

## **Standing Committee on the Law of Patents**

**Thirty-First Session**  
**Geneva, December 2 to 5, 2019**

### **SUMMARY OF DOCUMENT SCP/31/3: STUDY ON APPROACHES TO THE QUALITY OF PATENT GRANT PROCESS**

*Document prepared by the Secretariat*

#### **INTRODUCTION**

1. The Standing Committee on the Law of Patents (SCP), at its thirtieth session, held in Geneva from June 24 to 27, 2019, agreed that the Secretariat would submit, at the thirty-first session of the SCP, a study based on paragraph 7(b) of document SCP/28/8 on approaches to the quality of patent grant process, taking into account the issues raised during the sharing sessions on that topic, which had been held during the twenty-ninth and thirtieth sessions of the SCP (see paragraph 23 of document SCP/30/10). Paragraph 7(b) of document SCP/28/8 states that such a study would be based on the responses to the questionnaire on the term “quality of patents”, sharing sessions and any further information provided by Member States, including relevant aspects of national legislation.

2. Consequently, document SCP/31/3, containing the said study on approaches to the quality of patent grant process, is submitted to the thirty-first session of the SCP. In view of the volume of that document, the present document is prepared as a summary of document SCP/31/3.

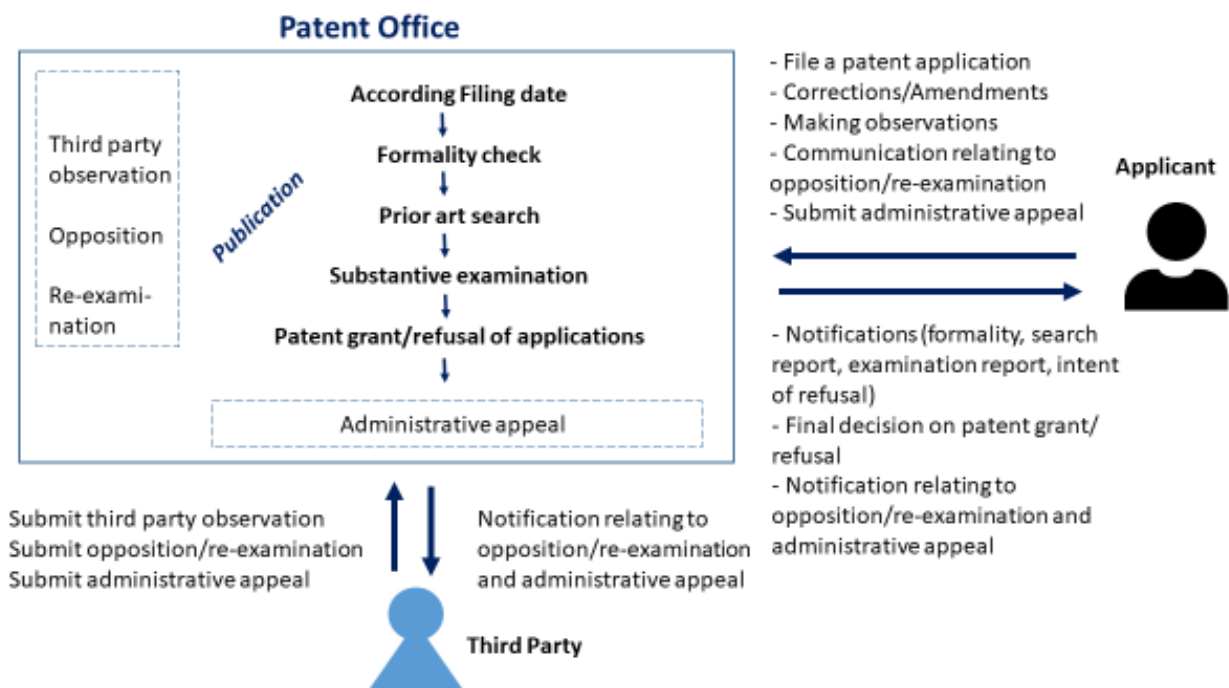
#### **PATENT GRANT PROCESSES WITHIN PATENT OFFICES**

3. The patent grant process is underpinned by national/regional patent policy and law that provides the framework of patent grant procedures. At the practical level, the process should adapt to the practical reality of each patent office, in terms of its size, resources and

infrastructure. These aspects determine the designing of the patent grant process and steps and the work carried out by each patent office. Therefore, inevitably, there are differences in the patent grant process among patent offices.

4. At the general level, however, the process may be described as shown in Fig.1., although an important difference can be observed among the patent offices, for example, absence of prior art search and substantive examination in some offices. Regardless of these differences, in short, the patent grant process encompasses: (i) actions and decisions made within the patent office; and (ii) various communications with the users of the patent system (i.e., applicants and third parties). Although they are not described in Fig.1, in practice, many more detailed procedural steps and notifications/communications are involved in the patent grant process, for example, checking translations, priority documents, declarations and other evidence, payment of fees, etc. For the purpose of this study, it is important to clarify that the patent grant process is more than just prior art search and substantive examination. It covers the entire process, including dispatching communications and publishing gazettes.

Fig. 1 Overview of the Patent Grant Process



#### OVERVIEW OF APPROACHES TO THE QUALITY OF PATENT GRANT PROCESS WITHIN PATENT OFFICES

5. While the patent grant process in patent offices is not the only determinant factor of patent quality, it is apparent that many patent offices regard it as one of the key factors which is important to improve the quality of patents. The responses to the SCP Questionnaire suggests that quality of a patent granting process within the patent office is closely related to quality of a granted patents, since the quality of the process leads to the quality of its outcome (granted patents and rejected applications).

6. Although the patent grant process within each office may not be the same, the *raison d'être* of the patent system are probably not much different around the world, regardless of the respective country's level of socio-economic development. In general, the patent system offers incentives to innovate by granting the limited exclusive rights on inventions that meet certain requirements, and providing inventors the possibility of receiving appropriate returns on their innovative activities. At the same time, publication of patents (and patent applications in many countries) facilitates dissemination of new knowledge and accelerates innovation activities by, for example, avoiding the necessity to "re-invent the wheel".

7. Consequently, to meet that goal, many common features that underpin the quality of patent grant procedures may be identified, while the concrete procedural steps and measures taken by each office to ensure the quality process may vary. As a simple example, some offices grant patents following the formality examination only: the mechanism for inspecting the compliance with the substantive patentability requirements is set in the judiciary system, in the form of *ex parte* proceedings between the patentee and a third party. Nevertheless, those patent offices, among other tasks, also receive patent applications, conduct a formality check, publish patents and maintain a patent registry. Therefore, the features such as making decisions in compliance with the applicable law and regulations, taking actions in a timely manner, effective and efficient interaction with stakeholders and proper management of the process may be also relevant in their work.

8. The quality of patent grant process may also be led by the social function of the patent offices as part of the government institutions. Although their social function may be not necessarily identical, the public service function of the patent offices requires certain functionalities that they are expected to fulfill in the society. In that light, certain common features may be identified, regardless of the differences among the procedures in each patent office.

9. From the previous SCP discussions, at the high level, many Member States pointed out that the quality of patent grant process would imply the following: (i) the process should comply with the applicable law and established standards; and (ii) the process should be thorough, complete and reliable/credible. To that end, a number of keywords that feature the quality of patent grant process have often been pronounced by the delegations.

– Validity/Accuracy

The patent grant process should be in compliance with the applicable law and the established standards so that the actions and decisions taken by the office is legally valid and accurate.

– Consistency

The process should render the same outcome under the same circumstances and conditions. Actions and decisions would be consistent to ensure legal certainty of the process.

– Comprehensiveness

Actions and steps throughout the process should be taken in a thorough and comprehensive manner. The quality process would involve both staff and the higher management. Dialogs with stakeholders and users of the patent system would form an integral part of the quality process.

– Timeliness/Efficiency

Actions and decisions taken by the patent office usually have direct or indirect consequences to the applicant and third parties. Inefficient actions and unduly delayed delivery of decisions may create uncertainty and have inadvertent negative effects on both the applicant and third parties.

– Relevance

The internal situation of the patent office as well as external settings surrounding the patent office change with time. The process, therefore, requires continuous improvement and management so that it remains to be valid, consistent, comprehensive and timely.

10. The patent grant process in a patent office consists of a number actions and decisions taken throughout the process. Since the quality of the entire process and the quality of each action and decision are inseparable, the above keywords may apply to the process at large as well as to each action and decision taken at each step of the process.

11. While the above keywords hint at the important features of the quality of the patent grant process, the process could also be looked at from its components, such as: (i) process designs and steps; (ii) patent office staff who carry out those steps; (iii) tools and infrastructures that assist the staff; and (iv) management of the process operation. Optimization of those process components to strive for the valid, consistent, comprehensive, timely and relevant patent grant process may be one way of looking at the quality of the patent grant process.

Optimization of process design and steps

12. While national/regional policy and law establish the policy and legal framework of the patent grant process, detailed practical steps, flow of work and timeframes need to be built into the process in order to be operational. Optimizing the designing of the process and steps for higher validity, consistency, comprehensiveness, timeliness and relevance is a measure taken by many patent offices. Oftentimes, designing an optimal process needs to take into account the available resources, tools and infrastructure as well as practical constraints of each office. In that light, there would be no one single process that could be considered optimal in all patent offices.

13. Nevertheless, certain aspects have been highlighted during the SCP sessions, for example:

– The patent grant process is a due process which ensures the right of parties to be heard;

– It is a streamlined yet comprehensive process that allows timely actions and decision-making. It would meet the needs of the stakeholders and the society that may be constantly changing;

– The prior art search and examination process involves complex and resource intensive actions and decision-making. Therefore, much effort has been made to optimize the process design in this area. With a view to increasing the validity of decisions and streamlining the process, international collaborations in various ways, for example, utilization of search and examination work products and expertise of other offices, have been integrated in the patent grant process of many offices;

– If the process involves different sectors in the patent office or in another institution, effective coordination among the sectors may increase validity, consistency, comprehensiveness, timeliness and relevance of actions and decisions;

- For higher credibility of granted patents, third parties may be able to contribute to prior art search. If other conditions are favorable, such an administrative procedure provides a simpler path than litigation to review the validity of patents.

#### Optimization of human resources

14. Since actions and decisions throughout the process are taken by humans, optimization of human resources is considered as an important component of the quality patent grant process. Both quantitative and qualitative aspects may be relevant to the quality process. In general, involvement of management and leadership as well as management of staff performance are also considered important in the quality process.

15. As well-trained staff having sufficient skills to carry out their duties is key to the quality process, regular training and capacity building activities are conducted in many patent offices for their staff. In many cases, not only experienced staff in the patent office but also external experts act as trainers. In particular, in order to improve skills for patent search and examination, some offices provide not only general capacity building training to examiners, but also training for examiners to properly contextualize and leverage search and examination work products of other offices. Exchange of examiners with other offices to share and discuss examination practices of the respective offices, on-the-job-training or internship are considered useful, as they are practical trainings closely related to the trainees' daily work.

#### Optimization of tools and infrastructures

16. Various tools and technical infrastructures assist patent office staff to take actions and make decisions. They improve validity and efficiency of the actions and decisions to be made during the patent grant process. Computer assisted processes, which have been deployed in many patent offices, streamline the filing, formality check, prior art search, examination and publication of patent applications and patents. Digital communication facilitates communications within the patent office as well as those between the office staff and various stakeholders outside the office.

17. In relation to prior art search and examination, access to patent and non-patent literature databases is critical for examiners to make valid decisions. IT tools and platforms play an important role in sharing and accessing published patent applications and patents in other offices. They also facilitate access to information regarding search and examination work carried out by other offices on the corresponding foreign patent applications. Strong bilateral, regional and international cooperation is present in this regard. For example, some offices share their in-house prior art search systems with other offices or assist their collaborating offices to access paid databases.

18. Beyond the technical tools, guidelines and manuals for carrying out the formality check, prior art search and examination are established in many patent offices, so that the actions and decisions by the office staff are valid and consistent.

19. In addition, as described in Fig. 1, quality of actions by applicants and third parties may also have implications to the patent grant process: for example, to what extent the patent application submitted by the applicant meets the legal requirements, or whether the information submitted to the office by a third party is truly relevant prior art or not. Clear, concise and comprehensive guides for users of the patent office may assist them to navigate the complex patent grant process.

### Optimization of the public notice process

20. The disclosure function of the patent system is considered as the cornerstone of the patent system. Accessibility to, and timely dissemination of, the technical contents and bibliographic data of patent applications and granted patents is a crucial step in the patent grant process. In addition, the patent grant process generates other types of information which may be useful for stakeholders and the public at large. They may include legal status of patent applications and patents, prior art search and examination reports produced by the patent office, official communications between the patent office and the applicants or third parties.

21. In addition to the accessibility of the relevant information and timeliness of dissemination, accuracy of the disseminated information may be another aspect of the quality. Databases and patent registries need to be credible. They should be updated regularly so that they incorporate the latest data and information concerned.

22. The quality of communication between the patent office and its users is another aspect that has been highlighted in the SCP discussion. Importance of good communication skills that convey information to others in a clear, concise and unambiguous manner may apply to any dialogue with the users, from a telephone query to a substantive examination report.

### Optimization of process management

23. In order to operate the quality patent grant process in a sustainable manner, a systematic and comprehensive quality management, rather than an ad-hoc review of a single step or action in an isolated manner, may be integrated in the operational framework of patent offices. Quality management focuses not only on the outcome of the process, but also on each step in the process.

24. In general, quality management ensures that the process and its output is consistent and predictable. Patent offices need to constantly adapt to the ever changing external and internal environment to meet their respective goals: for example, evolution of national policies and innovation environment, emergence of new technology and tools or increasing workload. Consistent and predictable outputs of the patent grant process can be achieved more effectively and efficiently when actions in the process is understood and managed as interrelated parts that function as a coherent system.

25. The quality management usually involves four main components: quality planning, quality assurance, quality control and quality improvement. Quality assurance is the planned or systematic actions necessary to provide enough confidence that a product or service will satisfy the given requirements. Quality control is the ongoing effort to maintain the integrity of a process to maintain the reliability of achieving a desired outcome. Gathering facts enabling the offices to monitor, measure, analyze and adapt planned actions throughout the process as well as to improve the output of the process is an essential part of the quality management. Oftentimes, feedback from the users of the patent office is part of the inputs for the monitoring and review.

26. While there are many methods for quality improvement, some patent offices sought their quality management system being certified by a recognized standard, most commonly the ISO 9001 standard series (the most recent version is ISO 9001:2015). It covers the processes and systems of the organization rather than the quality of the service actually delivered. The practical implementation of quality management systems vary from one office to another, depending on the size of the office and the type of work involved. However, certain general principles run through any system. In essence, for example: (i) the office should be clear on its functions and provide the necessary resources (staff, premises, equipment and training) to

deliver these functions, effectively; (ii) it should have procedures for quality assurance with arrangements for effective communications and feedback to staff of the office; and (iii) it provides a review mechanism that monitors, measures analyze and continuously improve its performance.

## EXAMPLES OF APPROACHES TO THE QUALITY OF PATENT GRANT PROCESS WITHIN PATENT OFFICES

27. This sub-section describes concrete examples of approaches to the quality of patent grant process within IP offices. In other words, it shows how some offices address the above features of the quality patent grant process in their respective settings.

28. With respect to the optimization of process design and steps, many offices have introduced mechanisms that allow them to integrate, in their patent grant process, supplementary information received from parties outside the office. Such supplementary information that is otherwise not available to patent examiners, but may be nevertheless relevant to the patentability, is considered useful to improve the validity and timeliness of actions and decisions as well as the completeness of prior art search and examination. One possible approach to this end is to get information from third parties (for example, third party observation and opposition). Another approach is to get information from other offices (for example, sharing of search and examination reports and collaboration in search and examination).

29. In relation to the optimization of human resources, various types of training activities have been conducted by patent offices for their staff. In particular, various training modalities relating to prior art search and examination have been reported to the SCP. The document introduces some of those training activities.

30. On the optimization of tools and infrastructures, IT tools and platforms that assist prior art search and examination are reported by some offices. They not only provide prior art search functionality but also allow access to search and examination reports and legal status information, enable file inspection or international sharing of patent information and data.

31. Patent offices have already started to use artificial intelligence (AI) technology to facilitate office administration and delivery of their service, including in the patent grant process. In general, guidelines and manuals indicate how the relevant law is applied in the patent office practice. When new technology emerges, it often raises questions about practical application of the patentability criteria to inventions from such technical field. In some offices, guidelines are prepared in order to clarify those questions.

32. With respect to the optimization of process management, quality management systems of some patent offices are introduced in the document.

33. It is observed that patent offices seek international cooperation in order to optimize their various process components. For example, trainings for acquiring expertise and skills are carried out in cooperation with another patent office, or exchange of examiner are organized with other patent offices in order to understand the laws and practices of the other offices for better exploitation of their work products. Patent information and databases are shared with other patent offices to facilitate prior art search. Further, prior art search and examination are conducted in cooperation with other offices through, for example, sharing search and

examination work products of other offices. Both small and big offices stated the benefits of the international cooperation, since it supplements or complements the existing resources and available tools, or gain efficiency through collaboration. In essence, these various international cooperation appears to aim at enhancing validity, comprehensiveness and timeliness of decisions taken by the patent office concerned.

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