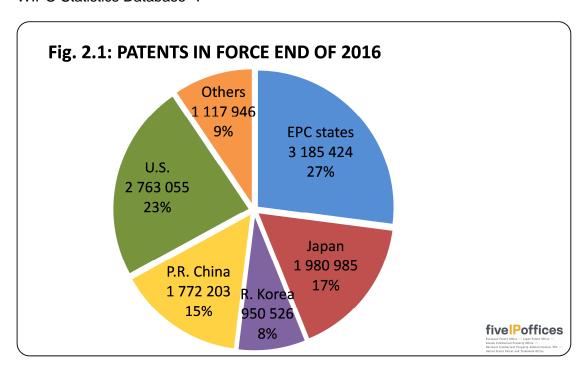
# Chapter 2

# THE IP5 OFFICES

This chapter details developments at each of the IP5 offices9.

International trade and markets continue to be of great importance, so innovators want their intellectual creations to be protected concurrently in multiple major markets. It is estimated that each year more than 250 000 first filings from the IP5 Offices result in subsequent patent applications to at least one other IP5 Office, accounting for over 500 000 applications including the resulting duplicates for the same inventions. To address the issue of the backlogs that can build up as a result of this, the IP5 Offices are working together to try to reduce the amount of repetition of similar work that takes place between offices for these patent applications.

Patents are used to protect inventions and their counts are recognized as a measure of innovative activity. Fig. 2.1 shows the number of patents in force worldwide at the end of 2016. The data are based on worldwide patent information available from the WIPO Statistics Database<sup>10</sup>.



At the end of 2016, 91 percent of the 11.8 million patents that were in-force were valid in one of the IP5 Offices jurisdictions. This demonstrates the prominent role that is played by the IP5 Offices.

<sup>9</sup> The statistical tables file found in the web version of this report includes extended time series for some of the data included in this chapter. http://www.fiveipoffices.org/statistics/statisticsreports.html

www.wipo.int/ipstats/en/index.html Data for patents in force for 2016 are missing for some countries in the WIPO data. Where available, the most recent previous year's data were substituted for missing 2016 data. Data for 2017 are not yet available from WIPO.

#### **EUROPEAN PATENT OFFICE**

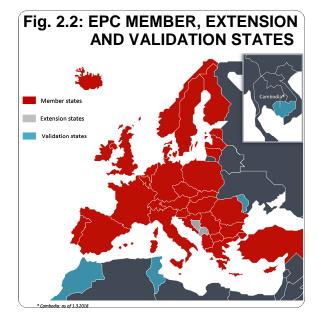
The mission of the EPO is to support innovation, competitiveness, and economic growth across Europe through a commitment to high quality and efficient services. Its main task is to grant European patents according to the EPC. Moreover, under the PCT, the EPO acts as a receiving office as well as a searching and examining authority. A further task is to perform, on behalf of the patent offices of several member states (Belgium, Cyprus, France, Greece, Italy, Latvia, Lithuania, Luxembourg, Malta, Monaco, the Netherlands and San Marino), state of the art searches for the purpose of national procedures. The EPO plays a major role in the patent information area, developing tools and databases.

#### **Member states**

The EPO is the central patent granting authority for Europe, providing patent protection in up to 44 countries on the basis of a single patent application and a unitary grant procedure.

At the end of 2017, the 38 members of the underlying European Patent Organization were:

Albania	Austria	Belgium	Bulgaria	Croatia
Cyprus	Czech Republic	Denmark	Estonia	Finland
France	Germany	Greece	Hungary	Iceland
Ireland	Italy	Latvia	Liechtenstein	Lithuania
Luxembourg	Malta	F.y.r.o Macedonia	Monaco	Netherlands
Norway	Poland	Portugal	Romania	San Marino
Servia	Slovakia	Slovenia	Spain	Sweden
Switzerland	Turkey	United Kingdom		



Bosnia-Herzegovina and Montenegro, had agreements with the EPO to allow applicants to request an extension of European patents to their territories.

Moldova, Morocco and Tunisia had agreements to validate European patents in their territories.

A similar agreement was signed with Cambodia and entered into force in March 2018.

The national patent offices of all the above states also grant patents. After grant, a European patent becomes a bundle of national patents to be validated in the states that were designated at grant. The 44 countries for which European patents provide protection represent a population of around 700 million people.

### Highlights of 2017

In 2017 applications grew almost 4 percent. For the first time the EPO published more than 100 000 granted European patents (a 10 percent increase on the 2016 level). This further large growth in the EPO performance was a positive effect that was caused by the internal reforms implemented as part of the Quality and Efficiency strategy that prioritized examination work and increased productivity, as well as further recruitment of examiners.

In 2017, the EPO production increased further by almost 5 percent, in particular the number of final actions in examination increased by more than 10 percent.

In response to users' need for timely delivery of services, the EPO undertook an initiative, known as Early Certainty, to speed up the patent granting process. Launched in 2014, Early Certainty from Search aimed at increasing legal certainty for applicants by providing a search report with written opinion within 6 months from filling. The programme led to some significant improvements in terms of timeliness. The EPO now focuses on the timeliness of examination and opposition (down to 22.1 months<sup>11</sup> and 22.4 months respectively in 2017). The percentage of EPO PCT international search reports published along with the application (i.e. A1 publications) rose to 97 percent in 2017.

In December 2017, the EPO Quality Management System was re-certified according to the latest revised ISO 9001 standard with no instances of nonconformity. This covered also the opposition procedure and the patent information activity of the EPO.

Every year the EPO carries out user satisfaction surveys on its search, examination and opposition services including patent administration. These surveys obtain input that is considered together with other quality-related data to enable reviews to be made of the quality and efficiency of the EPO internal processes in these areas. The result for 2017 shows 80 percent markings of good or very good for search and examination and an increase to 89 percent in markings of good or very good for patent administration. The Intellectual Assets Magazine (IAM) ranked the EPO at number 1 for the quality of its products and services in its sixth consecutive survey.

#### **EPO** production information

Activities associated with searches, examinations, oppositions, appeals and classifications are all performed by EPO staff. The EPO does not outsource any of its core activities. The decision to grant or refuse a patent is taken by a division of three examiners. In Table 2.1, production figures for filings, applications, searches, examinations, oppositions and appeals in the European procedure are given for the years 2016 and 2017. There was a further increase in demand in 2017 as represented by the number of patent applications.

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<sup>&</sup>lt;sup>11</sup> In the case of decision to grant a patent.

**Table 2.1: EPO PRODUCTION INFORMATION** 

EPO PRODUCTION FIGURES	2016	2017	Change	% Change
Patent applications (Euro-direct & Euro-PCT regional phase)	159 316	165 590	+ 6 274	+ 3.9%
Searches carried out				
European (including PCT supplementary)	133 544	137 348	+ 3 804	+ 2.8%
PCT international	83 581	83 752	+ 171	+ 0.2%
On behalf of national offices	27 564	26 403	- 1 161	- 4.2%
Total production search	244 689	247 503	+ 2 814	+ 1.2%
Examination-Opposition (final actions)				
European	137 939	153 858	+15 919	+ 11.5%
PCT Chapter II	9 180	8 836	- 344	- 3.7%
Oppositions	4 102	4 072	- 30	-0.7%
Total final actions examination-opposition	151 121	166 766	+15 545	+ 10.3%
European granted patents	95 940	105 635	+ 9 695	+ 10.1%

The EPO fast track procedure, Programme for Accelerated Prosecution of European Patent Applications (PACE), can be requested without an additional fee and is open for any field of technology. However, with the introduction of Early Certainty initiative, the normal procedure has been accelerated. As a consequence, the number of such requests decreased markedly. In 2017, PACE was requested for 5 percent of the European examinations.

#### Patent information

A key activity of the EPO is collating patent data and making it available to the public through its products and services, such as Espacenet, and as raw data for commercial providers.

The EPO's patent databases remain the most comprehensive collection of patent literature. The total number of records in the EPO worldwide bibliographic database recently passed the 100 million mark. EPO databases are accessible through services such as Espacenet and also via numerous commercial providers. For users interested in performing statistical analyses of patent data, the EPO's PATSTAT database and the PATSTAT online services are the most relevant. They form a unique basis for conducting sophisticated analyses of bibliographic and legal status data for patent intelligence and analytics.

As a result of co-operation with patent offices worldwide, full-text patent collections in languages such as Chinese, Japanese, Korean and Russian are being added. Patent Translate is the EPO's free online machine translation service that is built specifically in order to handle complex, technical patent vocabulary. Integrated into the EPO's Espacenet worldwide patent database and European publication server, it provides translations for a total of 32 different languages. In March 2017, Patent Translate for the first time made use of "neural machine translation" (NMT) technology. Since the

end of August 2017, all the 32 languages are supported by NMT. There are currently approximately 20 000 translation requests per working day on Patent Translate from around the globe.

### **International and European Cooperation**

The EPO engaged in different types of co-operation programmes both inside and outside Europe. In Europe, the EPO continued to build on its close relations with national patent offices, for example by renewing bilateral agreements to support projects in office automation and expert training to better serve the needs of local businesses. Outside Europe, the EPO focused on three areas: firstly, work within the Trilateral (EPO, JPO and USPTO) and the IP5 frameworks; secondly, bilateral co-operation with countries in Asia and Latin America; and thirdly the mounting interest of countries outside the European Patent Organisation to recognise European patents on their territory by concluding validation agreements with the EPO. In 2017, the EPO signed new bilateral cooperation agreements with Argentina and South Africa. In November 2017, the EPO signed a comprehensive strategic partnership agreement with CNIPA, which reinforces a historic co-operation going back more than 30 years. Following Morocco and the Republic of Moldova, a validation agreement with Tunisia entered into force in 2017. A validation agreement was also signed with Cambodia and became effective as of 1st March 2018.

The EPO continues to test utilisation of available work-results via the Patent Prosecution Highway (PPH) programme which leverages fast-track patent examination procedures already available at the offices to allow applicants to obtain corresponding patents faster and more efficiently. In the year under review, the EPO expanded its PPH network to the offices of Russia, Malaysia, the Philippines, the Eurasian Patent Office and Brazil, bringing the total number of the EPO PPH partner offices to 15. In the area of the IP5 PPH, the Offices have intensified their efforts towards the development of common, harmonised PPH metrics. This work is expected to facilitate substantially improved reporting on PPH procedural data.

The EPO hosts the Common Citation Document (CCD), which in 2017 contained over 280 million citations from 33 patent offices world-wide. The CCD currently contains enriched citation data from EPO, China, Croatia, Japan and Switzerland search/examination reports. More countries are expected to become available in the context of the Quality at Source project, such as Estonia, Spain, Lithuania and Portugal.

#### **Economic studies**

In 2017, the EPO Chief Economist Unit published two new studies. *Patents and the Fourth Industrial Revolution*<sup>12</sup>, conducted in cooperation with Handelsblatt Research Institute, analysed the innovation trends underlying the Fourth Industrial Revolution (4IR). *Patents, Trade and Foreign Investments in the EU*<sup>13</sup> analysis highlighted the role to be played by the Unitary Patent to further increase trade and Foreign Direct Investment (FDI) in high-tech sectors and boost technology transfer within the EU. A set of 12 case studies was also published that show how patents can enhance the performance of some small and medium sized firms.

<sup>13</sup> See www.epo.org/service-support/publications.html?pubid=162#tab3

<sup>&</sup>lt;sup>12</sup> See <u>www.epo.org/service-support/publications.html?pubid=163#tab3</u>

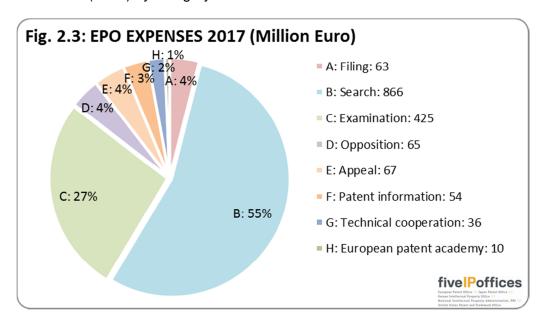
#### **EPO** budget

The EPO is financially autonomous and does not receive any subsidies from the Contracting States of the Organisation. Expenses are therefore mainly covered by revenue from fees paid by applicants and patentees. In 2017, the EPO budget amounted to 2.3 billion EURO.

Fees related to the patent grant process, such as the filing, search, examination, and appeal fees as well as renewal fees for European patent applications (i.e. before grant) are paid to the EPO directly. 50 percent of the renewal fees for European patents (i.e. after grant) are kept by the Contracting States of the Organisation where the European patent is validated after the central grant process.

On the expenses side, in addition to the salaries and allowances supported by a patent office, the EPO, as the office of an international organisation, also finances other social staff expenses such as pensions, fees for sickness and long-term care as well as education costs for the children of the employees. The EPO community consists of about 23 000 persons (active staff, pensioners, and their respective family members).

Fig. 2.3 shows EPO expenses<sup>14</sup>, based on the International Finance Reporting Standards (IFRS) by category in 2017.



A description of the items in Fig. 2.3 can be found in Annex 1.

#### **EPO Staff**

At the end of 2017, the EPO staff totalled about 6 850 employees from 35 different European countries<sup>15</sup>. The total number of search, examination, and opposition examiners reached a record figure of 4 378. Boards of appeal are composed of 148 members.

<sup>&</sup>lt;sup>14</sup> The EPO uses the word "expenses" in accordance with the IFRS reporting approach.

For more details, see the 2017 EPO social report at <a href="https://www.epo.org/about-us/annual-reports-statistics.html">www.epo.org/about-us/annual-reports-statistics.html</a>

Following their recruitment, examiners are included in a training programme for three years. The staff works in the three official languages of the EPO (English, German, and French).

# **More information**

Further information can be found on the EPO's Homepage: <a href="https://www.epo.org">www.epo.org</a>

#### JAPAN PATENT OFFICE

The JPO has been aiming to achieve the "world's fastest and utmost quality patent examinations" so that once applicants obtain patents in Japan, they may also be able to obtain patents abroad, even smoothly on the ground that the JPO's examination results are used as trustworthy judgements when foreign IP offices conduct examinations. To this end, the JPO has been implementing various measures focused on "maintaining speed", "granting high quality rights", and "cooperating and collaborating with foreign IP offices".

#### 1) Initiatives to Speed up Examinations

## a) Securing the Necessary Number of Examiners

In order to maintain and strengthen the patent examination system, the JPO is working to secure the necessary number of patent examiners and to rehire some of the fixed-term examiners whose term of employment had expired. For FY 2017, the JPO secured a capacity of 1 696 examiners (including fixed-term examiners).

### b) Outsourcing Preliminary Prior Art Searches

By outsourcing prior art searches to registered search organizations, the JPO promotes the speeding up of examinations through utilization of the private sector. As of December 2017, there were ten registered search organizations.

In FY 2017, the number of searches outsourced was approximately 153 000, and of those, approximately three-quarters (or approximately 114 000 searches) also involved searches of foreign patent documents in addition to patent documents in Japanese

#### 2) Further Improvement of Examination Quality

### a) Quality Management Initiatives

The JPO has published its "Quality Policy on Patent Examination", which constitutes the JPO's fundamental principles of quality management, and its "Quality Management Manual for Patent Examination" (Quality Management Manual), which documents quality management and its implementation system. Under the Quality Policy and the Quality Management Manual, the JPO has been engaging in the initiatives towards realizing the utmost quality of patent examinations in the world. Moreover, in March 2017, the JPO established quantitative goals for the quality of patent examinations to be achieved in FY 2017.

Furthermore, in August 2014, the JPO established the Subcommittee on Examination Quality Management, which consists of external experts, under the Intellectual Property Committee of the Industrial Structure Council of the Ministry of Economy, Trade and Industry, for the purpose of receiving objective validation and evaluation regarding the implementation system and status of quality management. The JPO implements initiatives in the quality management of patent, design, and trademark examinations based on reports by the Subcommittee on Examination Quality Management.

#### b) Improving an environment for Prior Art Search

Prior art searches are one of the important pillars for maintaining and improving examination quality, and a constant improvement of the foundation for prior art searches for both patent documents and non-patent literature is therefore crucial. As part of the improvement of the foundation for prior art searches, the JPO actively proposes to revise the International Patent Classification (IPC) so as to incorporate the useful classification entries of FI<sup>16</sup> and F-Terms<sup>17</sup> into the IPCs. In FY 2017, the JPO made IPC revision proposals for eight broad technical fields in mechanical, chemical, and electrical areas. As part of improving the search environment for standards-related documents, in FY 2017 the JPO made a formal agreement with the International Telecommunication Union (ITU) to provide standards-related documents to the JPO. The JPO is beginning to assign further subdivided CS Terms in order to search for computer software-related non-patent literature efficiently.

#### c) Initiatives Related to the Examination Handbook for Patent and Utility Model

In March 2017, in order to clearly show the practice of examination to the users, the JPO added 11 case examples to the Examination Handbook for Patent and Utility Model, including the cases of trained AI models and the cases of data, data structures and the like of IoT or 3D printing related technologies, and published it in Japanese and English.

### 3) Association and Cooperation with Overseas Offices

#### a) Patent Prosecution Highway

The PPH is a framework that allows an application that is determined to be patentable by the Office of First Filing (OFF) to undergo, at the request of the applicant, an accelerated examination with simplified procedures at the Office of Second Filing (OSF) that participates in the PPH with the OFF.

The world's first PPH advocated by the JPO was launched between Japan and the U.S. in July 2006 as a pilot program. As of December 2017, the number of IP offices participating in the PPH has increased to 47. As of December 2017, the JPO has been implementing the PPH with 40 IP offices, including new PPH collaborations with Brazil and Argentina in April, with New Zealand in July, with Chile in August, and with Peru in November 2017.

The PPH Portal Site allows one-stop access to the PPH implementation status and statistical information for participating IP offices. The JPO serves as the secretariat of the "Global Patent Prosecution Highway" (GPPH), which is a multinational framework launched in January 2014. In the GPPH, all types of PPH including PPH-MOTTAINAI and PCT-PPH are available among the participating IP offices. Colombia and New Zealand newly participated in this framework in July 2017 and, as a result, the number of the offices participating in the GPPH has expanded to 24.

<sup>&</sup>lt;sup>16</sup> An FI (File Index) means an original classification by the JPO that is a further development of the IPC.

<sup>&</sup>lt;sup>17</sup> An F-Term (File Forming Term) means an original classification by the JPO expanded to various technical aspects (e.g., purpose, use, structure, material, manufacturing method, processing and operational method, and means of control) by technical area (theme).

#### b) International Examiner Exchange Program

The international examiner exchange program is an initiative through which the JPO examiners directly discuss with or provide training on examination practices with examiners from foreign IP offices, primarily for the following purposes:

- To promote work-sharing of patent examinations among the IP offices based on a mutual understanding of prior art searches and examination practices;
- To harmonize examinations at a higher level of quality;
- To harmonize patent classifications.

In recent years, in addition to dispatching examiners to and receiving examiners from developed countries, the JPO has also been striving to contribute to the establishment of proper IP systems and the development of human resources in emerging countries such as India and the ASEAN countries, by dispatching JPO examiners and providing training on examination practices. Cumulatively, from April 2000 to December 2017, the JPO has executed the international examiner exchange program, either on a short-term or mid-to-long term basis, with 29 IP offices. In 2017, the JPO dispatched 31 JPO examiners to foreign IP offices and received 16 examiners from foreign IP offices.

### c) US -JP Collaborative Search Pilot Program (US-JP CSP)

The JPO launched US-JP Collaborative Search Pilot Program (US-JP CSP) with the USPTO on August 1, 2015 with the aim of improving the predictability of the timing of examination and patent granting in the U.S. and Japan and supporting users to acquire stronger and more stable patent rights. In this program, the JPO and the USPTO examiners independently conduct their own prior art searches for an invention for which a patent application has been filed in both offices, and after sharing their search results and opinions, both offices respectively send their first examination results to the applicant early and around the same time.

The first phase of US-JP CSP, which lasted for two years, ended on July 31, 2017, and the second phase of US-JP CSP commenced with new operations on November 1, 2017 and will last for three years.

#### JPO Production information

Table 2.2 shows production figures for applications, examinations, grants, appeals or trials and PCT activities in the Japanese procedure in 2016 and 2017.

**Table 2.2: JPO PRODUCTION INFORMATION** 

JPO PRODUCTION FIGURES	2016	2017	Change	% Change
Applications filed (by Origin of Application)				
Domestic	260 244	260 290	+ 46	+ 0.0%
Foreign	58 137	58 189	+ 52	+ 0.1%
Total	318 381	318 479	+ 98	+ 0.0%
Applications filed (by Type of Application)				
Divisional <sup>18</sup>	29 717	27 535	- 2 182	- 7.3%
Converted <sup>19</sup>	104	105	+ 1	+ 1.0%
Regular	288 560	290 839	+ 2 279	+ 0.8%
Total	318 381	318 479	+ 98	+ 0.0%
Examination				
Requests	240 455	240 118	- 337	- 0.1%
First Actions	246 879	239 236	- 7 643	- 3.1%
Final Actions	251 877	246 500	- 5 377	- 2.1%
Grants				
Domestic	160 643	156 844	- 3 799	- 2.4%
Foreign	42 444	42 733	+ 289	+ 0.7%
Total	203 087	199 577	- 3 510	- 1.7%
Appeals/Trials				
Demand for Appeal against refusal	18 898	18 591	- 307	- 1.6%
Demand for Trial for invalidation	140	161	+ 21	+ 15.0%
PCT Activities				
International searches	44 321	45 948	+ 1 627	+ 3.7%
International preliminary examinations	2 021	1 903	- 118	- 5.8%

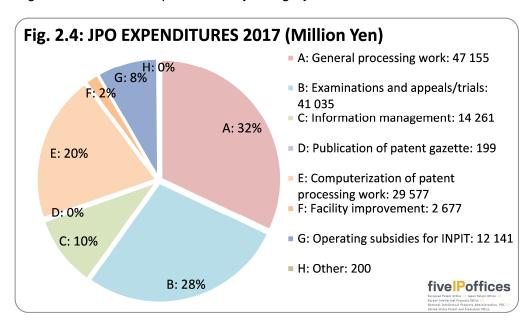
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Divisional application(s) is/are one or more new patent application(s) which is/are filed by dividing a part of the patent application that includes two or more inventions under certain conditions.
Converted applications include patent applications which are converted from an application for utility

<sup>&</sup>lt;sup>19</sup> Converted applications include patent applications which are converted from an application for utility model registration or design registration (under Article 46 of Patent Act), and patent applications filed based on a registration of utility model (under Article 46bis).

# JPO budget

Fig. 2.4 shows JPO expenditures by category in 2017.



A description of the items in Fig. 2.4 can be found in Annex 1.

# JPO Staff Composition

As of the end of FY 2017, the total number of staff at the JPO was 2 788. This includes 499 fixed-term patent examiners.

Examiners: Patent / Utility model:	1 696
Design:	48
Trademark:	136
Appeal examiners:	383
General staff:	525
Total:	2 788

#### More information

Further information can be found on the JPO's Homepage: <a href="https://www.jpo.go.jp">www.jpo.go.jp</a>

#### KOREAN INTELLECTUAL PROPERTY OFFICE

#### Overview

As the Korean governmental agency primarily responsible for overseeing intellectual property rights (IPRs), the Korean Intellectual Property Office (KIPO) strives to conduct its intellectual property (IP) administration in accordance with the national paradigm of creative economy, which seeks to foster innovation and new engines of economic growth to drive Korea's future prosperity.

Domestically, KIPO has put as great an emphasis as possible on further developing its examination services, as well as promoting economic sustainability through a virtuous cycle of IP creation, utilization, and protection. On the international front, KIPO strengthened our cooperative ties with foreign IP offices and other international organizations.

#### **Examination Service**

In 2017, KIPO maintained its reduced first office action pendency while policy focus remained on examination quality. To ensure each examiner was allocated with a reasonable workload, KIPO increased our outsourcing of prior art searches. KIPO also promoted diverse forms of collaborative examinations by introducing consultative examinations and public examinations in which outside experts are invited to partake in necessary examinations. The annual average first office action pendency period in 2017 was recorded at 10.4 months for patents and utility models, 5.0 months for trademarks and 4.9 months for designs.

#### 1) Further outsourcing of prior art searches

To maintain the level of first office action pendency, a total of 87 594 cases of patent and utility models applications, which was 49.3 percent of all examination cases handled in 2017, were subject to prior art searches. A total of 101 609 cases of trademark applications, which was 77.6 percent of all trademark applications submitted in 2017, and 29 194 cases of design applications, 43.3 percent of all design applications submitted in 2017, were sent to independent agencies for prior trademark and design searches.

#### 2) Enhancing examination quality

In 2017, the Examination Quality Assurance Division (EQAD) reviewed examinations of 4 123 (2.3 percent) patents and utility models, 5 482 (2.4 percent) trademarks and designs, and 452 PCT reports were subjected to examination reviews.

#### 3) Customized examination services

KIPO shifted our examination from the existing system, in which examiners simply give their reason for refusal, to a more customer-oriented examination system. The "Patent Examination 3.0" helps applicants acquire high quality patents by boosting interactive communication with examiners throughout the entire examination proceeding. Services include:

#### a) Preliminary examination

Preliminary examination was first introduced in 2014, enabling applicants and patent examiners to communicate with each other prior to a first office action in order to discuss the overall direction of the examination and resolve any possible reasons for refusal. In 2017, to enhance the effectiveness, the results of the preliminary examination were notified before the interview with the examiner.

#### b) Preliminary amendment review

The process of reviewing preliminary amendment was introduced in 2015 as a way of informing applicants of whether reasons for refusal of the claims presented in the preliminary amendment can be resolved prior to the final amendment. In 2017, the number of applicants who requested reviews of preliminary amendment increased 1.9 times compared to 2016.

#### c) Batch examination

Batch examination is a customized service in which, at the applicant's request, separate applications for patent, design, and/or trademark rights for a single product are examined simultaneously. In 2015, the service was further expanded to include new technologies resulting from national R&D projects.

### **Promoting the Creation and Utilization of IP**

#### 1) Korea IPRs Information Service (KIPRIS)

The Korea Intellectual Property Rights Information Service (KIPRIS) is a free online search service we provide to the general public so they can conveniently browse both international and domestic IP information.

KIPRIS makes IP information accessible to the public. The available information includes new information on Chinese designs, full publications of Taiwanese patents, information on design related administrations, and citations. In 2017, the system added a search function for similar patents.

To promote the use, public relations (PR) activities include site-visits upon request, distribution of KIPRIS's magazine, and hosting seminars on how to better utilize KIPRIS.

### 2) Enhancing the IP Capacities of SMEs and Promising Enterprises

To help support small and medium-sized enterprises (SMEs) possessing outstanding patents and cutting-edge technology, KIPO established an IP financing system that allows IP as collateral for attaining substantial loans. In 2017, KIPO expanded this system to include participation from private banks, rather than limiting it solely to public banks. The result was an accumulative sum of around 324.5 million USD lent to SMEs.

Since beginning of the 'Global IP Star Companies Growth Projects' in 2010, KIPO has assisted 1 454 promising SMEs. In 2017 alone, 288 companies have been added to the list and many have succeeded in entering the global market even with no prior export experience. To clearly demonstrate the effectiveness of the project, key corporate management indicators also recorded a 6.9 percent increase in revenue, 8.2 percent increase in employment and 7.9 percent in export as of 2016.

#### 3) IP-DESK

KIPO operates IP-DESKs to protect and further promote IPRs belonging to Korean companies with businesses overseas. Recently, additional IP-DESKs were added in areas where Korean companies are frequently embroiled in IPR disputes. KIPO set up an IP-DESK in Frankfurt, Germany in 2014 and then added an IP-DESK in Tokyo, Japan in 2015.

In 2016, KIPO set up an IP-DESK in Xi'an, China, which is an economic hub of western China. Finally, KIPO added IPDESKs in New Delhi, India and Jakarta, Indonesia in 2017.

As of December 2017, KIPO were operating a total of 14 IPDESKs in eight countries.

#### **Global IP Cooperation**

#### 1) Bilateral Cooperation

The launch of the "ASEAN (10 countries) + 1 framework" in February 2017 was finally decided after 4 years of discussions. ASEAN IPR infrastructure improvement projects and protection of IPR of Korean companies in the ASEAN region will be further strengthened.

As part of the trilateral cooperation with the JPO, KIPO and CNIPA, KIPO hosted the TRIPO Heads Meeting in December 2017 in Jeju. The three offices officially approved the "Trilateral Cooperation Framework" and adopted an official emblem proposed by KIPO.

KIPO signed several meaningful Memorandums of Understanding (MOUs) in 2016 to further cooperation with foreign IPR authorities. A new MOU on CSP was signed with CNIPA while the existing CSP with USPTO was agreed to be extended. Talks with the European Union Intellectual Property Office (EUIPO) reached an agreement on an exchange of IPR data, as well as an agreement for an MOU on Cooperative Patent Classification (CPC) with the EPO.

Furthermore, KIPO signed comprehensive cooperation MOUs with Argentina and the Ukraine, both recognized as regional hubs with high industrial development and technological advancement, thus expanding the number of countries that KIPO cooperates with in the IPR field.

### 2) International IT cooperation

#### a) Bilateral IT Cooperation

In February and June 2017, discussions took place on the issue of KIPO officially participating in the web-based ePCT, currently operated by WIPO. It was decided that from October 2017, patent applicants from Korea can also use ePCT without installing complicated software. In November, KIPO and WIPO jointly held high-level talks on PCT automation and operations to further discuss ways of utilizing ePCT to make applications even more convenient and expanding PCT related e-document exchanges.

# b) Expand the overseas export of KIPOnet

In February 2016, KIPO signed on a contract for an United Arab Emirates (UAE) patent IT system based on Korea's patent automation system KIPOnet. Experts from KIPO were sent over to the UAE in August 2016 to facilitate the system development and operations. The UAE system was successfully completed in February 2017.

Also, in cooperation with the Ministry of Strategy and Finance and other relevant agencies, KIPO signed an MOU with the Egyptian Patent Office (EGPO) in April 2017 to cooperate in patent automation. Under the MOU, KIPO provides consulting services for system set up and enhancement of the patent administration automation system, and shares experience in KIPOnet development and operations.

### **KIPO Production information**

Table 2.3 shows production figures for applications, examinations, grants, appeals or trials and PCT activities for 2016 and 2017.

**Table 2.3: KIPO PRODUCTION INFORMATION** 

KIPO PRODUCTION FIGURES	2016	2017	Change	% Change
Applications filed				
Domestic	163 423	159 031	- 4 392	- 2.7%
Foreign	45 407	45 744	+ 377	+ 0.7%
Total	208 830	204 775	- 4 055	- 1.9%
Applications filed (by type of application)				
Divisional <sup>20</sup>	10 030	11 291	+ 1 261	+ 12.6%
Converted <sup>21</sup>	56	33	- 23	- 41.1%
Others	198 744	193 451	- 5 293	- 2.7%
Total	208 830	204 775	- 4 055	- 1.9%
Examination				
Requests	172 948	172 635	- 313	- 0.2%
First actions	174 792	171 112	- 3 680	- 2.1%
Final actions	172 053	177 118	+ 5 065	+ 2.9%
Grants				
Domestic	82 400	90 847	+ 8 447	+ 10.3%
Foreign	26 475	29 815	+ 3 340	+ 12.6%
Total	108 875	120 662	+11 787	+ 10.8%
Appeals/Trials	6 796	4 880	- 1 916	- 28.2%
Request for appeal against refusal	5 616	4 351	- 1 265	- 22.5%
Request for trial for invalidation	1 180	529	- 651	- 55.2%
PCT activities				
International searches	28 107	25 920	- 2 187	- 7.8%
International preliminary examinations	209	169	- 40	- 19.1%

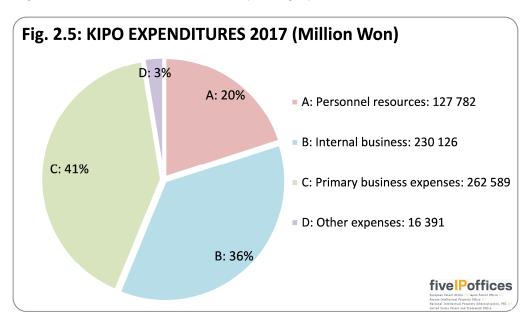
 $<sup>^{20}</sup>$  A divisional application is filed to divide a patent application (known as the parent application) into two

or more applications.

A patent applicant may convert an application for utility model registration to a patent application within the scope of matters stated in the description or drawing initially attached to the patent application.

# **KIPO** budget

Fig. 2.5 shows KIPO expenditures by category in 2017.



A description of the items in Fig. 2.5 can be found in Annex 1.

# **KIPO Staff Composition**

At the end of 2017, the KIPO had a total staff 1 627. The breakdown is as follows.

#### **Examiners**

Patents and Utility Model	866
Designs and Trademarks	162
Appeal examiners	106
Other staff	493
Total	1 627

### More information

Further information can be found on KIPO's Homepage: <a href="https://www.kipo.go.kr">www.kipo.go.kr</a>

### NATIONAL INTELLECTUAL PROPERTY ADMINISTRATION, PRC

#### Main Responsibilities

Organizing and coordinating IPR protection work nationwide and improving the construction of IPR protection system; standardizing the basic orders of patent administration; drawing up the policies of foreign-related IP work; working out the development programs for the patent work nationwide, drafting patent working plans, examining and approving special working plans, taking up the responsibility of the construction of the national public service system of patent information, promoting the spread and utilization of patent information with related departments and undertaking the work of patent statistics; laying down the criteria of affirming the exclusive rights of patents and integrated circuit layout designs and appointing organizations to manage the work of right affirmation; publicizing and popularizing patent laws, regulations and policies; and drafting plans of IP-related education and training according to regulations.

#### **Statistical Overview of 2017**

#### 1) Patent Examination Status

In accordance with the Patent Law of the People's Republic of China, the CNIPA is the authority to receive and examine applications for invention, utility model and design patents, and to grant patent rights in compliance with the Patent Law. The mechanism of earlier publication and request for substantive examination applies when processing invention patent applications, while the duration of patent rights for invention is 20 years, counted from the date of filing. The preliminary examination mechanism applies when processing utility model and design applications, while the duration of patent rights for utility models and designs is 10 years, counted from the date of filing.

### 2) Patent Applications in 2017

In 2017, the number of applications for the three kinds of patents in P.R. China was nearly 3.70 million. Among these applications, there were 1.38 million applications for invention patents, an increase of 14.2 percent compared to the previous year, 1.69 million applications for utility model patents and 0.63 million applications for design patents.

#### 3) Patents Granted in 2017

In 2017, the CNIPA granted 0.42 million patents for invention, with an increase of 3.9 percent compared to the previous year, 0.97 million patents for utility model and 0.44 million patents for industrial design.

### **CNIPA** production information

Table 2.4 shows production figures for applications, examination, grants, reexamination and invalidation, PCT activities are given for the years 2016 and 2017. The data in table 2.4 concentrate only on patents for invention.

**Table 2.4: CNIPA PRODUCTION INFORMATION** 

CNIPA PRODUCTION FIGURES	2016	2017	Change	% Change
Applications filed				
Domestic	1 204 981	1 245 709	n.a.	n.a.
Foreign	133 522	135 885	n.a	n.a
Total	1 338 503	1 381 594 <sup>22</sup>	n.a	+ 14.2 % <sup>23</sup>
Examination				
First actions	681 931	827 217	+ 145 286	+ 21.3%
Final actions	675 341	744 490	+ 69 149	+ 10.2%
Grants				
Domestic	302 136	326 970	+ 24 834	+ 8.2%
Foreign	102 072	93 174	- 8 898	- 8.7%
Total	404 208	420 144	+ 15 936	+ 3.9%
Re-examination and invalidation				
Re-examination requests	13 107	28 472	+ 15 365	+ 117.2%
Invalidation request	3 969	1 126	- 2 843	- 71.6%
PCT activities				
International searches	39 775	47 235	+ 8 460	+ 21.8%
International preliminary examinations n.a = not available	427	300	- 127	- 29.7%

#### 4) Examination Period

The CNIPA adopted time-sliced segment management (where the whole procedure was monitored and managed by divided time point and period) in the whole examination procedure for examination period management by objectives to ensure

<sup>22</sup> As for the year of 2017, the application number 1,381,594 is the number of invention patent applications filed with the CNIPA with filing fees paid, while for the year of 2016, the application number 1,338,503 is the number of invention patent applications received by the CNIPA, thus the application

number of 2017 can't be compared to the number of 2016 directly.

23 As the methodology of calculating application number has changed, the CNIPA provided the year on year growth rate of the total number, which is +14.2 percent, while the CNIPA could not retrospectively provide application numbers as well as the change broken down by domestic and foreign origins, which are noted as "n.a." in this table.

well-distributed and reasonable examination period. In 2017, the pendency period for the granting of invention patents was approximately 22.0 months.

#### Informatisation and Documentation

In order to support the national technological innovation, the national economic growth and the patent examination, the CNIPA has always highly valued the construction of its patent documentation and information system. Its unremitting efforts for years have resulted in the current various patent information resources, and automatic search and management system.

## 1) Patent Information Services to the Public

The CNIPA took multiple measures to improve patent information public service capabilities. The mid-term reporting mechanism of The CNIPA patent information service (regional) centres was established to enhance their capabilities to carry out services. The CNIPA steadily carried out the pilot program on the "New Generation Search and Analysis System for Regional Patent Information Service Center" and continued to promote the sharing of patent data resources. The CNIPA improved the Chinese and Foreign Examination Information Search System and made available to the public the dossier information reminder function in May 2017.

### 2) Documentation Resources and Services

Throughout 2017, the CNIPA allocated 162 types of documentation resources, including nine types of patent resources and 153 types of non-patent resources, providing solid support to patent examination, patent information public services, macro-management and research. The CNIPA maintained bilateral exchange of patent documentation with 34 countries, regions or organizations and provided Chinese patent documentation to seven PCT international Search and Authorities and international Preliminary Examination Authorities.

By the end of December 2017, the CNIPA had over 539 types of patent documentation resources, including 191 types of bibliographic items, 166 types of full-image data and other types of data. The bibliographic data covers 104 countries, regions or organizations. The full-image data covers 103 countries, regions or organizations.

Based on the needs of the examination process, the CNIPA continued to offer quality and efficient services on documentation extraction and consultation, carried out knowledge-based services for patent examination and provided relevant technical information on green chemistry, new energy, smart manufacturing, and internet of Energy to the examination departments.

The CNIPA deepened the service model of "internet+ Patent Examination" and made available multi-layered, open and characteristic services. The CNIPA used its official website, the "Patent Documentation Sharing" WeChat public platform, WeChat groups and email to push relevant knowledge and information on patent documentation and provides services such as online consultation and documentation transmission.

#### **International Cooperation**

In 2017, the CNIPA continued to comprehensively deepen international cooperation in the IP field and played a constructive role in international and regional IP affairs. Throughout the year, the CNIPA signed 52 new bilateral and multi-lateral cooperation agreements, memoranda of understanding, joint statements, records of discussion, work plans in the IP field.

The CNIPA secured resources from various channels to implement the Common Initiatives for Strengthening the Cooperation between Countries along the Belt and Road in the Field of Intellectual Property. In May, on behalf of the Chinese Government, the CNIPA signed with the World Intellectual Property Organization the agreement on Enhancing "Belt and Road" Intellectual Property Cooperation between the Government of the People's Republic of China and the World Intellectual Property Organization (WIPO) during the Belt and Road Forum for International Cooperation. The two sides agreed to deepen their cooperation in relation to the Belt and Road Initiative and facilitate the development of IP in Belt and Road countries.

The CNIPA continued its deep involvement in the China-U.S. inter-governmental dialogue mechanisms and its active participation in other meeting, consultation and negotiation mechanisms such as the China-EU Intellectual Property Dialogue, the China-UK and the China-France Economic and Financial Dialogues, the China-Italy Inter-governmental Commission, and the China-EU, China-Switzerland IP working group/unit meetings. The CNIPA also actively participated in the negotiations on the IP chapters of the China-Japan-Korea Free Trade Area and the Regional Comprehensive Economic Partnership (RCEP), China-Georgia Free Trade Agreement and Economic and Trade Cooperation Agreement between China and the Eurasian Economic Union.

The CNIPA continued in-depth participation in the conferences of the IP5 and the Industrial Designs 5 (ID5) Offices Cooperation. In 2017, Commissioner Shen Changyu led a delegation to participate in the 10th Meeting of IP5 Heads of Office in Valletta, Malta, and facilitated the signature of the Joint Statement of the IP5 2017. The IP cooperation in China, Japan and Korea, BRICS counties, China-ASEAN, and China Mongolia and Russia was reinforced and developed.

The CNIPA further deepened cooperation with EPO, European Union Intellectual Property Office (EUIPO), EAPO, United States, EU and European Countries, Neighboring and Asian Countries, African Countries, Latin American Countries and Oceanian countries.

The CNIPA pressed ahead with pragmatic cooperation in patent examination. The CNIPA continued to expand the PPH cooperation network and officially launched the China-Egypt PPH pilot program, and signed PPH cooperation agreements with IP authorities of Czech Republic, Chile, the Eurasian Patent Office, the African Regional Intellectual Property Organization and Brazil. Users of Common PPH Request Form increased to 19.

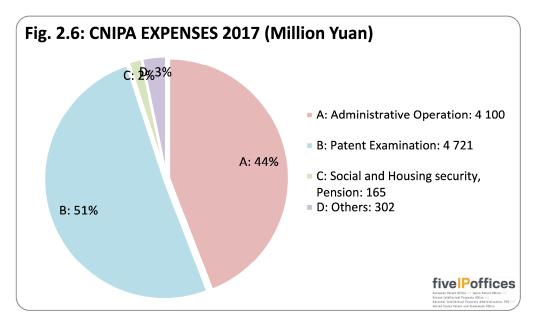
The CNIPA carried out cooperation in data exchanges with 26 countries, regions and organizations. It had bilateral and multi-lateral exchanges and cooperation with 21 countries, regions and organizations, of which 9 were newly established cooperation partners and 6 among the Belt and Road countries.

The CNIPA actively explored for new models in providing training support to

developing countries and helped developing countries to utilize the IP system in the process of economic development and jointly facilitated the improvement and development of the international IP rules.

# The CNIPA budget

Fig 2.6 shows CNIPA expenditures by category in 2017.



A description of the items in Fig. 2.6 can be found in Annex 1.

#### The CNIPA Staff Composition

By the end of 2017, the CNIPA has seven functional departments (vice bureau level), 15 subordinate units, two enterprises and three social organizations.

In 2017, there were 2,600 patent examiners in the departments under the headquarters of the CNIPA. By the end of 2017, as direct affiliates of the Patent Office of the CNIPA, the seven Patent Examination Centers in Beijing, Jiangsu, Guangdong, Henan, Hubei, Tianjin and Sichuan had a combined total of 8 900 patent examiners. In total, the CNIPA has 11 421 patent examiners.

### More information

Further information can be found on the CNIPA's Homepage: <a href="https://www.cnipa.gov.cn">www.cnipa.gov.cn</a>

#### UNITED STATES PATENT AND TRADEMARK OFFICE

#### **Mission Statement**

The mission of the United States Patent and Trademark Office (USPTO) is:

Fostering innovation, competitiveness and economic growth, domestically and abroad by delivering high quality and timely examination of patent and trademark applications, guiding domestic and international intellectual property policy, and delivering intellectual property information and education worldwide, with a highly skilled, diverse workforce.

The USPTO is pivotal to the success of innovators. In fulfilling the mandate of Article 1, Section 8, Clause 8, of the U.S. Constitution, "To promote the Progress of Science and useful Arts, by securing for limited Times to Authors and Inventors the exclusive Right to their respective Writings and Discoveries", the USPTO is on the cutting edge of technological progress and achievement in the United States.

The USPTO provides valued products and services to its customers in exchange for fees that are appropriated to fund its operations. The powers and duties of the USPTO are vested in the Under Secretary of Commerce for Intellectual Property and Director of the USPTO, who consults with the Patent Public Advisory Committee and the Trademark Public Advisory Committee. The USPTO operates with two major business lines, Patents and Trademarks.

The USPTO's Strategic Plan for Fiscal Years 2014-2018 sets forth the Agency's three mission-focused strategic goals and one management goal, as well as the proposed objectives and initiatives to meet those goals. The plan is designed to continue strengthening the capacity of the USPTO, improve the quality of issued patents and registered trademarks, and shorten the time it takes to get a patent. This plan will continue to enhance and accelerate the innovation and job growth needed to transform the U.S. economy, foster competitiveness, and drive the creation and growth of U.S. businesses. This plan was developed with input from the public advisory committees, stakeholders, the public, and USPTO employees. A new Strategic Plan is being developed, and is expected to be published at the end of 2018.

- Goal 1: Optimize Patent Quality and Timeliness.
- Goal 2: Optimize Trademark Quality and Timeliness.
- Goal 3: Provide Domestic and Global Leadership to Improve IP Policy, Protection, and Enforcement Worldwide.
- Management Goal: Achieve Organization Excellence.

# **Agency News**

In FY 2017, USPTO patent examiners continued to reduce total patent application pendency by an additional 1.1 month, to 24.2 months. Significant progress was also made in reducing the unexamined backlog to 526 579, 2.1 percent lower than last year.

In November 2017, the USPTO finalized a revised patent fee schedule. This fee schedule is designed to recover the aggregate estimated cost of the USPTO's patent operations, Patent Trial and Appeal Board operations, and administrative services. The additional fee collections will support the USPTO's progress toward its strategic goals like pendency and backlog reduction, patent quality enhancements, technology modernization, staffing optimization and financial sustainability.

As part of the President's efforts to encourage innovation, the USPTO expanded the activities to help applicants and their representatives navigate the patent prosecution process. One of these activities is the USPTO Pro Se Assistance Program where support, in the form of dedicated educational resources to these applicants, in-person assistance, and centralized examination of these applications are provided for inventors applying for patents without an attorney.

FY 2017 was busy with preparations for the issuance of the 10 millionth patent, complete with a new cover design. Since the first U.S. patent was granted in 1790, there have been twelve major design changes to the patent cover. The first patents were hand written and signed by President George Washington, later the cover became a typeset form with blanks filled in by a calligrapher, and the next major change included decorative engravings to meet the styles of the time. The 10 millionth patent granted in 2018 shows the increasing demand for patent protection in the U.S. The first millionth milestone of granted patents took 121 years. The next ones took twenty four, twenty six, fifteen, fifteen, eight, seven, five, four, and this latest millionth has taken just three years. Patent 10 million for "Coherent LADAR Using Intra-Pixel Quadrature Detection" symbolizes the breadth of America invention, with applications in such varied fields as autonomous vehicles, medical imaging devices, military defense systems, and space and undersea exploration.

In FY 2017, the USPTO launched the full version of *PatentsView* (www.patentsview.org), the patent data Web tool that allows users to explore 40 years of data on inventors, their organizations, locations, and overall patenting activity. Throughout FY 2017, the USPTO released new and updated datasets in forms convenient for public use and academic research on matters relevant to IP, entrepreneurship, and innovation. New in 2017 was the inclusion of comprehensive data on rejections issued by patent examiners.

USPTO continued its work to encourage even more electronic filing and processing in FY 2017. Trademark applications are currently filed electronically more than 99.9 percent of the time. The push to increase end to end electronic processing of Trademark applications began in 2003 when filings were done on paper about half the time. Recently, select Trademark fees were raised to further promote electronic filing and processing. Currently Trademarks is considering mandatory electronic filing, submissions, and correspondence. Patent applications are currently filed electronically more than 96 percent of the time. USPTO's Patent Business Line has also been working to encourage electronic filing and processing of applications with more effort on this planned for the future.

One important IP case settled in FY 2017 was Matal v. Tam, a case concerning the constitutionality of section 2(a) of the Trademark Act that precludes the USPTO from registering marks that "disparage . . . persons, . . . institutions, beliefs, or national symbols." The Supreme Court struck down the disparagement provision of section 2(a) as unconstitutional, holding that it violated the First Amendment's Free Speech Clause. In a related case, In re Brunetti, The Court of Appeals for the Federal Circuit held that the prohibition on immoral or scandalous trademarks is an unconstitutional restriction of free speech.

At the end of FY 2017, 11 105 employees agency-wide were working from home at least one day per week, translating to 88 percent of the USPTO workforce. This was an increase of 226 teleworking employees from last fiscal year. A structured telework program provides cost savings by reducing the need for additional office space, enhances recruitment and retention, fosters greater efficiency in production

and management and provides opportunities for expanded work flexibility and better work-life balance for participating employees. USPTO's teleworkers help to minimize the USPTO's impact on the environment in the Washington, D.C., metropolitan area, and in FY 2017, they spared the environment more than 48 932 tons in estimated CO2 emissions.

### **International Cooperation and Work Sharing**

The USPTO is engaged in specific application-level work sharing with 31 different IP offices through the Global Patent Prosecution Highway (PPH) system or bilateral PPH agreements. As part of this international cooperation, in early October 2017 the USPTO signed an agreement with KIPO and JPO to launch the second phase of the Collaborative Search Pilot (CSP) program which provides examiners the best prior art to improve compact prosecution and enhance patent quality. The initial program resulted in a significant reduction in prosecution time and a substantially reduced need for Requests for Continued Examination (RCEs) to complete prosecution, with over a 90 percent allowance rate. This expansion is designed to build on these successes and continue improvement; a third phase to further this progress has been agreed upon by the IP5.

In FY 2017, the USPTO worked with the Industrial Design 5 (ID5) offices (EUIPO, JPO, KIPO, CNIPA and USPTO) on collaborative efforts to reduce costs and create greater predictability for the industrial design stakeholders. One recent accomplishment of this cooperation was the publication of common industrial design statistics.

The USPTO continues to provide leadership at the International Union for the Protection of New Varieties of Plants, an intergovernmental organization that promotes the development of new varieties of plants. With USPTO support, the organization developed a system for submitting forms electronically. In FY 2017, this system was expanded to include an additional 16 countries and to allow submissions regarding five additional crops.

The USPTO also partners with the TM5, the framework that brings together the world's five largest trademark offices (EUIPO, JPO, KIPO, CNIPA, USPTO) whose mission is to promote cooperation and collaboration among its members and to contribute to more user-friendly, and if possible, interoperable trademark systems. One important ongoing TM5 project is the TM5 Identification (TM5 ID) List, which entails the ongoing development of a harmonized pick-list of descriptions of goods and services that are acceptable in applications for trademark registration submitted to all participating IP offices. During FY 2017, led by the USPTO, work continued on expanding the number of identification entries and their translation into multiple languages. IP offices from countries that are not TM5 members have been invited, and are actively participating, in this project. To date, the TM5 partners have developed more than 17 600 entries for the list.

The USPTO provides IP educational and training programs both to improve IP laws and their administration around the world and to enhance IP awareness and technical capacity. In FY 2017, Office of Policy and International Affairs conducted a total of 143 such training programs through its Global Intellectual Property Academy (GIPA), serving more than seven thousand individuals consisting of IP rights owners, patent, trademark, and copyright officials, prosecutors, police, customs officials and IP policymakers.

In addition to conducting live, in-person programs, the USPTO continues to utilize technology to make its training programs more efficient and to expand their reach. Both live online and on-demand modes of training and education are provided to increase just-in-time learning. When possible, IP awareness programs are webcast live to reach attendees from all over the country. In FY 2017, GIPA presented 24 programs with a distance-learning or remote engagement component. OPIA produces and maintains in-depth, on-demand distance learning modules available in five languages and covering patents, trademarks, copyrights, geographical indications, and trade secrets.

### **USPTO** production information

Table 2.5 includes production figures for application filings, PCT searches and examination, first actions, grants, applications in appeal and interference, and patent cases in litigation for the years 2016 and 2017.

**Table 2.5: USPTO PRODUCTION INFORMATION** 

USPTO PRODUCTION FIGURES	2016	2017	Change	% Change
Applications filed				
Utility (patents for invention) <sup>24</sup>	605 571	606 956	+ 1 385	+ 0.2%
Domestic	295 327	293 904	- 1 423	- 0.5%
Foreign	310 244	313 052	+ 2 808	+ 0.9%
Plant	1 177	1 059	- 118	- 10.0%
Reissue	1 087	1 012	- 75	- 6.9%
Total utility, plant & reissue	607 835	609 027	+ 1 192	+ 0.2%
Design	42 571	43 340	+ 769	+ 1.8%
Provisional	166 565	167 642	+ 1 077	+ 0.6%
Total	816 971	820 009	+ 3 028	+ 0.4%
Request for continued examination (RCE) <sup>25</sup>	191 820	183 446	- 8 374	- 4.4%
PCT Chapter I searches	21 360	21 663	+ 303	+ 1.4%
PCT Chapter II examinations	1 211	1 309	+ 98	+ 8.1%
First actions (utility, plant, reissue)	568 923	607 928	+ 39 005	+ 6.9%
Grants (total)	303 049	318 829	+ 15 780	+ 5.2%
U.S. residents	143 723	150 949	+ 7 226	+ 5.0%
Foreign	159 326	167 880	+ 8 554	+ 5.4%
Japan	49 800	49 677	- 123	- 0.2%
EPC states	47 910	50 660	+ 2 750	+ 5.7%
R. Korea	19 494	20 717	+ 1 223	+ 6.3%
P.R. China	10 462	13 243	+ 2 781	+ 26.6%
Others	31 660	33 583	+ 1923	+ 6.1%
Applications in appeal and interference proc	eedings			
Ex-parte cases received	9 059	11 347	+ 2 288	+ 25.3%
Ex-parte cases disposed	15 034	13 171	- 1 863	- 12.4%
Inter-partes cases received	64	46	- 18	- 28.1%
Inter-partes cases disposed	157	70	- 87	- 55.4%
Patent cases in litigation				
Cases filed	650	515	- 135	- 20.8%
Cases disposed	451	471	+ 20	+ 4.4%
Pending cases (end of calendar year)	540	606	+ 66	+ 12.2%

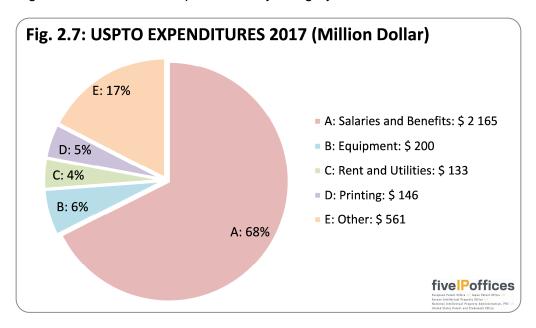
<sup>&</sup>lt;sup>24</sup> Unless otherwise noted, the USPTO statistics presented elsewhere in this report are limited to utility patent applications and grants.
<sup>25</sup> A Request for Continued Examination is a USPTO procedure under which an applicant may obtain continued examination of an application by filing a submission and paying a specified fee, even if the application is under a final rejection, appeal, or a notice of allowance.

# **USPTO** budget

The USPTO utilizes an activity based information methodology to allocate resources and costs that support programs and activities within each of the three strategic goals. In FY 2017, USPTO expenditures totalled \$3 204.0 million. Agency-wide, 19.2 percent of expenditures were allocated to IT security and associated IT costs.

Goal 1 – Optimize Patent Quality and Timeliness	\$ 2 875.3 million
Goal 2 - Optimize Trademark Quality an Timeliness	\$ 281.9 million
Goal 3 – Provide Domestic and Global Leadership to Improve IP Policy, Protection and Enforcement Worldwide	\$ 46.8 million

Fig. 2.7 shows USPTO expenditures by category in 2017



A description of the items in Fig. 2.7 can be found in Annex 1

### **USPTO Staff Composition**

At the end of FY 2017, the USPTO work force was composed of 12 588 federal employees. Included in this number are 7 961 Utility, Plant, and Reissue patent examination staff and 186 Design examination staff; 549 Trademark examiner attorney staff, and 3 892 managerial, administrative and technical support staff.

#### More information

Further information can be found on the USPTO's website: <a href="https://www.uspto.gov">www.uspto.gov</a>