

ANNUAL REPORT 2018



Korean Intellectual
Property Office

Editorial Board

Multilateral Affairs Division
Korean Intellectual Property Office

Publisher

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April 2019



Korean Intellectual Property Office



Korean Intellectual
Property Office

YOUR INVENTION PARTNER, KIPO

ANNUAL REPORT 2018

Message from the Commissioner

Amidst the era of the 4th Industrial Revolution (4IR), intellectual property (IP) has become the necessary swords and shields of business management. Being the Republic of Korea’s principal governmental agency of intellectual property rights (IPRs), the Korean Intellectual Property Office (KIPO) has dedicated efforts to lead industrial innovation based on the creation of strong IP by providing effective IP protection and utilization. On a global aspect, new and existing relationships have been established and strengthened with foreign IP offices and international organizations.

Throughout the year 2018, many endeavors were carried out to raise the level of Korea’s IP administration. Most notably, a significant step was taken to deter IPR infringement and protect right holders through enforcing punitive damages. Last December, an amendment to the Patent Law was approved to award a compensation amount up to three times the damages for patent and trade secret infringements.

Furthermore, there had been considerable success with investigations and seizures carried out by the Special Judicial Police, which is KIPO’s enforcement authority on trademark violations. Thus, the relevant law was revised to grant policing authorities on trademark, patent, design and trade secret infringements for the greater protection of IPR.

At the same time, we worked to set up a system that helps small and medium-sized enterprises (SMEs) secure IP-based financing that allows their patents and technologies to be used as guarantees and collateral for loans. Aiming to create an environment where IP is properly valued in the market, KIPO jointly announced with the Financial Services Commission the establishment of comprehensive actions for an IP financing system focused on SMEs.

For IP creation, we endeavored to link government research and development (R&D) projects with IPRs. Patent information was utilized to perform analyses on technology trends. The analysis results gave directions for R&D projects to create high value-added standard-essential patents (SEPs) and support industrial development based on strong and valuable IPRs.

One of KIPO’s steadfast pursuits is to ensure high-quality IP services to our users, especially in patent, trademark and design examination. To improve the efficiency and accuracy of the examination process, we expanded our various cooperative examinations, mainly regarding prior art search outsourcing and consultative examinations. In terms of overall quality management, we restructured our monitoring system to allow each examination division to have more involvement in managing the quality of its performances with greater responsibility.

Also, we made available an accelerated examination track for seven major technology fields of the 4IR, including AI and big data. Recognizing the rapid development of technology, we worked to satisfy the changing needs of our users by providing appropriate services in a timely manner.

Harnessing our experiences, KIPO has been doing its part to lead the global advancement of the IP system which requires active engagement in multilateral and bilateral cooperation. Last year, the heads of the world’s five largest patent offices (IP5) gathered for the 2018 IP5 Heads Meeting held in the US. The five patent offices (KIPO, CNIPA, EPO, JPO and USPTO) agreed to collaborate towards enhancing the IP5 cooperation especially in the field of examination.

In addition to the participation in international forums, bilateral activities

were also continued for strengthening cooperative relationships regarding IP. We worked with ASEAN and other countries such as China, UAE, Saudi Arabia and Brazil in the areas of IP system establishment, examination quality improvement and international IP protection.

Lastly, various contributions were made to assist developing countries in advancing their IP capacity. We accomplished several projects for appropriate technology and brand development to support the sustainability of local communities. Also through the WIPO Korea Funds-in-Trust, educational programs were conducted to enhance the awareness of IPRs, ultimately, fulfilling our international responsibilities as one of the leading countries in IP.

These achievements would not have been possible without the continued interest and support of our IP service users, both foreign and domestic. There are still numerous activities undertaken by KIPO that I have not mentioned. I hope this report serves to give you a better understanding of our recent policies and projects.

It is my great pleasure to present to you the 2018 Annual Report.

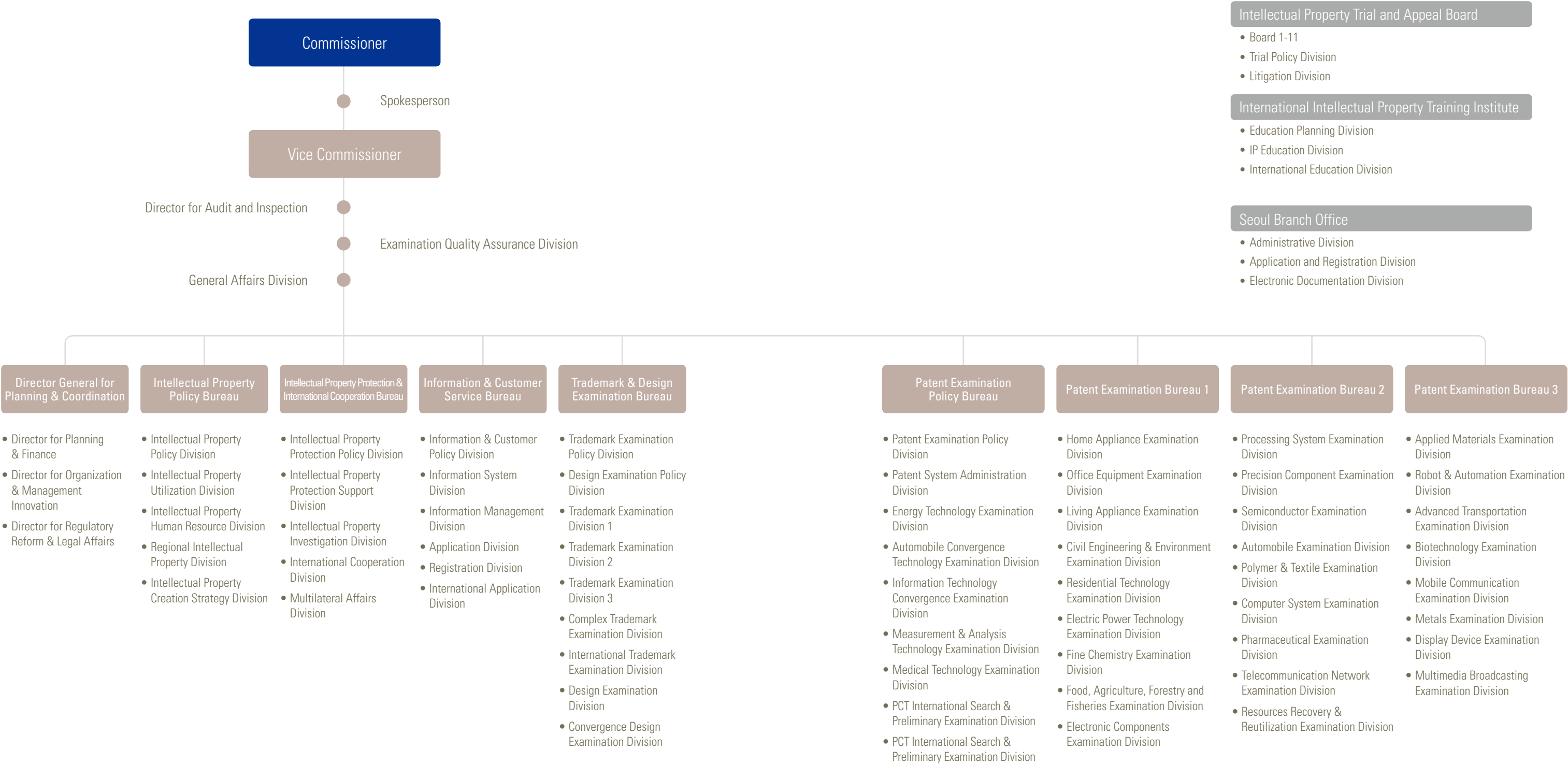
“ KIPO has dedicated efforts to lead industrial innovation based on the creation of strong IP by providing effective IP protection and utilization. ”

Park Wonjoo | Commissioner

Park Wonjoo



Organizational Structure of KIPO



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Intellectual Property is
the driving force behind
the 4th Industrial Revolution

10.3

months

First action pendency for
patents and utility models

Innovation

KIPO fosters IP Innovation through fast patent examination service and reliable quality.

Creative ideas have the power to change the world. KIPO continues to provide innovative, timely, and accurate IP examination services to ensure that ideas are adequately protected as IPR.

Premium Examination Services

We aim to provide fast, high-quality and customer-oriented examination services by continuing to improve our examination systems, raise the quality of our IP administration (application, examination and registration) and reduce first action pendency.

Accommodating the IP strategies of our users, we offer appropriate examination services for timely registration of rights. There are three tracks for patent and utility model examinations, two tracks for trademark and design examinations as well as three tracks for trials.

The average first office action pendency is as follows:

- Patents and utility models: 11.0 months (2014) → 10.0 months (2015) → 10.6 months (2016) → 10.4 months (2017) → 0.3 months (2018)
- Trademarks: 6.4 months (2014) → 4.7 months (2015) → 4.8 months (2016) → 5.0 month (2017) → 5.5 months (2018)
- Designs: 6.5 months (2014) → 4.4 months (2015) → 4.7 months (2016) → 4.9 months (2017) → 4.9 months (2018)

◀OLED waterfall

At the Consumer Electronics Show (CES), the world's largest consumer electronics exhibition, LG Electronics installed the "OLED waterfall" using curved OLEDs.

▶Cheonsangyeolchabunyajido

One of the oldest astronomical circles in the world. According to later analysis, this astronomy was found to be a constellation around 40 AD. In 1395 he made a tombstone, and in 1687 he reprinted it with woodblocks.



No.1

In the world for resident patent
applications per GDP and population



Prologue

Competitiveness

KIPO increases its IP competitiveness by maintaining the highest number of resident patent applications per both GDP and population.

In this era of creative economies, IPRs are the core of competent business strategies.

KIPO is dedicated to establishing a competitive and rewarding IP system by transforming novel ideas into strong IPRs.

IP Competitiveness

IPR Applications

Patent applications submitted to KIPO stood at around around 5,000 applications in 1980 and 100,000 in 2000. Over the past 18 years, this number has exponentially grown to more than 400,000 applications a year.

We received a preliminary total of 465,015 applications for IPRs, including patents, utility models, designs and trademarks in 2018.

Patent Application Competitiveness

According to the World IP Indicator published by WIPO in December 2018, Korea has ranked 1st for the highest number of resident patent applications per GDP and population for 11 consecutive years.

PCT Applications

The number of PCT applications filed from Korea increased by 7.6 percent from 15,790 in 2017 to 16,991 in 2018, which is the 5th largest amount by country of origin.



◀Hunminjeongeum, Korean Script

Hunminjeongeum is 28 letters made by King Sejong the Great in 1443. It is one of the best cultural heritage sites in Korea, which has received the highest evaluation in UNESCO among 2,900 languages.

▶Banchado

It is a cultural heritage that shows the level of record culture of the Joseon Dynasty in the form of a picture or letter showing the location of the performers of the court ceremonies in the Joseon Dynasty.

12.1

million
CHF
contribution

Korea Funds-In-Trust (FIT)

29

Countries

Patent Prosecution Highway (PPH)

30

IP sharing
projects

Appropriate technology and brand development

Harmonization

KIPO collaborates with key national allies to create a global community that appropriately values and rewards inventions.

Cooperation is fundamental to creating an environment where IPRs are promptly acquired and firmly protected for stakeholders. KIPO engages in activities that advance the global IP systems as it works to increase the value of IP.

Worldwide IP Collaboration

Participation in Global Cooperation Forums

Taking on the role as one of the world's leading IP office, we are working towards harmonizing global patent, trademark and design systems. We engage in global cooperation forums such as the IP5, TM5 and ID5 in order to improve the efficiency and quality of examinations.

Patent Prosecution Highway (PPH) with 29 Countries

The Patent Prosecution Highway is implemented with 29 countries to reduce the time and costs required to obtain patents internationally.

• PPH participants: Australia, Austria, Canada, China, Colombia, Denmark, Eurasia, European Patent Office, Estonia, Finland, Germany, Hungary, Iceland, Israel, Japan, Mexico, New Zealand, Norway, Peru, Philippines, Poland, Portugal, Russia, Singapore, Spain, Sweden, Taiwan, UK and USA.

WIPO Korea Funds-In-Trust (FIT)

Since 2004, we have contributed in total around 12.1 million Swiss francs for the continued operation of WIPO Korea FIT. The funds are applied towards projects jointly undertaken by KIPO and WIPO to support the IP capacity of developing countries.

30 IP Sharing Projects

We implemented numerous IP-sharing projects to assist the sustainability of local communities in developing countries by facilitating appropriate technologies and brand development.

◀Pungmul

Korean folk music that was popular among farmers. It plays in drum, janggu, gong, nabal, tnaebyeongso.

▶ Ssireum(Korean wrestling)

Treasure No. 527. By the end of 18th century. Ssireum is a representative traditional sport in Korea, and this painting was painted by Kim Hongdo who represents the Chosun Dynasty. It is in the National Museum of Korea.

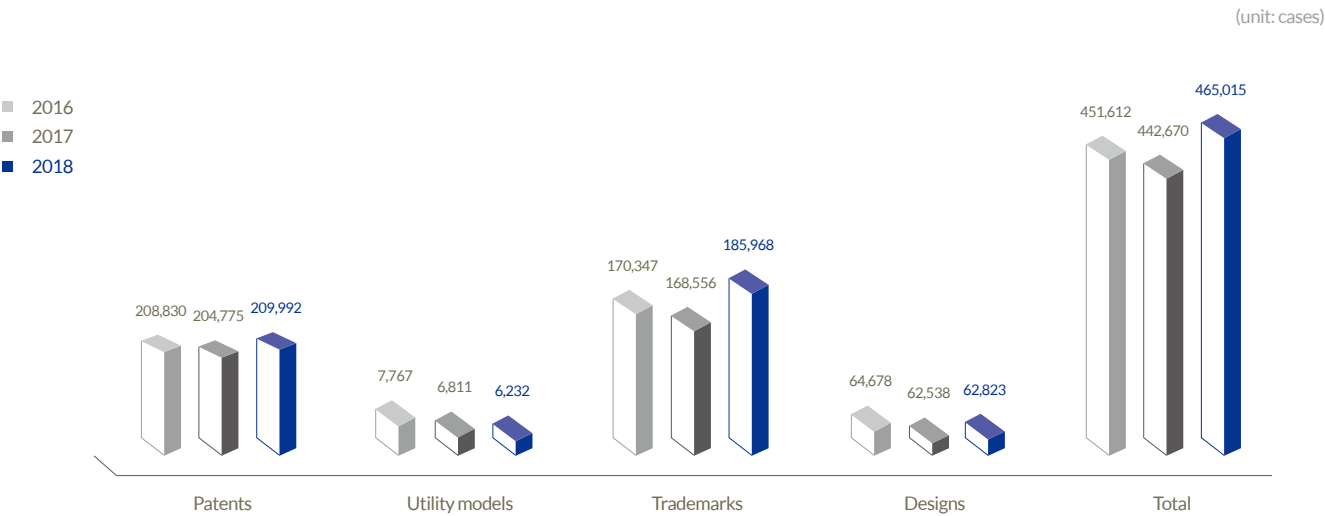


2018 Statistical Overview

Applications

Overall, the preliminary number of all intellectual property rights (IPR) applications submitted to KIPO was 465,015 in total for 2018. This is a 7.6% increase from 2017 for all patent, utility model, design and trademark applications. More specifically by IP rights, patent applications showed a 2.5% increase (209,992), utility model applications decreased by 8.5% (6,232), design applications increased by 0.5% (62,823) and trademark applications increased by 10.3% (185,968) compared to 2017.

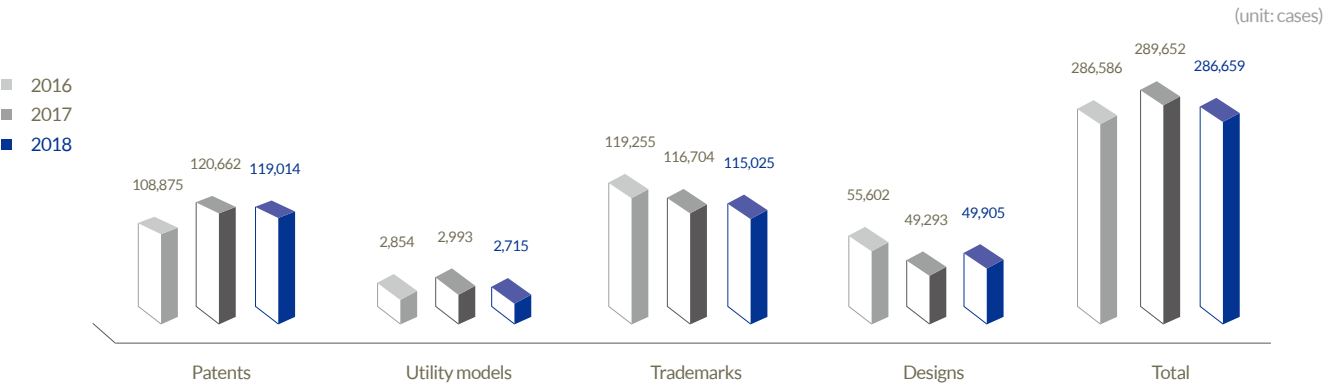
Out of all patent applications received by KIPO in 2018, 22.6% were from foreign applicants showing an overall increase and totaling 47,416 applications. The greatest number came from Japan with 15,602 applications, which is a 3.7% increase from 2017. This was followed by applications from the United States at 13,013, Germany at 4,381, China at 3,140 and France at 1,701.



Registrations

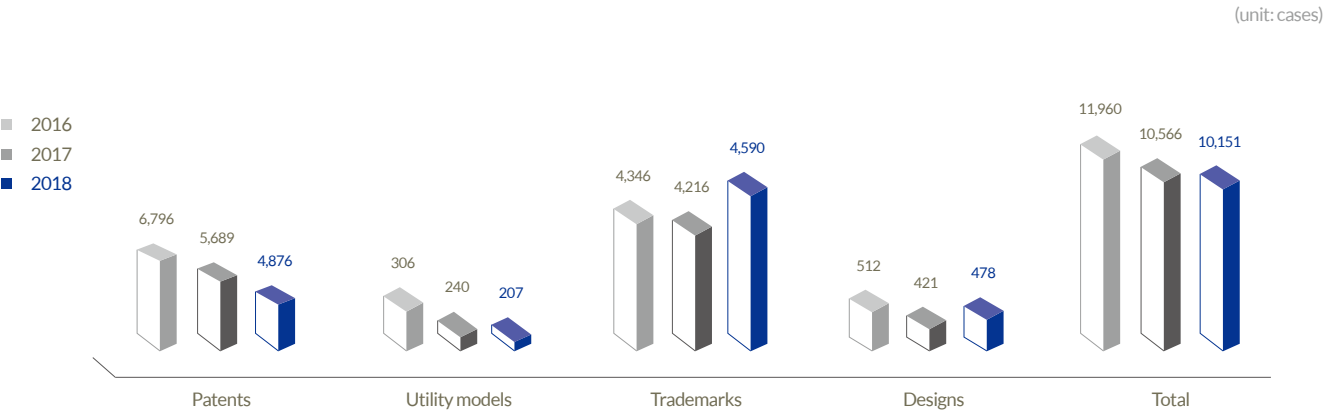
The total number of registrations for IPRs in 2018 decreased by 1.0% from 2017 amounting to 286,659 total registrations.

A breakdown of IP rights shows that patent registrations decreased by 1.4% (119,014), utility model registrations decreased by 9.3% (2,715), trademark registrations decreased by 1.4% (115,025) and designs registrations increased by 1.2% (49,905).



Trials

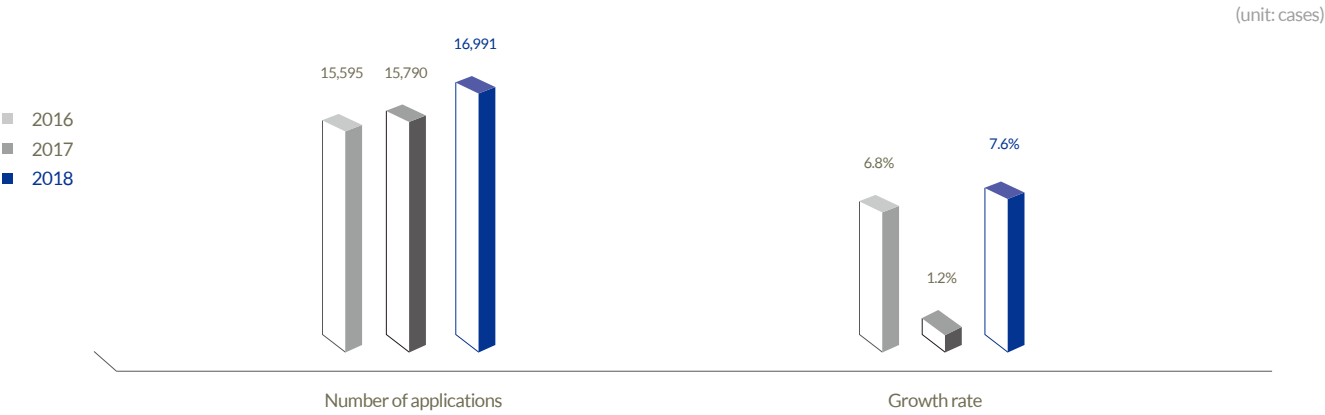
In 2018, the number requests for trial decreased by 3.9% from 10,566 to 10,151. Trials for patents decreased by 14.3% (4,876), utility model trials decreased by 13.8% (207), trademark trials increased by 8.9% (4,590) and design trials increased by 13.5% (478).



Patent Cooperation Treaty (PCT) system

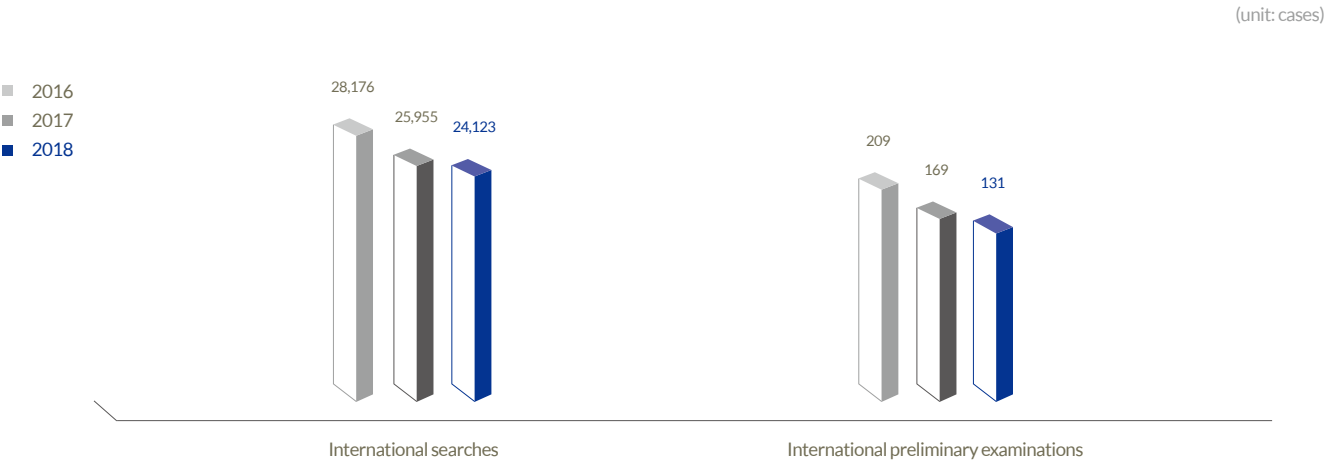
PCT

The number of international applications under the PCT system by Korean applicants has been continually increasing. Primarily due the awareness activities undertaken by KIPO, users have gained a clearer understanding of the importance of IPRs and the advantages of the PCT.



PCT international search reports and international preliminary examinations

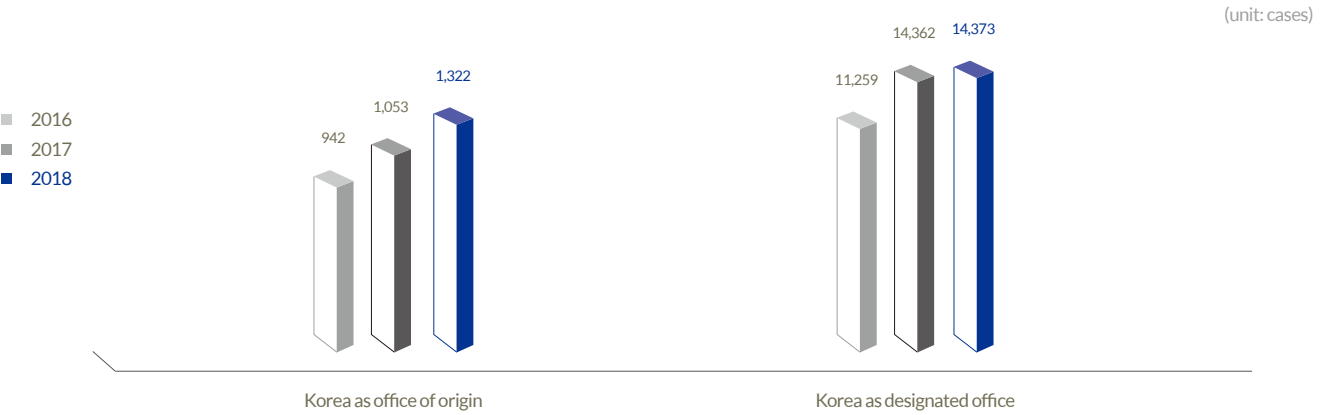
The number of PCT international search reports by KIPO totaled 24,123 reports in 2018. This was a 7.0% decrease from 2017. The number of international preliminary examinations undertaken by KIPO was 131 examinations in 2018, a decrease of 22.5% from 2017.



Madrid and Hague system

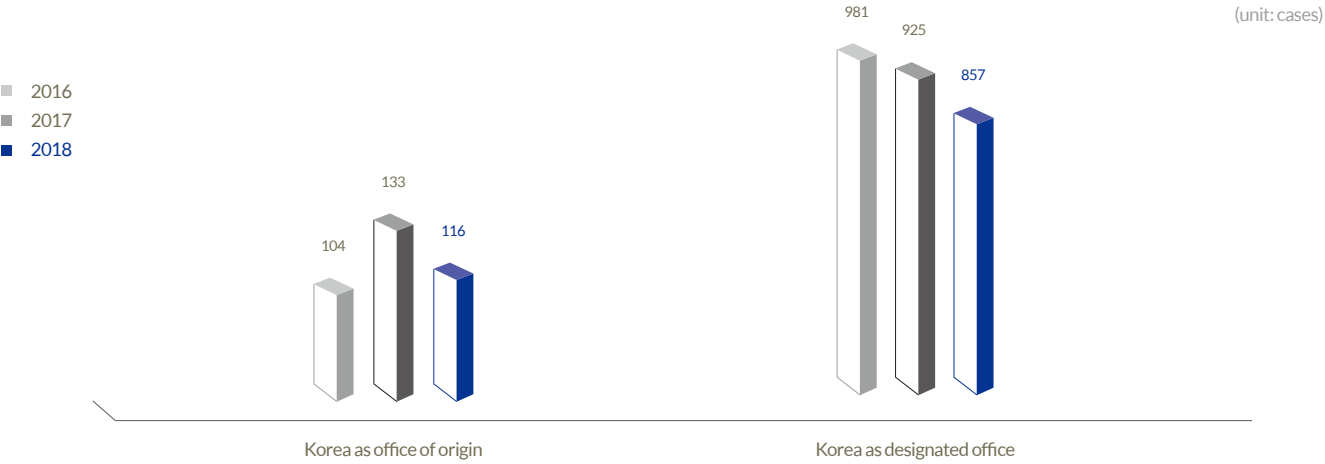
Madrid

Under the Madrid Agreement, we oversaw a total of 1,322 international trademark applications as the office of origin and 14,373 international applications as the designated office in 2018.



Hague

Under the Hague Agreement, we oversaw in 2018 a total of 116 international trademark applications as the office of origin and 857 international applications as the designated office.



2018 Highlights

JANUARY

- 09
- The 2018 New Year's Gala for Inventors and Patent Users
- 16
- KIPO-Vietnam Heads Meeting and MOU Signing



FEBRUARY

- 01
- KIPO-KIST MOU Signing
- 28
- KIPO-UAE High-level Meeting & Opening Ceremony of the UAE Industrial Property Automation System



MARCH

- 13
- KIPO-Public Procurement Service MOU Signing
- 27
- The 1st KIPO-ASEAN Heads Meeting and MOC Signing on IP



APRIL

- 10~11
- IP5 Deputy Heads Meeting
- 25
- The 20th IPTAB Anniversary International Symposium on IP
- 26
- Global IP Star Companies Conference in Jeju Island



MAY

- 03
- WIPO-KIPO ADR Seminar and MOU Signing
- 16
- The 53rd Invention Day Celebration
- 29
- KIPO-Vietnam MOU Signing



JUNE

- 07
- The 8th International IP and Industrial Security Conference
- 12~14
- The 11th IP5 Heads Meeting
- 21
- KIPO-Russia Heads Meeting
- 28~7/1
- The 2018 Korea International Women's Invention Exposition
- 29
- The 2018 Global IP Finance Conference



JULY

- 17
- KIPO-KAIST MOU Signing
- 18
- Effective date of the Amendments of the Unfair Competition Prevention and Trade Secret Protection Act
- 20
- 2018 Youth Invention Festival



AUGUST

- 07
- KIPO-Eurasian Patent Organization Heads Meeting
- 17
- Opening Ceremony of the IP Creation Zone in Chungbuk
- 28
- The 2018 Global IP Strategy Conference



SEPTEMBER

- 06~07
- The 14th Patent Information Expo (PATINEX)
- 07
- KIPO-European Chamber of Commerce Meeting
- 25~10/2
- The 58th Series of Meetings of the Assemblies of the WIPO Member States



OCTOBER

- 23~26
- WIPO-KIPO Advanced International Certificate Course
- 30
- The 2018 Seoul International Trademark and Design Forum
- 30
- KIPO-China Heads of IP Office Meeting



NOVEMBER

- 01~05
- TM5-ID5 Annual Meeting
- 12
- International Conference on Patent Examination Cooperation
- 21
- The 2018 Campus Patent Strategy Universiade
- 27~30
- WIPO-KIPO IP Impact Certificate Course in Zambia



DECEMBER

- 03
- The 2018 Intellectual Property Protection Conference
- 06
- The 2018 Design to Business (D2B) Fair Award Ceremony
- 06
- Korea-China-Japan User Symposium
- 11
- KIPO-FSC Joint Press Briefing on IP Financing
- 13
- The 18th Korea-China-Japan Trilateral Summit



Providing IP Services

- 24 Examination Services
- 28 Trial Services
- 30 PCT System and International Search Service
- 30 Improving the IPR System
- 32 IP Administrative Automation System
- 36 Improving Customer-oriented Claim Handling Services



The Tripitaka Koreana
The complete collection of Buddhist scriptures carved from 1236 to 1251 in the Goryeo Dynasty. In total, the Tripitaka Koreana has 81,258 woodblocks.

Examination Services

01 Examination Policies Focused on Quality

In 2018, the first office action pendency period of the Korean Intellectual Property Office (KIPO) recorded 10.3 months for patent and utility model applications, 5.5 months for trademark applications and 4.9 months for design applications. While maintaining one of the world’s fastest rate of first office action pendency, KIPO continued to focus its policy initiatives on providing high quality examination services.

To ensure each examiner was allocated with a manageable workload, we increased the number of examination personnel and expanded the outsourcing of prior art searches to independent agencies. Also, diverse forms of collaborative examinations were actively engaged, such as consultative examinations across fields and crowdsourcing examinations with outside experts.

Further outsourcing of prior art searches

KIPO contracts independent agencies to search the prior art of patent, utility model, trademark and design applications for maintaining the promptness of first office action. To alleviate the increasing workload of examiners, we expanded the outsourcing of the prior art search tasks. In 2018, independent agencies handled 62.7% (105,589 cases) of all patent and utility model applications, 43.5% (200,341 cases) of all trademark applications and 43.5% (29,208 cases) of all design applications.

Consultative examination among examiners

Another form of cooperative examination includes consultative examinations which are conducted to detect and supplement any insufficiencies in the prior art search carried out by an individual examiner. Especially regarding applications for convergence and hybrid technologies, this form of examination is proceeded among examiners of different technology fields. In 2018, consultative examinations were carried out for 2,234

cases (increased 15.3% since 2017) in patent and utility model fields, 2,407 cases (two times more than 2017) in trademark fields and 378 cases (three times more than 2017) in design fields.

Crowdsourcing examination

Furthermore, prior art search can be difficult to search when there is an overwhelming amount of field data for the related technical fields. Thus, crowdsourcing examinations invite industry specialists, academics and researchers to set up an examination consultative board for each technology sector. An individual examiner can present the application to a consultative board where field experts provide opinion and advice on technical reference materials.

Restructured quality management

In particular, the monitoring system at KIPO was restructured to improve examination quality control. Rather than relying on a centralized system, each examination division also takes responsibility managing quality through a “part-leader” orientation arranged by the smallest units of each examination field. This arrangement allows discussion and deliberation by the examiners of the same field in order to take an active role for the quality of their examination.

Examination review is carried out by KIPO’s Examination Quality Assurance Division (EQAD) and can be divided into two categories. A regular review is a review of the overall quality of the examination process. Before the final office action (grant or refusal of the patent) is sent, a regular review is an additional step that checks the quality of the examination. Any potential errors, if discovered, are corrected prior to the notification of the final office action.

A targeted review, on the other hand, is a detailed review of specific elements in examinations. Recently implemented in the second half of 2018, a targeted review evaluates completed examinations containing certain elements designated by the EQAD that indicate examination quality. The results of the review then guide improvement measures for examination quality policies and systems.

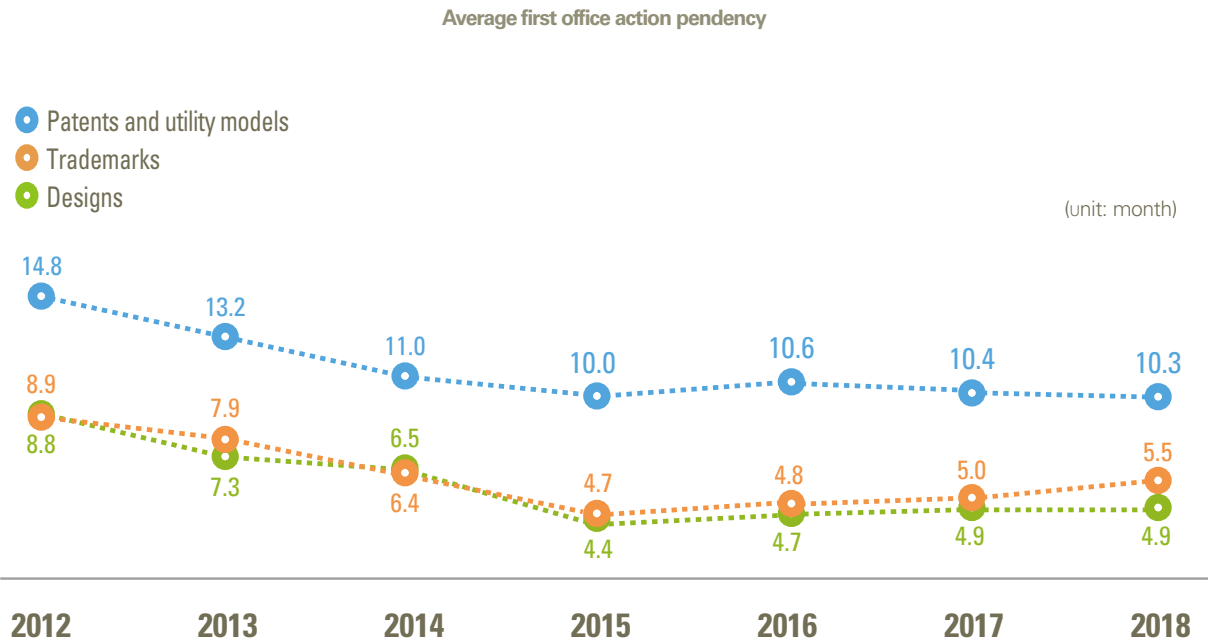
In 2018, we placed emphasis on reviewing the judgment of substantive requirements, such as the patentability requirements and trademark registration requirements, along with the adequacy of the entire examination process.

Meanwhile, the EQAD continued to analyze statistical data which help indicate examination quality such as rates of registration, trial, revocation and appeal. The findings were then shared with relevant examination departments to make improvements.

On-the-job training (OJT) for examiners and administrative judges

Every year, KIPO’s International Intellectual Property Training Institute (IIPTI) organizes specialized training to improve the professionalism and ability of examiners and administrative judges. In 2018, there were five mandatory courses, 19 law courses, 20 examination practice courses, 14 empowerment courses and 66 new technology training courses, totaling 124 courses administered by KIPO.

Mandatory courses are set up into four training level for examiners and administrative judges with varying degree of experience—the new examiners course, mid-career examiners course, trial/litigation system course and the administrative judges course. In total, five sessions were administered for 258 examiners and administrative judges in 2018.



02 Enhancing Examination Quality

Managing examination quality through examination review

The examination quality control system at KIPO is designed to promote the creation of solid patents by ensuring high-quality examination services. More specifically, an internal review can help prevent insufficient examination and identify improvements for better examination. By which, high examination quality will result in the registration of solid patents, utility models, trademarks and designs, as well as PCT reports.

Law courses provide training on fundamental theories of essential law (*i.e. Patent Act, Trademark Act, etc.*) for examinations and trials. It is followed by in-depth training on key topics, recent issues, debates and case studies. Additionally, training sessions were held regarding the *Unfair Competition Prevention and Trade Secret Protection Act, Copyright Act* and civil law. A total of 19 sessions were held with 870 participants.

To further improve the work skills of examiners and administrative judges, we provide courses on examination practice and case studies (basic and advanced), as well as sessions on topics such as commercialization of IP-based technologies. A total of 34 sessions were held with 1,129 participants.

Moreover, 66 sessions were organized for training responding to the rapidly advancing field of fusion and convergence technology. There were 1,991 examiners and administrative judges who participated in 2018.

The Patent Quality Consultative Body with the Korea Patent Attorneys Association (KPAA)

A “Patent Quality Consultative Body” was established in cooperation with the Korea Patent Attorneys Association

(KPAA) which represents the voices of users. Together, we are able to make the joint effort to improve the quality of patent applications and examinations while also further identifying ideas for necessary policy.

The Patent Quality Consultative Body convened two times in April and December 2018 to discuss ways to share information on application quality along with improvements to application documents and examination notifications.

03 Customized Examination Services

Patent Examination 3.0 – In-depth Interviews

Since 2014, KIPO has shifted its examination paradigm to a more customer-oriented examination system called “Patent Examination 3.0”. The system helps applicants obtain high-quality patents by boosting interactive communication with examiners throughout the entire examination proceeding.

Patent Examination 3.0 services include:

A) Preliminary examination

Preliminary examination was first introduced in 2014 which enabled applicants and patent examiners to communicate with each other before the substantive examination is conducted. It aims to share the overall direction of examination and help the applicant properly draft the patent application to prevent potential errors from occurring in the first place. To enhance its effectiveness, since 2017, the results of preliminary examination are notified to the applicant prior to the interview.

B) Draft amendment review

The process of reviewing a draft amendment was introduced in 2015 as a way of informing applicants—prior to the final amendment—whether reasons for refusal of the claims can be resolved based on the draft amendment. In 2018, the number of applicants requesting review of a draft amendment increased 1.6 times compared to the year before.

C) Re-examination interview

Re-examination interview was eventually introduced in 2017 in order to also allow an in-depth interview with examiners before filing a request for re-examination against the final office action. Overall, the re-examination interview has a process that is similar to an amendment review and has been actively used since its implementation.

Three-track patent and utility model examination system

In accordance with our client’s intellectual property right (IPR) strategies, we offer different examination services for their preferred schedule. In the case of patents and utility models, applicants can choose the most appropriate examination track among accelerated, regular and customer-deferred examinations.

Accelerated examinations are initiated between 2 to 4 months after approval, whereas, customer-deferred examinations are started within 3 months of the desired postponed examination date.

To quickly respond to rapid technological advancements, in 2018, the accelerated examination track was established for seven new technology fields related to the 4th Industrial Revolution (4IR).

Two-track trademark and design examination service

To accommodate the expedited rights to trademark or design, applicants can choose the most appropriate examination track among regular and accelerated examinations.

Requests for the three-track patent and utility model examination

Category	2014	2015	2016	2017	2018
Accelerated examination	27,437 (15.4%)	28,574 (15.5%)	29,124 (16.2%)	30,270 (16.9%)	33,047 (17.7%)
Regular examination	150,839 (84.6%)	155,525 (84.4%)	150,664 (83.8%)	148,166 (82.9%)	153,198 (82.2%)
Customer-deferred examination	64 (0.0%)	112 (0.0%)	91 (0.0%)	235 (0.1%)	57 (0.0%)
Total requests for examination	178,340	184,211	179,879	178,671	186,302

Requests for the two-track trademark and design examination

Category	Trademarks				Designs			
	2015	2016	2017	2018	2015	2016	2017	2018
Total no. of applications (A)	185,443	181,592	182,919	200,341	67,954	65,626	63,451	63,680
Requests for expedited examination (B)	4,041	3,801	4,166	5,237	4,535	4,019	4,164	3,439
Requests for expedited examination as a percentage of the total (B/A)	2.2%	2.1%	2.2%	2.6%	6.7%	6.1%	6.6%	5.4%

Trial Services

The initial examination results of an accelerated examination are received within 45 days of applying for a trademark and within 2 months of applying for a design right. The prompt processing and results enable clients to continue their business activities and/or dispute resolution.

In 2018, there were 5,237 requests (2.6% of all trademark applications) for accelerated examination of trademarks and 3,439 requests (5.4% of all design applications) for accelerated examination of designs.

01

Management of the Trial Processing Period

Disputes involving intellectual property rights are on the rise, especially those concerning cutting-edge technology. IPR disputes have potential to severely hamper business decisions and investments. There is necessity for speedy resolution of IPR disputes as it directly affects business competitiveness. Thus, countries around the world are working to reduce trial pendency period.

KIPO’s Intellectual Property Trial and Appeal Board (IPTAB) has made effort to reduce the trial pendency period, while maintaining a high quality of trials. In order to more efficiently handle trials and provide prompt resolutions, the IPTAB operates a three-track trial system where trials are categorized into regular, accelerated and fast track trials.

Regular trials are handled in the order a trial request is filed. Parties are allowed adequate opportunities to prepare their claims and defenses to increase the accuracy of trial decisions.

Trials that require expedited proceedings are given priority as accelerated trials. These include cases needing re-trial due to revoked trial decisions, cases involving infringement notice to prevent IPR dispute and cases of appeal against the decisions of refusal resulted from accelerated examinations.

Fast track trials allow even faster trial proceedings. Parties on this track are able to receive trial decisions in no later than 3 months. Fast track trials handle cases related to patent infringement lawsuits currently pending in court or involve the prosecutor or police, cases where the direct party involved is a start up, a SME or an individual start up and also invalidation trials for patents granted to an unentitled person(s).

Proper management of the trial processing period has allowed urgent cases to be processed appropriately. Of all trials presided in 2018, accelerated trials reached 7.6% and fast track trials have reached 3.3%. SMEs and individual start ups together requested 80.4% of the fast track trials (51.7% and 28.7% respectively), indicating sufficient utilization of the specialized process. From November 2015 to December 2018, 1,191 fast track trials have reached final ruling while 1,084 cases are in proceeding.

02

Activities to Improve Trial Quality

The decisions of patent trials—the de-facto first trial to the Patent Court—significantly affect a client’s business strategy. Therefore, the IPTAB makes the utmost effort to meet user expectations through high-quality fair and accurate trials.

Patent trials are conducted by a panel of three or five administrative judges who have at least 10 years of experience in various IP fields. To maintain the technical and legal expertise of the administrative judges, KIPO provides training programs and refresher courses, including specialized courses on law and on-the-job training courses. Administrative training is also customized for each newly appointed administrative judge. Furthermore, the administrative judges participate in self-study sessions and in-depth discussions where court judges and professors are invited as lecturers.

As part of the effort to improve overall trial quality, evaluation and feedback is given for the trial decisions written by the administrative judges. Every quarter, a trial quality evaluation committee meets to review cases that received revocation of the trial decision in order to analyze

any errors from the trial process and to share the findings among all administrative judges. The IPTAB evaluations have helped align the standard of trial decisions to that of the Patent Court.

As a result, only 11.7% of the trial decisions made by the IPTAB were appealed to the Patent Court and only 22.2% of these trial decisions were revoked, which is consistently reducing every year.

03

Video Conference Oral Hearing

To make the IPTAB’s services more convenient and accessible, oral trial hearings were made available through video conferences since 2014. This feature allows parties to take part in hearings remotely at KIPO’s Seoul branch office without being physically present at the headquarter office in Daejeon.

In November 2016, the grand trial courtroom was opened with an installed video conference system for major trials presided by a panel of five judges. The video conference system has also been used for technology explanation sessions and administrative judges meetings.

As a result, 55% of all oral hearings were held through video conference in 2018. Surveys have reported a 95% satisfaction rate among video conference users, with 98% of the respondents stating their desire to reuse the service.



Requests for the three-track trial system			
Requests made in 2018	Patents and utility models	Trademarks and designs	Sub total
Fast track trials	211 (3.7%)	139 (2.9%)	350 (3.3%)
Accelerated trials	623 (10.8%)	178 (3.7%)	801 (7.6%)
Regular trials	4,946 (85.6%)	4,449 (93.3%)	9,395 (89.1%)
Total	5,780 (100%)	4,766 (100%)	10,546 (100%)

PCT System and International Search Service

The Patent Cooperation Treaty (PCT) is a multilateral treaty established to unify and simplify the international application procedures of patents and utility models. Through the PCT, a single application can receive extended protection in the contracting states of the treaty.

First, a PCT application is filed with one of the Receiving Offices (RO) around the world and then an applicant designates a preferred patent office as the international search authority for the international search of prior art for their application. A PCT international search will perform the search of prior art, review its patentability and provide the results to the applicant.

KIPO was designated as a PCT international authority in 1997 and has been conducting PCT international searches since 1999. PCT international search services were made available to foreign applicants beginning in 2002. Of the 152 PCT member countries, KIPO is one of the 23 patent offices with the high examination capacity to be designated as an international search authority.

Improving the IPR System

01 Patents and Utility Models

Raising the effectiveness of patent protection

In order to continuously carry out institutional improvements, we have actively held industry user meetings and public hearings to receive opinions from relevant institutions. Considering the changing industrial environment, there has been opinion that infringement provisions may be too narrow in scope and unfair to patent right holders.

In the case of many leading major IP offices, regulations have been put in place that protect beyond direct infringement to also include indirect infringement which helps enhance the effectiveness of patent protection. While direct infringement is the unauthorized use of a patented invention, indirect infringements are actions that could eventually become direct infringement, if left unattended.

However, Korea has so far maintained the 1973 provisions of indirect infringement, which mainly focuses on exclusive use. There has been difficulty to effectively handle infringement that takes advantage of the digital and network environment. Therefore, we have begun to consider necessary institutional improvement to expand the scope of indirect infringement.

02 Trademarks and Designs

Amendment in Trademark Law

An amendment of the *Trademark Act* was made on April 17, 2018 that strengthens the security of digitization agencies and promotes the transparency and predictability of administrative decisions. It has been newly established that “executives and employees of corporations designated as agencies of digitizing trademark documents shall not disclose or steal confidential trademark information about which the agencies come to know during the course of their official business”. If violation is determined, the violating agency must take corrective action or else the entrustment of digitization will be revoked. Further, during the revocation of digitization entrustment, KIPO will give the relevant agency an opportunity to state its opinion regarding the revocation.

Amendment in examination guidelines for trademarks and designs

Institutional improvement measures have also been carried out within KIPO to establish the order and fairness of trademarks. For example, trademark examination guidelines have been strengthened against imitations of well-known characters or character names. Also, trademark registration will be refused for words which are used for a variety of products and/or across fields, such as “YOLO” and “K-POP,” due to an absence of distinctiveness. Furthermore, the Supreme Court cases regarding “AMERICAN UNIVERSITY” and “Sariwonmyonok” have been reflected in KIPO’s examination guidelines. Thus, examining procedure for the application of “collective marks with geographical indication” have become more narrow in its scope of permissible geographical indication, as well as newly established provisions regarding the serving of duplicates of the reply brief to the opposition.

In regards to design, some of the requirements for application filing have been revised so that companies can more easily acquire design rights. For instance,

requirements have been eased for the expression of partial designs and sectional views to allow companies to use commonly found product images in the industry and the strict requirements for product identification have been clarified for better understanding. In addition, criteria have been improved for the recognition of applications related to priority claims in order to increase the consistency of examination and reduce unnecessary reasons for rejection. Also, detailed regulations have been newly established for the examination procedures when dealing with applications with unconventional designs such as letter fonts and foods.

Changes in the classification system

The classification of goods and services has been modified in order to make it easier for applicants to classify their products when filing trademark applications. KIPO began with 15,000 identifications of goods and services in 2014 and by 2016, there were more than 62,000. Since then, we have been eliminating redundant and unclear identifications to total around 54,000 identifications of goods and services.

Also, inaccurate classification of goods or unclear identification in English can lead to delay due to corrections. Thus, we have reflected the identification of goods accepted by the five leading IP offices (KIPO, CNIPA, EUIPO, JPO and USPTO) in trademark, as well as by WIPO’s International Bureau in KIPO’s list of acceptable identification of goods. This allows applicants to have access to the most up-to-date information on the identification of goods in major countries. in order to obtain rights for international trademarks in a timely manner.

Furthermore, in order to solve the problems caused by the concurrent operation of two classification systems (Locarno Classification and Korean Classification), we completed developing a new design classification system based on the Locarno classification in 2016 and a classification definition in 2017. In 2018, we continued the project to reclassify the existing database search.

Requests for PCT international searches

Category		2014	2015	2016	2017	2018
Republic of Korea		12,442	13,579	15,016	14,798	16,264
Foreigners	U.S.A	17,162	14,480	12,491	9,992	9,119
	Others	556	409	397	369	532
	Subtotal	17,718	14,889	12,888	10,361	9,651
Total		30,160	28,468	27,904	25,159	25,915

IP Administrative Automation System

03

Improvements to the Trial System

Since 2016, KIPO has offered a refund for the trial fees of cases when the examiner’s decision of refusal is revoked without fault of the petitioner. Additional arrangements have been made for half of the trial fee to be refunded to the petitioner if the petition for a patent trial is withdrawn or the patent trial dismisses the examination decision before the conclusion of the trial proceedings is notified. The refund amount has since been on the rise and has reached more than 5.1 million USD in 2018.

Several improvements were made in 2017 regarding the trial process, such as the operation of a petition for patent cancellation. Also, the withdrawal period for a petition for correction was modified for invalidation trials and the request for the suspension of pending procedures by the parties involved in the dispute was allowed.

Moreover, the Code of Judicial Ethics for Administrative Judges, which defines the professional ethics and standards of conduct, was established in order to enhance the transparency and fairness of administrative trials. The Code of Judicial Ethics for Administrative Judges is expected to serve as a cornerstone for restoring the credibility of patent trials since it restricts personal contact with trial-related people and stipulates the avoidance of cases represented by retired administrative judges. Following, the Guidelines for the Operation of the Code of Judicial Ethics for Administrative Judges have also been established and put into effect since January 2018.

01

KIPOnet

In 1999, KIPO launched the first version its automated IPR system, KIPOnet, to serve as an e-filing platform for application filing, examination, registration, receipt of notifications, as well as trials.

The third and present version of KIPOnet (KIPOnet III) was officially launched in 2013. This version, in particular, introduced a server-based cloud (SBC) platform to enhance security and convert the fee payment system into Swiss francs (CHF).

Afterwards, we continued to make efforts to help examiners manage their workload and improve overall examination quality through establishing the smart examination service and enhancing the error detection function.

In 2018, refinement of KIPOnet was carried out in three parts: building a smart design examination system, re-building the PCT examination system and building a “One-stop PCT Application System”. In detail, we established a smart design examination system by modifying the standardization of examination memos and adding an error checking function. In addition, the environment for creating PCT notifications has been restructured to be online-based to enhance its efficiency and to produce high-quality international standard PCT documents. Further, the KIPO-WIPO linkage system has been established so that an application written on the WIPO web can be submitted to KIPO with the click of a button.

02

Korea IPRs Information Service (KIPRIS)

The Korea Intellectual Property Rights Information Service (KIPRIS, <http://www.kipris.or.kr>) is a free online search service accessible by the general public for convenient browsing of both international and domestic IP information.

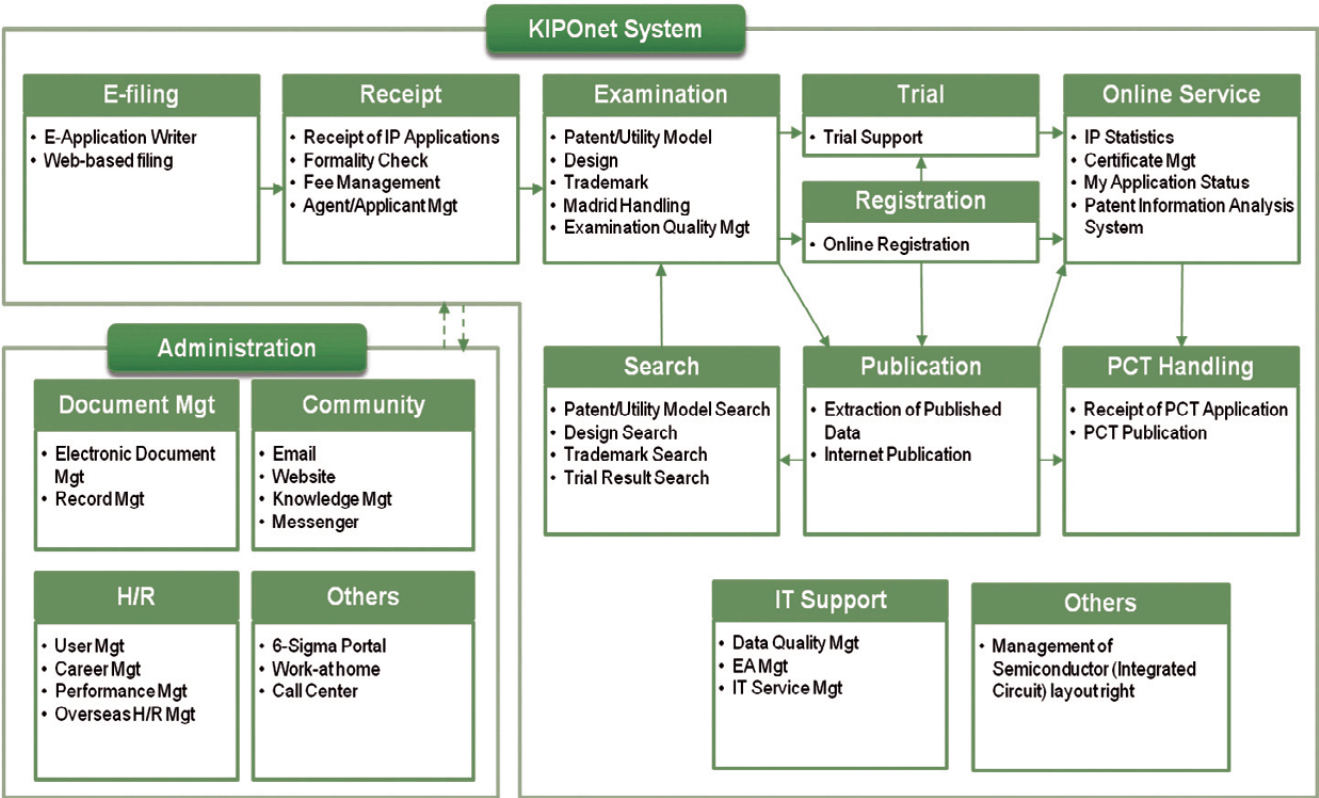
In 2018, KIPRIS expanded its services for public access. Various IP information services such as the Digital Object Identifier (DOI) and QR codes for domestic patents and utility models, today’s publication, summary view for domestic patents and utility models and representative chemical formula views. In order to promote the utilization of IP information by the public, various public relations activities were conducted, such as visiting the public, distribution of the KIPRIS webzine and hosting seminars for KIPRIS utilization.

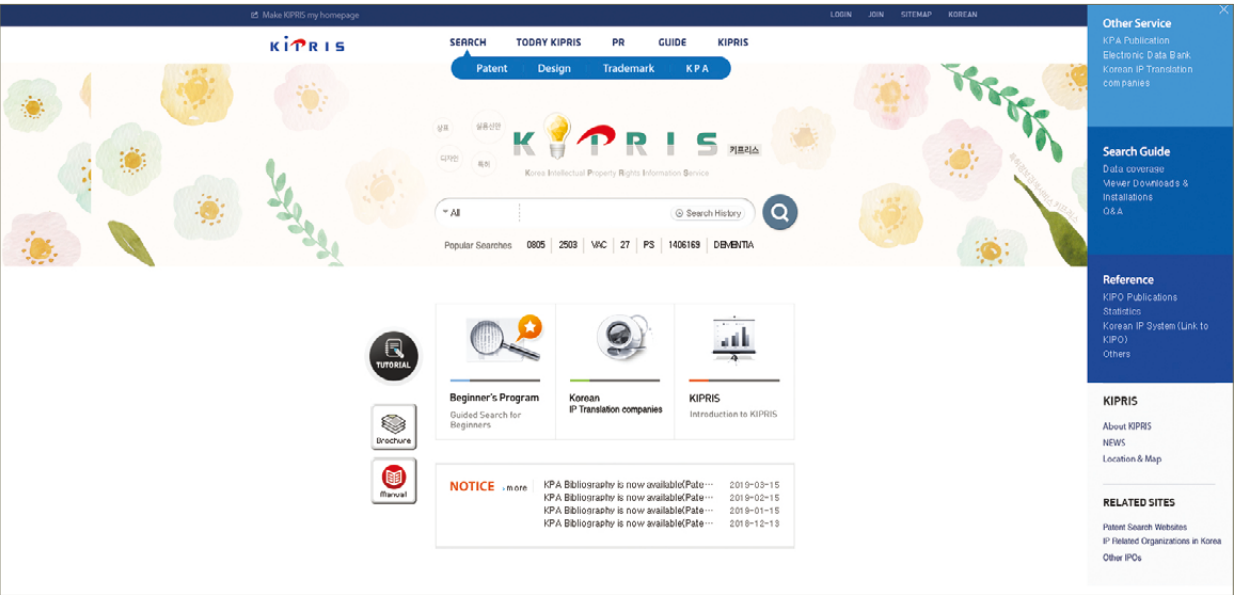
To further help users with convenient and efficient search methods through KIPRIS, we provided a search filter categorized by IPR and classification codes, as well as a search filter by common TM5 status descriptors and product names (product types). For user convenience, we newly provide overall summary views, representative

drawing (thumbnail) views for foreign patents and information on the patent and utility model right holders.

Additional services of KIPRIS include “TODAY KIPRIS” (status of data provision, number of searches by right, today’s publication, super citations, extinction announcements, state and material patents, IPC thesaurus, patents at issue, etc.), mailing service for patents by user preference and an on-line download service. In addition, translation is provided between Korean and English, Japanese or Chinese. Also available is the mobile version (m.kipris.or.kr) for user access wherever and whenever they are.

KIPO will continue to make efforts to provide domestic and foreign users with convenient access to various IP information through KIPRIS.





03 Korea IPRs Information Service (KIPRIS^{Plus})

KIPRIS^{Plus} (<http://plus.kipris.or.kr>) is a portal for Application Programming Interface (API)-based web services to provide real-time IP information to those who wish to access data without building a database of their own. It allows companies and research institutes, among other entities, to reduce the time and cost involved in developing a database of IP information.

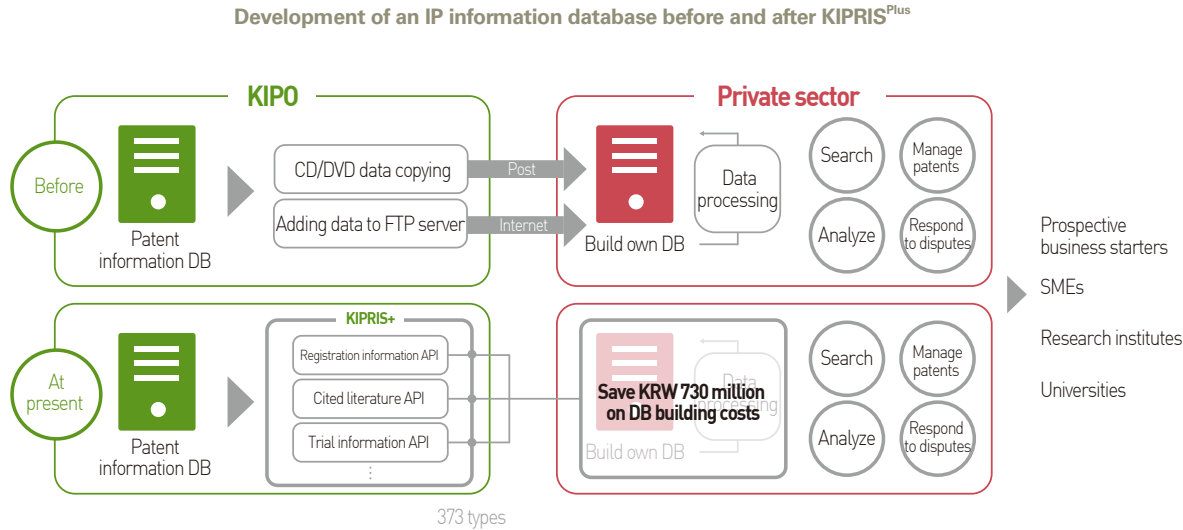
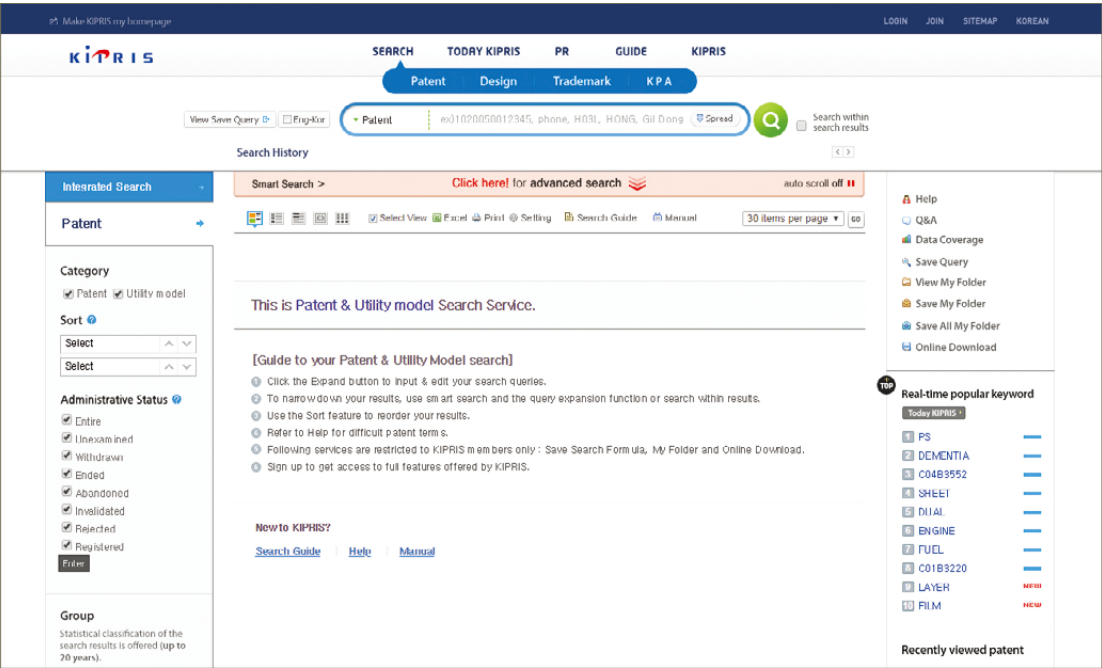
As of December 2018, KIPRIS^{Plus} contains patent, trademark and design information on 94 different kinds of goods (50 domestic goods and 44 overseas goods) in addition to 55 types of information from the private sector. Currently 201 different organizations use this service, including IP information service companies and public agencies.

We plan to disseminate useful IP data to the public and expand the provision of Open API and Linking Open Data (LOD)-based data to further reinforce the role of KIPRIS^{Plus} as an open platform for providing and distributing IP information.

04 Information Security Systems

As mentioned, KIPO has been running a cloud system since 2013 for the efficiency of examination work, mobile office and the central management of business data. Thus, we have established various management systems and multi-level security systems to protect patent information such as undisclosed patent documents from cyber threats. Currently, the networks are separated for external access to the Internet and an internal network for work administration which have been modified in accordance with the national information security principles to prevent attacks on the internal work PCs. In 2018, we improved the access environment and successfully overcame structural limitations in terms of performance of processing patent administration work, network stability and governmental collaboration services.

We have been recognized with high evaluation results from various government information security assessments, such as “the Information Security Management Status



Improving Customer-oriented Claim Handling Services

Evaluation” and “the Privacy Protection Management Level Assessment”

KIPO’s Monitoring Control Center operates 24/7 all year round to detect breaches and respond in real time since 2015 in order to prevent incidents of cyber-attacks. In 2018, an emphasis was placed on recruiting security officials and the strengthened application of multi-level network defense systems to reinforce security control and enhance preventive activities.

Furthermore, we improved overall information security at the main branch as well as at affiliated organizations by conducting security audits, providing assessment and consulting to subsidiaries and prior art search agencies. In 2018, we conducted joint training exercises on cyber-attacks with the affiliated organizations and the IP Information Integration Center.

KIPO’s Monitoring Control Center operates 24/7 all year round to detect breaches and respond in real time since 2015 in order to prevent incidents of cyber-attacks. In 2018, an emphasis was placed on recruiting security officials and the strengthened application of multi-level network defense systems to reinforce security control and enhance preventive activities.

01 Improved Fee System

To promote utilization and commercialization of IPRs, we introduced a registration fee reduction and waiver for patents, utility models and designs for individuals and SMEs in 2014. Initially covering 4~6 years after registration, the registration fee reduction and waiver system extended in 2018 to cover from 7 years after registration until the end of the term.

In addition, we established a procedure to verify eligibility for maintenance fee reductions and waivers to make the fee payment more convenient. For instance, in the case that the reduction or exemption requirements have been applied to a registration fee, the same reduction or exemption conditions are to be applied to the other fees without requiring additional documents.

02 Improved Application and Registration System

In an effort to provide more effective and customer-oriented services, we changed and amended parts of the IP policies and examination services such as reducing document requirements for change of rights, modifying the standard for agent and simplifying standard phrases in notifications.

Until now, registration certificates were issued only in paper form which was inconvenient for certificate holders who would be required to submit a request for re-issuance for any lost or damaged certificates. Taking an innovative approach, KIPO has replaced paper registration certificates with electronic registration certificates to allow convenient access to registration certificates.

We started the service of issuing the electronic registration certificate in July 2018. A QR code has been added to the registration certificate so that details of the registration can be immediately checked at a touch of a button. The electronic registration certificate can be downloaded with

no service fee and be accessed at any time.

Furthermore, relevant laws and regulations have been amended to strengthen the public disclosure function of the register and to simplify applications. First, the description of registrations have been modified so that the general public can understand any changes of IP rights. Especially with a large number of registrations, it was difficult to identify any changes to each intellectual property when listed in the order of date. Recent amendments allow transfers of rights and restrictions on disposal (i.e. injunction, provisional seizure, etc.) to be appended as supplementary descriptions.

Another amendment provides consumer-centered information by expanding ex officio registration. A legal basis has been established for the formality examiner to ex officio cancel the registration descriptions that infringe upon rights preserved according to provisional registration. In the case that the patent right is transferred through a trust contract before the registration of the patent, the amended regulation allows two applications to be concurrently filed with KIPO, both for the registration for establishment of patent right and for the registration of transfer of the right according to the trust contract.

To further protect the IPR of those financially and environmentally disadvantaged, we hosted “IP Application System Explanation Sessions” in 2018 at schools and correctional facilities. KIPO has plans to expand this program further by securing a budget and recruiting specialized lecturers.

03 Improving Customer Feedback Services

Acting as a channel of customer opinion for KIPO, we have an IP Administration Monitoring Team of 30 patent users that monitors the overall administrative work of IP. We invited 30 patent users to be part of the team with members ranging from employees of SMEs and large businesses, patent lawyers, law firm personnel and university students, all with experience in IP related matters.

In 2018, the team submitted 122 suggestions for systemic and institutional improvements, of which 58 ideas (42 cases in the first half of the year and 16 cases in the second half) were adopted for implementation.

Promoting the Creation and Utilization of IP

40	Linking R&D with IPRs
42	Regional IP Capacity Building
44	Enhancing the IP Capacities of SMEs and Promising Enterprises
46	Fostering the Development of an IP Workforce



Virtual Reality Experience
As the era of the 4th industrial revolution approaches, many people are paying attention to virtual reality contents.

Linking R&D with IPRs

01 Analyzing Patent Trends of Government R&D Projects

Patent information can be utilized to ensure efficiency and productivity of government research and development (R&D) projects by analyzing patent trends and searching prior art. KIPO has provided patent trend analysis during the planning phase and/or task selection phase of medium and long-term R&D projects. The analyses results help propose direction to generate superior patents that have high potential in future markets.

A patent trend analysis examines worldwide patent information related to the research project and analyzes statistical information on the patent trends of major countries. Meanwhile, a prior art search of disclosed worldwide patents checks for any redundancy of similar patents, which will prevent overlapping investment.

In 2005, we began conducting patent trend analyses for government R&D projects as a pilot project. We have conducted 39,333 patent trend analyses and prior art searches for government R&D projects by 2016. R&D departments began performing their own prior art searches in 2017, but have still relied on KIPO to provide patent trend analyses. 623 patent trend analyses were supported in

2017 and 275 patent trend analyses in 2018.

The patent trend analyses results are published and made available on the Patent Map website (<http://www.patentmap.or.kr>). They are easily accessible by researchers to utilize for their research and development of technology.

02 Dispatching Patent Management Experts

In 2006, we launched a project to dispatch experts to universities and public research institutes to elevate the management of their patents. Patent management experts are sent by KIPO to these institutions to help establish a suitable patent management system, provide consultation services on IPRs. This project has contributed to raising IP awareness and building IP capacities of universities and public research institutes. In 2018, 14 patent management experts were dispatched for 539 consultation, 131 seminars and briefings, as well as 252 technology transfers.

03 Invention Interview Project

Also to support universities and public research institutes, KIPO has been facilitating the “Invention Interview Project” since 2010. To encourage only high quality patents, the Invention Interview Project invites patent attorneys and other experts to review researchers’ inventions before they proceed to the patent application.

With the successful pilot implementation in the previous year, we expanded “deal-based invention interviews” to meet the needs of 30 organizations. In 2018, we discovered 1,236 cases of excellent inventions from among 4,049 cases total. To prevent waste of patent expenses, 327 cases of inventions were turned down by organizations.

04 Product Unit Patent Portfolio Set-up Project

The “Product Unit Patent Portfolio Set-up Project” was set up in 2011 to assist the transfer of outstanding patent technologies from universities and public research institutes to private businesses.

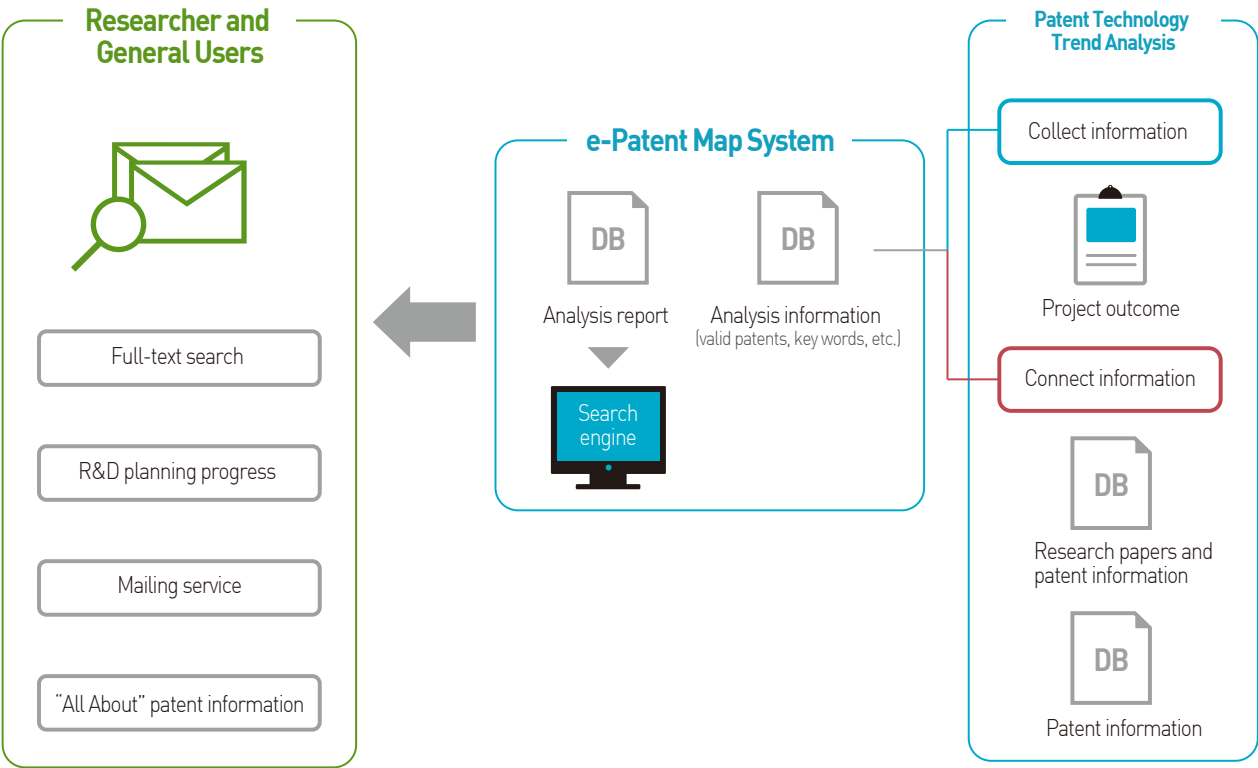
To facilitate the transfer of patents to businesses, this project helps organize patents to be grouped by product units according to the current market demand. Additionally, we offer concept review and prototype testing to verify patent commercialization. In 2018, KIPO supported 35 projects and the transfer of 82 technologies.

05 IP Utilization Network Set-up Project

In order to ensure a steady flow in the supply and demand of patent technologies, KIPO has organized the “IP utilization network (IP-PLUG) project” since 2015. IP-PLUG is a networking session that brings together diverse IP-related individuals and groups, such as users, suppliers, investors, brokers, utilization experts and other private trading agencies. They are able to share IP information, discuss difficulties and connect with partners for better utilization of IP. In 2018, 14 IP-PLUG sessions were hosted to connect 119 cases of patent technologies to SMEs.

KIPO also has been jointly hosting the “Public Technology Roadshow” with the Ministry of SMEs and Startups (MSS) since 2013. The platform promotes the transfer of outstanding patent technologies from universities and public research institutes to SMEs and helps develop them into new business opportunities. In 2018, we held two Roadshows helping to identify 1,061 cases of public technologies and 67 technology transfer MOUs were signed.

Patent trend analyses for government R&D



Regional IP Capacity Building

01

Regional IP Centers

To promote awareness and encourage IPRs as well as inventions at the regional level, we operate 27 regional IP Centers nationwide. These regional IP Centers pursue customer-oriented management by carrying out various activities such as comprehensive IPR consultation, counseling service, IP seminars and education courses.

02

Providing Regional IP Awareness

Regional IP forums and IP policy meetings

Following the *Framework Act on Intellectual Property* set in 2011, the demand for IP awareness at the regional level increased. Among many efforts, municipal and provincial governments were mandated to implement action plans for IP.

To this aim, KIPO began hosting regional “IP Forums” since 2012. By 2018, the IP Forums expanded to allow local participation in eight different regions, including Gyeongsangbuk-do, Gyeongsangnam-do, Gangwon-do, Jeollanam-do, Jeju, Busan, Ulsan and Incheon.

Moreover, KIPO and 17 regional governments inaugurated the Regional IP Policy Council in 2013 to discuss policies and methods for the creation, protection and utilization of IP between the national and regional governments. The Council organized various meetings in May 2018 in Seoul to discuss the operational direction of projects that support

regional IP creation and the ways to strengthen regional IP policies.

IP sharing to support the socially disadvantaged

The “IP Talent-sharing Project” is an initiative that invites patent attorneys, designers and university students from various backgrounds to volunteer their IP talents and skills. The beneficiaries are the socially disadvantaged who need assistance to achieve IP creation. In 2018, 379 people offered their talents to 186 beneficiaries.

IP Creation Zone Program

Start Up Incubator

- ▶ Introduce relevant agencies to assist with idea commercialization
- ▶ Suggest equipment for manufacturing prototypes

Patent Labs (IP Stepping Stone program)

- ▶ Provide professional assistance for idea sophistication and patent application
- ▶ Assist with drawing blueprints and manufacturing prototypes

Creation Class

- ▶ Administer training on ideation and patent information search
- ▶ Provide hands-on 3D printing practice

IP Based Start Up Support Program

IP Creation Zone (Idea Identification Stage)



- Local invention competition
- Idea competition

Education (Utilizing patent information)

IP Stepping Stone (Business Start up Preparation Stage)

1

Idea sophistication and acquisition of rights

2

3D design and prototype manufacturing

3

Project item discovery

IP Wings (Business Growth Stage)

1

Business IP management evaluations and competitor IP analysis

2

IPR creation and improvement

3

IP based business management and technology development strategy

Enhancing the IP Capacities of SMEs and Promising Enterprises

Overall, there were 281 talent sharing projects with 74 cases that received IP consulting, design development followed with 63 cases, prior art searches with 61 cases, brand development with 51 cases, IP education with 14 cases and 18 cases for miscellaneous projects (i.e. writing up specifications).

National invention challenge for public safety

Specialized education and competitions are held to encourage the IP activities of those specifically working for public safety. Government employees and Korea’s armed forces who deal with national security and natural disasters are provided IP training and encouraged to submit their innovative ideas into a competition. We held a competition in 2018 that received 966 submissions. Thirty-three outstanding ideas were exhibited and awarded at the “Korea Innovative Safety and Security Expo 2018” and the “Korea Intellectual Property Expo 2018”.

03

Foster an IP Based Start Up Environment

Since 2014, KIPO has worked with local municipalities to set up the regional “IP Creation Zone” program to support local IP based start ups. The program invites local residents to participate in various programs that provide training and consulting to secure rights and the commercialization of creative ideas.

Accommodating different levels of expertise and needs, the program is structured into the “Start Up Incubator”, “Patent Labs” and “Creation Class”. In 2018, six additional IP Creation Zones opened and there is now IP Creation Zones in all major cities and provinces nationwide.

Another support program is the “IP Stepping Stone”, available to entrepreneurs who are preparing for their business start up. The program provides consultations based on patent trend analysis so that ideas can be made distinct from existing ideas for registration. In 2018, 935 ideas received support for patent filing. Out of which, 199 ideas successfully developed into business start ups.

To support businesses with less than 7 years of maturity, we began the “IP Wings Program” in 2017. Many times, early businesses face the most challenges related to IP. This program provides IP consulting and assistance for growth. In 2018, 425 start ups received consultations for business management and technology development strategies.

Like this, we aim to provide assistance to businesses throughout the full business life-cycle—starting with the individual entrepreneur to growing as a business. This will further allow local IP based start ups to flourish.

01

Expanding Financial Services Based on IP

To help SMEs obtain financing, KIPO has been working to offer financial services that capitalize on IP as intangible intellectual assets. Through a value assessment of the IPRs owned by SMEs, IP-based financing can be secured which allows patents and technologies to be used for loans and investment.

The IP-based guarantees and the IP-secured loan are a few of the most representative IP financial services. An IP-based guarantee is when the IP value of an SME is assessed to obtain a guarantee which is then used to borrow a loan from a commercial bank. And, an IP-secured loan is when a SME’s IP value is assessed and the IP itself is considered as collateral for a loan from a commercial bank. Furthermore, investment organizations, such as a venture capital company, can consider the assessment results to make decision when investing in companies with high-value IPs. To regulate the quality of the assessments, KIPO designates the agencies that assess the IP value while also sponsoring the cost of assessment for SMEs.

For the first time in 2013, we enabled SMEs to acquire loans using only their IPRs as collateral through the Korea Development Bank. Then in 2017, an MOU was signed among KIPO – Korea Technology Finance Cooperation – Korean commercial banks to expand benefits for SMEs, such as offering preferential interest rates for IP-based guarantees.

In December 2018, we held a joint press conference with

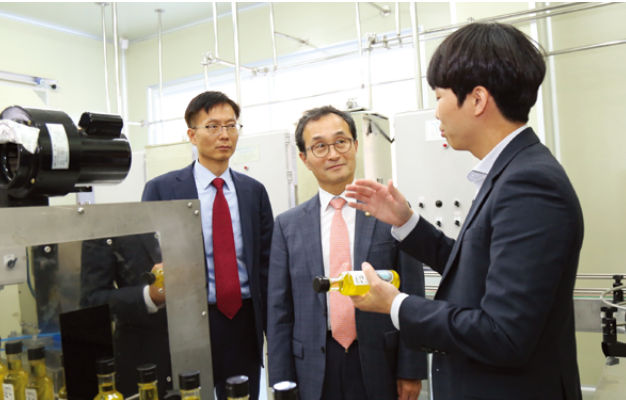


the Financial Services Commission (FSC) to announce the establishment of comprehensive actions which becomes a foundation to spread the scope of IP financing.

02

Fostering Global IP Star Companies

To assists SMEs reach their export potential, we concentrated effort on organizing a program which helps foster them into “Global IP Star Companies” through strengthening their IP creation and utilization.



KIPO identifies promising SMEs with high export potential and supports their entry and development in the global market. For a 3-year term, various services are provided such as financial assistance for IPR filing, trend analyses, strategy advice, as well as development of product, brand, packaging and materials for publicity.

Since the beginning of the program in 2010, KIPO has assisted 1,659 SMEs. In 2018 alone, 205 companies have been identified and many have succeeded in entering the global market even with no prior international exporting experience. Key corporate management indicators recorded an increase which reached 16.4% in revenue, 7.4% in employment and 13.8% in exports as of 2018.

Key corporate management indicators of Global IP Star Companies

(Units: %)

Key Corporate Management Indicators	2016	2017	2018
Revenue	5.9	6.9	16.4
Employment	7.3	8.2	7.4
Exports	6.9	7.9	13.8

Fostering the Development of an IP Workforce

01

Increasing IP Competency in Academic Institutions

IP courses in university

KIPO has supported universities since 2012 to foster researchers with practical IP capabilities. Great effort and emphases have been placed on establishing a foundation of systematic IP education through curriculum. Leading universities of IP education have been encouraged to

administer courses for IP-R&D and multi-disciplinary convergence that associates IP with other major areas of study, chiefly science and engineering.

Master of Intellectual Property (MIP) program

In 2010, KIPO played a pivotal role establishing a “Master of IP” degree program at the Korea Advanced Institute of Science and Technology (KAIST) and Hongik University. In order to foster chief intellectual property officers (CIPOs) and their understanding of IP management, the master’s program provides an interdisciplinary approach to IP-

Overview of IP courses in university

Category	2014	2015	2016	2017	2018
IP leading education institutions	9	12	15	17	17
Regular IP courses	418	611	1,023	1,451	1,410
Number of participants	16,002	20,028	28,936	43,664	45,178

Undergraduate and graduate IP education courses (Science and Engineering Departments)

		Education module								
		Stage	Year	Introduction to IP	Patents and creative thinking	IP creation	Patent information investigation	IP protection	IP utilization	R&D patent strategies
Course	Intro-duction	Freshman		Creative thinking and basic design			Basic creative design			
	Basic	Sophomore	Introduction to IP					Introduction to IP		
		Junior	Students can choose from the following courses: Patent analyses and invention application, Business startup, and IP I, and IP II							
		Senior		Compre-hensive creative design			Compre-hensive creative design			
	In-depth	Graduate students	R&D strategies from a patent viewpoint							

related subjects, such as engineering, law and business management. In addition, the program deals with important IP issues in new industries such as pharmaceutical biotechnology, AI and big data. In 2018, Dankook University and Dongkook University were selected by KIPO to sponsor the professional degree programs.

Furthermore, we introduced a scholarship program for SME employees. The program helps support staff who specialize in IP and business IP strategies.

02

Promoting Academic-Industrial Cooperation

Campus Patent Strategies Universiade

The “Campus Patent Strategies Universiade” is a competition hosted by KIPO since 2008 to raise collegiate interest in patent education, expand practical patent education at the university level, nurture engineers who possess patent-related knowledge and keep the industry supplied with innovative ideas.

The Universiade represents a unique type of cooperation among government, industry and universities. While KIPO arranges the competition, graduate and undergraduate students devise IP strategies and offer solutions with their academic advisors to the issues prepared by private companies. The private companies then review

the submissions and award monetary prizes to their top choices. Based on learned IP-related knowledge, students can quickly grasp the corporate R&D process and the participating companies receive creative new ideas.

In 2018, we modified the Campus Patent Strategies Universiade to improve its practicality for universities and businesses. Previously, the competition was structured into two parts–namely prior art search and patent strategy. Rather, the recent competition focused more on patent strategy, which improved the quality of solutions submitted by participants. In 2018, 956 teams from 57 universities and 28 companies participated in the Universiade.

Collegiate invention activities

As another way to boost activities of innovation and nurture creative inventors who are competent in IPR at universities, we have held the “University Invention Contests” since 2012. Leading up to each contest, summer camps are hosted where IP experts train university students to conduct prior art searches and prepare patent applications. Furthermore, exceptionally innovative ideas and IPRs receive additional support towards commercialization such assistance for the patent application fee, prototypes manufacturing, etc.

In 2018, the contest had a total of 4,959 invention submissions from 125 universities. Of these, 54 outstanding ideas received support for IPR registration. Their inventions are made available on the IP-Market–a website for transaction of technology.



Design to Business (D2B) Fair

In an effort to raise design rights awareness and reinforce national industrial competitiveness, the “Design to Business (D2B) Fairs” have been held since 2006. The



D2B Fairs are a distinct open innovation approach where companies have access to the creative designs of talented designers while designers are able to retain the IPRs of their creative designs.

At the Fair, companies present outdated designs in need of a revamping, and designers submit their re-designs. After signing a licensing contract, the companies will commercialize the winning design and the winners receive the royalties according to the product’s generated revenue. In 2018, 19 companies presented goods for the contest, and 5,578 designs from 75 universities were submitted, leading to 133 applications for design rights.

03 Fostering Creative Inventors

Management of invention school classes

The Act on the Promotion of and Support for Invention Education was enacted to provide legal requirement for education on inventing. Thus, education on inventions was designated as a formal subject in the elementary, middle, and high school curriculum. In 2018, “Introduction to Intellectual Property” was newly established as an elective subject the high school curriculum.

Furthermore, KIPO designated three universities as centers for invention education that train prospective and professional invention teachers. For youth, we operate “creative invention education centers” in order to provide invention education programs in a total of 201 schools in nationwide.

Through these activities, KIPO has contributed to enhancing IP awareness and continues to expand invention education for students as well as the general public.

Recognizing students and teachers involved in inventions activities

Through the various creativity and inventing activities hosted by KIPO, we are able to discover talented inventors and encourage the value of inventing. We continually



select and support notable students and teachers actively engaged in invention classes.

Held since 1988, the annual “Korean Student Invention Exhibition” has helped discover and nurture promising inventors to lead the knowledge-based society of the future.

KIPO has also organized the “Korean Student Creativity Championship” to nurture outside-the-box thinking among today’s youth. This championship, in particular, allows students to form teams and solve problems through collaboration. Their creativity is evaluated as they resolve various tasks given to them both in advance and during the event.

Furthermore, since 2011, KIPO has been awarding the “Grand Prize for Invention in Education” to teachers who contributed to promoting inventions in school.

Education for the next generation of creative entrepreneurs

Operating an education center for creative entrepreneurs of the next generation, KIPO administers various educational programs with KAIST and POSTECH aimed at talented middle and high school students. The 2-year educational program offers courses on core entrepreneurial skills, including creative problem solving and technology forecasting, while simultaneously fostering IP expertise. A follow-up program is also offered which helps students with the step by step processes of business start up—from idea conception to early business stages. As of 2018, the



program has worked with 1,476 next generation creative entrepreneurs.

04 Events to Promote Inventions

During the reign of King Sejong of the Joseon Dynasty, the world’s first rain gauge was invented on May 19, 1441. “Invention Day” was established to commemorate its significance and the spirit of innovation. Every year, KIPO hosts a ceremony on this day to promote the importance of inventions and inspire members of the general public.

In 2018, we celebrated the 53rd Invention Day by hosting a ceremony with the theme “Innovative Growth through Invention and Job-Creation through Patents”. Many key figures attended the ceremony, including the KIPO Commissioner and members of the Korean National Assembly. There, the Korean government expressed its determination to lead the 4th Industrial Revolution (4IR) through invention and innovation while supporting start ups and job creation. Additionally, 78 people received recognition for their contributions to leading Korea’s industrial development through their invention activities.

Many other exciting events were organized to further celebrate the occasion such as an exhibition of noteworthy inventions, a commemorative movie screening and a ceremony performance. We also selected the “Inventor of the Year” in recognition of how new products and

new technologies have contributed to our national competitiveness. The Inventor of the Year's photo and invention are publically displayed in the Inventor Hall of Fame as a way to inspire other inventors.

On December 6th, the "2018 Korea IP Exhibition" was held in Seoul as a combination of three exhibitions: the "Korea Invention Patent Exhibition," the "Trademark and Design Right Exhibition" and the "Seoul International Invention Fair". Sponsored in cooperation with the World Intellectual Property Office (WIPO) and the International Federation of Inventor's Association (IFIA), the exhibits featured about 604 inventions, trademarks and designs from 32 countries around the world.

Every year in collaboration with WIPO and the Korea Women Inventors Association (KWIA), we host the "Korea International Women's Invention Exposition" to encourage female inventors to create and commercialize their inventions. In 2018, the Expo was successfully held from

June 28 to July 1 at the KINTEX with about 373 inventions submitted by female inventors from 28 different countries and more than 7,000 visitors.

As an extension of the international expo, the "2018 IP Wave for Creative Women Leaders" was organized as a workshop for female inventors and business leaders who completed the WIPO IP management training. The workshop was held from July 2 to 3 with 83 participants from 18 different countries.

The "2018 Woman Idea Living Show" allows women to submit creative, fun and sophisticated ideas that can improve daily life. The ideas are evaluated and given support for patent filing and prototype manufacturing. The online community voted on the prototypes which were displayed online (<http://www.womanidea.net>). Selected inventors were invited to exhibit and present their ideas at the Women Idea Living Show where the final winner was chosen.



05 Off-the-job Training for Patent Attorneys

In order to certify as a patent attorney, a 2016 amendment of the *Patent Attorney Act* stipulates that certified lawyers and those who have passed the patent attorney bar exam must attend 250 hours of training, in addition to six months of on-the-job training. Since then, the International Intellectual Property Training Institute (IIPTI) began administering training courses to help fulfil the off-the-job requirements. The courses aim to produce skilled patent attorneys with high professionalism.

An off-the-job training course was held from January to February in 2018. A total of 211 out of 218 newly qualified patent attorneys completed the off-the-job training course. Another round of training was conducted for certified

lawyers from November to December 2018. Thirty-six participants successfully completed the program.

In the 2018 curriculum for the newly qualified patent attorneys, a great emphasis was placed on improving their capabilities to utilize their learned knowledge in the workplace. For this purpose, an advanced practicum was offered in practical fields such as filing IPR applications (i.e. application documents, specifications, written arguments, amendments, etc.), and composing administrative IPR trial and litigation documents (i.e. petitions, reply briefs, etc.).

To further enhance understanding of science and technology, as well as professionalism as patent attorneys, courses were provided on natural sciences such as physics, chemistry and state-of-the-art technologies related to the 4IR. In particular, the IIPTI published Understanding Science and Technology through Patents in 2018, a textbook on judging patentability of patent specifications based on scientific theories.



Enhancing IPR Protection



Dolmen
This dolmen made in the Bronze Age is the most famous northern style dolmen in Korea. The weight of the cover stone is as much as 50 tons. Korea is called the 'Kingdom of Dolmen'. About 40% of the world's dolmens are found in Korea.

IP Protection in Korea

01

Improvements to IPR Protection Laws and Systems

Both the *Patent Act* and the *Unfair Competition Prevention and Trade Secret Protection Act* were amended in December 2018 (to be effective July 2019) to better protect IPRs. The amendments introduced punitive damages for patent and trade secret infringement, an amount which can total up to three times the damages. Also included in the amendments are provisions to mitigate the burden of proof on the rights holder. The law requires suspected infringers to present their own technology to refute infringement claims.

In particular for trade secrets, amendment to the *Unfair Competition Prevention and Trade Secret Protection Act* also included provisions to amplify protection. The requirement to maintain secrecy has been changed from “maintained as a secret by reasonable effort” to simply “managed as secret.” Four additional types of trade secret infringements subject to criminal punishment have been included, such as non-compliance with the request of return or deletion of trade secrets.

Furthermore, the punishment for trade secret infringement has become more severe. For instance, a domestic leak of trade secrets was previously “punishable by imprisonment up to 5 years or fines up to 50 million KRW” and an overseas leak was “imprisonment up to 10 years or fines up to 100 million KRW.” Rather, the possible sentencing is now “imprisonment up to 10 years or fines up to 500 million KRW” for a domestic leak and “imprisonment up to 15 years or fines up 1.5 billion KRW” for a leak overseas.

To establish a sound market order, additions have been

made to the list of unfair competition practices, such as the illegal use of technical and business ideas provided in the course of proposals, bidding, consultations, and business transactions, as well as the imitation of trade dress (the overall visual characteristics) of the business. Moreover, KIPO has been mandated the authority to directly investigate these practices and make corrective recommendations in order to quickly remedy the damage of SMEs that lack sufficient capacity for litigation.

In 2018, the scope of the Special Judicial Police (SJP) was expanded to include patent, design and violation of business secrets with the revision of relevant laws. Employing experts from KIPO, cases of patent and technology infringement can be actively investigated early on to protect the IPR of right holders. Meanwhile, damages from excessive complaints and false accusations can be minimized.

02

Enhancing IPR Protection Against Counterfeits

As a way of enhancing law enforcement on counterfeits, a Special Judicial Police (SJP) was formed at KIPO in September 2010 to investigate activity and seize goods infringing against trademarks. With the headquarters in Daejeon, branch offices were established in the cities of Seoul and Busan for enforcement operations. In 2018, the SJP criminally charged a total of 361 suspects who were found producing and/or selling counterfeit goods and seized 542,505 items in counterfeit goods.

Recently, the transactions of counterfeit goods online have been rapidly increasing due to the boom in e-commerce.

In order to efficiently tackle this issue, we also established an online law enforcement task force equipped with digital forensic equipment to firmly regulate online transactions of counterfeits.

We are actively reinforcing investigations into counterfeit goods that have greater impact on people’s lives, such as the illegal manufacturing and distribution of counterfeits concerning to health and safety.

03

Establishment of Fair Trade Order Through Investigation of Unfair Competition

Under the recent amendments to the Unfair Competition Prevention and Trade Secret Protection Act, KIPO has been given the authority to conduct investigations into suspected activities of unfair competition, such as the counterfeit of products and the theft of ideas. KIPO can make corrective recommendations with the results of the investigation to the individuals or businesses found guilty of

unfair competition practices. Through these investigations and corrective recommendations, we aim to establish a healthy market order by stamping out the unauthorized use of another’s achievements and/or free riding on their competitive edge without just compensation.

A SME or start up may spend several months or years to develop a product. However, many times, the shape of a good is counterfeited soon after it is launched into market. In 2018, KIPO investigated 41 counterfeit complaints and actively made corrective recommendations to rectify the act of imitating a product’s shape for market sales.

Additionally in July 2018, the “theft of ideas” was newly introduced into the scope of violation of the law. In just six months since then, we received 29 complaints on the theft of ideas. In one instance, a SME had filed a complaint against a large company which was also their business partner. The company was investigated for suspected illegal use of a microbiological agent and test results provided by the SME. We concluded that it was an act of unfair competition practice and recommended corrective measures in December 2018. The recommendation was the first of its kind.

Results from law enforcement								
Category		2010~2013	2014	2015	2016	2017	2018	Subtotal
Criminal arrests	Number of individuals	862	430	340	351	362	361	2,706
	Number of seized goods	1,011,177	1,114,192	1,192,988	584,094	691,630	542,505	5,136,586

Results of Investigations							
Suspected Actions of Unfair Competition	Outcome						
	Correction Recommendation	Self Correction	Acquittal	Complaint Withdrawn	Insufficient Conditions	Other	Sub-total
Confusion of goods producers (a)	-	-	1	1	-	-	2
Confusion of business entities (b)	1	1	2	2	1	1	8
Damage to reputation of widely known trademark (c)	-	-	-	-	-	-	-
Confusion about place of origin (d)	-	-	-	-	-	-	-
Confusion of place of production (e)	-	-	-	-	1	-	1
Domain name cyber squatting (h)	-	-	-	-	1	-	1
Imitation of product form (i)	4	19	5	9	3	1	41
Theft of ideas (j)	1	-	1	3	1	-	6
Performance theft (k)	-	-	-	-	2	-	2
Prohibition of national flag and national emblem	1	2	-	-	-	-	3
Total	7	22	9	15	9	2	64

We plan to continue investigating cases of suspected unfair competition practices and substantive violations of the law, promptly recommend remedial action for affected individuals and companies, and ultimately, establish a fair market order. For this purpose, KIPO will hold round table meetings with businesses and host regional information sessions to publicize KIPO's investigation system to industries where unfair competition activities are frequently found.

04

Increasing the Public's Awareness on IP Protection

To enhance IPR protection and consumer awareness of the illegality of counterfeit goods, KIPO conducts several public



awareness activities. Collaborating with local governments of regions with high counterfeit distribution, education sessions and street campaigns were organized to inform the public on about the illegality of counterfeit goods.

We also intensified advocacy on online platforms such as websites, blogs and SNS to increase public opinion and establish a culture that respects IP. In 2018, a nationwide competition was held to promote against the theft of ideas and technology as well as to prevent purchases of counterfeits and goods with false indication. We received 103 submissions, and among them, 26 were selected to be adapted into public service advertisements.

Beyond street and media campaigns, an experiential learning program was administered for 700 middle school student focusing on the present state of IPR infringement and the importance of protecting of IPRs.

05

Trade Secret Protection Projects

The Trade Secret Protection Center (<http://www.tradesecret.or.kr>) was established to support small and medium-sized enterprises protect their trade secrets. Various projects such as consultations, education, seminars and counseling are organized to provide assistance.

Regional seminars are conducted in areas concentrated with businesses to improve understanding about policies and systems that help protect trade secrets. Online and offline education materials were published to demonstrate the seriousness of leaking trade secrets and methods of better trade secret protection.

Moreover, we developed a trade secret management system to help companies proficiently manage trade secrets with low financial and labor costs. Experts are sent to SMEs to provide consultations on trade secret protection. In 2018, we modified the consultation services to provide assistance that is more accommodating to the scale of each company. For example, start up companies with limited resources are provided consultation involving only the most minimum and essential requirements to manage trade secrets.

Meanwhile, the Trade Secret Certification Service began operating in 2010 to authenticate trade secret ownership for infringement litigations. This system uses time stamps generated by combining unique codes to create authorized time values on trade secret e-documents. Time stamps are then registered with the Korea Intellectual Property Protection Agency to indicate initial dates of possession and prove the existence of original copies of trade secrets. The number of cases involving the Trade Secret Certification Service has steadily grown. In fact, this system has been used in a total of 127,039 cases, as of 2018



Overseas IP Protection

01

IP-DESK

KIPO manages IP-DESKs all around the world as centers to support Korean business and to protect their IPRs as they enter the foreign markets.

Beginning in 2016, expansion of the IP-DESKs targeted regions where Korean companies experienced frequent IPR disputes. Recent centers were established in China, India and Indonesia. As of December 2018, we have a total of 14 IP-DESKs operating in 8 countries.

Korean companies which are currently active in or are preparing to enter foreign markets can receive support from the IP-DESKs regarding IPR registration, infringement



inquiry and even IPR dispute consultations. Additionally, publications, conferences and various educational sessions are implemented to prevent IPR disputes.

We are making effort to develop cooperative channels with foreign IPR-related organizations in order to protect the IPRs of Korean companies operating overseas. Invitation program and seminars were held for IPR-related government officials from various countries to enhance their understanding on Korea brands and methodology of enforcement against IPR infringements.

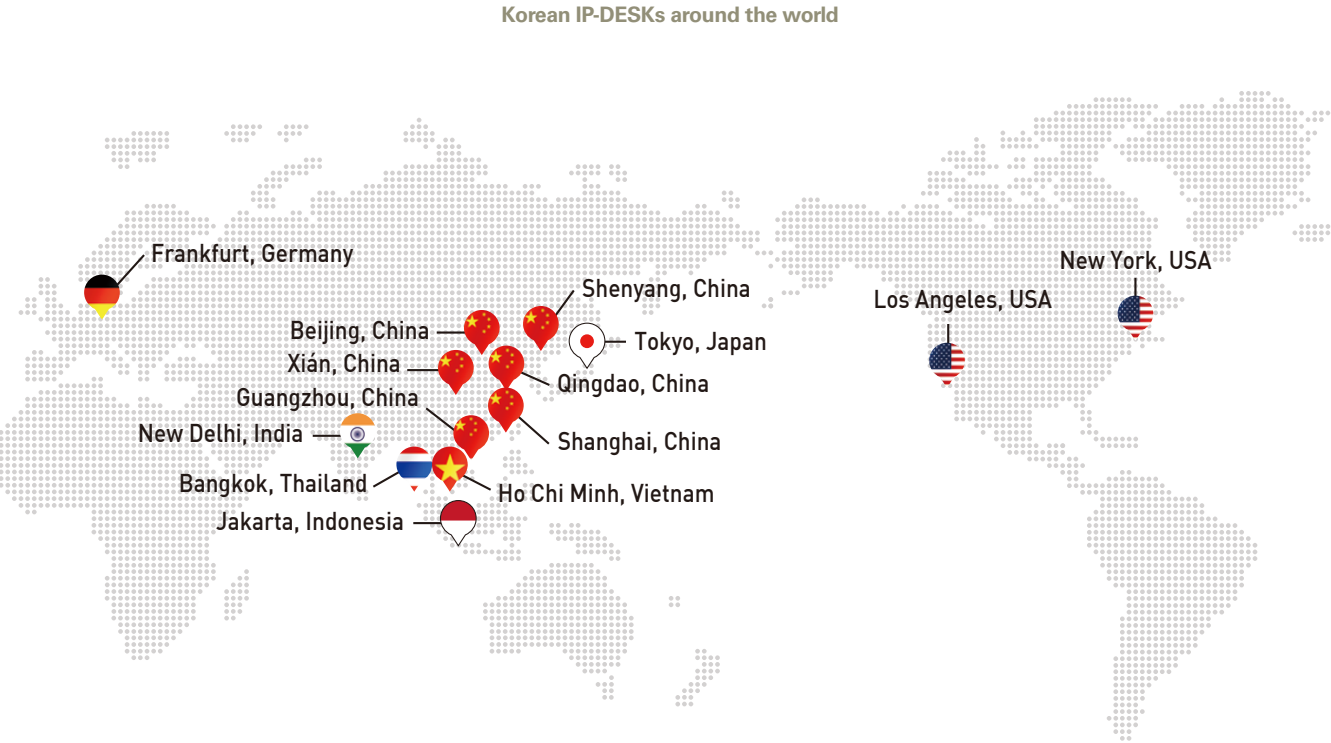
02

Establishing Methods for
K-Brand Protection

KIPO has been implementing comprehensive measures to protect Korean brands, secure the reliability of the Korean brands and prevent damage to the national image in overseas markets where infringement of Korean brands is occurring.

In 2018, we monitored the infringement activities of several trademark trolls in one foreign country. The information was shared with Korean companies being affected in order to help them determine appropriate counter measures.

Moreover, working in cooperation with an overseas e-commerce conglomerate, KIPO was able to uncover multiple counterfeit goods of Korean brands on their platform and blocked the related sites.



Global IP Cooperation

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Songdo Central Park
It is a large park in Incheon Songdo International City International Business District. It is the first seawater park in Korea and cleans the waters in real time and draws them into the park.

Multilateral Cooperation and FTA

01 Multilateral Meetings at WIPO

Throughout 2018, KIPO engaged in various working group meetings coordinated by the World Intellectual Property Organization (WIPO), which is a global forum pursuing services, policies, information and cooperation regarding intellectual property. The meetings were held to advance and enhance global IP services such as the International Patent System through the Patent Cooperation Treaty (PCT system), the International Trademark System (Madrid system) and the International Design System (Hague system).

As a member state of WIPO, we participate in the WIPO standing committees to discuss global IP norm settings, such as the Standing Committee on the Law of Patents (SCP), the Standing Committee on the Law of Trademarks, Industrial Designs and Geographical Indications (SCT) and the Committee on WIPO Standards (CWS).

We also contribute to the discussions on WIPO’s budget and development agendas, genetic resource protection, as well as technical assistance and coordination in the field of IP enforcement through the permanent WIPO committees. These include the Program and Budget Committee (PBC), the Committee on Development and Intellectual Property (CDIP), the Intergovernmental Committee (IGC) on Intellectual Property and Genetic Resources, Traditional

Knowledge and Folklore and the Advisory Committee on Enforcement (ACE).

In September 2018, WIPO held its 58th Series of Meetings of the Assemblies of the Member States in Geneva, Switzerland. Representing KIPO was Vice Commissioner Kim Taeman who delivered a general statement highlighting the need to take action for the era of the 4th Industrial Revolution. He also advised that new technologies should be applied to IP administration systems to properly cope with the increasingly complex situation of IP application. Mr. Kim also commemorated the newest developments of the “Getting Creative with Pororo series” for IP education at the premier ceremony hosted alongside the 2018 WIPO General Assembly.

02 APEC Intellectual Property Rights Experts Group (IPEG)

Within the Asia-Pacific Economic Cooperation (APEC) framework, the 46th and 47th meeting of the Intellectual Property Rights Expert Group (IPEG) convened at the 2018 APEC forum hosted by Papua New Guinea. The IPEG is a platform for KIPO to introduce relevant IP policies and projects that contribute to the dialogue of effective IPR protection among fellow APEC member economies.

In the previous year, KIPO completed publishing a reference manual of IP policies for SMEs called, the “Guidebook for SMEs’ IP Business Cycle” which was made possible through APEC funds. To continue its impact, in 2018, we proposed plans for an “APEC IP Business Workshop” to be a consultative workshop to make use of the Guidebook.

Also during the 46th IPEG meeting, we presented IP-sharing projects for capacity building by KIPO. And recent amendment of Korea’s *Unfair Competition Prevention Act* for IPR protection were shared during 47th IPEG meeting. Furthermore, we shared KIPO’s recent efforts to combat counterfeit goods distribution during the workshop on “Trademark Infringement Determinations in a Border Enforcement Context” held for IPEG member economies.



IP-Sharing

01 Appropriate Technology (AT) Projects

KIPO is fast becoming a global leader in utilizing IP information for appropriate technology development. Appropriate technology (AT) refers to technology that is specified to the local environmental, cultural and socioeconomic factors of a particular region. Mainly developed to improve the quality of life for low-income communities, AT is more cost-effective, efficient and easier to implement and maintain than costly cutting-edge technologies.

Using technological information obtained from patent documents, we are able to provide AT development projects every year to countries requesting assistance, such as Chad, Nepal, Cambodia, Guatemala, the Philippines, etc. In 2017, a crop dryer and solar controller were developed for Makerere University in Uganda. The agricultural drying technology helped improve their product quality which contributes to the income of the local farmers. In Sri Lanka, a coconut oil expeller was developed to refine the quality of the locally produced coconut oil. Moreover, in order to continue the sustainability of the developed technologies, AT research centers were established in each country at the conclusion of the projects.

03 Free Trade Agreement (FTA) Negotiations on IP

The first free trade agreement (FTA) was signed between the Republic of Korea and Chile, which came into effect on April 1, 2004. Since then, many more FTAs have been signed with Singapore (in effect since 2006), the European Free Trade Association (2006) and the Association of Southeast Asian Nations (2007). A Comprehensive Economic Partnership Agreement was signed and put into effect with India (2010). Continuing to expand Korea’s economic relationship with government around the world, FTAs were signed with the European Union (2011), Peru (2011), the United States (2012), Turkey (2013), Australia (2014), Canada, China, New Zealand and Vietnam (2015), and with Colombia (2016).

More recently, we came into a free trade agreement between Korea and Central America (Panama, Costa Rica, Honduras, El Salvador, Guatemala and Nicaragua) in 2018. Through these cooperative agreements, Korea has attained a high level of protection for IPRs that surpasses that of the World Trade Organization (WTO)’s agreement on Trade-Related aspects of IPRs (TRIPs).

Furthermore, we are under negotiations for the Regional Comprehensive Economic Partnership (RCEP), the Korea-China-Japan FTA, the Korea-MERCOSUR (Brazil, Argentina, Uruguay and Paraguay) Trade Agreement, and the Korea-Israel FTA, as well as an update to the initial Korea-Chile FTA.



In 2018, we worked in Mongolia to develop a greenhouse and smart control system to help farmers sustain crops in the winter and produce nourishment for the local community. Another AT project developed a silk weaving machine for the local craftsmen in Quang Nam province, Vietnam, as well as the provide assistance for their regional branding.

02

Brand Development Projects

Many of KIPO's recent development assistance project began to include the combined support of both appropriate technology and branding to further increase business potential. Although locally-farmed goods and other specialty items found in developing countries are often high-quality products, producers cannot benefit due to a lack of knowledge and capacity to effectively brand their products.

Proper IPR protection and an effective brand strategy will maximize the value of their products and better position them in the international market, thereby increase income and standard of living.

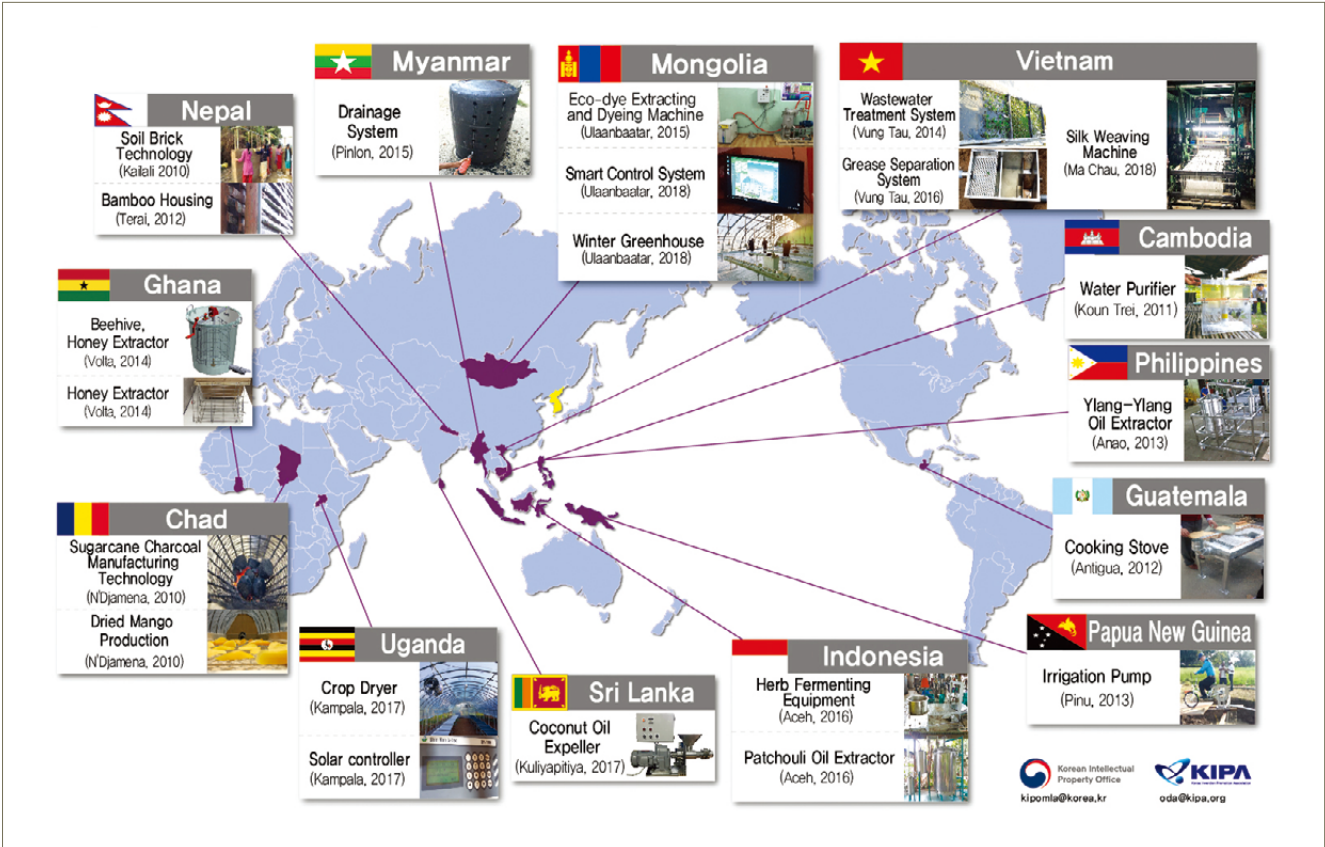
We have been carrying out brand development projects to help local products receive the benefits of a proper marketing in countries such as Bolivia, Chile, Ghana, Myanmar, Mongolia, etc. In 2017, along with the AT development of a coconut oil expeller in Sri Lanka, we assisted with creating a brand and local coconut certification mark to enhance the recognition of the regional

product. In 2018, a silk certification mark and collective mark for Ma Chau village in Vietnam were created also in conjunction to the AT development project. The brands will help bring even more income to the local people in each country.

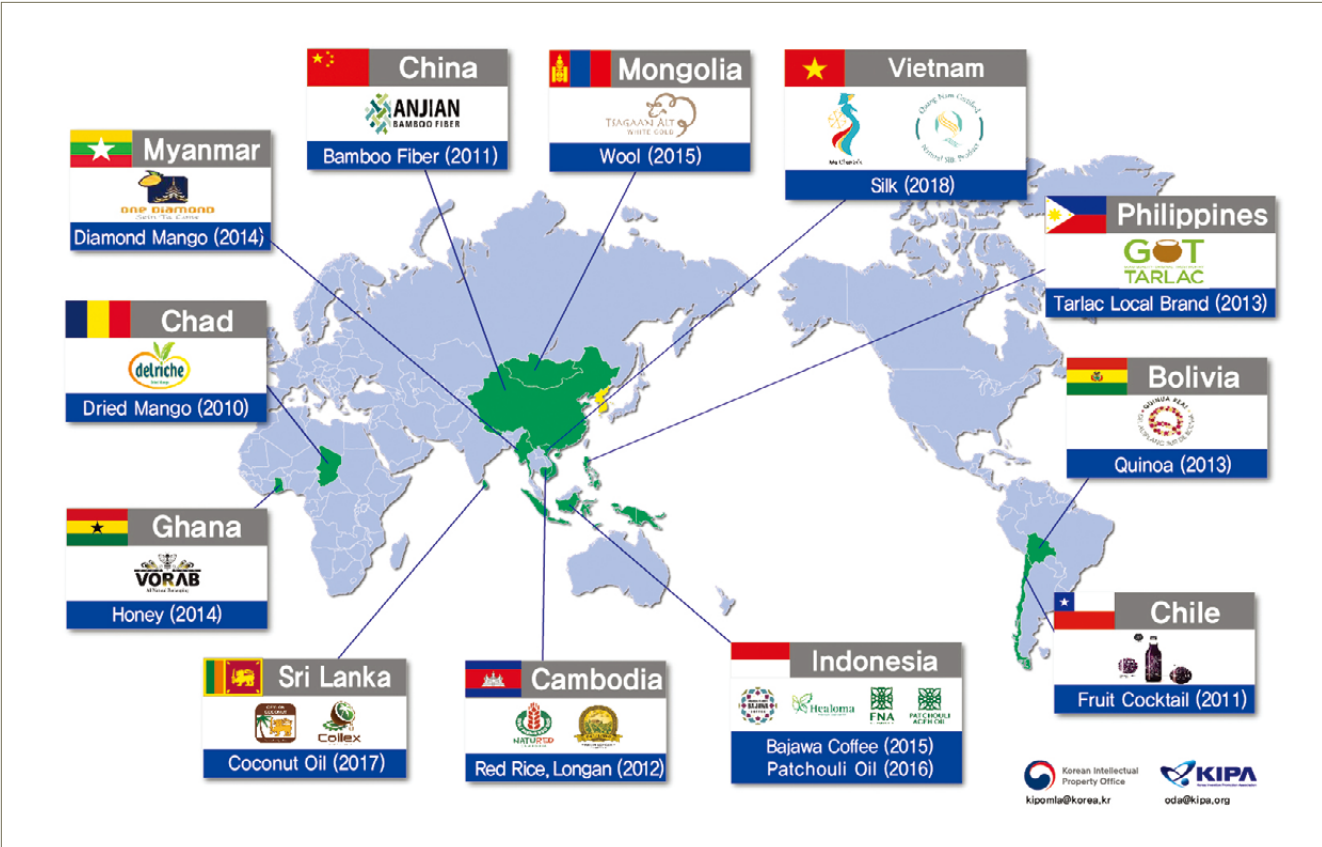
To conclude the project, IP professionals and branding experts hosted "One Village One Brand" seminars. The seminars provide education on the basic concepts of branding and IP to build the capacity of the local community and contribute to the sustainable growth of the local economy.



KIPO's Global IP Sharing (Appropriate Technology Development)



Host countries of the KIPO-WIPO Appropriate Technology Competitions



03

WIPO Korea Funds-in-Trust (FIT) Projects

Since 2004, KIPO has managed the WIPO Funds-in-Trust (FIT), provided by the government of the Republic of Korea, for strengthening the global IP environment through promoting economic, social and cultural developments, especially in developing countries. Under this partnership, various collaborative activities with WIPO have been organized and implemented such as Appropriate Technology Competitions, seminars and education programs.

Appropriate Technology (AT) Competitions

Initiated in 2011 through the WIPO Korea FIT, the WIPO Appropriate Technology (AT) Competitions serve as a fundamental and crucial step to understand the local environment and needs. It provides a platform for the stakeholders to voice the problems they face every day and propose their own potential solutions. Local students and inventors of developing countries are given training for utilizing patent information. Using their knowledge, they devise innovative solutions which are submitted to the AT competitions.

The competition offers the optimal trilateral cooperation structure to support the development of appropriate and sustainable technology through three core phases: the



WIPO AT Competition, the AT development project by KIPO, and collaboration with external organizations such as NGOs. AT competitions have been held in various countries, including Costa Rica, Dominican Republic, El Salvador, Ethiopia, Ghana, Malaysia, Mongolia, Panama, the Philippines, Vietnam, Thailand and Zambia. In 2018, a competition was held again in the Dominican Republic following the popularity and success of previous competitions. The hosting country's active participation has allowed the AT competitions to be successfully organized and concluded.

KIPO-WIPO Seminar on mediation and arbitration

KIPO has collaborated with the WIPO Arbitration and Mediation Center (WIPO Center) to promote of the use of

alternative dispute resolution (ADR) options for IP disputes in Korea. Financed by the WIPO Korea FIT, various seminars and publications have helped raise awareness on the advantages of ADR methods to resolve and prevent IP and technology disputes.

In May 2018, we hosted a seminar on mediation and arbitration of IP and technology disputes for IP experts, patent attorneys, lawyers and the public interested in ADR. At the event, a new MOU was signed with the WIPO Center for collaboration in promoting ADR services such as raising awareness of WIPO ADR procedures, sharing information and statistical data, etc.

Education for capacity-building

Also sponsored under the WIPO Korea FIT, KIPO invites representatives of governments from around the world to participate in the WIPO-KIPO Study Visit program. Government officials learn about KIPO's IPR policies and discuss methods to further develop the IP administration of their respective countries. In 2018, members from the Vietnam government, the Sri Lanka government and the African Intellectual Property Organization (OAPI) came to Korea to participate.

We also worked in cooperation with WIPO Academy to offer professional development training programs every year for IP examiners and government officials from developing countries. The specialized training programs offer opportunity to enhance knowledge on patent law, trademark law, design law and IP rights as well as exchange views on national examination systems. In 2018, we had 18 people participate in the patent law course, 22 people in the trademark law course and 18 people in the design law course.

Furthermore, every year in July, we organize the WIPO IP Summer School sponsored by WIPO Korea FIT. Motivated university students and young professionals are invited to gain deeper insight into IP issues, learn about the tools for IP management and learn about the role and functions of global IP systems. The 2018 Summer School had 24 domestic and international participants.

Recognizing the importance of providing IP education for today's youth, we worked with WIPO to produce an IP

educational animation series called, "Getting Creative with Pororo". To approach children in a simple and entertaining way, the animation is a spin-off series of a famous Korean character. The original animation adopts a storyline where the main character and his friends deal with issues related to inventions and IP. The series has since been translated in several languages such as English, Spanish, French, and most recently, Arabic. The latest language version and two additional episodes of "Getting creative with Pororo" were premiered at a side event of the WIPO General Assembly in September 2018.

04

Global IP education content development

In 2006, KIPO and WIPO developed an English e-learning program that addresses IP issues from a business perspective called "IP PANORAMA". Available in 24 different languages including six UN official languages, the program has been utilized in both online and offline international IP training for WIPO Member States.

As an example, hosted through a collaboration among KIPO, WIPO, KIPA and KAIST is an on/offline blended learning course for business professionals called "Advanced International Certificate Course (AICC)". Using the IP PANORAMA Multimedia Toolkit, participants begin by learning online about IP asset management. Once



Bilateral Cooperation

completed, selected candidates are invited to the in-classroom portion of the course. In 2018, 1,171 people from 111 different countries participated in the online course. Over the past 9 years, more than 6,700 people from WIPO Member States have taken part.

We also developed “IP IGNITE” with WIPO Academy in 2014 as an audio-visually enhanced version of WIPO’s Distance Learning 101 course. Within its 12 modules, IP IGNITE covers everything from basic IP fundamentals to advanced information on international IP laws and WIPO-administered treaties.

In 2017, KIPO and WIPO launched another blended training course targeting IP teachers called the “IP Impact Certificate Course (IPCC).” IPCC uses IP IGNITE during the online training phase and then invites participants to the offline training phase. In 2018, the IPCC was held for the second time in Lusaka, Zambia.

To nurture creativity among youth, we created mobile-based games that also provide education on IP. Games such as “Invention Savers JIN”, “Invention City” and “Dr. Paul’s laboratory” teach the basic principles of invention by having players complete tasks and/or solve puzzles. “Invention City”, in particular, has seen over 235,000 players spread across 97 countries.

01 Bilateral Cooperation

Overall, 2018 was a solid year of bilateral cooperation for KIPO. Remaining actively involved in an array of cooperative activities with foreign IPR authorities, there were more than 20 high-level meetings and 10 bilateral memorandums of understanding (MOU) signed throughout the year.

To list some of the achievements, we reached an agreement with the National Intellectual Property Administration of China (CNIPA) to begin operating the Collaborative Search Pilot (CSP) program on January 1, 2019. CNIPA’s recent jurisdiction expansion has allowed KIPO-CNIPA cooperation to expand into areas of trademarks and IP protection. With the European Union Intellectual Property Office (EUIPO), we agreed to have regular cooperative activities in the field of administrative trials and appeals, and agreed with the European Patent Office (EPO) to run a pilot program for the exchange of data in the unpublished phase.

As part of the efforts to expand the geographical scope for bilateral cooperation, MOUs were signed with the patent authority of Brazil (INPI) on the implementation of a Patent Prosecution Highway (PPH) and on comprehensive cooperation. We also signed MOUs with three Vietnamese government agencies—collectively responsible for patents, market surveillance and anti-smuggling—on cooperation



for strengthening IPR enforcement and protection which includes the PPH.

Based on the examination expertise and experience operating IP systems of KIPO, we invested a great deal of effort to export KIPO’s IP administration and automation system to other countries. In February 2018, the UAE held an opening ceremony for the IP automation system exported by KIPO which was attended by the UAE Minister of Economy (MOE).

An MOU was signed at the Korea-UAE Summit in March for KIPO to provide support to the UAE when it is designated as the Receiving Office (RO) for PCT applications. Subsequently, UAE MOE officials were invited to Korea for education on PCT RO operations. In December, high-level talks were held which concluded with an MOU agreeing to have KIPO conduct the international search tasks for PCT applications filed to the UAE. In addition, it was agreed that KIPO would carry out the entire process of patent examination for patent applications filed in the UAE.

Another bilateral cooperation accomplishment was made through a strategic partnership with the Saudi Authority for Intellectual Property (SAIP). We agreed to support the SAIP develop their IP ecosystem and administrative infrastructure. Cooperative activities will focus on developing their national IP strategy, an IP automation system and capacity building for SAIP examiners, as well as dispatch Korean IP experts to Saudi Arabia and so on.

Furthermore, after five years of discussions, the ASEAN (10 member states)+1 Framework was finally launched at the 1st ASEAN-Korea IP Heads of Office Meeting held in March 2018 in Brunei. Taking that opportunity, the two sides laid a solid foundation of mutually beneficial cooperation by signing an MOU on comprehensive IPR cooperation. The second Korea-ASEAN IP Heads of Office Meeting is scheduled for 2019 to be held in Korea. With the implementation of the Knowledge Sharing Project (KSP), we will be better able to provide the region with more active support for improving their IPR infrastructure based on Korea’s IPR system.

02 IP5 Cooperation

KIPO has been one of the key and steadfast players in the cooperation among the world’s top five patent offices (IP5). In the past, the sharp increase in patent applications resulted in backlogs of unprocessed applications which emerged as a global issue. To address the problem, KIPO, the European Patent Office (EPO), the Japanese Patent Office (JPO), the National Intellectual Property Administration of China (CNIPA, formerly SIPO) and the US Patent and Trademark Office (USPTO) launched the IP5 cooperation. Since then, the IP5 Heads of IP Offices have agreed to push forward with 10 foundation projects for work-sharing, and thus, four working groups have been formed to carry out the projects.

In its early days, the IP5 offices placed its focus on the elimination of unnecessary work redundancies among the offices by sharing examination information, as well as on the efficiency and quality enhancement of patent examination. Over time, the cooperation expanded into areas of IT and institutional harmony. By 2012, we launched a Global Dossier Task Force (GDTF) for the establishment of a global IT system and a Patent Harmonization Expert Panel (PHEP) for harmonization of examination practices and procedures.

As the IP5 evolved, we made steady effort to engage with



industry users. After the Industry Consultation Group (ICG) was created in 2016, the first ICG meeting was held in Munich in 2017 to strengthen communication with industries.

Celebrating the 10th anniversary of the IP5 cooperation in 2017, a new vision of cooperation was adopted for the promotion of an efficient, cost-effective and user-friendly international patent landscape in order to better respond to the changing examination environment.

Recently, at the 2018 Heads of Office Meeting held in New Orleans, USA, the IP5 commenced the discussion on improvement of the IP5 cooperation structure while KIPO leads the efforts to prepare the “guidelines on the operation of strategic topics.” The five offices also agreed to start the Collaborative Search and Examination (CS&E) from July 1, 2018 for the collective review of patentability of PCT applications. In a meeting with representatives from IP5 industry groups, a range of strategic topics including quality and evolution of the IP5 were discussed, fueling the efforts to explore the ways for improvement.

03 *TM5 Cooperation*

Officially inaugurated in 2012, the TM5 is a framework through which five major IP offices of trademark (KIPO, CNIPA, EUPO, JPO and USPTO) undertake cooperative activities. KIPO hosted the annual TM5 meeting as the chair from November 1 to 2, 2018. Senior members of the TM5, including USPTO Commissioner for Trademarks Mary Boney Denison and WIPO Senior Director for Trademarks Marcus Höpperger attended the event.

At the meeting, a joint statement was adopted on a new direction for trademark cooperation which detailed issues needing to be addressed in the era of the 4IR. The cooperative issues include continued TM5 cooperation to protect innovative emerging products and designs, information sharing to improve administrative services (i.e. quality of examination and classification), diversification of communication channels with stakeholders and 4IR initiatives among TM5 members.

The TM5 annual meeting also discussed the progress and future of 15 cooperation projects, including the “establishment of a list of commonly recognized products” to avoid refusal due to inconsistent classification of the same product in domestic and international trademark applications as well as goods identification method for providing information related to product name registration in overseas application.” Furthermore, a trademark infringement awareness project proposed by KIPO will be newly conducted in the following year.

04 *ID5 Cooperation*

We also have membership in the ID5 which is a consultative body (KIPO, CNIPA, EUIPO, JPO and USPTO) collectively managing more than 70% of the design applications worldwide. Similar to the IP5 for patent cooperation and the TM5 for trademark cooperation, the ID5 works for design cooperation by discussing key issues in the design field.

Out of the 11 cooperative projects carried out since its inception, five have been completed and six were newly approved at the 2018 ID5 annual meeting. In addition, the participants of the annual meeting adopted a joint statement which states collective effort for design protection in the 4IR. We plan to propose two new projects on the protection of new technology research through a “3D printing and design protection” project and another on enhancing the environment of design protection through a “design infringement damages system” project. All achievements of the ID5 have been organized and made public on the ID5 website (www.id-five.org) managed by KIPO.

Furthermore, various events were organized, such as expert forums and user sessions, to provide opportunities to exchange information and have communication among domestic and foreign users. Along with the TM5, the next ID5 annual meeting for 2019 will be hosted by the JPO.

International IT Cooperation

01 *IP5 IT Cooperation*

The IP5 have been working together to harmonize the search and examination environment and to standardize the information sharing process among each office. To that aim, the IP5 has continued to promote for a Global Dossier (GD)—a global system that enables all applicants and examiners around the globe to apply for patents and check examination status in real time without language barriers.

The 12th IP5 Working Group on the Global Dossier and Patent Information (IP5 WG2) meeting was held in Japan in January 2018. Active cooperation on a variety of information related cooperation issues were discussed including the One Portal Dossier (OPD) improvement and the exchange of enriched citation data. In June 2018, the IP5 Heads agreed to expand OPD improvement indicators and to work towards improving the quality of the provided data.

Also at the meeting, the IP5 shared the progress and future direction of the Global Dossier five priorities: standardization of applicant names, alert service, XML, legal statue information, document exchanges among patent offices.

KIPO, being in charge of the project for the “standardization of applicant names”, presented the detailed methods of the task and the progress on how the standardization taking place in Korea. We also introduced plans to build a Global Mapping Table (GMT)—a table of applicant's name and address in the native language of each IP5 country in order to prevent miss-spelling and promote consistency—with the participation of the industries from the IP5 countries and will share the result of building at the next IP5 WG2 meeting.

02 *IT-related International Cooperation*

KIPO continues to pursue cooperation related to IT

with each leading patent office in order to improve user convenience and to build better infrastructure for enhancing the efficiency of examination practice.

The Korea-Japan and Korea-China Information Experts Meetings were held in July and August 2018 respectively to discuss various issues including Trinet decentralization, adaption of Document Access Service (DAS)—service for the exchange of patent priority documents through WIPO, improvement of One Portal Dossier (OPD)—an integrated inquiry service of the examination information of the IP5 Offices for the examiners and general public, and the improvement of the exchanged data quality. And in September 2018, a working-level meeting on IT cooperation with the USPTO was held to discuss opinions on the electronic exchange of design priority documents and the utilization of AI in patent prosecution.

As a result of these efforts, we established a new virtual private network with JPO and CNIPA and completed the adaption of DAS with other leading IP offices by December. Also, we implemented the electronical exchange of design priority documents, for the first time in the world, with CNIPA and USPTO in July and December 2018, respectively.

In March 2018, we discussed with WIPO detailed plans for the improvement of the ePCT—the WIPO-operated web-based PCT electronic filing service—in order to reflect the needs of Korean users. In May, both agreed on the KIPO-WIPO PCT IT Cooperation Plan to draw out cooperation tasks and establish an action plan in the IT field that supports the PCT filing procedure.

03 *KIPONet Export Expansion*

In 1999, KIPO was the first IP authority to fully digitalize the entire process of patent administrative work from patent application to registration and its trial practices. The digital system has been continuously upgraded while corresponding to the advances in IT and the changes in the patent system. Thus, KIPO’s experience and expertise gained through the years are being shared with other

International Seminars and Training Courses

patent offices to contribute to the global IP automation and cooperation.

In 2016, we signed an MOU for the development of an automated system for the UAE IP administration which would be modeled on KIPO’s KIPONet. IT experts were sent to the UAE in order for the successful development and operation of the UAE system. In February 2018, the UAE government commemorated the launch of its automated IP system with an opening ceremony. Furthermore, a new model of cooperation was set through an MOU signed in December 2018 for which support would span from system development to post-development system maintenance.

Based on the successful results of the cooperation with UAE, KIPO has begun discussing a cooperation project with the Saudi Patent Office (SPO) for the development of an automated IP system. Through these activities, we have expanded effort to spread KIPO’s experiences and know-how in the development and operation of automated IP administrative systems.

01

International Cooperation in IPR Training

The International Intellectual Property Training Institute (IIPTI) has continued to cooperate with foreign agencies to advance the overall development of IPR training.

In 2018, the “9th Trilateral Heads Meeting among the IIPTI, the CIPTC and the INPIT” was hosted with JPO and CNIPA and their respective IPR training institutes—the China Intellectual Property Training Center (CIPTC) and the National Center for Industrial Property Information and Training (INPIT).

To implement the agreements of the trilateral meeting, bilateral talks were subsequently initiated between each of the heads of IIPTI, CIPTC and INPTI. As a result, various training projects were prepared and implemented together, including the “Joint Seminar of the Korea-Japan Training Center” to further promote international cooperation in the education field.

02

International Training and Seminars

IIPTI also regularly provides training courses for examiners and IPR-related government officials from developing countries and hosts international seminars and educational programs to enhance awareness and development of the IPR sector globally.

We work with WIPO to offer various training on examination systems and methods for examiners from regions around the world, including Europe, South America, Africa and the Middle East. In 2018, the WIPO-KIPO Training Course on Designs was offered for the first time, expanding the already established training programs on patent and trademark.

In cooperation with the Korea International Cooperation Agency (KOICA), a program was organized to promote the importance of student invention education and provide

available teaching techniques for foreign teachers and education officials. KOICA also offered training on the IPR system to the government officials from seven ASEAN countries to improve their IP infrastructure.

We also hosted an international seminar for 14 IP training staff from seven countries in the Asia-Pacific region to help construct infrastructure for IP education in their respective countries. And lecturers were dispatched to the Gulf Cooperation Council Patent Office (GCCPO) to provide

training on trademark examination.

Moreover, IIPTI has implemented education programs for university students and young professionals to train future IPR experts. We administered the WIPO-KIPO Summer School on IP and an invention course for students from the Singapore. Also, foreign universities, such as the Queensland University of Technology, were invited to make concerted efforts to identify the necessary roles and responsibilities for the development of global IP education.

In 2018, there were 11 education and training programs for 206 foreign participants from 63 countries (agencies).

International training courses in 2018

Program	Course Title	Contents	Dates (in 2017)	Number of participants
WIPO Program(5)	WIPO-KIPO Training Course on Patent Law and Examination	Training on Korea’s patent system and examination practices	4. 16~4. 27	18
	WIIPO Asia-Pacific Regional Workshop	Research collaboration for IP development of the Asia-Pacific region	5.9~5.11	14
	WIPO-KIPO Training Course on Designs	Training on Korea’s design system and relevant laws	5.28~6.1	18
	WIPO-Korea IP Summer School	IP education for university students and young adults	7.9~7.20	24
	WIPO-KIPO Training Course on Trademark Law and Examination	Training on Korea’s trademark system and related laws	11.6~11.14	23
KOICA Program(2)	Fostering Faculties of Creative Invention Education	Training on policies for promoting creativity for inventions for government officials of education	3.22~4.11	15
	Training Course on IPRs for ASEAN Countries	Education on Korea’s IP policies and site visits	11.15~12.1	21
Customized Program(3)	Invention Experience Class for Singapore International School	Education and hands on experience with inventions	3.13	27
	Workshop on Patent Examination for Patent Examination Cooperation Center of CNIPA	Training on methods for searching for examination and case studies	10.15~10.19	5
	IP Training Course for UST International Students	Education and practical training on patents	12.12~12.13	28
Dispatching Instructor	Dispatching Instructors to GCCPO	Introduction to Korea’s trademark examination system	12.3~12.6	13
Total	11 Courses			206

IP Statistics

Applications

Application by IPR type

(unit: cases)

Category	2014	2015	2016	2017	2018
Patents	210,292	213,694	208,830	204,775	209,992
Utility models	9,184	8,711	7,767	6,811	6,232
Subtotal	219,476	222,405	216,597	211,586	216,224
Designs	64,345 (67,586)	67,954 (70,190)	64,678 (66,728)	62,528 (64,986)	62,823 (65,434)
Trademarks	150,226 (183,815)	185,443 (239,334)	170,347 (204,012)	168,556 (202,539)	185,968 (232,109)
Total	434,047 (470,877)	475,802 (533,929)	451,622 (696,167)	442,670 (485,922)	465,015 (513,767)

Note: Figures in parentheses include multiple applications.

PCT applications

(unit: cases)

Category	2014	2015	2016	2017	2018
Number of applications	13,138	14,594	15,595	15,790	16,991
Growth rate	5.6%	11.1%	6.8%	1.2%	7.6%

International trademark applications under the Madrid System

(unit: cases)

Category	2014	2015	2016	2017	2018
Korea as office of origin	706	990	942	1,053	1,322
Korea as designated office	10,437	12,931	11,259	14,362	14,373

International design applications under the Hague System

(unit: cases)

Category	2015	2016	2017	2018
Korea as office of origin	153	104	133	116
Korea as designated office	628	981	925	857

Comparison of domestic and foreign applications

(unit: cases)

Category			2014	2015	2016	2017	2018
Patents	Domestic	Cases	164,073	167,273	163,424	159,095	162,576
		Ratio	78.0%	78.3%	78.3%	77.7%	77.40%
	Foreign	Cases	46,223	46,421	45,406	45,680	47,416
		Ratio	22.0%	21.7%	21.7%	22.3%	22.60%
	Total		210,292	213,694	208,830	204,775	209,992
Utility models	Domestic	Cases	8,754	8,294	7,395	6,448	5,768
		Ratio	95.3%	95.2%	95.2%	94.7%	92.60%
	Foreign	Cases	430	417	372	363	464
		Ratio	4.7%	4.8%	4.8%	5.3%	7.40%
	Total		9,184	8,711	7,767	6,811	6,232
Designs	Domestic	Cases	65,485 (60,795)	64,081 (65,895)	61,491 (62,618)	59,085 (60,379)	58,699 (60,021)
		Ratio	93.5% (94.5%)	94.3% (91.3%)	95.1% (93.8%)	94.5% (92.9%)	93.4% (91.7%)
	Foreign	Cases	4,569 (3,550)	3,873 (6,295)	3,187 (4,110)	3,443 (4,607)	4,124 (5,413)
		Ratio	6.5% (5.5%)	5.7% (8.7%)	4.9% (6.2%)	5.5% (7.1%)	6.6% (8.3%)
	Total		70,054 (64,345)	67,954 (72,190)	64,678 (66,728)	62,528 (64,986)	62,823 (65,434)
Trademarks	Domestic	Cases	158,058 (138,045)	160,033 (191,485)	157,107 (183,612)	155,674 (181,229)	170,545 (207,958)
		Ratio	89.0% (85.9%)	86.3% (80.0%)	92.2% (90.0%)	92.4% (89.5%)	91.7% (89.6%)
	Foreign	Cases	22,618 (41,624)	25,410 (47,849)	13,240 (20,400)	12,882 (21,310)	15,423 (24,151)
		Ratio	14.1% (20.2%)	13.7% (20.0%)	7.8% (10.0%)	7.6% (10.5%)	8.3% (10.4%)
	Total		160,663 (205,859)	185,443 (239,334)	170,347 (204,012)	168,556 (202,539)	185,968 (232,109)
Total	Domestic	Cases	371,667 (227,311)	399,681 (257,380)	389,417 (417,049)	380,302 (407,151)	397,588 (436,323)
		Ratio	83.6% (46.1%)	84.0% (48.2%)	86.2% (85.6%)	85.9% (85.0%)	85.5% (84.9%)
	Foreign	Cases	72,817 (46,134)	76,121 (54,144)	62,205 (70,288)	62,368 (71,960)	67,427 (77,444)
		Ratio	16.4% (9.4%)	16.0% (10.1%)	13.8% (14.4%)	14.1% (15.0%)	14.5% (15.1%)
	Total		444,484 (492,921)	475,802 (533,929)	451,622 (487,337)	442,670 (479,111)	465,015 (513,767)

Note: Figures in parentheses include multiple applications.

Patent and utility model applications by technological field in 2018

(unit: cases)

Classification	Patents			Utility models		
	Domestic	Foreign	Subtotal	Domestic	Foreign	Subtotal
Electrical machinery, apparatus, energy	12,241	3,284	15,525	368	54	422
Audio-visual technology	4,981	1,276	6,257	122	13	135
Telecommunications	2,523	552	3,075	49	-	49
Digital communication	5,994	2,274	8,268	3	-	3
Basic communication processes	522	324	846	-	-	-
Computer technology	8,796	2,494	11,290	67	10	77
IT methods for management	9,754	536	10,290	30	1	31
Semiconductors	6,908	4,165	11,073	10	35	45
Optics	3,105	2,059	5,164	56	10	66
Measurement	6,282	1,568	7,850	118	9	127
Analysis of biological materials	562	209	771	1	-	1
Control	3,666	466	4,132	94	1	95
Medical technology	7,513	1,949	9,462	317	28	345
Organic fine chemistry	3,412	2,236	5,648	2	-	2
Biotechnology	2,959	1,729	4,688	1	-	1
Pharmaceuticals	3,005	1,918	4,923	4	-	4
Macromolecular chemistry, polymers	1,794	1,799	3,593	2	-	2
Food chemistry	3,796	261	4,057	31	3	34
Basic materials chemistry	2,999	1,824	4,823	19	2	21
Materials, metallurgy	3,028	1,385	4,413	13	3	16
Surface technology, coating	2,423	1,702	4,125	19	8	27
Micro-structural and nano-technology	29	40	69	-	-	-
Chemical engineering	3,291	906	4,197	86	10	96
Environmental technology	3,147	511	3,658	96	4	100
Handling	3,887	925	4,812	380	24	404
Machine tools	3,526	1,018	4,544	145	12	157
Engines, pumps, turbines	2,682	1,212	3,894	57	15	72
Textile and paper machines	1,598	635	2,233	31	3	34
Other special machines	6,307	1,616	7,923	420	11	431
Thermal processes and apparatus	3,252	402	3,654	150	9	159
Mechanical elements	2,951	1,132	4,083	143	35	178
Transport	8,687	1,428	10,115	338	15	353

(unit: cases)

Classification	Patents			Utility models		
	Domestic	Foreign	Subtotal	Domestic	Foreign	Subtotal
Furniture, games	5,559	548	6,107	853	51	904
Other consumer goods	5,794	1,085	6,879	794	56	850
Civil engineering	8,519	478	8,997	572	11	583
Others	7,084	1,470	8,554	377	31	408
Total	162,576	47,416	209,992	5,768	464	6,232

Note: Figures for 2018 are preliminary.

Patent applications in biotechnology

(unit: cases)

Category	2014		2015		2016		2017		2018	
	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio
Domestic	5,091	73.3%	5,601	74.0%	6,700	75.1%	7,328	74.9%	7,239	72.2%
Foreign	1,856	26.7%	1,972	26.0%	2,222	24.9%	2,462	25.1%	2,794	27.8%
Total	6,947	100%	7,572	100%	8,922	100%	9,790	100%	10,033	100%

Note1: Figures for 2018 are preliminary.

Note2: Based on the following biotechnological categories of the Eighth Edition of the International Patent Classification: A01H; A01K 67/00~67/04; A01N 63/00~65/00; A61K 8/97~8/99; A61K 8/64~8/68; A61K 35/12~35/76; 36/00~36/9068; A61K 38/00~38/58, 39/00~39/44, 48/00, 51/00~51/10; C02F; C07H 19/00~21/04; C07K; C12C~M; C12N; C12P; C12Q; C12S; G01N 33/50~33/98.

Patent applications in business methods

(unit: cases)

Category	2014		2015		2016		2017		2017	
	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio
Domestic	6,813	93.5%	8,621	94.4%	9,381	94.7%	8,852	95.2%	9,754	94.8%
Foreign	476	6.5%	510	5.6%	522	5.3%	446	4.8%	536	5.2%
Total	7,289	100%	9,131	100%	9,903	100%	9,298	100%	10,290	100%

Note1: Figures for 2018 are preliminary.

Note2: Based on the Ninth Edition of the International Patent Classification.

Applications by residents of foreign countries in 2018

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
United States of America	1,582	11,453	1,287 (1,828)	109 (321)	3,915 (6,705)	2,945 (5,161)	21,291 (27,050)
Japan	5,057	10,571	1,044 (1,278)	116 (236)	2,373 (4,062)	1,463 (3,114)	20,624 (24,318)
China	743	2,606	781 (921)	17 (44)	4,735 (6,069)	1,642 (2,558)	10,524 (12,941)
Germany	811	3,580	155 (204)	115 (502)	233 (446)	1,908 (5,093)	6,802 (10,636)
France	191	1,510	117 (126)	124 (248)	333 (467)	1,043 (2,327)	3,318 (4,869)
Switzerland	143	1,147	145 (179)	78 (260)	387 (646)	741 (1,744)	2,641 (4,119)
United Kingdom	112	1,123	85 (127)	28 (68)	580 (1,113)	635 (1,661)	2,563 (4,204)
Taiwan, Province of China	1,112	79	71 (72)	1 (1)	488 (613)	-	1,751 (1,877)
Italy	68	454	45 (73)	63 (118)	141 (226)	844 (1,729)	1,615 (2,668)
Netherlands	94	884	95 (99)	54 (136)	48 (80)	265 (761)	1,440 (2,054)
Sweden	72	643	42 (81)	27 (59)	57 (123)	230 (665)	1,071 (1,643)
Canada	74	344	28 (82)	1 (1)	425 (670)	21 (44)	893 (1,215)
Australia	10	190	45 (50)	1 (1)	141 (194)	415 (868)	802 (1,313)
Singapore	46	111	10 (37)	6 (13)	217 (315)	162 (356)	552 (878)
Austria	53	258	1 (12)	10 (24)	41 (304)	138 (389)	501 (1,040)
Spain	16	147	6 (6)	4 (7)	60 (70)	267 (498)	500 (744)
Belgium	19	298	9 (23)	7 (22)	28 (38)	132 (269)	493 (669)
Finland	17	248	18 (19)	8 (20)	19 (36)	149 (510)	459 (850)
Israel	31	262	21 (35)	-	28 (37)	78 (150)	420 (515)
Denmark	16	171	9 (24)	13 (25)	29 (49)	164 (419)	402 (704)
Luxembourg	9	150	31 (33)	5 (10)	37 (101)	91 (255)	323 (558)
Russian Federation	7	73	-	2 (2)	52 (67)	156 (390)	290 (539)
Ireland	10	116	1 (2)	4 (25)	83 (147)	54 (84)	268 (384)
Cayman Islands	13	180	-	-	68 (192)	6 (14)	267 (399)
Norway	3	130	7 (7)	9 (13)	17 (27)	70 (209)	236 (389)
India	7	122	13 (13)	-	25 (36)	23 (34)	190 (212)
New Zealand	4	38	5 (5)	-	52 (94)	82 (174)	181 (315)
Thailand	1	32	1 (1)	-	114 (156)	18 (27)	166 (217)
Turkey	-	35	-	5 (30)	9 (13)	101 (175)	150 (253)
Poland	12	39	2 (2)	2 (3)	5 (7)	57 (124)	117 (187)
Saudi Arabia	4	80	-	-	20 (59)	1 (1)	105 (144)
Malaysia	18	13	2 (3)	-	65 (129)	2 (8)	100 (171)
Barbados	39	30	8 (26)	-	11 (22)	2 (3)	90 (120)
Indonesia	3	-	1 (1)	-	70 (95)	7 (15)	81 (114)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Virgin Islands (British)	3	2		-	59 (92)	16 (27)	80 (124)
Mexico	1	32	4 (4)	-	34 (46)	8 (12)	79 (95)
Viet Nam	1	3	3 (3)	-	38 (42)	33 (62)	78 (111)
Portugal	-	13	-	-	7 (9)	47 (76)	67 (98)
Czech Republic	1	19	-	4 (6)	9 (19)	30 (160)	63 (205)
Liechtenstein	1	19	1 (2)	4 (36)	3 (3)	29 (77)	57 (138)
Malta	5	29	-	1 (1)	8 (11)	11 (22)	54 (68)
United Arab Emirates	1	5	-	-	37 (49)	6 (13)	49 (68)
Cyprus	-	15	-	-	4 (4)	30 (63)	49 (82)
Greece	2	19	2 (4)	3 (3)	4 (5)	17 (30)	47 (63)
Chile	1	5	-	-	32 (39)	-	38 (45)
Bulgaria	-	4	-	-	3 (3)	30 (58)	37 (65)
Hungary	-	18	1 (1)	-	3 (4)	12 (34)	34 (57)
The Hong Kong Special Administrative Region of the People's Republic of China	-	7	10 (10)	-	17 (38)	-	34 (55)
Ukraine	4	3	-	2 (12)	1 (1)	23 (35)	33 (55)
Philippines	-	3	-	-	11 (12)	16 (31)	30 (46)
Brazil	2	9	1 (3)	-	18 (27)	-	30 (41)
Antigua and Barbuda	-	28	-	-	1 (5)	-	29 (33)
Bermuda	8	2	-	-	9 (14)	7 (13)	26 (37)
Seychelles	1	-	-	-	24 (25)	-	25 (26)
Estonia	-	6	1 (1)	-	-	16 (42)	23 (49)
Lithuania	-	3	-	1 (1)	2 (16)	16 (41)	22 (61)
South Africa	2	11	-	-	9 (16)	-	22 (29)
Monaco	-	-		1 (1)	4 (4)	17 (69)	22 (74)
Macao	3	1	13 (13)	-	4 (5)	-	21 (22)
Costa Rica	-	5	-	-	14 (19)	-	19 (24)
Uruguay	-	4	-	-	14 (19)	-	18 (23)
Argentina	-	-	-	-	17 (23)	-	17 (23)
Slovenia	1	4	-	1 (1)	0 (0)	8 (18)	14 (24)
Mauritius	-	1	-	-	11 (20)	1 (1)	13 (22)
Romania	-	5	-	-	-	8 (22)	13 (27)
Slovakia	-	4	1 (1)	3 (9)	-	4 (13)	12 (27)
Colombia	1	3	-	-	4 (5)	4 (8)	12 (17)

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Samoa	3	-	-	-	9 (9)	-	12 (12)
Cuba	-	5	-	-	3 (8)	3 (3)	11 (16)
west indies	-	-	-	-	11 (11)	-	11 (11)
Armenia	1	-	-	-	2 (2)	7 (8)	10 (11)
Kuwait	-	-	-	-	9 (11)	-	9 (11)
Jersey(U.K.)	-	8	-	-	-	1 (3)	9 (11)
Peru	-	2	-	-	7 (7)	-	9 (9)
Qatar	-	-	-	-	9 (15)	-	9 (15)
Serbia	-	2	-	-	-	7 (12)	9 (14)
Iceland	-	1	-	-	-	7 (20)	8 (21)
Mongolia	1	-	-	-	3 (7)	4 (9)	8 (17)
Bahamas	-	4	-	-	4 (6)	-	8 (10)
Latvia	-	1	1 (1)	-	-	6 (14)	8 (16)
Panama	-	-	-	-	7 (10)	-	7 (10)
Croatia	-	-	-	3 (3)	1 (3)	2 (3)	6 (9)
Iran (Islamic Republic of)	1	1	-	-	1 (1)	3 (9)	6 (12)
Morocco	-	-	-	-	4 (4)	-	4 (4)
Kazakhstan	-	-	-	-	3 (3)	1 (3)	4 (6)
Jordan	-	1	-	-	3 (5)	-	4 (6)
Pakistan	-	1	-	-	3 (4)	-	4 (5)
Belarus	-	2	-	-	-	2 (5)	4 (7)
Egypt	-	1	-	-	-	3 (5)	4(6)
Georgia	-	-	-	-	1 (2)	2 (3)	3 (5)
Botswana	-	-	-	-	-	3 (135)	3 (135)
Saint Kitts and Nevis	-	-	-	-	3 (7)	-	3 (7)
Bhutan	3	-	-	-	-	-	3 (3)
Curacao	-	-	-	-	1 (1)	2 (2)	3(3)
Jamaica	-	-	-	-	3 (8)	-	3 (8)
Commonwealth of Puerto Rico	-	-	-	-	2 (3)	-	2 (3)
Tunisia	1	-	-	-	-	1 (2)	2 (3)
Syrian Arab Republic	-	1	-	-	-	1 (1)	2 (2)
European Patent Office (EPO)	-	-	-	-	2 (7)	-	2(7)
Bahrain	-	-	-	-	2 (2)	-	2 (2)

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Sri Lanka	-	-	-	-	2 (4)	-	2 (4)
Yemen	-	-	-	-	2 (2)	-	2 (2)
Iraq	-	-	-	-	2 (5)	-	2 (5)
Republic of Moldova	-	-	-	-	-	2 (3)	2 (3)
Saint Vincent and the Grenadines	-	-	-	-	2 (2)	-	2 (2)
Lebanon	-	-	-	-	2 (2)	-	2 (2)
Dominican Republic	-	1	-	-	-	-	1 (1)
Bangladesh	1	-	-	-	-	-	1 (1)
Kenya	-	-	-	-	-	1 (1)	1 (1)
Kyrgyzstan	-	-	-	1 (1)	-	-	1 (1)
Uzbekistan	-	-	1 (1)	-	-	-	1 (1)
Guernsey	-	-	-	-	-	1 (2)	1 (2)
Bolivia	-	-	-	-	1 (3)	-	1 (3)
Montenegro	-	-	-	-	-	1 (5)	1 (5)
Cambodia	1	-	-	-	-	-	1 (1)
The former Yugoslav Republic of Macedonia	-	-	-	-	-	1 (2)	1 (2)
Belize	-	-	-	-	-	1 (1)	1 (1)
Isle of Man	-	-	-	-	-	1 (3)	1 (3)
Vanuatu	-	-	-	-	-	1 (1)	1 (1)
Haiti	1	-	-	-	-	-	1 (1)
Maldives	-	-	-	-	1 (2)	-	1 (2)
San Marino	-	-	-	-	-	1 (2)	1 (2)
Marshall Islands	-	-	-	-	1 (1)	-	1 (1)
Honduras	-	-	-	-	1 (2)	-	1 (2)
Cameroon	-	1	-	-	-	-	1 (1)
Oman	-	-	-	-	-	1 (1)	1 (1)
Liberia	-	-	-	-	1 (1)	-	1 (1)
Others	1	-	-	-	8 (8)	-	9 (9)
Total	10,449	37,431	4,124 (5,413)	833 (2,263)	15,423 (24,151)	14,367 (31,014)	82,627 (110,721)

Note: Figures in parentheses include multiple applications.

Examinations

Patents and utility models

(unit: cases)

Category			2014	2015	2016	2017	2018
Patents	First Action	Approval of registration	15,798	10,433	7,872	9,891	9,657
		Notice of preliminary rejection or amendment	146,959	149,484	163,347	158,013	149,686
		Other notices	879	947	991	1,012	1,210
		Withdrawal or abandonment	3,288	3,909	2,582	2,196	2,136
		Total	166,924	164,773	174,792	171,112	162,689
	Final Decisions	Approval of registration	120,353	92,748	101,678	110,408	106,716
		Rejection or cancellation	53,611	52,963	66,055	62,869	55,631
		Withdrawal abandonment, annulment, or rejection	3,288	3,909	4,320	3,841	3,555
		Total	177,252	149,620	172,053	177,118	165,902
Utility models	First Action	Approval of registration	874	425	317	337	252
		Notice of preliminary rejection or amendment	8,015	6,856	6,848	6,161	5,275
		Other notices	45	39	25	13	12
		Withdrawal or abandonment	390	249	131	122	108
		Total	9,324	7,569	7,321	6,633	5,647
	Final Decisions	Approval of registration	5,067	3,204	2,935	3,040	2,638
		Rejection or cancellation	4,937	3,775	4,214	3,729	3,283
		Withdrawal abandonment, annulment, or rejection	390	249	268	234	190
		Total	10,394	7,228	7,417	7,003	6,111

Designs and trademarks

(unit: cases)

Category			2014	2015	2016	2017	2018
Designs	First Action	Publication/approval of registration	33,182 (34,149)	27,800 (28,987)	31,398 (32,755)	29,453 (30,598)	27,559 (28,708)
		Notice of preliminary rejection	35,665 (37,702)	38,041 (40,394)	31,540 (33,951)	30,275 (32,647)	29,654 (31,962)
		Other notices	-	-	-	-	-
		Total	68,847 (71,851)	65,841 (69,381)	62,938 (66,706)	59,728 (63,245)	57,213 (60,670)
	Final Decisions	Approval of registration	58,878 (61,323)	57,006 (59,068)	55,783 (58,302)	51,166 (53,480)	50,161 (52,750)
		Rejection	11,075 (11,713)	9,404 (10,072)	8,396 (9,496)	7,190 (7,978)	7,356 (8,089)
		Total	69,953 (73,036)	66,410 (69,140)	64,179 (67,798)	58,356 (61,458)	57,517 (60,839)
Trademarks	First Action	Publication/approval of registration	83,475 (94,136)	96,005 (108,545)	98,921 (112,521)	94,490 (107,033)	96,236 (109,983)
		Notice of preliminary rejection	64,127 (84,104)	68,578 (90,758)	73,377 (106,332)	69,393 (97,656)	73,376 (106,978)
		Other notices	-	-	-	-	-
		Total	147,602 (178,240)	164,583 (199,303)	172,298(218,853)	163,883 (204,689)	169,612 (216,961)
	Final Decisions	Approval of registration	111,917 (134,745)	128,500 (154,670)	136,948(173,024)	133,378 (166,963)	133,359 (168,237)
		Rejection	28,771 (34,092)	31,745 (38,463)	33,015 (41,813)	31,773 (39,414)	29,873 (36,697)
		Total	140,688 (168,837)	160,245 (193,133)	169,963(214,837)	165,151 (206,377)	163,232 (204,934)

Note: Figures in parentheses include multiple applications.

Average first action pendency

(unit: month)

Category	2014	2015	2016	2017	2018
Patents / Utility models	11.0	10.0	10.6	10.4	10.3
Trademarks	6.4	4.7	4.8	5.0	5.5
Designs	6.5	4.4	4.7	4.9	4.9

Average total pendency

(unit: month)

Category	2014	2015	2016	2017	2018
Patents / Utility models	16.7	16.0	16.2	15.9	15.8
Trademarks	11.5	10.0	9.6	9.8	10.4
Designs	8.5	68	5.9	6.2	6.5

PCT international search reports and preliminary examinations undertaken by KIPO

(unit: cases)

Category	2014	2015	2016	2017	2018
International Search Reports	30,160	28,468	28,176	25,955	24,123
International Preliminary Examinations	236	208	209	169	131

Note: Based on KIPO data

Registrations

Registrations by IPR type

(unit: cases)

Category	2014	2015	2016	2017	2018
Patents	129,786	101,873	108,875	120,662	119,014
Utility models	4,955	3,253	2,854	2,993	2,715
Subtotal	134,741	105,126	111,729	123,655	121,729
Designs	54,010	54,551	55,602	49,293	49,905
Trademarks	99,791	114,746	119,255	116,704	115,025
Total	288,542	274,423	286,586	289,652	286,659

Note: Trademark registration renewals are excluded.

Comparison of domestic and foreign registrations

(unit: cases)

Category			2014	2015	2016	2017	2018
Patents	Domestic	Cases	97,294	76,319	82,400	90,847	89,229
		Ratio	75.0%	74.9%	75.7%	75.3%	75.0%
	Foreign	Cases	32,492	25,554	26,475	29,815	29,785
		Ratio	25.0%	25.1%	24.3%	24.7%	25.0%
	Total		129,786	101,873	108,875	120,662	119,014
Utility models	Domestic	Cases	4,682	3,073	2,694	2,810	2,521
		Ratio	94.5%	94.5%	94.4%	93.9%	92.9%
	Foreign	Cases	273	180	160	183	194
		Ratio	5.5%	5.5%	5.6%	6.1%	7.1%
	Total		4,955	3,253	2,854	2,993	2,715
Designs	Domestic	Cases	49,856	49,933	50,242	44,052	44,150
		Ratio	92.3%	91.5%	90.4%	89.4%	88.5%
	Foreign	Cases	4,154	4,618	5,360	5,241	5,755
		Ratio	7.7%	8.5%	9.6%	10.6%	11.5%
	Total		54,010	54,551	55,602	49,293	49,905

(unit: cases)

Category			2014	2015	2016	2017	2018
Trademarks	Domestic	Cases	80,645	95,484	99,934	96,993	94,532
		Ratio	80.8%	83.2%	83.8%	83.1%	82.2%
	Foreign	Cases	19,146	19,262	19,321	19,711	20,493
		Ratio	19.2%	16.8%	16.2%	16.9%	17.8%
	Total		99,791	114,746	119,255	116,704	115,025
Total	Domestic	Cases	232,477	224,809	235,270	234,702	230,432
		Ratio	80.6%	81.9%	82.1%	81.0%	80.4%
	Foreign	Cases	56,065	49,614	51,316	54,950	56,227
		Ratio	19.4%	18.1%	17.9%	19.0%	19.6%
	Total		288,542	274,423	286,586	289,652	286,659

(unit: cases)

Classification	Patents			Utility models		
	Domestic	Foreign	Subtotal	Domestic	Foreign	Subtotal
Measurement	4,115	934	5,049	48	4	52
Analysis of biological materials	410	132	542	1		1
Control	1,810	224	2,034	37	1	38
Medical technology	3,448	1,054	4,502	124	8	132
Organic fine chemistry	1,747	1,367	3,114	-	-	-
Biotechnology	1,939	698	2,637	1	-	1
Pharmaceuticals	1,494	774	2,268	-	-	-
Macromolecular chemistry, polymers	1,134	1,592	2,726	-	-	-
Food chemistry	2,492	161	2,653	11	2	13
Basicmaterialschemistry	1,805	1,278	3,083	2	1	3
Materials, metallurgy	2,122	914	3,036	6	1	7
Surface technology, coating	1,227	709	1,936	16	2	18
Micro-structural and nano-technology	57	47	104	-	-	-
Chemical engineering	2,145	569	2,714	39	5	44
Environmental technology	2,034	295	2,329	49	-	49
Handling	2,276	574	2,850	227	19	246
Machine tools	2,408	698	3,106	80	9	89
Engines, pumps, turbines	1,719	978	2,697	25	5	30
Textile and paper machines	1,230	496	1,726	13	5	18
Other special machines	4,084	893	4,977	231	3	234
Thermal processes and apparatus	1,651	195	1,846	43	2	45
Mechanical elements	2,054	712	2,766	92	12	104
Transport	5,262	943	6,205	155	6	161
Furniture, games	2,892	324	3,216	333	20	353
Other consumer goods	2,538	428	2,966	368	18	386
Civil engineering	5,740	331	6,071	287	6	293
Total	89,229	29,785	119,014	2,521	194	2,715

Note: Figures for 2018 are preliminary.

Patent and utility model registrations by technological field in 2018

(unit: cases)

Classification	Patents			Utility models		
	Domestic	Foreign	Subtotal	Domestic	Foreign	Subtotal
Electrical machinery, apparatus, energy	6,998	2,446	9,444	200	37	237
Audio-visual technology	2,966	1,043	4,009	64	4	68
Telecommunications	1,984	409	2,393	19	3	22
Digital communication	2,924	1,762	4,686	2		2
Basic communication processes	373	281	654	-	2	2
Computer technology	4,216	2,094	6,310	13	4	17
IT methods for management	3,560	262	3,822	6	-	6
Semiconductors	3,812	2,712	6,524	8	10	18
Optics	2,563	1,456	4,019	21	5	26

Patent registrations in biotechnology

(unit: cases)

Category	2014		2015		2016		2017		2018	
	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio
Domestic	3,604	79.6%	2,917	77.3%	3,507	78.6%	4,709	80.9%	4,524	79.3%
Foreign	926	20.4%	857	22.7%	955	21.4%	1,111	19.1%	1,149	20.3%
Total	4,530	100%	3,774	100%	4,462	100%	5,820	100%	5,673	100%

Note1: Figures for 2018 are preliminary.

Note2: Based on the following biotechnological categories of the Eighth Edition of the International Patent Classification: A01H; A01K 67/00-67/04; A01N 63/00-65/00; A61K 8/97-8/99; A61K 8/64-8/68; A61K 35/12-35/76; 36/00-36/9068; A61K 38/00-38/58, 39/00-39/44, 48/00, 51/00-51/10; C02F; C07H 19/00-21/04; C07K; C12C-M; C12N; C12P; C12Q; C12S; G01N 33/50-33/98.

Patent registrations in business methods

(unit: cases)

Category	2014		2015		2016		2017		2018	
	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio	Cases	Ratio
Domestic	2,087	92.8%	2,023	92.9%	3,145	93.9%	3,782	93.7%	3,560	93.1%
Foreign	162	7.2%	154	7.1%	204	6.1%	253	6.3%	262	6.9%
Total	2,249	100%	2,177	100%	3,349	100%	4,035	100%	3,822	100%

Note1: Figures for 2018 are preliminary.

Note2: Based on the Ninth Edition of the International Patent Classification.

Registrations by resident of foreign countries in 2018

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Japan	10,126	1,135	1,209	165	1,898 (3,696)	978 (1,794)	15,511 (18,125)
United States of America	7,182	755	1,307	241	2,904 (5,086)	1,945 (3,332)	14,334 (17,903)
China	1,665	190	457	24	2,928 (3,612)	976 (1,654)	6,240 (7,602)
Germany	2,590	275	193	294	185 (385)	1,214 (3,024)	4,751 (6,761)
France	841	92	87	251	297 (425)	698 (1,454)	2,266 (3,150)
Switzerland	604	55	127	240	281 (405)	633 (1,403)	1,940 (2,834)
United Kingdom	476	52	193	28	423 (896)	459 (1,069)	1,631 (2,714)

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Italy	283	26	61	98	144 (206)	606 (1,322)	1,218 (1,996)
Netherlands	601	90	140	71	73 (123)	169 (460)	1,144 (1,485)
Taiwan, Province of China	574	43	64	-	364 (479)	-	1,045 (1,160)
Sweden	397	32	43	79	54 (139)	167 (391)	772 (1,081)
Australia	73	13	28	-	78 (100)	264 (558)	456 (772)
Canada	153	17	12	-	257 (457)	15 (29)	454 (668)
Singapore	68	9	78	1	107 (223)	136 (258)	399 (637)
Finland	174	23	25	16	30 (71)	128 (437)	396 (746)
Austria	191	23	-	11	20 (40)	92 (211)	337 (476)
Spain	70	11	7	3	56 (72)	177 (257)	324 (420)
Denmark	108	12	15	16	31 (85)	136 (323)	318 (559)
Belgium	111	13	2	19	22 (44)	76 (164)	243 (353)
Israel	115	19	18	-	46 (57)	42 (78)	240 (287)
Luxembourg	73	6	31	3	33 (97)	68 (199)	214 (409)
Ireland	82	12	2	-	30 (62)	63 (93)	189 (251)
Russian Federation	28	3	-	-	17 (34)	128 (260)	176 (325)
Norway	57	6	3	9	6 (12)	45 (104)	126 (191)
India	57	7	-	-	24 (41)	19 (51)	107 (156)
New Zealand	18	-	2	-	24 (41)	55 (107)	99 (168)
Cayman Islands	29	2	-	-	52 (153)	1 (1)	84 (185)
Liechtenstein	9	-	8	12	3 (7)	38 (80)	70 (116)
Thailand	9	2	-	-	55 (68)	3 (15)	69 (94)
Turkey	19	-	1	1	9 (10)	34 (60)	64 (91)
Mexico	16	1	3	-	39 (51)	4 (4)	63 (75)
Viet Nam	3	3	2	-	17 (28)	32 (59)	57 (95)
Poland	9	1	-	1	5 (7)	40 (117)	56 (135)
Barbados	34	4	12	-	2 (6)	1 (1)	53 (57)
Saudi Arabia	44	1	-	-	6 (10)	1 (1)	52 (56)
Malaysia	6	-	3	-	41 (51)	1 (2)	51 (62)
Portugal	5	-	-	1	9 (13)	28 (54)	43 (73)
Czech Republic	4	3	-	-	4 (6)	31 (67)	42 (80)
Cyprus	10	-	-	4	8 (8)	17 (30)	39 (52)
Indonesia	3	-	1	-	29 (32)	-	33 (36)
Chile	6	1	-	-	25 (33)	-	32 (40)

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Malta	19	1	-	1	2 (3)	8 (18)	31 (42)
The Hong Kong Special Administrative Region of the People's Republic of China	1	-	6	1	19 (46)	-	27 (54)
United Arab Emirates	7	1	-	-	15 (23)	3 (4)	26 (35)
Brazil	11	1	-	-	13 (19)	-	25 (31)
Virgin Islands (British)	5	1	-	-	15 (29)	4 (7)	25 (42)
Greece	5	-	3	1	3 (4)	9 (14)	21 (27)
Hungary	5	2	-	-	4 (6)	10 (19)	21 (32)
Ukraine	6	-	-	1	-	11 (19)	18 (26)
Curacao	-	-	-	-	4 (4)	12 (12)	16 (16)
Lithuania	4	-	-	-	2 (16)	7 (20)	13 (40)
Estonia	3	-	2	2	-	5 (12)	12 (19)
Cuba	4	2	-	-	4 (4)	2 (2)	12 (12)
Monaco	2	-	-	-	3 (3)	7 (17)	12 (22)
South Africa	8	-	-	-	4 (6)	-	12 (14)
Slovenia	-	-	2	2	-	7 (15)	11 (19)
Bulgaria	-	1	-	-	2 (2)	7 (16)	10 (19)
Bermuda	3	-	-	-	4 (6)	3 (4)	10 (13)
Bahamas	7	-	-	-	2 (6)	1 (9)	10 (22)
Argentina	1	-	-	-	8 (8)	-	9 (9)
Philippines	1	-	-	-	6 (10)	2 (2)	9 (13)
Seychelles	1	-	-	-	7 (7)	1 (1)	9 (9)
Slovakia	-	-	-	1	1 (1)	6 (7)	8 (9)
Macao	-	-	6	-	1 (14)	-	7 (20)
Latvia	1	-	-	-	-	6 (8)	7 (9)
Mauritius	2	-	-	-	5 (9)	-	7 (11)
Armenia	-	-	-	-	2 (2)	4 (4)	6 (6)
Colombia	1	-	-	-	3 (3)	2 (2)	6 (6)
Croatia	-	-	-	-	3 (3)	3 (7)	6 (10)
Morocco	-	-	-	-	3 (3)	3 (3)	6 (6)
Tunisia	-	-	-	-	2 (2)	4 (8)	6 (10)
Qatar	-	-	2	-	3 (6)	-	5 (8)
Jordan	3	-	-	-	2 (3)	-	5 (6)
Sri Lanka	-	1	-	-	3 (3)	-	4 (4)
Samoa	1	-	-	-	3 (3)	-	4 (4)
Romania	-	-	1	-	-	2 (4)	3 (5)
Belarus	1	-	-	-	-	2 (4)	3 (5)
Belize	-	-	-	-	2 (2)	1 (2)	3 (4)

(unit: cases)

Countries	Patent & Utility models		Designs		Trademarks		Total
	Domestic	PCT	Domestic	Hague	Domestic	Madrid	
Egypt	-	-	-	-	1 (1)	2 (2)	3 (3)
Iran (Islamic Republic of)	-	-	-	-	-	3 (5)	3 (5)
Iceland	-	-	-	-	-	3 (5)	3 (5)
Republic of Moldova	-	-	-	-	-	3 (3)	3 (3)
Namibia	1	-	-	-	2 (2)	-	3 (3)
Panama	1	-	-	-	2 (3)	-	3 (4)
Uzbekistan	1	-	-	-	-	2 (6)	3 (7)
Liberia	-	-	2	-	-	-	2 (2)
Fiji	-	-	-	-	-	2 (2)	2 (2)
Georgia	-	-	-	-	1 (2)	1(1)	2 (3)
Greenland	-	-	-	-	1 (2)	1 (1)	2 (3)
Jersey(U.K.)	-	-	-	-	-	2 (2)	2 (2)
Cambodia	-	-	-	-	2 (2)	-	2 (2)
Marshall Islands	1	-	-	-	1 (1)	-	2 (2)
Myanmar	-	-	-	-	2 (2)	-	2 (2)
Peru	-	-	-	-	2 (2)	-	2 (2)
Serbia	1	-	-	-	-	1 (2)	2 (3)
Venezuela	-	-	-	-	1 (1)	1 (2)	2 (3)
Netherlands Antilles	-	-	-	-	1 (1)	-	1 (1)
Azerbaijan	-	-	-	-	1 (1)	-	1 (1)
Bangladesh	1	-	-	-	-	-	1 (1)
Bolivia	-	-	-	-	1 (1)	-	1 (1)
Dominican Republic	-	-	-	-	1 (1)	-	1 (1)
Algeria	-	-	-	-	-	1 (1)	1 (1)
Ghana	1	-	-	-	-	-	1 (1)
Jamaica	-	-	-	-	1 (1)	-	1 (1)
Kyrgyzstan	-	-	-	-	-	1 (2)	1 (2)
Kuwait	-	-	-	-	1 (1)	-	1 (1)
Lebanon	-	-	-	-	1 (1)	-	1 (1)
Mozambique	-	-	-	-	-	1 (1)	1 (1)
Papua New Guinea	-	-	-	-	1 (1)	-	1 (1)
Pakistan	-	-	-	-	1 (1)	-	1 (1)
El Salvador	-	-	-	-	1 (1)	-	1 (1)
Syrian Arab Republic	-	-	-	-	1 (1)	-	1 (1)
Others	-	-	-	-	-	5 (20)	5 (20)
Total	27,032	2,947	4,158	1,597	10,812 (17,656)	9,681 (19,818)	56,227 (73,208)

Figures in parentheses include multiple applications

Trials and appeals

Requested trials and appeals

(unit: cases)

Category		2014	2015	2016	2017	2018
Appeal against examiner's decision to reject application	Patents	6,123	6,093	5,470	4,351	3,624
	Utility models	116	112	200	180	162
	Designs	154 (156)	119	109	90	102
	Trademarks	1,816 (2,656)	1,559 (2,293)	1,626 (2,284)	1,569 (2,295)	1,437 (2,046)
	Subtotal	8,209 (9,051)	7,883 (8,617)	7,405 (8,063)	6,190 (6,916)	5,325 (5,934)
Appeals against examiner's decision to dismiss amendment	Patents	-	-	1	1	1
	Utility models	-	-	-	-	-
	Designs	11 (11)	7 (15)	5	1	-
	Trademarks	1 (1)	6 (7)	5 (11)	-	-
	Subtotal	12 (12)	13 (22)	11 (17)	2	1
Appeals against examiner's decision of cancellation	Patents	-	-	-	-	-
	Utility models	1	1	-	-	-
	Designs	4 (4)	4	2	-	1
	Trademarks	-	-	-	-	-
	Subtotal	5 (5)	5	2	-	1
Trials for correction	Patents	140	134	145	136	128
	Utility models	6	6	9	4	-
	Designs	-	-	-	-	-
	Trademarks	-	-	-	-	-
	Subtotal	146 (146)	140	154	140	128
Invalidation	Patents	687	2,194	548	529	460
	Utility models	64	80	50	27	21
	Designs	254 (255)	209 (210)	247	194	207
	Trademarks	467 (550)	584 (658)	492 (553)	433 (486)	472 (559)
	Subtotal	1,472 (1,556)	3,067 (3,142)	1,337 (1,398)	1,183 (1,236)	1,160 (1,247)

(unit: cases)

Category		2014	2015	2016	2017	2018
Trials to confirm scope of IP right	Patents	385	691	632	671	512
	Utility models	64	53	47	29	20
	Designs	149 (149)	138	149	136	151
	Trademarks	90 (119)	93 (132)	101 (170)	90 (102)	158 (175)
	Subtotal	688 (717)	975 (1,014)	929 (998)	926 (938)	841 (858)
Cancellation trials on trademark registration	Patents	-	-	-	1	1
	Utility models	-	-	-	-	-
	Designs	-	-	-	-	17
	Trademarks	1,449 (1,826)	1903 (2305)	2,122 (2,526)	2,124 (2,474)	2,523 (3,011)
	Subtotal	1,449 (1,826)	1903 (2305)	2,122 (2,526)	2,125 (2,475)	2,541 (3,029)
Opposition of patent/ utility model	Patents				109	150
	Utility models				1	4
	Designs				1	-
	Trademarks				-	-
	Subtotal				111	154
Grand total	Patents	7,335	9,112	6,796	5,689	4,876
	Utility models	251	252	306	240	207
	Designs	572 (575)	477 (486)	512	421	478
	Trademarks	3,823 (5,152)	4,145 (5,395)	4,346 (5,544)	4,216 (5,357)	4,590 (5,791)
	Total	11,981 (13,313)	13,986 (15,245)	11,960 (13,158)	10,566 (11,565)	10,151 (11,352)

Note1: Figures in parentheses include multiple applications.

Note2: Opposition of patents / Utility model has been enforced from March, 2017

* Rejection refers to appeals against examiners’ decisions of refusal and appeals against examiners’ decisions to dismiss utility models.

** Invalidation refers to invalidation trials and trials for invalidation of corrections.

Successful petitions

(unit: cases)

Category		2014		2015		2016		2017		2018	
		Accep- tance	Ratio	Accep- tance	Ratio	Accep- tance	Ratio	Accep- tance	Ratio	Accep- tance	Ratio
Ex partes	Patents	1,190	27.8%	1,046	30.4%	1,036	29.0%	1,078	30.3%	1,370	31.1%
	Utility models	29	25.0%	29	27.6%	32	33.0%	33	26.0%	40	20.5%
	Designs	66 (77)	42.0% (45.8%)	46 (54)	35.4% (39.1%)	50	43.1%	43	31.9%	21	20.6%
	Trademarks	864 (1,321)	49.3% (53.4%)	844 (1,368)	52.4% (58.7%)	655 (1,053)	48.4% (53.1%)	605 (896)	54.8% (58.9%)	1,026 (1,648)	58.3% (63.1%)
	Subtotal	2,149 (2,617)	34.0% (37.1%)	1,965 (2,497)	37.2% (41.5%)	1,773 (2,171)	41.5% (37.6%)	1,759 (2,050)	35.7% (38.4%)	2,457 (3,079)	38.0% (42.1%)
Inter partes	Patents	457	50.7%	687	38.7%	526	42.2%	616	46.2%	552	49.1%
	Utility models	52	38.8%	66	56.9%	52	50.5%	45	54.9%	19	35.2%
	Designs	167 (169)	51.1% (51.4%)	161 (161)	47.5% (47.5%)	164 (166)	54.8% (55.1%)	187	47.9%	210	51.0%
	Trademarks	1,218 (1,490)	65.1% (66.3%)	1,401 (1,653)	69.0% (68.1%)	1,436 (1,691)	65.2% (64.0%)	2,436 (2,760)	78.1% (76.9%)	1,747 (1,962)	70.1% (70.2%)
	Subtotal	1,894 (2,168)	58.6% (60.0%)	2,315 (2,567)	54.4% (55.1%)	2,178 (2,435)	56.6% (56.7%)	3,284 (3,608)	66.7% (66.9%)	2,528 (2,743)	61.9 (62.6%)
Grand total	Patents	1,647	31.7%	1,733	33.2%	1,562	32.4%	1,694	34.6%	1,922	34.7%
	Utility models	81	32.4%	95	43.0%	84	42.0%	78	37.3%	59	23.7%
	Designs	233 (246)	48.1% (49.5%)	207 (215)	44.1% (45.1%)	214 (216)	51.6% (51.8%)	230	43.8%	231	44.9%
	Trademarks	2,082 (2,811)	57.4% (59.5%)	2,245 (3,021)	61.7% (63.5%)	2,091 (2,744)	58.8% (59.3%)	3,041 (3,656)	72.0% (71.5%)	2,773 (3,610)	65.2% (66.8%)
	Total	4,043 (4,785)	42.3% (44.9%)	4,280 (5,064)	44.8% (47.5%)	3,951 (4,606)	43.9% (45.8%)	5,043 (5,658)	51.2% (52.7%)	4,985 (5,822)	47.3% (49.8%)

Note1: Figures in parentheses include multiple applications.

Note2: The successful petitions refer to the number of petitions granted. These figures exclude cases where the registration was decided on the basis of an examiners's reconsideration before a trial and invalidation of a patent process. The figures in parentheses indicate the percentage of the petitions granted.

· Ex partes: Appeals against examiners' decisions of refusal / Appeals against examiners' decisions of cancellation / Appeals against examiners' decisions to dismiss amendments / Trials for correction

· Inter partes: Invalidation trials / Trials to confirm scope of IP rights / Trials for invalidation of correction / Trials for granting non-exclusive licenses / Trials for invalidation of registrations for extension of patent right term / Trials for invalidation of registration for renewals of trademark right term / Cancellation trials on trademark registrations / Cancellation trials on registrations of exclusive or non-exclusive licenses / Trials for invalidation on registrations for conversion of classification of goods

Comparison of domestic and foreign trial requests

(unit: cases)

Category		2014	2015	2016	2017	2018
Patents	Domestic	3,814	5,809	3,891	3,499	3,214
	Foreign	3,521	3,303	2,905	2,190	1,662
Utility models	Domestic	244	240	301	237	201
	Foreign	7	12	5	3	6
Designs	Domestic	514	432	459	373	419
	Foreign	61	54	53	48	59
Trademarks	Domestic	2,869	3,057	3,014	2,703	3,077
	Foreign	2,283	2,338	2,530	1,513	1,513
Total		13,313	15,245	13,158	10,566	10,151

Note: Multiple applications for trademarks and designs are treated as single applications.

Income and expenditures / KIPO staff

Income

(unit: USD)

Category	2014	2015	2016	2017	2018
Income from fees	398,832,701	387,177,426	397,276,404	428,025,022	453,061,823
Income carried over from the previous year	33,854,369	29,384,892	22,901,485	28,072,668	25,242,832
Internal income and others	18,253,339	47,850,417	90,568,774	119,661,120	150,976,703
Total	450,940,409	464,412,736	510,746,664	575,758,810	629,281,358

Expenditures

(unit: USD)

Category	2014	2015	2016	2017	2018
Non-personnel resources (projects)	266,319,800	258,066,111	360,459,363	393,025,808	455,687,588
Personnel resources	103,989,102	97,273,767	99,443,391	106,532,589	116,102,191
Deposit for special fund	48,858,586	85,636,518	23,621,577	35,270,004	47,461,470
Total	419,167,488	440,976,396	483,524,330	534,828,401	619,251,249

KIPO staff

(unit: number of positions)

Category		2014	2015	2016	2017	2018
Examiners	Patents and utility models	724	741	734	832	875
	Designs and trademarks	151	159	162	165	162
Administrative judges		90	95	95	103	107
Administrative staff		622	605	601	527	517
Total		1,587	1,600	1,592	1,627	1,661

Academic and professional credentials of KIPO examiners

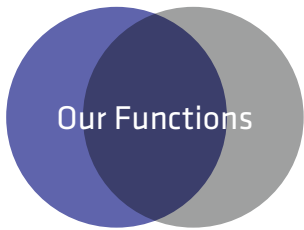
(unit: number of staff)

Category		Ph. D	Master's Degrees	Patent attorney certificate only	Lawyer certificate only	Professional Engineer certificate only
Examiners	Patents and utility models	351	58	28	6	19
	Trademarks	3	1	3	4	0
	Designs	5	1	2	1	0
	Total	359	60	33	11	19

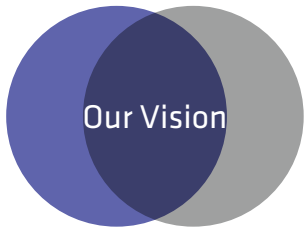
About KIPO



The Korean Intellectual Property Office is the governmental authority in charge of affairs regarding patents, utility models, industrial designs, and trademarks. It was established in 1949 as an external bureau of the Ministry of Commerce and Industry under the name of Patent Bureau. In 1977, the Patent Bureau became an independent office of the Ministry of Commerce and Industry and took the name of Korean Industrial Property Office. In 2000, it was renamed the Korean Intellectual Property Office (KIPO).



The main functions of KIPO include: the examination and registration of intellectual property rights; the conducting of trials on intellectual property disputes; the management and dissemination of information on intellectual property rights; the promotion and enhancement of public awareness of invention activities; the advancement of international cooperation; and the training of experts on intellectual property rights.



In response to the competitive global environment where intellectual property is becoming increasingly valuable, we aim to advance Korea and its position in the world through innovative intellectual property.



We support technological innovation and industrial development by promoting the creation, protection, and utilization of intellectual property. We strive to provide world-class intellectual property services; to promote the economic and industrial use of intellectual property; and to create an environment respectful of the intellectual property system.

