QUALITY MANAGEMENT IN THE DANISH PATENT AND TRADEMARK OFFICE

I. INTRODUCTION

1. At the 16th session of the Standing Committee on the Law of Patents (SCP) the Committee decided that the topic "Quality of Patents, including Opposition Systems" should remain on the agenda of the 17th session of the SCP.

2. Discussions should be based on the proposal by the delegations from Canada and the United Kingdom (document SCP/16/5) and other comments/proposals presented by member states.

3. This document is intended to be a sub-item under the main component "Information exchange on quality of patents" as outlined in document SCP/16/5.

4. With this document the Danish Patent and Trademark Office (DKPTO) wish to contribute to the discussions by sharing information on its Quality Management System (QMS) for quality assurance in the grant of patent rights. Below is explained

   II: Why the DKPTO has introduced a Quality Management System (QMS)
   III: Outline of DKPTO's QMS
   IV: Follow-up mechanisms in DKPTO's QMS
   V: Quality control of DKPTO's search and examination work
   VI: Recruitment and training of patent examiners
   VII: DKPTO's experiences with quality management – lessons learned

II. WHY THE DKPTO INTRODUCED A QUALITY MANAGEMENT SYSTEM

5. The DKPTO introduced its QMS in 2005 on the patent granting process. The QMS is certified externally in accordance with the European ISO 9001 standard. The QMS is an end-to-end system covering the entire patent granting process from filing to grant.

6. The ISO 9001 outline a framework for setting up a QMS. It focuses on a process approach (ongoing control with linkage between individual processes within the system of processes, as well as their combination and interaction).

7. In practical terms the QMS follows a Plan-Do-Check-Act (PDCA) approach in interaction with the customers (applicants).

8. In the DKPTO a QMS was introduced for a number of reasons:

   (a) To encourage culture in the organisation which seeks improvement and thereby ensures an effective review-procedure
   (b) To ensure uniform products (e.g. a granted patent) for applicants/customers
   (c) To substantiate quality through an internationally recognized standard
   (d) To improve knowledge-sharing within the organisation (e.g. between examiners)
   (e) To preserve knowledge when employees leave the office
   (f) To have a single updated set of procedures for the working processes

9. The purpose of the QMS is to ensure a continuous improvement of the quality. How well the QMS perform may be measured as the degree of fulfilment of the customers (applicants) expectations.

III. OUTLINE OF THE DKPTO'S QUALITY MANAGEMENT SYSTEM

10. The QMS is essentially composed of three main components:

    (a) Level 1 – Quality policy, coverage of QMS, objectives and goals
    (b) Level 2 – Functioning of the QMS (e.g. follow-up mechanisms, communication etc.)
    (c) Level 3 – Actual working procedures for individual processes

11. The below information is extracted from the DKPTO QMS.

12. Level 1 e.g. set forth the policy, quality objectives and goals. The quality policy outlines a number of basic values under the headings Customers, Employees and Management.

13. Level 1 further sets out the objective of the patent granting process, e.g.

    (a) To deliver grant of patents that are robust
    (b) To deliver search and examination products of a high quality which put applicants in a solid position to determine the possibility of obtaining a patent in Denmark or internationally.

14. Finally, Level 1 outlines a number of quality goals under the following headings

    (a) Speed: Search report and 1st examination is dispatched within 7,5 months from filing, 80% of patent applications are finalized within 3½ years
    (b) Quality: Max. 4% of all quality controlled cases are marked as "unsatisfactory"
    (c) Customers: Benchmarking with the EPO, yearly customer surveys

15. Level 2 contains a set of procedures for e.g. handling of documents, follow-up mechanisms including audits and quality control, communication, complaints handling and suggestions for improvement of procedures.

16. Level 3 contains a set of procedures for the search and examination work. Such procedures include e.g. formality processing of patent applications and procedures for making search, 1st examinations, subsequent examinations and final office actions. Procedures for making quality control and processing oppositions are present as well.

17. The Danish Manual of Patent Practise is a part of the QMS and is publicly available on the DKPTO's website.

18. The entire QMS is electronically available to all DKPTO employees on the DKPTO intranet and Level 1 as well as the actual fulfilment of quality objectives and goals is publicly available on the DKPTO's website. Annex 1 of this document contains a (partial) screen-dump of the working procedures for search and examination contained in Level 3.

19. The daily operation of the QMS is handled by a Quality Manager. However, the responsibly for maintaining and updating the separate procedures and e.g. quality control as such is placed with highly skilled patent experts in the organisation.

IV. FOLLOW-UP MECHANISMS IN DKPTO'S QUALITY MANAGEMENT SYSTEM

20. The QMS includes a number of build-in quality follow-up mechanisms to ensure a continuous improvement of the quality:

21. External and Internal audits. External (and thus objective) audits of the QMS is performed regularly to ensure that the system serves its purpose. A team of internal auditors performs around 20-30 audits each year on processes and procedures.

22. Eventual complaints from applicants, Customer surveys and benchmarking provide useful insight for improvement of the QMS.

23. A monthly random sample quality control of the search and examination work is performed on patent applications subject to a quality (product) standard.

24. A continuous management surveillance of the workload and fulfilment of e.g. processing speed goals takes palce.

25. An electronic “mailbox” for employee’s suggestions for quality improvements is available.

26. Based on the above follow-up/feedback mechanisms a management quality group holds meetings each quarter to ensure that feedback is dealt with accordingly and actions are taken. This may in turn lead to e.g. change of procedures/processes or upgrading of examiners skills or tools.

27. Further the top-management holds biannual meetings to ensure that the QMS is fit for the purpose, actions are taken properly or to decide whether the staff is sufficiently qualified and the necessary resources are present to tackle the workload.

V. QUALITY CONTROL OF DKPTO’S SEARCH AND EXAMINATION WORK

28. Any office action (search report and examination) performed by a patent examiner is peer-viewed by another examiner before it is dispatched from the DKPTO to the applicant.

29. Quality control of search and examination work on patent applications is done by a Quality Control Group consisting of highly skilled and experienced patent examiners.

30. Cases are picked out by random sampling according to standardised methology. Cases are picked out in two categories (stages of the application procedure): 1) Search and first examination and 2) Subsequent examination including final office actions.

31. Cases picked are measured up to a “product standard”.

32. The Search and First Examination “standard” include e.g. control of

    (a) The search: Coverage, relevant patent classes, terms, synonyms, citations
    (b) Prior art found: Relevancy, novelty and inventive step judged correctly on the basis of prior art, correct methology for judging inventive step, objective technical problem defined correctly
    (c) Treatment of patent claims: Unity correctly determined, dependent claims dealt with
    (d) Office action: Conclusions in line with the text of the office action, necessary instructions to applicant, all deficiencies mentioned, support in the description, clarity of application, letter fit for purpose (e.g. private or professional applicant)

33. The subsequent examination/final office actions “standard” include e.g. control of:

    (a) The search: Is top-up search done, coverage, relevant patent classes, terms, synonyms, citations, has amended claims led to a changed search which is performed
    (b) Prior art found: Relevancy, novelty and inventive step judged correctly on the basis of prior art, correct methology for judging inventive step used, objective technical problem defined
    (c) Treatment of patent claims: Unity correctly determined, support in description

(d) Office action: Conclusions in line with letter text, necessary instructions to applicant, all deficiencies mentioned, support in the description, clarity of application, letter fit for purpose (e.g. private or professional applicant)

34. Subject to the quality control a case is marked "approved", "could be improved" or "unsatisfactory". Monthly reports are dispatched to the Patent Management for further action. Quality markings are as follows

(a) "Unsatisfactory" means that an applicant has received a wrongly or dissatisfactory office action from the DKPTO (e.g. the examiner takes a negative stance on patentability on an obviously fault basis, a positive stance on patentability was initially taken and later withdrawn, non-compliance with patentability criteria's)
(b) "Could be improved" means that internal procedures were not followed, but it has no direct impact on the applicant
(c) "Approved" means that patent practise and procedures has been followed

35. As stated above, an assessment based on the patentability criterias as well as e.g. support in the description and clarity is dealt with as a part of the quality control. Procedures for the search and examination work further describe these topics.

36. DKPTO's procedures for processing of patent applications, its patent practise (Manual of Patent Practise) and the legal framework (the Patents Act and the Patent Order) is available on DKPTO's website.

VI. RECRUITMENT AND TRAINING OF PATENT EXAMINERS

37. Skilled patent examiners with a relevant scientific and/or technical background from a university are a prerequisite for delivering search and examination products of a high quality.

38. The DKPTO conducts a series of interviews with applicants applying for a job as a patent examiner. This will, inter alia, include a "real" test where an applicant will have to demonstrate his/her ability to read, understand and process a patent application and evaluate on the basis of prior art attached.

39. When starting as a patent examiner a new employee is entitled "associate examiner" under supervision of a senior examiner. This supervision may take place a year or more, depending on the abilities of the new employee. Any upgrade to "examiner" is subject to test and evaluation from patent management.

40. Similarly, "examiners" are subject to case review and a test before appointment to "senior examiner".

41. All examiners – independent of seniority – are continuously measured against a set of competences and qualifications as part of the QMS.

42. Examiners are trained on both a regular and an ad-hoc basis in relevant patent fields and database searching.

VII. DKPTO'S EXPERIENCES WITH QUALITY MANAGEMENT – LESSONS LEARNED

43. As earlier stated the DKPTO received an ISO 9001 certification for its patent granting process in 2005. The ISO 9001 simply set forth a framework. How requirements within this framework are to

be fulfilled is up to the individual organisation/patent office to decide. Hence, there is a great flexibility for an Office to adapt to this standard. Using ISO 9001 is simply one way of adopting a QMS.

44. The DKPTO already had a significant number of guidelines and procedures which were re-used, organised and fed into the QMS. As such the build-up of a QMS did not involve any particular huge effort, and was put in the hands of a quality task force. The time span from the decision of implementing an initial QMS to launch was around half a year.

45. After launch of the QMS a significant number of improvement suggestions were filed by employees who served as a mechanism to mature the QMS and improve the procedures for e.g. the search and examination work. Later, the number of improvement suggestions has dropped to a lower, natural level.

46. A number of skilled examiners act as responsible "owners" of procedures. Improvement suggestions and ownership from employees has introduced a "quality culture" in the DKPTO.

47. The regular quality control of search and examination has led to a focused training of examiners within specific patent fields.

48. Further, customer surveillances shows that applicants find that they receive a more uniform working product of a higher quality.

49. Finally, a QMS guarantees continuous learning and improvement of products.

50. Overall, operational challenges facing quality management is to

    (a) ensure a continuous high devotion from the management
    (b) steer the development/growth of the QMS (numbers and size of procedures) so it continuous to be operational and possible to handle
    (c) to ensure that improvement suggestions from employees are dealt with timely and properly

51. In conclusion, our office finds that our QMS has led to the expected benefits as outlined in the introduction of this document. The quality of the search and examination process and of the actual work has increased for e.g. the following reasons:

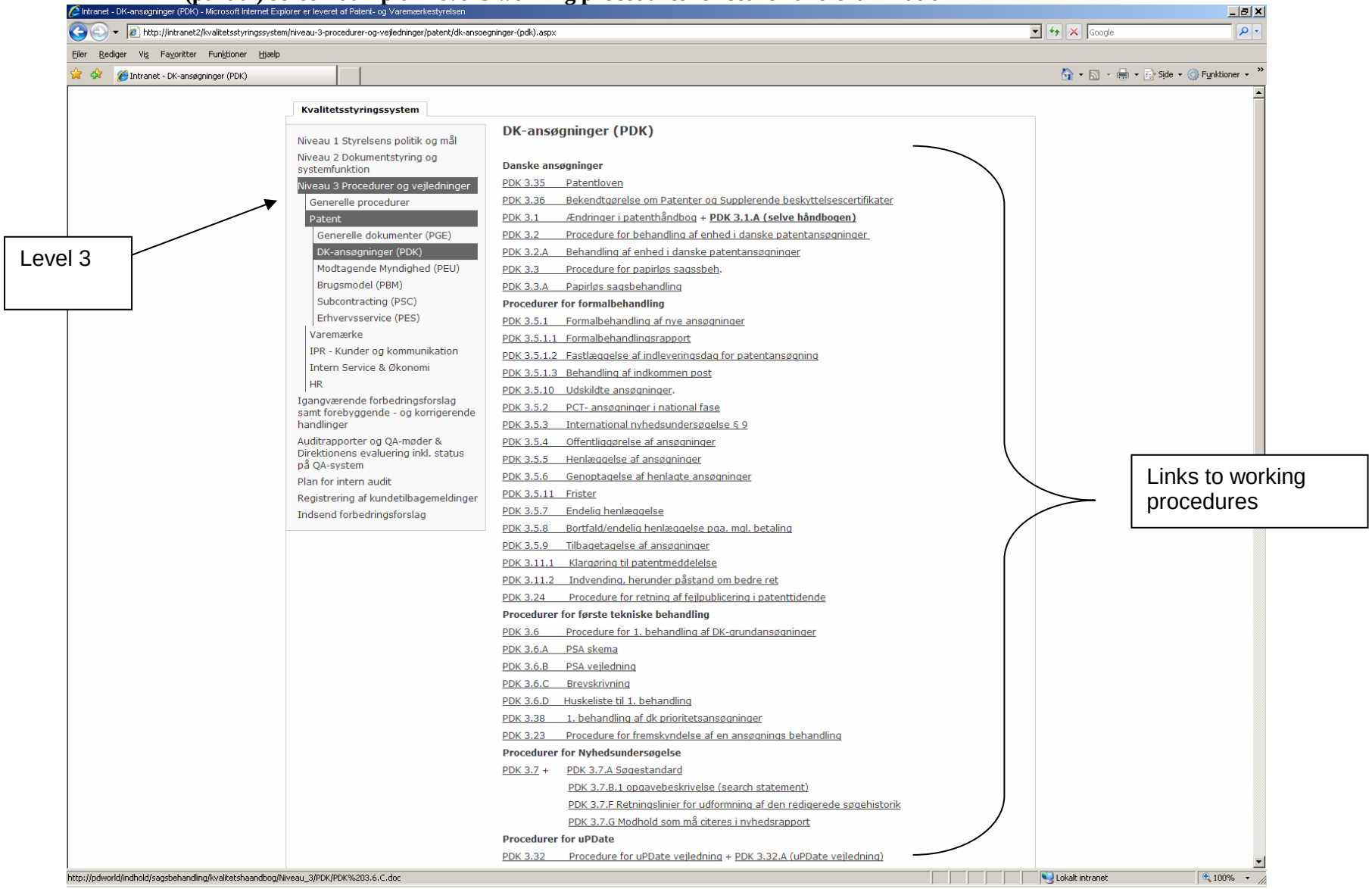
    (a) It has introduced a "quality culture/awareness" among examiners
    (b) It ensures that uniform products are delivered to a certain standard

52. However, it should be noted that a QMS only ensures that products are delivered to a standard specified by the QMS.

53. Whatever such "specified standard" may be or whether the standard is adequate is an individual choice to be made by each office. Such a standard may vary among patent offices depending on specific national legislation, level of development, infrastructure, applicant's needs or requirements etc.

[END]

ANNEX 1 – (partial) screen-dump of Level 3 working procedures for search and examination



Level 3

Links to working procedures