare this report in future years, but should seek to improve the presentation and accessibility to underlying information, including measures to allow the information on breakdowns by technical area to be more easily accessible.

34. The Subgroup also recommended that Authorities should share their findings from the report to assist other Authorities in their own analysis and to inform the International Bureau in understanding the ways in which the report was used in order to present the information in a way better suited to the needs of Authorities. The Subgroup's e-forum was likely to be the appropriate place for this.

35. The Subgroup finally recommended that interested Authorities should contact the European Patent Office to conduct bilateral discussions of aspects of the report with a view to preparing a set of practical examples for discussion by the Subgroup of information which could be found within the data which could provide useful information to Authorities.

(B) A PCT METRICS FRAMEWORK

36. The International Bureau reported on its progress in preparing the metrics requested. Although a wide range of metrics appeared possible from the data available, the International Bureau had found significant difficulties in preparing these in a way which would clearly be useful. A small proportion of the requested metrics had been prepared as examples for consideration. Further work would be done when the true requirements were better understood.

37. Concerns fell into several categories:

(a) Presenting all of the requested items of information as static files would result in several hundred data files (even without graphical views) and it would be difficult for Offices to easily and reliably find the right one for any particular purpose and be certain of exactly what it represented.

(b) Some of the proposed metrics had the potential to be misleading. For example, because of the spread of times between priority dates and filing dates, mean times from either of those dates may differ greatly from the median times. This could easily lead to incorrect conclusions if the spread is not seen; on the other hand, spreads were generally difficult to take in as a single figure without graphical representation.

(c) To get the best from information would often require combining information from different statistics, but these often had different baselines so that they were not directly comparable (for example, some statistics would be based on international applications with priority dates within particular periods, others filing dates, others the date on which a particular action occurred).

(d) Many metrics would be difficult to assess from tables of data, but could be represented graphically in a variety of different ways. It would not be practical to provide static graphical images for all of the proposed metrics, but where this was done, the purpose needed to be clear so as to select the most effective format.

(e) Some data fields contained a significant number of defects – errors were introduced, for example, by manual transcription by the International Bureau, and many data items were never received from the Offices responsible for the relevant action. The limitations needed to be understood properly to allow the errors to be reduced where possible and for the metrics to be presented in a way which takes adequate account of significant omissions.

38. Authorities observed that additional breakdowns would be useful, such as times to actions from date of receipt of search fees or from the time when national security clearance was completed, or whether invitations to pay additional fees had been made due to lack of unity of invention. However, the International Bureau noted that in general it did not hold such information and would need to be sent it in machine-processable form by the responsible Offices to be able to provide such metrics.

39. It was noted that the metrics included in this agenda item were in fact similar in nature to those relating to characteristics of international search reports and that the subjects should, for many purposes, be considered as one.

40. The International Bureau suggested that it would probably be most effective to handle different metrics in different ways:

(a) Some metrics were particularly important to the effective management of receiving Offices, International Authorities and the International Bureau. These should be produced as regular reports in graphical and table formats, tuned for easy understanding of the regular important issues by the Offices concerned in order that they could take any necessary action to address problems or changes in workload.

(b) Other metrics could be expected to be frequently useful for understanding issues which require the Office to perform significant analysis specific to the problem. The International Bureau was currently testing an extension to the WIPO IP Statistics Data Center³ to include PCT Statistics in addition to the general patent, trademark, industrial design and utility model information which was currently available. This should be publicly available soon. It was hoped that this would be able to provide most of the statistics in this category in a manner which would be more up to date and easier to use than maintaining a large number of static files.

(c) Some detailed metrics might in reality only be needed as one-off pieces of information. The International Bureau's capacity to perform bespoke queries was very limited, but this might nevertheless be the most effective approach for some matters.

41. The Subgroup agreed to await the availability of PCT information in the WIPO IP Statistics Data Center and assess the needs for further development based on analysis of the metrics so far provided and the effectiveness of the Data Center.

³ ipstatsdb.wipo.org/ipstatv2/ipstats/patentsSearch

(C) UPDATE ON PHASE 3 OF THE COLLABORATIVE METRICS PROJECT

42. The European Patent Office gave a presentation of the work done by the European Patent Office and Japan Patent Office on analysis of the national phase first action by one Office of international applications processed by the other as ISA. This had involved detailed scrutiny of 221 cases from IPC subclass G08G (Traffic Control Systems). The method consisted of three main inter-related activities. Each had delivered useful information which deepened the Office's understanding. The three steps had been:

- (a) exchange and analysis of structured data;
- (b) categorization of applications according to outcomes in the international phase and national first actions; and
- (c) deeper analysis of cases of particular interest.

43. This methodology had allowed an efficient collection of large quantities of useful data in between 10 and 30 minutes per case for step (b). Step (c) required some additional time per file, yet this was time well invested since it involved examiners from both Offices reaching a consensus on the reasons for discrepancies. The results of the analysis had been broadly consistent with other studies performed, such as in relation to applications processed under the Patent Prosecution Highway.

44. The Japan Patent Office stated that it had found the project extremely useful and hoped to extend it to further fields of technology, subject to availability of resources.

5. OTHER IDEAS FOR QUALITY IMPROVEMENT

45. Upon the suggestion by one Authority, the Subgroup recommended to devote some time at the next session of the Subgroup to discussions of quality related issues common to all Authorities which had obtained or were seeking ISO 9001 certification, on the understanding that participation in such discussions would be open to all Authorities, including those which had not obtained or were not seeking certification at this stage.

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