

Patent Cooperation Treaty (PCT)

Common Quality Framework for International Search and Preliminary Examination

REPORT ON QUALITY MANAGEMENT SYSTEMS

prepared by the Korean Intellectual Property Office

The Authority should provide general background information relevant to the quality management system (QMS) as set forth in this template.

The descriptions below each main heading of this template should be considered examples of the type and arrangement of information that should be included under each heading. Each Authority may provide additional information beyond that set forth in this template as desired.

INTRODUCTION (PARAGRAPHS 21.01 - 21.03)

In this introduction, each Authority should include a summary of all changes to their quality management system that have taken place since the previous report on their Quality Management System, and any other matters considered to be interest in relation to quality management.

If applicable, the Authority may at this point indicate any recognized normative reference or basis for their quality management system besides Chapter 21, such as ISO 9001, under the heading “Normative Reference for QMS”

For example: “Normative reference for QMS: ISO 9001, EQS (European Quality System)”

Each Authority should then provide at least the information indicated in the descriptive boxes, under the following headings. Authorities may include process charts if this would facilitate the understanding of an aspect of the report.

1. LEADERSHIP AND POLICY

21.04 Confirm that the following are clearly documented, and that this documentation is available internally:

- (a) The quality policy established by top management.*
- (b) The roles and names of those bodies and individuals responsible for the QMS, as specified by top management.*
- (c) An organizational chart showing all those bodies and individuals responsible for the QMS.*

21.05 Indicate (e.g. by means of a table) the extent of compatibility between the Authority's QMS and the requirements of Chapter 21 of these International Search and Preliminary Examination Guidelines. Alternatively, indicate where the Authority is not yet compliant with these requirements).

(a) KIPO holds an Executive Meeting that is presided over by the Commissioner and attended by Directors General of all Bureaus. The meeting discusses major activities and seeks solutions to special issues regarding PCT quality management. In particular, key PCT data, such as timely issue of search and examination reports and XY citation rate, are reported at the first meeting of every month.

(b) KIPO has established a PCT Quality Management System (QMS) of its own, managed and operated by 38 examination Divisions under six Examination Bureaus (Patent Examination Policy Bureau, Digital Convergence Examination Bureau, Electricity & Communications Examination Bureau, Chemistry & Biotechnology Examination Bureau, and Machinery & Metals Examination Bureau, Semiconductor Examination Bureau), along with the two exclusive divisions for PCT examination (PCT International Search & Preliminary Examination Division I & II), Patent Examination Policy Division, Patent Legal Administration Division, Examination Quality Assurance Division, Industrial Property(IP) International Application Division, IP Information System Division, IP Industrial Property Data Management Division, and IP Education Division, etc.

The Patent Examination Policy Division is responsible for managing PCT search and examination policies. It establishes a comprehensive PCT work plan as well as strategies for improving PCT examination quality at the beginning of each year; and reviews the effectiveness and results of PCT policies every month.

The Patent Legal Administration Division is in charge of managing PCT-related regulations and system, and has frequent international discussions to further develop PCT system. The Division constantly monitors the compliance of KIPO's practices of PCT international search and preliminary examination with the PCT Guidelines.

The Examination Quality Assurance Division publishes a book titled Standards of Quality Review of PCT Examination, and performs a quality review with randomly picked samples of international search report (ISR) and international preliminary examination report (IPER) on PCT application. The review results are provided back to examiners to prevent the same deficiencies from recurring.

PCT International Search & Preliminary Examination Division I is in charge of receiving search copies, checking formality requirements of PCT international search documents, and sending ISR or IPER to corresponding offices.

IP Information Data Management Division operate IT systems, and collect and manage a variety of prior art data, which is to support ISR/IPER work.

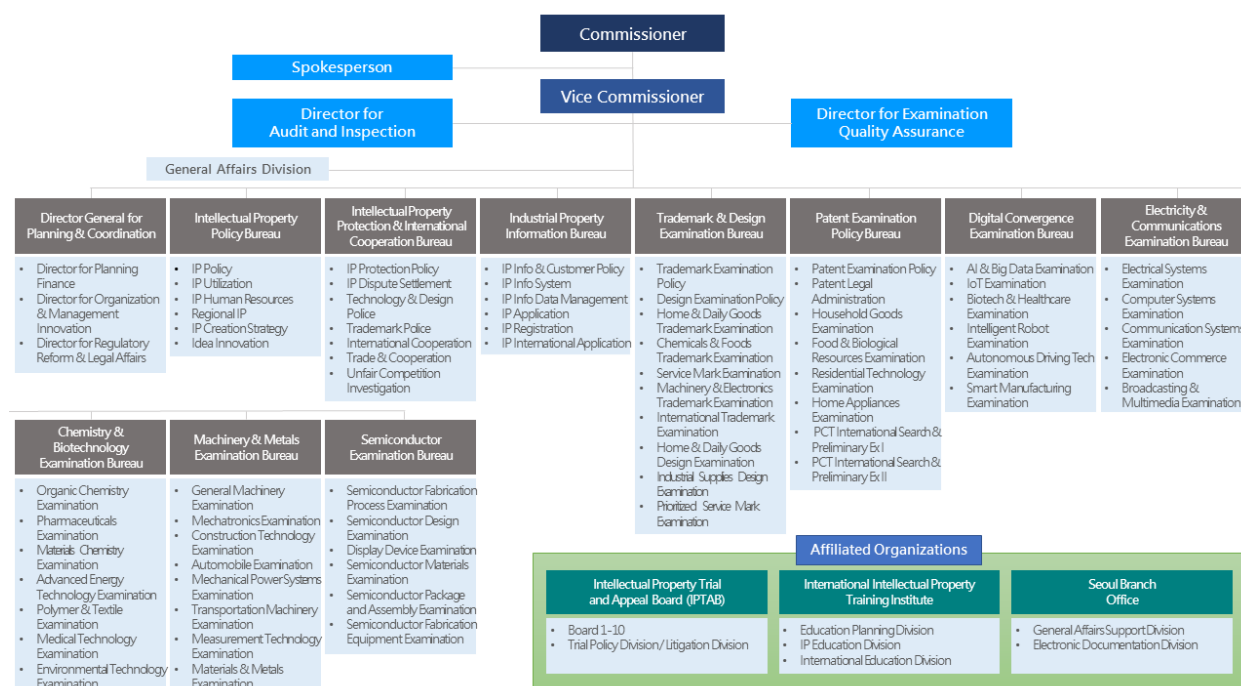
The IP International Application Division is in charge of assisting applicants in filing an international application, providing information on international application, and checking formality requirements of PCT international applications.

The IP Education Division plans and runs a range of PCT training courses including New Examiner Course, and Basic/Advanced PCT Examination Course. Moreover, with the aim of keeping examiners informed of state-of-the-art technologies in required fields, it organizes special-purpose lectures and seminars. KIPO started to deliver course for examiners with respect to new technologies, such as AI, Big data, etc. of 4th Industrial Revolution.

In each examination Division, the examiner who is in charge of the specific IPC for the PCT application filed drafts the ISR/IPER. Then, both the head of the unit (or “subdivision”) and the Director of the Division examine whether the report meets the quality standards and criteria specified in the PCT Guidelines.

Examiners of the PCT International Search & Preliminary Examination Division I & II – the exclusive divisions for PCT examination – carefully review and refine the search results written and submitted by agencies of cooperative search for prior art, in order to ensure the results are in compliance with the quality standards under the PCT Guidelines, before finalizing the reports. Both the heads of the examination units and the Directors of the Divisions then do the final review of the reports to see if there are any unnoticed substandard aspects in the reports.

(c) QMS Organizational Chart



[Sample table, to be amended as necessary]

Chapter 21 requirement			Extent of compliance		
			full	part	no
21.04	(a)	Quality policy available	✓		
	(b)	Identified roles and names for QMS responsibility	✓		
	(c)	Organizational chart available	✓		
21.05		Established compatibility of QMS with Chapter 21	✓		
21.06	(a)	Mechanisms to ensure effectiveness of the QMS	✓		
	(b)	Control of the continual improvement process	✓		
21.07	(a)	Communication of management about this standard to staff	✓		
	(b)	The PCT Guidelines are in line with the Authority's QMS	✓		
21.08	(a)	Management reviews take place	✓		
	(b)	Quality objectives are reviewed	✓		
	(c)	Communication of quality objectives to the relevant staff at the Authority	✓		
21.09	(a)	Performance of a yearly internal review of the QMS in/to	✓		
	(b)	determine the extent to which the QMS is aligned with Chapter 21	✓		
		determine the extent to which search and examination (S&E) complies with PCT Guidelines	✓		
	(c)	an objective and transparent way	✓		
	(d)	using input incl. information according paragraph 21.29	✓		
	(e)	recording the results	✓		
21.10		Risk and opportunities are addressed that can affect the QMS and the conformity of search and examination	✓		
21.13		Arrangements for establishing risk-based practices to	✓		
	(i) (a)	understand issues that affect its ability to achieve intended results of the QMS	✓		
	(b)	understand the needs and expectations of interested parties	✓		
	(ii)	identify risks and opportunities related to the performance of the QMS as a basis for planning	✓		
	(iii)	plan and implement actions to address risks and opportunities	✓		
	(iv)	check the effectiveness of the actions taken	✓		
	(v)	continuously update risks and opportunities.	✓		
21.15		Assurance to monitor and adapt to actual workload	✓		
	(i)	Infrastructure in place to ensure that a quantity of staff	✓		
	(a)	sufficient to deal with the inflow of work	✓		

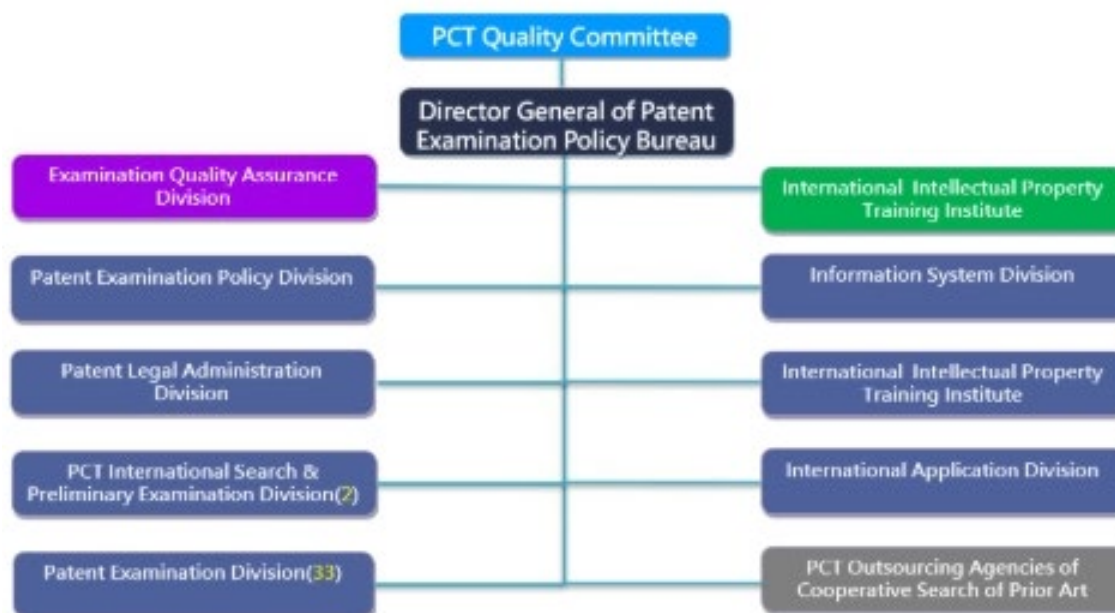
Chapter 21 requirement			Extent of compliance		
			full	part	no
	(b)	which maintains technical qualifications to S&E in all technical fields	✓		
	(c)	which maintains the language facilities to understand languages according to Rule 34	✓		
	(ii)	Infrastructure to provide a quantity of skilled administrative staff	✓		
	(a)	at a level to support the technically qualified staff	✓		
	(b)	for the documentation of records	✓		
	(iii)	Ensuring appropriate equipment to carry out S&E	✓		
	(iv)	Ensuring documentation according to Rule 34	✓		
	(v)	(a) Instructions to help staff understand and act according to the quality criteria and standards	✓		
	(b)	Instructions to follow work procedures accurately and they are kept up-to-date.	✓		
	(vi)	(a) Training and development program to ensure and maintain necessary skills in search and examination	✓		
	(b)	Training and development program to ensure awareness of staff to comply with the quality criteria and standards.	✓		
	(vii)	(a) System in place for monitoring resources required to deal with demand	✓		
	(b)	System in place for monitoring resources required to comply with the quality standards in S&E	✓		
21.16	(i)	Control mechanisms to ensure timely issue of S&E reports	✓		
	(ii)	Control mechanisms regarding fluctuations in demand and backlog	✓		
21.17	(i)	Internal quality assurance system for self-assessment	✓		
	(a)	for compliance with S&E Guidelines	✓		
	(b)	for channeling feedback to staff	✓		
	(ii)	System for measurement of data and reporting for continuous improvement	✓		
	(iii)	System for verifying the effectiveness of actions taken to correct deficient S&E work, eliminate the causes and prevent issues from recurring	✓		
21.19	(a)	Contact person helping identify best practice between Authorities	✓		
	(b)	Contact person fostering continual improvement	✓		

Chapter 21 requirement			Extent of compliance		
			full	part	no
		(c) Contact person providing for effective communication with other Authorities for feedback and evaluation	✓		
21.20	(i)	(a) Appropriate system for handling complaints	✓		
		(b) Appropriate system for taking preventive/corrective actions	✓		
		(c) Appropriate system for offering feedback to users	✓		
	(ii)	(a) A procedure for monitoring user satisfaction & perception	✓		
		(b) A procedure for ensuring their legitimate needs and expectations are met	✓		
	(iii)	Clear and concise guidance on the S&E process for the user	✓		
		Indication where and how the Authority makes its quality objectives publicly available	✓		
21.21		Established communication with WIPO and designated and elected Offices	✓		
21.22		QMS of Authority clearly described and documented	✓		
21.23		(a) Material making up the reference of quality procedures and processes for staff and management has been prepared and distributed	✓		
		(b) Media available to support the reference material	✓		
		(c) Document control measures are taken	✓		
21.24		Items which should be documented in the reference of quality procedures and processes	✓		
	(i)	Quality policy of the Authority and commitment to QMS	✓		
	(ii)	Scope of QMS	✓		
	(iii)	Organizational structure and responsibilities	✓		
	(iv)	Documented processes carried out in the Authority	✓		
	(v)	Resources available to carry out processes and implementing the procedures	✓		
	(vi)	Description of the interaction between the processes and the procedures of the QMS.	✓		
21.25	(i)	Records of which documents are kept and where they are kept	✓		
	(ii)	Records of results of management review	✓		
	(iii)	Records about training, skills and experience of staff	✓		
	(iv)	Records of evidence of conformity of processes, resulting products and services in terms of quality standards	✓		

Chapter 21 requirement			Extent of compliance		
			full	part	no
	(v)	Records of results of reviews of requirements relating to products	✓		
	(vi)	Records of the S&E process carried out on each application	✓		
	(vii)	Records of data allowing individual work to be tracked	✓		
	(viii)	Records of QMS audits	✓		
	(ix)	Records on actions taken re. non-conforming products	✓		
	(x)	Records on actions taken re. corrective actions	✓		
	(xi)	Records on actions taken re. preventive actions	✓		
	(xii)	Records referring to search process documentation	✓		
21.26	(i)	Recording of the databases consulted during search	✓		
	(ii)	Recording of keywords, combination of words and truncations during search	✓		
	(iii)	Recording of the languages used during search	✓		
	(iv)	Recording of classes and combinations thereof consulted during search	✓		
	(v)	Recording of a listing of all search statements used in databases consulted	✓		
	(vi)	Records about other information relevant to the search	✓		
	(vii)	Records about limitation of search and its justification	✓		
	(viii)	Records about lack of clarity of the claims	✓		
	(ix)	Records about lack of unity	✓		
21.27		Report on its own internal review processes	✓		
21.28-21.30		Additional information on further inputs to its internal reviews	✓		
21.31		Initial report called for by paragraph 21.31	✓		

21.06 Indicate with reference to the organizational chart those bodies and mechanisms management uses to ensure:

- (a) the effectiveness of the QMS; and*
- (b) that the process of continual improvement progresses.*



(a) Every six months, the PCT Quality Committee is convened to share key issues that may affect the PCT quality and discuss solutions to address them. The meeting is chaired by the Director General of the Patent Examination Policy Bureau, and attended by officials from PCT-responsible Divisions of KIPO, like Patent Examination Policy Division, Patent Legal Administration Division and Examination Quality Assurance Division; as well as representatives from agencies of cooperative search for prior art that carry out initial prior art search for KIPO. The meeting attendees review the extent to which the major policies pursued by those Divisions comply with the QMS requirements and the extent to which KIPO conforms to the PCT International Search and Preliminary Examination Guidelines. More serious issues are also reported in the Executive Meeting presided over by the Commissioner of KIPO.

(b) At the meeting of the PCT Quality Committee, not only the officials of PCT-related Divisions but also examiners, unit heads, and division Directors, whose job responsibilities relate to PCT activities, are present to discuss the way forward on QMS development. The topics and agenda discussed during the meeting are taken into consideration when establishing future PCT policies by the corresponding officials.

21.07 Indicate how management of the Authority communicates to its staff the importance of meeting treaty and regulatory requirements including:

- (a) those of this standard; and
- (b) complying with the Authority's QMS.

(a) The Patent Cooperation Treaty (PCT), regulations and enforcement rules under the PCT, and PCT Examination Guidelines, all published by WIPO, were translated into Korean and distributed to KIPO examiners. Along with the effort, KIPO published a PCT ISR and IPER Manual and revise the book on a regular basis to keep the contents up-to-date. The manual book presents detailed PCT information and tips such as, definition, regulations, how to establish the report, and useful template samples. Those materials cover frequently-mentioned elements of the report, and the information in the books is arranged in accordance with the actual ISR/IPER writing order; hence, readers are able to find them easy to understand and highly reliable when drafting the reports.

(b) In each examination Division, both the head of the unit and the Director of the Division are responsible for final review and approval for all ISR/IPERs drafted by the examiners. They determine the extent to which the reports had complied with the quality standards set out by the PCT Guidelines. If deficiencies are identified, the Director orders to correct them and takes

necessary measures to keep similar or same deficiencies from recurring. Each Examination Division also appoints a PCT quality manager who is responsible for monitoring deficiencies and internal inquiries. Also, one of the examiners working at the Patent Legal Administration Division deals with a wide range of internal/external Q&As on ISR/IPER writing, quality standards, and etc.

21.08 Indicate how and when top management of the Authority or delegated officers:

- (a) conducts management reviews and ensures the availability of appropriate resources;*
- (b) reviews quality objectives; and*
- (c) ensures that the quality objectives are communicated and understood by the relevant staff at the respective Authority.*

(a) At the beginning of each year, each QMS-responsible Division of KIPO makes a full report on their QMS plans for the year to the Executive Meeting and the Commissioner of KIPO. To be specific, the Patent Examination Policy Division presents its plans on PCT management and quality objectives; the Patent Legal Administration Division on system improvement; the Examination Quality Assurance Division on quality review; the Information System Division and Information Management Division on information strategy plan (ISP); and the IP Education Division on examiner training.

(b) The Patent Examination Policy Division sets quality objectives at the start of each year, and monitors key PCT data, such as timely issue of search and examination reports and XY citation rate. The Examination Quality Assurance Division carries out the quality review on ISR/IPER every six months to see if examination results of the year are in compliance with the PCT requirements, regulations and examination Guidelines in perspective.

In addition, the PCT Quality Committee is convened twice a year – roughly every six months - to review quality objectives.

(c) At the start of each year, the Patent Examination Policy Division notifies all examiners in each examination Division of the PCT quality objectives of the year. The Patent Legal Administration Division constantly monitors whether KIPO's practices of international search and preliminary examination meet the requirements in the PCT Guidelines. If needed, the Division takes action to revise law and regulation and improve the system. It also makes and distributes to examiners a checklist and FAQ sheet that list useful instructions regarding writing PCT reports.

KIPO associates quality objectives such as timely issue of ISRs/IPERs and the results of ISR/IPER quality review conducted by the Examination Quality Assurance Division, into a Division performance assessment, in an effort to share the PCT quality objectives.

21.09 Indicate whether top management or delegated officers of the Authority perform an internal review of the QMS in accordance with paragraphs 21.27-21.30:

- (a) at least once per year (cf. paragraph 21.27);*
- (b) in accordance with the minimum scope of such reviews as set out in Section 9, namely:
to determine the extent to which the QMS is based on Chapter 21 (cf. paragraphs 21.27, 21.29(i));
to determine the extent to which Search and Examination work complies with PCT Guidelines (cf. paragraphs 21.27, 21.29(i));*
- (c) in an objective and transparent way (cf. paragraph 21.27);*
- (d) using input including information according to paragraphs 21.29 (ii)-(vi);*
- (e) recording the results (cf. paragraph 21.30).*

(a) - (e) The meeting of PCT Quality Committee is convened biannually by QMS-responsible divisions to share key issues that may affect the PCT quality and seek best solutions to resolve them. The meeting attendees determine the extent to which the major policies implemented by each QMS-responsible Division had complied with the QMS requirements, and the extent to which KIPO had followed the PCT International Search and Preliminary Examination Guidelines.

The Patent Examination Policy Division and Patent Legal Administration Division constantly monitor the compliance of KIPO's practices of PCT international search and preliminary examination with the PCT Guidelines. They also make and distribute a checklist and FAQ sheet that list useful instructions regarding writing PCT examination reports.

The Examination Quality Assurance Division carries out the quality review on ISR/IPER every six month to see, in perspective, if examination results are in compliance with the PCT requirements, regulations and PCT Guidelines.

21.10 Indicate whether top management of the Authority promote practices to ensure that risks and opportunities that can affect its QMS and the conformity of international search and examination are addressed.

As 21.09 indicates, the meeting of PCT Quality Committee is convened biannually by QMS-responsible divisions to share key issues that may affect the PCT quality and seek best solutions to resolve them.

2. RISK-BASED PRACTICES

21.11 Explanatory note: Each Authority should establish its own risk-based practices to enable the Authority to determine factors that could cause operational processes and its quality management system to deviate from requirements or planned results, to put in place preventive controls to minimize negative effects, and to make use of opportunities as they arise.

21.12 Explanatory note: It is open to each Authority to set up its own arrangements to determine the effect of uncertainty on objectives. Paragraph 21.13 provides a guide to the basic components of risk-based practices as an element of QMS. There is no requirement for formal methods of risk management or a documented risk management process.

(Note: These points are informative. No response is required by the template to paragraphs 21.11 and 21.12).

21.13 Arrangements for establishing risk-based practices

Provide information on the arrangements that your Authority has made to:

- (i) (a) understand issues that affect its ability to achieve intended results of the QMS, and*
 - (b) understand the needs and expectations of interested parties;*
- (ii) identify risks and opportunities related to the performance of the QMS as a basis for planning;*
- (iii) plan and implement actions to address risks and opportunities;*
- (iv) check the effectiveness of the actions taken; and*
- (v) continuously update risks and opportunities.*

21.14 Explanatory note: All processes of the QMS present differing levels of risk in terms of the Authority's ability to meet its objectives, and the effects of uncertainty are not the same for all Authorities. Each Authority is responsible for the actions it decides to take to address risks and opportunities.

(Note: This point is informative. No response is required by the template to paragraph 21.14).

(i) - (v) In order to establish risk-based practices, the meeting of PCT Quality Committee of the KIPO is convened biannually. The Committee figures out the issues that affect its ability to achieve

intended results of the QMS, risks and opportunities related to the performance of the QMS. The committee also solve the issues related to performance of quality by PDCA(Plan, Do, Check, Act) cycle system. By of this, the KIPO could manage resources for achieving of quality in changing circumstances.

And the KIPO has kept touch with interested parties so that the KIPO could receive information and opinions, checks satisfaction of users. (21.20 shows it)

3. RESOURCES

21.15 Explanatory note: The granting of ISA/IPEA status means that the Authority has demonstrated it has the infrastructure and resources to support the search and examination process. Chapter 21 calls for assurance that the Authority can continually support this process while accommodating changes in workload and meeting QMS requirements. The responses below, should provide this assurance.

Human resources:

(i) Provide information about the infrastructure in place to ensure that a quantity of staff: sufficient to deal with the inflow of work;

which maintains the technical qualifications to search and examine in the required technical fields; and

which maintains the language facilities to understand at least those languages in which the minimum documentation referred to in Rule 34 is written or is translated

is maintained and adapted to changes in workload.

(ii) Describe the infrastructure in place to ensure that a quantity of appropriately trained/skilled administrative staff is maintained and adapted to changes in workload:

at a level to support the technically qualified staff and facilitate the search and examination process, and

for the documentation of records.

(i) KIPO has roughly 1,000 patent examiners (KIPO employees who meet the requirement like having Ph.D., Patent attorney certification or passing the civil service examination) and about 200 PCT searching personnel (cooperative search company employees who have more than a bachelor's degree). Expertise in natural sciences and/or engineering is required for all PCT examiners and search staff. While making effort to hire PCT examiners with needed skills, KIPO has provided incumbent examiners with continuing educational opportunities such as specialized lectures and seminars, helping them widen their knowledge and expertise.

PCT examiners and searching personnel, who carry out international search and preliminary examination, also possess high levels of language skills – in particular terms of English proficiency – that are necessary to comprehend foreign PCT documents and prepare ISR/IPER. In an effort to help them sharpen their language skills and stay away from potential linguistic obstacles, KIPO has encouraged examiners to attend an in-house language programs: English, Japanese, Chinese, Spanish, German, French, and Russian classes are available. Or, examiners may take foreign language courses run by various universities commissioned by KIPO. KIPO has taken one step further by equipping its self-constructed search system called Korean Multi-functional Patent Search System (KOMPASS) with machine translation software.

(ii) PCT administrative matters like receipt of search copies are managed by the PCT International Search and Preliminary Examination Division I. At the Division, four formality examiners perform the tasks related to the international search and international preliminary examination. They make a relentless effort to improve their capacity by undertaking on-the-job training and participating in

training programs offered by the International Intellectual Property Training Institute (IIPTI), a KIPO-affiliated training institute.

Meanwhile, a cloud-based IT system that has been established enables examiners to write the ISR/IPER in an easier and more comfortable way. KIPO employees are well-acquainted with the use of the system.

Material resources:

(iii) Describe the infrastructure in place to ensure that appropriate equipment and facilities such as IT hardware and software to support the search and examination process are provided and maintained;

(iv) Describe the infrastructure in place to ensure that at least the minimum documentation referred to in Rule 34 is available, accessible, properly arranged and maintained for search and examination purposes. State whether it is on paper, in microform or stored on electronic media, and where.

(v) Describe how instructions:

to help staff understand and adhere to the quality criteria and standards; and;

to follow work procedures accurately and consistently

are documented, provided to staff, kept up-to-date and adapted where necessary.

(iii) KIPO has made non-patent documentation (including minimum documentation) and foreign publications available on its search system, KOMPASS, in expectation of efficient prior art search. A cloud-based PCT system for international search and preliminary examination is also newly created and used by examiners; and its processing time and load is regularly monitored by KIPO staff to ensure best operation performance.

KIPO has implemented an AI-based system for machine translation, classification, and search in the patent field and established an automatic patent classification recommendation system using AI. KIPO has also provided an AI based automatic search system for examiners. The AI search system uses a standard patent document number as a query to find the closest prior art and displays the search results in the order of high relevance.

KIPO's IT system allows all PCT-related procedures ranging from filing an application to drafting and issuing ISR/IPER to be processed electronically. KIPO also has a Patent Examination Guidance System that is designed to improve work efficiency and offer more convenience to examiners by providing support for writing PCT ISRs and written opinions. After setting a basic ISR information, an examiner may search documents on KOMPASS and the Guidance system then automatically inputs the information of cited documents into the ISR or written opinion, verifies writing errors and checks whether the category of cited document is correctly and consistently assigned in the report. Information on patent family members cited on KOMPASS is also automatically inputted into the report; and the information that is used while writing ISR and also relevant to the corresponding written opinion, is entered into the written opinion in an automatic manner. By taking such advantages of the PCT Examination Guidance System, PCT examiners can minimize errors in writing search report and opinion and reduce the amount of time spent writing them.

(iv) Regarding non-patent documentation out of the minimum documentation, KIPO builds its own database(DB) or uses free and/or charged services of domestic or foreign journal providers. Foreign publications are also stored in a database and accessed with KOMPASS. Examiners are given free access to the minimum documentation through their office PC. The paper-based documents and databased materials are managed as asset by IP Digital Library of KIPO and the Korea Institute of Patent Information (KIPI).

(v) KIPO publishes the PCT ISR/IPER Manual to provide examination guidelines in detail to examiners. The book gives not only special instructions on writing certain report items in which

deficiencies and mistakes are frequently found, but also referential examples of reports published by overseas organizations.

Besides, a checklist that points out what examiners should pay special attention to when preparing PCT reports is given to PCT examiners. Both the Manual and checklist are always kept up-to-date on the latest revision of PCT regulations, if any.

The PCT Formality Examination Manual published by the IP International Application Division describes in detail what an examiner has to do in each step of the formality examination, using real images captured while working.

Training resources:

(vi) Describe the training and development infrastructure and program which ensures that all staff involved in the search and examination process:

acquire and maintain the necessary experience and skills; and

are fully aware of the importance of complying with the quality criteria and standards.

(vi) The International Intellectual Property Training Institute (IIPTI) invites high-performing examiners to give lectures on examination work in a very practical perspective. The institute works hard to improve the quality of examination by providing high-quality PCT training programs that include New Examiner course and Basic/Advanced PCT Examination course. Course-takers of the programs are given chances to have discussions on various levels of examination issues, solutions, and desirable practices. The PCT Course uses the PCT ISR/IPER Manual as a main teaching material for the sessions including PCT Applications

(General), Writing a PCT Written Opinion in English (Rules and Case Study), International Applications under PCT (Case Study), and Preparation for PCT ISRs and Written Opinions, etc.

KIPO has annually held a PCT User Meeting for PCT applications, patent agents and the general public, Etc. to explain PCT Rules and Guidelines and gets some feedback from them.

With the aim to keep its examiners up-to-date on advanced technologies, KIPO organizes specialized lectures and seminars on a regular basis, in which technology experts present fresh and useful information; and opens tailor-made courses in association with universities and/or professional educational institutions. In an effort to respond to the trend of technological convergence, KIPO offers special lectures on major innovative technologies, such as AI, semiconductor, 5G/6G, quantum, metaverse and cybersecurity.

KIPO also encourages its examiners to voluntarily organize study groups to stay up to date with new technology knowledge in the required technical fields, and pay costs for such activities, e.g., for a seminar invited by outside experts, an industrial on-site meeting, and academic conference participations, technical book purchasing.

Furthermore, the Office provides year round language programs for those who wish to develop linguistic abilities in English, Japanese, Chinese Spanish, German, French, and Russian tongues. KR examiners also can take external language courses KIPO provides in partnership with various universities. Such learning-friendly environment helps the examiners improve their English proficiency and eventually minimize potential linguistic obstacles in reading and writing ISR/IPER.

Oversight over resources:

(vii) Describe the system in place for continuously monitoring and identifying the resources required:

to deal with demand; and

comply with the quality standards for search and examination.

(vii) Demand and compliance with the quality standards for search and examination are steadily monitored by a number of Divisions. The Patent Examination Policy Division and the IP International Application Division concurrently oversee the demand for and workload of international search and preliminary examination.

Necessary equipment and facilities are taken care of by the IP Information System Division and IP Information Data Management Division. If there is an issue that requires inter-divisional cooperation, the PCT Quality Committee and/or Executive Meeting discuss the issue to take a necessary measure.

4. MANAGEMENT OF ADMINISTRATIVE WORKLOAD

21.16 Indicate how the following practices and procedures for handling search and examination requests and performing related functions such as data-entry and classification are implemented:

- (i) Effective control mechanisms regarding timely issue of search and examination reports to a quality standard as set by the respective Authority; and*
- (ii) Appropriate control mechanisms regarding fluctuations in demand and backlog management.*

(i) KIPO has motivated its PCT examiners to fulfill their duty of timely issue of PCT ISR report by associating the duty fulfillment with performance objectives. Each patent examination Bureau often notifies their examiners of any patent filing with upcoming or overdue deadline. The Patent Examination Policy Division reports to the Executive Meeting every month the percentage of flows that meets the deadlines.

(ii) The Patent Examination Policy Division closely follows fluctuations in demand and workload on a monthly basis. If the number of PCT application increases, the Division assigns a certain amount of application to additional PCT examiners to cope with the unusual excessive demand. Directors of each examination Division strive to make necessary and timely adjustments to evenly and appropriately distribute examination work to each examiner. They may designate certain examiners for exclusive treatment of ISR/IPER-related works, if needed.

5. QUALITY ASSURANCE

21.17 In accordance with the Guidelines, the following are required quality assurance measures for timely issue of search and examination reports of a high quality. Indicate how the following are implemented, including the use of any checklists to verify reports before their issue or for monitoring the quality as part of a post-issue review process:

- (i) An internal quality assurance system for self-assessment, involving verification, validation and monitoring of searches and examination work:
for compliance with these Search and Examination Guidelines;
for channeling feedback to staff.*
- (ii) A system of measurement and collection of data and reporting. Show how the Authority uses the system to ensure the continuous improvement of the established processes.*
- (iii) A system for verifying the effectiveness of actions taken to correct deficient S&E work, eliminate the causes, and to prevent issues from recurring.*

(i) A draft version of ISR/IPER made by an examiner is primarily reviewed by the head of the unit and then Director of the Division as a way of quality management. After issuing the ISR/IPER, a sample of the issued ISR/IPER is extracted and checked against the established standards set by the Examination Quality Assurance Division for the sake of quality control. As the unit head and Director of the Division are responsible for approving the ISR/IPERs established by the examiners, they naturally serve as the final checker that the ISR/IPERs adhere to the quality standards set out by PCT Guidelines. Deficiencies found in the ISR/IPERs are ordered by the Director and unit heads to be corrected, and necessary measures are

then taken to prevent those deficiencies from recurring.

The quality of PCT ISR and written opinion made by the PCT International Search and Preliminary Examination Division I & II should go through a three-tier quality control mechanism: starting from cooperative search agency, through the PCT IS & PE Division, and finally by Examination Quality Assurance Division. To breakdown, the ISR cooperative search agencies internally go through a two-tier quality assurance process that engages mentor and team manager in. When it comes to the PCT International Search and Preliminary Examination Division, PCT examiner, unit head, and Division Director review the reports in order.

KIPO also employs English Editors who give linguistic advice on expressions, grammar and vocabularies frequently used in ISR/IPER and correct errors or awkward expressions.

(ii) Every month, the Patent Examination Policy Division monitors key PCT data, including changes in XY citation rate or timely issue of search and examination reports. At Executive Meeting, key activities for quality assurance in PCT are reported and special PCT issues are discussed and resolved.

(iii) All PCT examination reports are reviewed by unit heads and Director of Divisions before being issued. By doing this, examiners can correct deficient items identified by their supervisors. The Patent Examination Policy Division and Patent Legal Administration Division constantly monitor whether KIPO's practices of PCT international search and preliminary examination are consistent with the PCT Guidelines. If necessary, the Divisions take action to revise law and regulation, improve the system, and change policies. They also make and distribute to examiners a checklist and FAQ sheet that list useful instructions regarding writing PCT examination reports.

Meanwhile, the Examination Quality Assurance Division conducts a quality review every six month with randomly-selected samples of PCT reports. After reviewing, the division then gives a specialized presentation, offering feedback to examiners on frequently- and repeatedly-found deficiencies. The Division has gathered, analyzed and distributed to examiners the examples of quality review of PCT reports since 2007, as part of efforts to help them avoid similar deficiencies and eliminate the root cause of the deficiencies.

6. COMMUNICATION

Inter-Authority communication:

21.18 Explanatory note: Each Authority should provide for effective communication with other Authorities.

(Note: This point is informative. No response is required by the template to paragraph 21.18)

21.19 Provide the name, job title and contact details of the Authorities designated quality contact person who will take responsibility for:

- (a) helping identify and disseminate best practice among Authorities;*
- (b) fostering continual improvement; and*
- (c) providing for effective communication with other Authorities to allow for prompt feedback from them so that potential systemic issues can be evaluated and addressed.*

(a)-(c)

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Communication and guidance to users:

21.20 Describe the system in place for monitoring and using customer feedback including at least the following elements:

- (i) An appropriate system for handling complaints and making corrections; taking corrective and/or preventative action where appropriate; and offering feedback to users.*
- (ii) A procedure for: monitoring user satisfaction and perception; and for ensuring their legitimate needs and expectations are met.*
- (iii) Clear, concise and comprehensive guidance and information to users (particularly unrepresented applicants) on the search and examination process, giving details of where it is to be found e.g. link to Authority's web site, guidance literature.*

Indicate where and how the Authority makes its quality objectives publicly available for the users.

(i) The IP International Application Division publishes the PCT International Application Guidebook to give instructions on the PCT system, international search and international preliminary examination to applicants and users. The KIPO's web site informs applicants and visitors of how the PCT system works, what has changed in the PCT procedures, and what the PCT rules and regulations are. The materials on the web site are provided mainly in Korean.

The IP Information & Customer Policy Division under the Industrial Property Information Bureau runs a Call Center to respond timely to and take corrective actions against identified deficiencies. It also notifies the corresponding Divisions of the deficiencies as part of an effort to improve KIPO's PCT system and work procedure. Since 2023, KIPO has provided AI-based chatbot services with respect to patent examination and its systems in the public service sector. Also, development of additional AI-driven services for patent examination administration, especially regarding formality check, etc, is currently under way in KIPO.

(ii) The International Application Division holds quarterly seminars with the Information System Division and system operators in order to advance the IT infrastructure for more stable formality examination of PCT application. The division also organizes biannual roundtable meetings with PCT application agents in order to listen to their opinions and frequently-facing inconvenience over the course of PCT international application.

(iii) The Patent Examination Policy Division runs a PCT-Help Desk in the US to better respond to inquiries of local users and clients, on the status of international search and preliminary examination work for their PCT application, necessary procedures they should follow, and expected fees. The IP Information System Division runs the web site "Patent (www.patent.go.kr)," a comprehensive information management web site regarding patent application, helping applicants and visitors see their application status real-time.

The PCT quality objectives of KIPO are made public by means of Annual Report.

21.21 Communication with WIPO and designated and elected Offices:

Describe how the Authority provides for effective communication with the International Bureau and designated and elected offices. In particular describe how the Authority ensures that feedback is promptly evaluated and addressed.

The IP International Application Division and PCT International Search and Preliminary Examination Division I keep in constant contact with WIPO and patent offices in other countries by exchanging e-mails in regard to formality examination under PCT international application. It also tries to do its best to make a quick respond to inquiry and request from those organizations.

7. DOCUMENTATION

21.22 Explanatory note: The QMS of the Authority needs to be clearly described and implemented so that all processes in the Authority and the resulting products and services can be monitored, controlled, and checked for conformity. This is done by documenting the procedures and processes affecting the quality of work as a reference for staff and management at the Authority (see paragraph 21.23).

(Note: This point is informative. No response is required by the template to paragraph 21.22)

21.23 The material that makes up the reference for staff and management at the Authority serves to document the procedures and processes affecting the quality of work, such as classification, search, examination and related administrative work. In particular, the reference indicates where to find instructions on the procedures to be followed.

For the purposes of this report indicate:

- (a) the documents making up the reference that have been prepared and distributed;*
- (b) the media on which they are supported (e.g. Internal Publication, Internet, Intranet); and*
- (c) document control measures taken e.g. version numbering, access to latest version.*

(a) The PCT, regulations and enforcement rules under the PCT, and PCT Guidelines, all published by WIPO, are translated into Korean and distributed to KIPO examiners. Along with the effort, KIPO publishes the PCT ISR & IPER Manual that presents detailed instructions with examples on PCT requirement, regulation, and desirable preparation that are relevant to frequently-written report items. The information is arranged in consistent with the actual writing order of ISR and IPER, helping readers better understand the material.

The PCT Formality Examination Manual is used as a reference or guideline on how to improve the quality of formality examination, maintain consistency of formality examination, and train new examiners. The PCT International Application Guidebook helps applicants better understand the process and procedures of international search and preliminary examination.

As educational or referential material for examiners, KIPO publishes twice a year a Casebook of Quality Review of PCT Examination that shows collected and analyzed cases of quality review of PCT reports. A Check Point Book for Quality Improvement of Examination that analyzes the most common types of deficiencies made over the latest five years, is also published in support of quality enhancement activities.

(b)(c) Every document published within/by KIPO is assigned with a document number. The latest version of the documents can be accessed by all employees through an intra-network system called KOASIS.

21.24 Indicate whether the material making up the reference of quality procedures and processes include the following:

- (i) the quality policy of the Authority including a clear statement of commitment to the QMS from top management;
- (ii) the scope of the QMS, including details of and justification for any exclusions;
- (iii) the organizational structure of the Authority and the responsibilities of each of its departments;
- (iv) the documented processes carried out in the Authority such as receipt of incoming applications, classification, distribution, search, examination, publication and support processes, and procedures established for the QMS, or references to them;
- (v) the resources available for carrying out the processes and implementing the procedures;
and
- (vi) a description of the interaction between the processes and the procedures of the QMS.

(i)-(vi) The PCT ISR & IPER Manual, the PCT Formality Examination Manual, the PCT International Application Guidebook, and the PCT Examination User Manual explain the documented PCT process, such as receipt of incoming application, classification, distribution, search, examination, publication and support processes, all which are executed by international authorities. The books also describe procedures established for the purpose of QMS, references to the PCT process, and resources available for implementing the QMS procedures. The Standards of Quality Review of PCT Examination and the Casebook of Quality Review of PCT Examination explain how the QMS processes and QMS procedures interact with one another.

21.25 Indicate which types of records the Authority maintains, such as:

- (i) a definition of which documents are kept and where they are kept;
- (ii) results of management review;
- (iii) training, skills and experience of personnel;
- (iv) evidence of conformity of processes, resulting products and services in terms of quality standards;
- (v) results of reviews of requirements relating to products;
- (vi) the search and examination processes carried out on each application;
- (vii) data allowing individual work to be tracked and traced;
- (viii) records of QMS audits;
- (ix) actions taken re. non-conforming products, e.g. examples of corrections;
- (x) actions taken re. corrective action;
- (xi) actions taken re. preventative action; and
- (xii) search process documentation as set out in Section 8.

(i)-(xii) A variety of documents are published and managed by each Division of KIPO and contribute to improving quality of examination. The documents are made available on the KOASIS, the KIPO intranet, so that all employees can have free access to them.

The PCT ISR & IPER Manual is, to be specific, published and managed by the Patent Examination Policy Division; the PCT Formality Examination Manual and PCT International Application Guidebook by the IP International Application Division; the PCT Examination User Manual by the IP Information System Division; and the Standards of Quality Review of PCT Examination and Quality Review Report by the Examination Quality Assurance Division. Besides, KOASIS provides spaces to share technological knowledge, create Q&As for PCT Examination,

suggest ideas for PCT improvement, and upload PCT-relevant materials. These tools help examiners share useful information and have a voluntary discussion on the PCT system.

The search and examination processes carried out on each application are recorded electronically by a cloud-based PCT system, and the free access to these data enables examiners to track their personal work any time.

8. SEARCH PROCESS DOCUMENTATION

21.26 For internal purposes the Authority should document its search process.

The Authority should indicate

(a) which of the following are included in this record:

- (i) the databases consulted (patent and non patent literature);*
- (ii) the keywords, combinations of words and truncations used;*
- (iii) the language(s) in which the search was carried out;*
- (iv) the classes and class combinations searched, at least according to the IPC or equivalent;*
- (v) a listing of all search statements used in the databases consulted.*

(b) which other information relevant to the search itself is included in this record e.g. a statement of the subject of search; details of special relevance to internet searching; a record of documents viewed; on-line thesaurus, synonym or concept databases, etc.

(Explanatory note: The IA is requested to list other information it may collect to monitor and improve the search process)

(c) which special cases are documented and whether records are kept denoting any:

- (vi) limitation of search and its justification*
- (vii) lack of clarity of the claims; and*
- (viii) lack of unity.*

(a)-(b) KIPO's PCT IT system documents and records search process like used search DBs, keywords, classifications, etc.

(c) The information prescribed in (vi), (vii) and (viii) is all included in the ISR.

9. INTERNAL REVIEW

21.27 Explanatory note: The Authority should report on its own internal review arrangements. These reviews determine the extent to which it has established a QMS based on the model of Chapter 21 and the extent to which it is complying with the QMS requirements and the Search and Examination Guidelines. The reviews should be objective and transparent to demonstrate whether or not those requirements and guidelines are being applied consistently and effectively and should be undertaken at least once a year. With reference to point 21.08 of this template, the Authority may provide additional information on its internal review arrangements under this section if it so wishes.

21.28-21.30 These arrangements are reported according to this template in Section 1, above, at points 21.04 - 21.09. The Authority may provide additional information on further inputs to its internal reviews under this section, if it so wishes.

Attendees of the meeting of PCT Quality Committee check whether major tasks performed by each Division fulfill the requirements of QMS and follow the PCT Guidelines.

10. ARRANGEMENTS FOR AUTHORITIES TO REPORT TO THE MIA

21.31 There are two stages in the reporting arrangements outlined in Chapter 21: the initial report called for by paragraph 21.31(a), and annual reports in accordance with paragraph 21.31(b). Authorities should submit each report in the form of a full report, making the differences from the previous year's report clear, for example using "track changes" or other form of highlighting.

[End of document]