

Global Dossier

PCT advancement

Patent Prosecution Highway

Common Application Form

Patent Harmonization Expert Panel

Common Citation Document

Quality management

First filing prioritization

Better services for users and the public

10 years of IP5 co-operation

five IP offices

European Patent Office /// Japan Patent Office ///
Korean Intellectual Property Office /// State Intellectual
Property Office of the People's Republic of China ///
United States Patent and Trademark Office

This publication has been compiled by the European Patent Office (EPO), the Japan Patent Office (JPO), the Korean Intellectual Property Office (KIPO), the State Intellectual Property Office of the People's Republic of China (SIPO) and the United States Patent and Trademark Office (USPTO) to mark the 10th anniversary of the forum of the five largest intellectual property offices in the world, which was set up to improve the efficiency of the examination process for patents worldwide. The views and opinions expressed in bylined articles are the authors' own, and they alone are responsible for them.



Contents

Introduction	5
1 From ten Foundation Projects to milestone initiatives	8
Global Dossier Providing up-to-date information about the status of families of worldwide patents	10
Patent Cooperation Treaty advancement Working together in search and examination	12
Patent Prosecution Highway Work-sharing and fast-tracking patent procedures	15
Common Application Format A common format helping to standardize the formal aspects of patent applications	15
Patent Harmonization Expert Panel Reviewing norms to move towards harmonized patent practices and procedures	18
Quality management Quality matters to the IP5 offices	20
Common Citation Document An application tool for consolidating patent offices' search results	23
First filing prioritization First things first	25
2 Involving users in IP5 co-operation	26
Speaking with one voice Recognizing the vital importance of industry involvement	28
BusinessEurope Thierry Sueur	29
Japan Intellectual Property Association Kenji Kondo	30
Korean Intellectual Property Association J. Kenneth Oh	31
Patent Protection Association of China Xuehong Zhang	32
American Intellectual Property Law Association Mark L. Whitaker	33
Intellectual Property Owners Association Vanessa Pierce Rollins	34
Credits	35

Graphics

2016 applications filed	11
PCT activity	13
Inter-bloc activity	14
Patent procedures	16
2016 patents granted	19
Patent applications and grants at the IP5 offices	21
Patents in force	22
Applications filed by sector of technology	24

Open and ongoing dialogue allows the IP5 to respond to industry's needs and develop appropriate initiatives.

Over the past decade, the five largest intellectual property offices (IP5) have worked hard to make access to the patent system straightforward and give innovators from all five regions greater legal certainty, as part of their overriding aim to improve services for users and the public alike. In order to achieve their objectives, the IP5 offices recognize that they require an open exchange with users from industry, other patent offices and the World Intellectual Property Organization (WIPO). An open and ongoing dialogue with industry allows the IP5 to evaluate and consider the views and concerns of IP industry players and to act upon them accordingly. In this way, the IP5 can ensure that increasingly complex IP5 initiatives continue to meet user requirements.

With this in mind, IP5 asked industry to participate at IP5 level at the 5th Heads of Office meeting, which was held in Corsica in 2012. At this historic occasion, a day was dedicated to gathering input from user representatives from the IP5 regions and addressing their needs. Since then, this format has been repeated each year at the annual meetings held between the IP5 Heads of Office and IP5 Industry representatives.

Links with users were strengthened at the first Global Dossier Task Force meeting, which took place in 2013 in the Netherlands. Here, industry representatives were invited to provide technical feedback and detail their requirements regarding the Global Dossier initiative. This guaranteed that the Global Dossier project was developed in line with the needs of the user community.

Co-operation with industry was deepened in January 2017 at the first IP5 Industry Consultation Group meeting, which took place in Munich. Here, the IP5 extended its invitation to users, asking them to additionally provide input on technical IP5 topics not related to the Global Dossier. By expanding industry consultation and bringing non-Global Dossier topics into a dedicated forum, the IP5 allowed for more strategic discussions to take place during annual IP5 Heads and IP5 Industry meetings.

Since 2012, IP5 initiatives have been increasingly directed towards users' needs, and this trend is one that is sure to intensify in future. By consulting with industry, the IP5 can learn directly what industry wants, industry can voice its demands and the IP5 can respond by aligning its projects according to industry requirements. An open dialogue with industry is guaranteed to remain a fundamental part of the IP5 initiative for the next ten years, and beyond.

IP5 vision “The elimination of unnecessary duplication of work among the offices, enhancement of patent examination efficiency and quality, and guarantee of the stability of patent rights.”

“From the very early days of our co-operation, the involvement of industry representatives has grown to ensure our projects effectively support innovators and applicants. I recall how we undertook a proactive drive in 2012 to involve industry more closely and to reflect on the orientations of IP5 together.”

Benoît Battistelli President, EPO



“Emerging technologies, such as the Internet of Things and Artificial Intelligence, are known as the fourth industrial revolution or Industry 4.0. I believe that it is extremely important from the perspective of users for the IP5 offices to advance their co-operative initiatives in this area.”

Yoshinori Komiya Commissioner, JPO



“Involving users in the IP5 co-operation was a positive move. It is essential that we review the direction of the co-operative projects and incorporate feedback from our users into project development. The IP5 Joint Statements, which were adopted in 2015 and 2016, were the right step for this purpose.”

Choi Donggyou Commissioner, KIPO

“I think there are two points that we need to pay attention to. One is to keep the balance of demands between the public and industry, and the other is to take comprehensive consideration of various demands from users at different stages of their development.”



Shen Changyu Commissioner, SIPO



“Not only has the Global Dossier brought positive results to all five offices, but it also demonstrates the benefits of open co-operation with industry. I am happy to have been a part of Global Dossier’s development, and I look forward to future iterations of this valuable tool.”

Michelle K. Lee Director, USPTO

1

From ten Foundation
Projects to milestone
initiatives

A number of major milestones mark the first decade of IP5 co-operation. Significant initiatives developed during the first five years include the Common Application Format, Common Citation Document and first filing prioritization. In 2012, the IP5 Heads decided to streamline the ten Foundation Projects and realign co-operation to meet new challenges presented by a changing IP environment. In the second half of the decade, key initiatives introduced included the work of the Patent Harmonization Expert Panel and the Global Dossier.

Global Dossier

The Global Dossier provides up-to-date information about the status of patent families filed around the world

Wouldn't life be simpler if applicants could see how a family of patents is progressing at the world's leading patent offices via a single online source, in one common language, and for free? That's precisely the concept behind the IP5 online public service known as the Global Dossier.

Previously, every time a European attorney sought the status of a patent application in China, he had to call up his agent in China and pay him 200 euros to perform a file inspection at the Chinese office. It was a necessary evil: the local agent could read Chinese, and he could understand the Chinese office's website and the country's approach to his patent application. The attorney, meanwhile, couldn't. He was limited to examining the status of the European family application via the European Patent Register.

The invention of the European applicant in this case was filed at just two patent offices, namely the Chinese and the European. Many, though, are filed at a number of offices. This is known as cross-filing. In fact, as obtaining patent protection increasingly becomes a globalized business, more and more applications are cross-filed at major offices. In 2015, approximately 250 000 applications were cross-filed at two or more IP5 offices.

Same, same but different

Basically, within one year of filing an initial application in one region, an applicant can file for patent protection for the same invention at most patent offices worldwide. Applications for the same invention filed at multiple offices are known as a family of patent applications. The members of this patent family are prosecuted in parallel, but different national laws and procedures apply, and different concerns are raised by the patent examiners of the various offices.

However, the core patent search and examination practices are similar, leading to unnecessary duplication of work which runs counter to the IP5 vision of work-sharing. So in response, the IP5 offices set up the Global Dossier, a general concept originally proposed by the JPO and the USPTO. The idea behind it is to equip examiners, applicants and the interested public with tools to retrieve information about the status of a family of patents via one internet portal, rather than separately at each individual IP5 office.

Work started in earnest at the fifth IP5 Heads Meeting in June 2012, when the IP5 heads created the Global Dossier Task Force, comprising delegations from the IP5 offices and WIPO and representatives from industry.

Then, in January 2013, the first IP5 Global Dossier Task Force meeting was held at the EPO. Here, participants honed their vision of the concept before it was put into action.

So how exactly does it work? The Global Dossier essentially provides a system of links between the IP5 offices' databases, allowing users to view online patent dossiers and related documents.

To simplify matters, the offices agreed to make the documents available electronically in a standard format and translated into English. The system provides automatic machine translation into English of original Chinese, Japanese and Korean online file inspections and their documents.

As a result, our European attorney can view the Chinese dossier for his application free of charge and in English.

Recognizing its value, each office released their service as early as possible. At the EPO, the service was initially set up for examiners in 2014 so that they could view fellow IP5 examiners' search and examination results. This improves quality at a global level: local examiners are naturally best equipped to deal with local applications.

It was soon clear that sharing results via the Global Dossier would lead to more consistent outcomes, a higher quality of patent prosecution, and less duplication of workload.

Extended to the public

Following its success at examiner level, the system architecture was strengthened and extended to support global public access. In 2015, the EPO became the first office to connect all IP5 offices and make the relevant documents available online via its public website.

More offices are now set to join the fold. The patent offices of Australia, Canada, Israel and the UK are making relevant dossier data available to WIPO CASE, which is gradually being incorporated into the IP5 Global Dossier services.

Meanwhile, work is underway on a list of five priority goals to extend the Global Dossier's scope. The first initiative, led by the EPO, is called 'Alerting'. Applicants will be sent a message when there is a change in any IP5 dossier they are monitoring.

The second priority, led by SIPO, relates to a patent's legal status. The idea here is that users gain an overview at IP5 level of where a patent is within different regions' legal procedures, for example, if an application has been rejected.

Under the third initiative, led by the JPO, all documents for applicants are to be produced in XML (Extensible Markup Language), making them machine-readable by computer systems in all of the five offices. This will allow information to be transferred automatically and pre-processed electronically.

Applicant name standardization, under the leadership of KIPO, aims to have the names of larger patent applicants standardized across all IP5 offices to help determine the owners of families of applications.

Meanwhile, the USPTO-led initiative, namely inter-office document-sharing, is working towards the seamless exchange of forms between IP5 offices. Potentially, patent attorneys will not have to repeatedly enter the same data into different patent offices' systems when cross-filing patent applications for the same invention at different IP5 offices.

Clearly, such an ambitious programme does not come without its challenges. Firstly, it requires offices to be open and willing to share their data. Concerns have been raised about floods of requests for data from one country to another. Thankfully this hasn't been an issue; service capacities have been enhanced as access has increased.

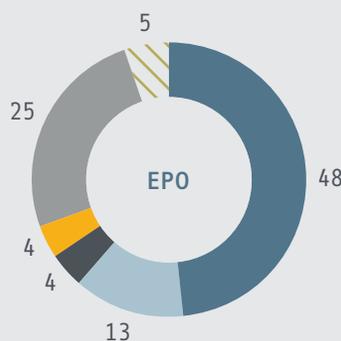
While the challenges are not to be underestimated, the benefits are numerous. Internally, the system enhances transparency of the patent process, simplifies procedures and increases technical and procedural harmonization across the IP5.

For the outside world, meanwhile, the advantages are considerable. Overall, the Global Dossier enables users to view the online patent dossiers for 2.5 million new patent applications filed each year at the IP5 offices. These may be viewed either in the original language, or in English, via the EPO's Espacenet or European Patent Register, JPO's J-PlatPat, KIPO's One Portal Dossier, SIPO's China and Global Patent Examination Information Inquiry, and USPTO's Global Dossier services. This means users can manage their applications more efficiently, saving them both time and money.

2016 applications filed

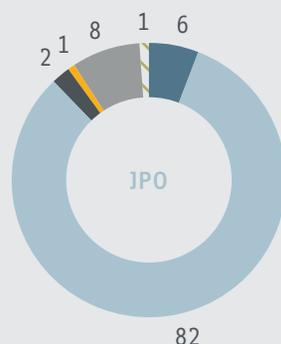
Origin distribution in percent

+10%



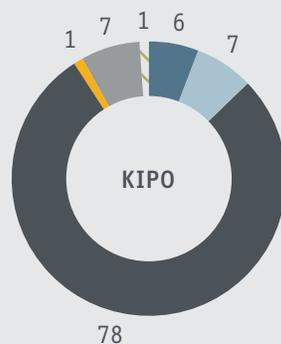
EPO total applications
2016: 159 353
2015: 160 022

0%



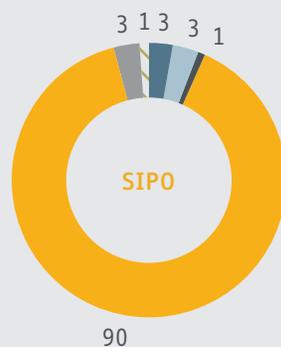
JPO total applications
2016: 318 381
2015: 318 721

0%



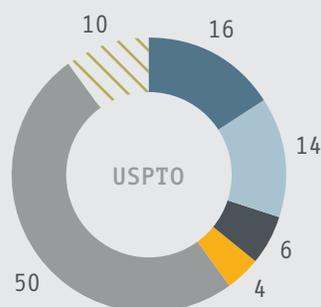
KIPO total applications
2016: 208 830
2015: 213 694

-2%



SIPO total applications
2016: 1 338 503
2015: 1 101 864

+21%



USPTO total applications
2016: 605 571
2015: 589 410

+3%

EPC states Japan R. Korea P.R. China U.S. Others

IP5 total applications 2016 2 630 638 2015: 2 383 711

Patent Cooperation Treaty advancement

Working together in search and examination

Under a new concept being piloted among the five leading intellectual property offices, examiners from different international authorities work together to provide a collaborative international search report and written opinion under the Patent Cooperation Treaty (PCT).

Since the launch of IP5 co-operation, the IP5 offices have regularly exchanged views about issues related to the PCT, an international treaty that makes it possible to seek patent protection for an invention simultaneously in a large number of countries by filing a single international patent application. This regular exchange allows the offices to learn about and understand each other's priorities and concerns regarding the PCT.

In this context, the IP5 offices have developed a potential collaboration concept for international searches. The key idea is that examiners working in different languages and from different regions' patent authorities can work together on one international application to produce a high-quality international search report and written opinion under the PCT.

With this in mind, in 2010, KIPO, the USPTO and the EPO set up an initial pilot project on collaborative search and examination (CS&E) in order to assess the idea's feasibility. This first pilot project was limited to 36 applications. In 2011–2012, the three offices then carried out a second pilot project, covering a total of 192 applications, to fine-tune the working model.

The third pilot project's preparatory phase kicked off in June 2016. This phase prepares the necessary basis for the operational phase, which is due to last at least three years.

A working group comprising representatives from the IP5 offices and WIPO is monitoring the project, with aspects including a quality survey, IT platform and financial issues. The representatives will then evaluate the results and compile recommendations on its future long-term viability.

Combining views

CS&E operates as follows: a primary examiner carries out a search and drafts an international search report and written opinion. This is then sent to peer examiners from the other collaborating PCT authorities for feedback. The primary examiner then takes their feedback into consideration when issuing his final international search report and written opinion.

This third pilot project centres on an applicant-driven approach, with applicants selecting which applications will be processed during this project.

Applications need to be fairly distributed between the collaborating international authorities for the project. Each office is charged with processing at least 100 international applications as the main International Searching Authority and helping establish CS&E work products. Further requirements include a common set of quality and operational standards, to be applied by all collaborating international authorities when processing PCT applications. In addition, an IT system aims to ease, secure and automate data exchanges among offices.

While the full benefits of the CS&E are still under review, some advantages have already become apparent. For applicants, the appeal is gaining an early overview of the chances of whether all IP5 offices would grant a patent.

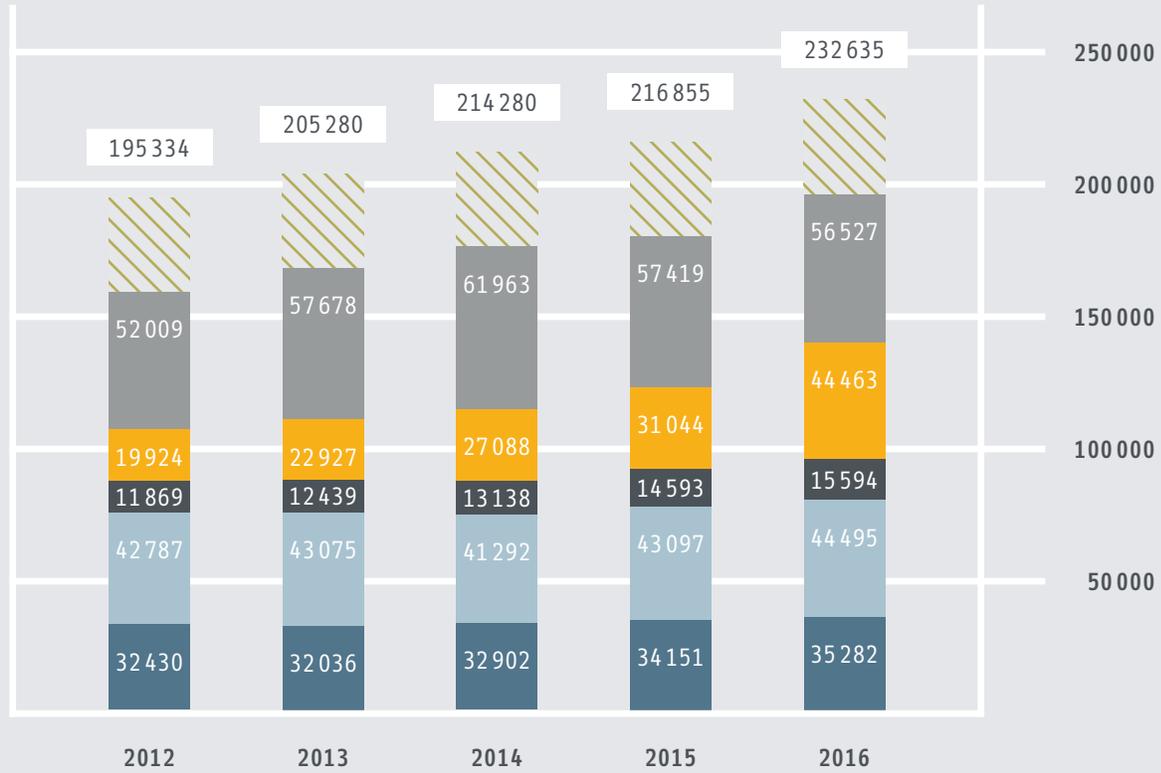
Applicants also benefit from the high quality of the international search report and written opinion, which take into consideration contributions by peer examiners. In essence, the final international search report is similar in value to a combination of individual search reports by all the participating offices.

Moreover, applicants gain the five offices' view of the viability of their application as early as 16 months after the priority date. This enables them to take an early decision on whether to pursue an application, withdraw it before the publication date at 18 months from priority, or amend it in the preliminary examination phase.

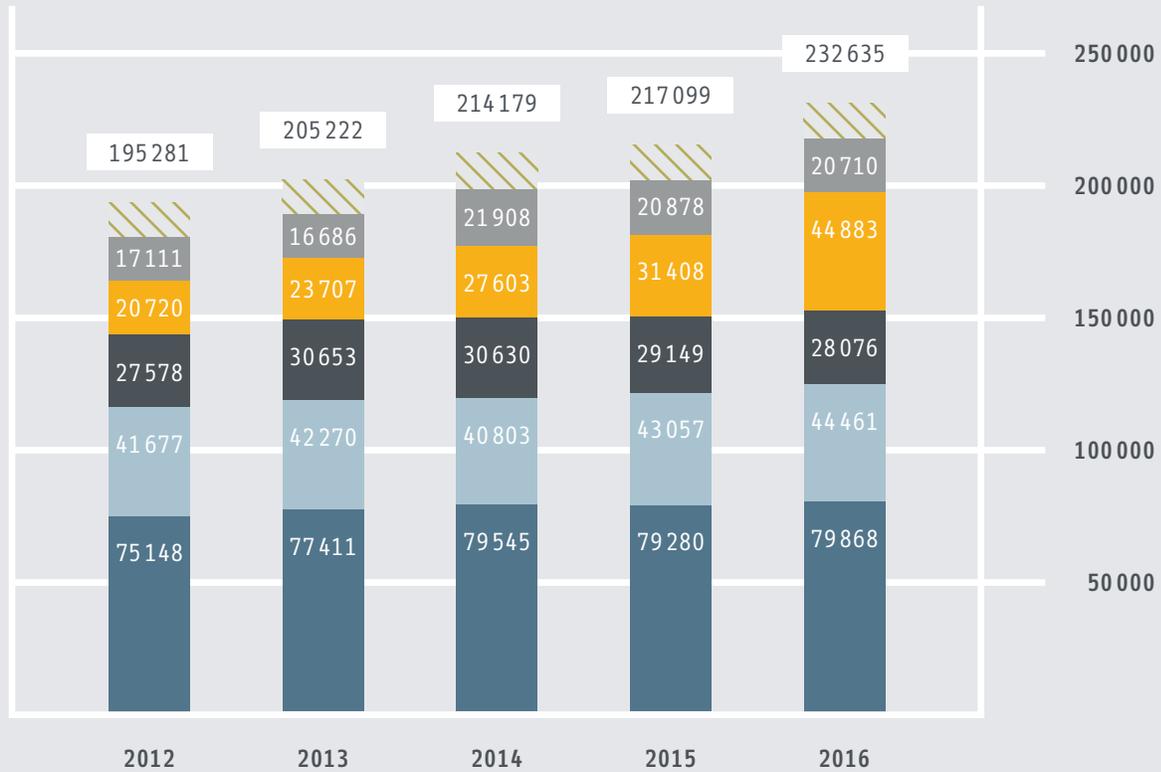
Significantly, the project represents the first time that the IP5 offices have worked together on search reports and bodes well for future co-operation.

PCI activity

Receiving offices

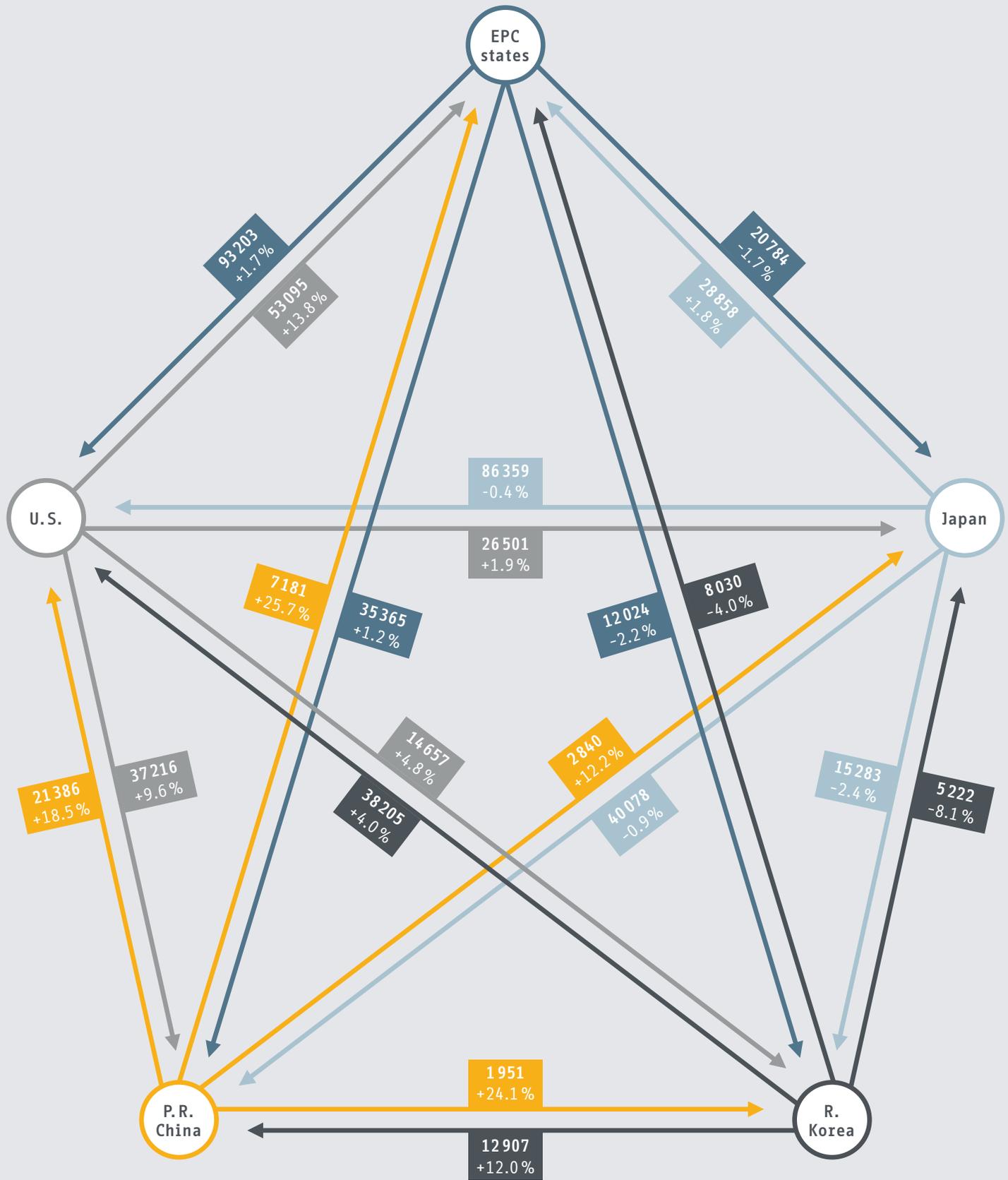


International searching authorities



Inter-bloc activity

Flow of applications between blocs 2015



Patent Prosecution Highway

Work-sharing and fast-tracking patent procedures

The Patent Prosecution Highway (PPH) is a scheme that allows offices to share work results and speed up patent prosecution procedures. Under the PPH, IP5 offices re-use available work results from partner offices, thereby reducing the overall workload while simultaneously boosting the overall quality of search and examination.

The PPH is a simple system with big benefits: when handed a file under the PPH programme, an examiner will consider work results that the applicant has made available from an office of earlier examination. This helps an examiner at the second office perform his or her tasks more efficiently and fast-track an application, providing of course that the initial, available work contains patentable claims and is re-usable. It should be stressed that an examiner processing an application via the PPH will still apply his or her office's own standards and not simply take the information on board uncritically.

The five offices launched the IP5 PPH pilot programme in early 2014. In 2016, it was agreed to extend the term of the programme by three years.

The scheme clearly provides a beneficial service to applicants: on the basis of an application filed at one office, applicants can access accelerated prosecution elsewhere via the PPH, without having to fulfil particular requirements that might otherwise be applicable when wanting to expedite prosecution.

It can also help users avoid additional costs. The PPH is mostly free of charge, whereas in the US, for example, you would normally have to pay a fee for accelerated prosecution outside the framework of the PPH.

In addition, the PPH helps boost quality standards. It points an examiner at a second office to work results that are already available, containing allowable claims. Generally, examiners in a particular region excel at searching the prior art in that region, so examiners at the offices of subsequent filing benefit from this expert input.

Common Application Format

A common format helping to standardize the formal aspects of patent applications

Using a single, standardized and approved text structure for multiple international filings is the idea behind the introduction of the Common Application Format (CAF).

In order to standardize the style of descriptions, claims, abstracts and drawings and streamline patent filings across all five offices, the IP5 has introduced CAF. This started as a Trilateral initiative in 2005. In 2012, CAF became an IP5-agreed format, promoted by WIPO. While some format rules are common, having a widely accepted format can reduce the local adaptation workload, simplify international filings for users and ease their workload, while moving the IP world closer to a globally standardized application format.

Essentially, CAF provides a common template for patent applications, which allows applicants to prepare a single application that can be accepted by each participating office, without any further changes needed. Applicants filing in multiple patent offices can simply re-use the same text and structure so as not to rewrite it each time they make a subsequent application. Even though applications may need to be translated, the structure of the application remains the same.

The new version of CAF was endorsed at the IP5 Deputy Heads' meeting in May 2012. It includes necessary definitions for both the Korean and Chinese patent offices to accept CAF filings. It is also more generically designed to support CAF filings at other non-IP5 offices.

CAF still has some hurdles to overcome, including the fact that not all applicants are yet aware of it. The benefits are nevertheless notable. CAF provides a certain degree of standardization. While it is not compulsory to use it, doing so guarantees that an application will not be rejected on formal grounds – CAF applications are not subject to further formality requirements before being processed.

CAF also enhances digitalization, as it allows for the creation of an IP5 XML document format for electronic filing that can be re-used at other offices after translation if the filing language is different.

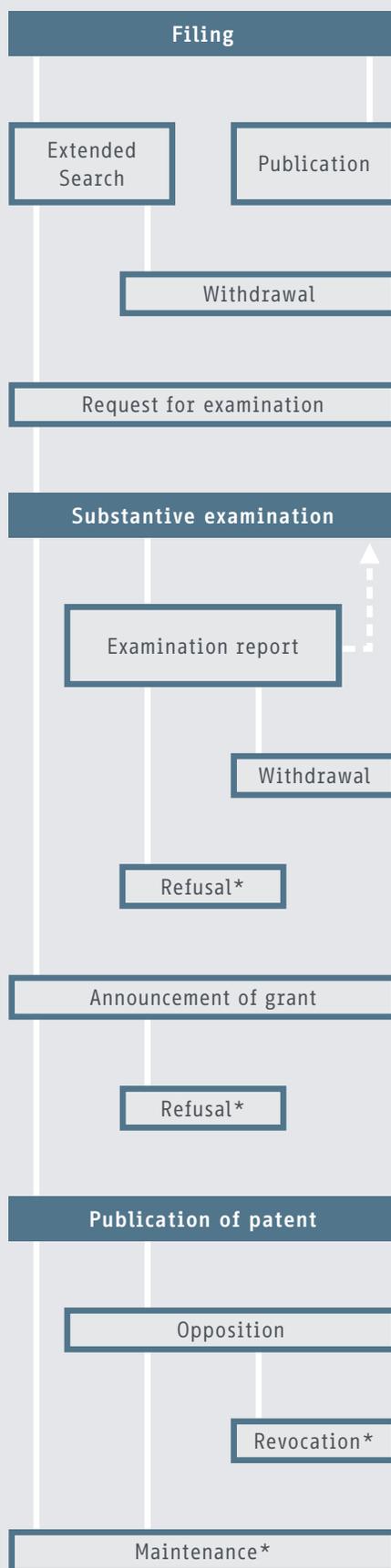
Overall, CAF represents one of the solid building blocks to make worldwide filing streamlined and easier for applicants.

Patent procedures

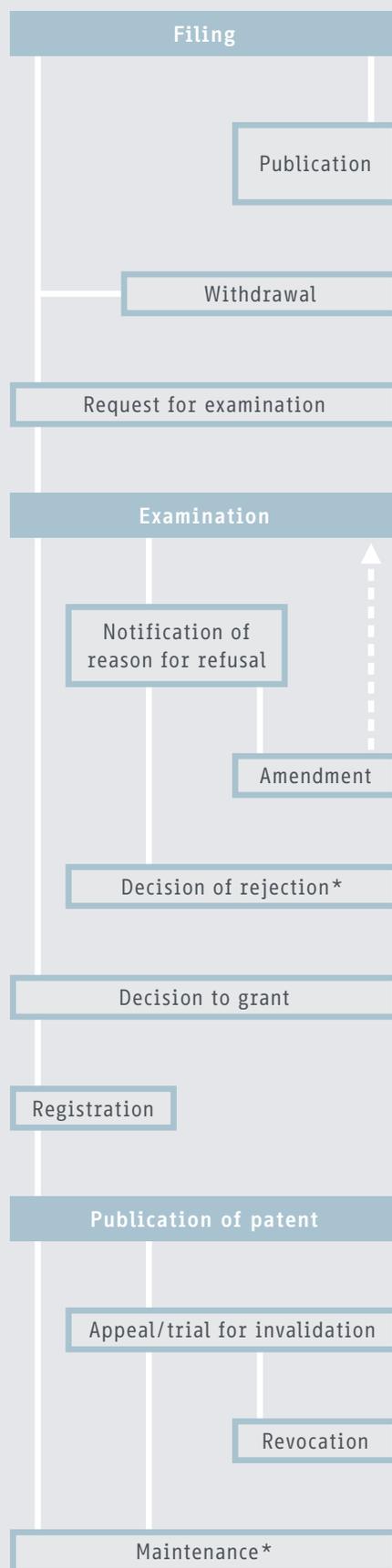
This is a simplified view of the major phases of the grant procedures at the IP5 offices. It concentrates on the similarities between offices.

Details of the procedures differ between offices, sometimes to quite a large degree (e.g. in time lags between stages of the procedures).

EPO

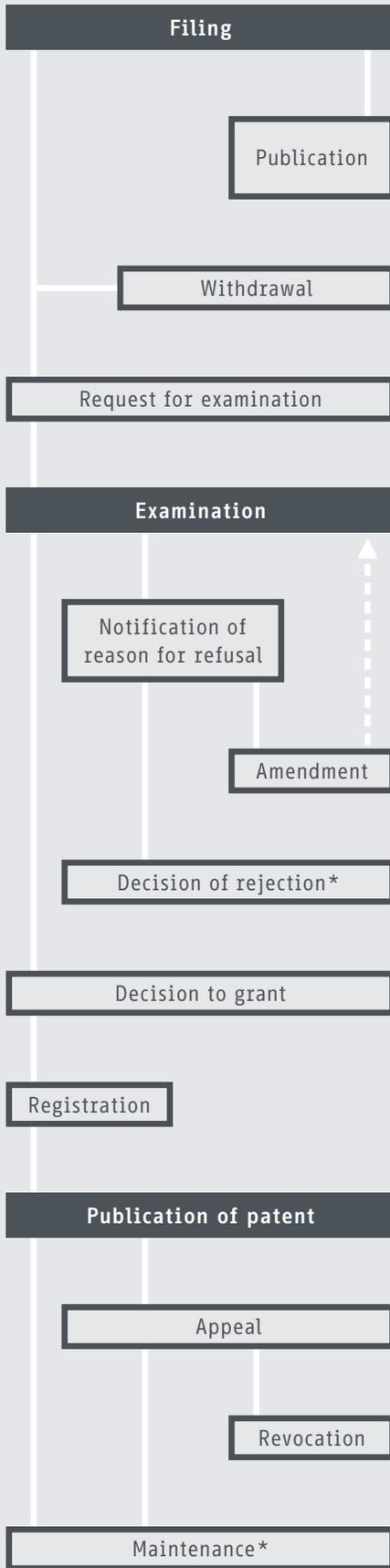


JPO

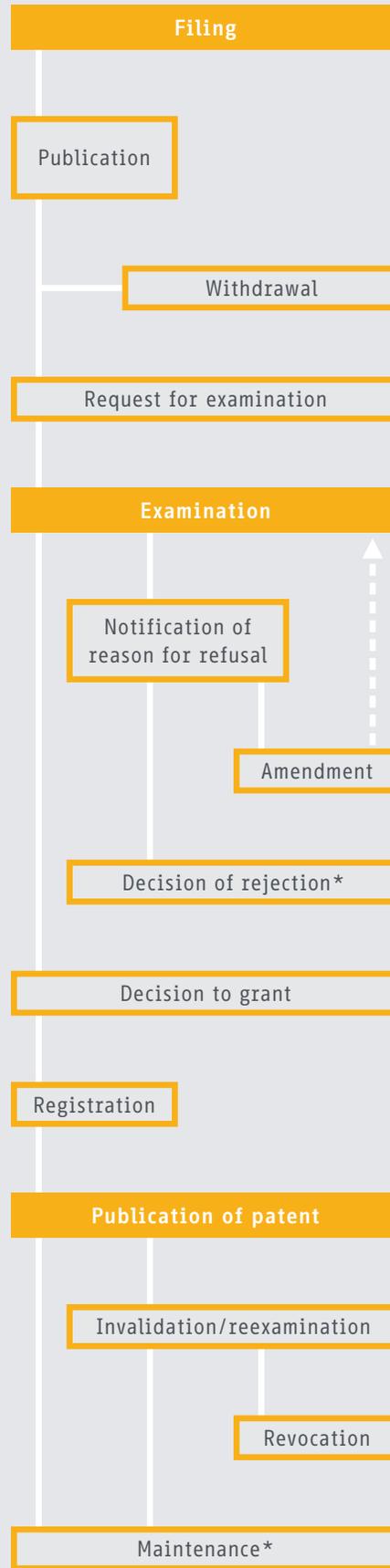


* Decision may be appealed

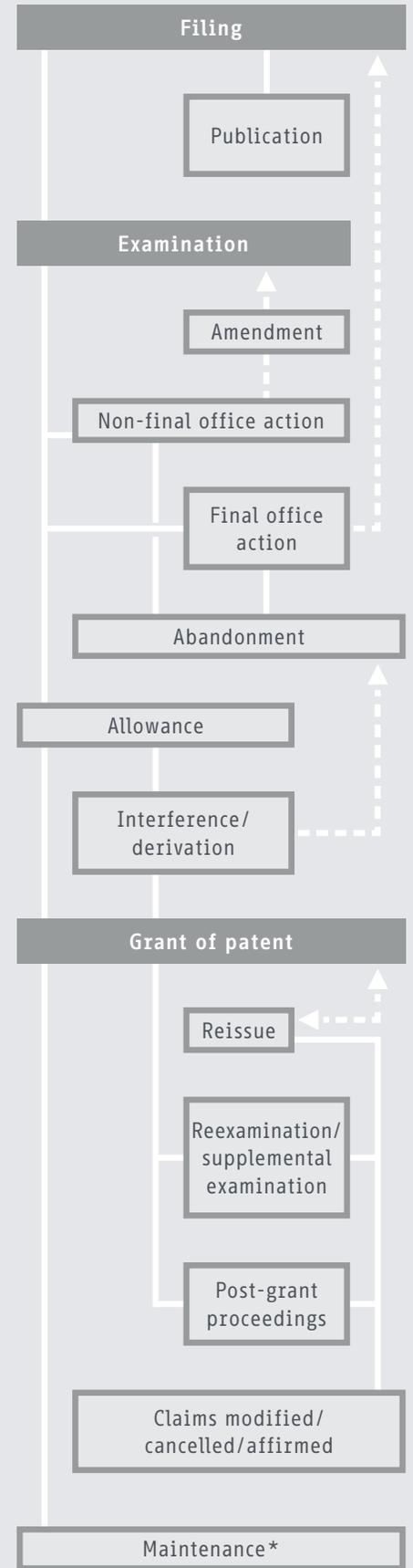
KIPO



SIPO



USPTO



Patent Harmonization

Expert Panel

Reviewing norms to move towards harmonized patent practices and procedures

An increasingly globalized world means that more companies file in multiple jurisdictions, leading to a duplication of work effort. Harmonizing elements of patent practices and procedures would help reduce the workload and simplify the journey for those applicants who want to advance their innovations internationally.

Working together in a harmonized way and maximizing efficiency are central tenets of the IP5 initiative's philosophy. Which is why in 2012, acting on a suggestion by the JPO, the IP5 set up a body of experts called the Patent Harmonization Expert Panel (PHEP). This technical body explores the potential for harmonizing procedural aspects of the patent application and granting process among the five leading patent offices.

Against the background of a constantly growing number of cross-filings, the PHEP's work aims to reduce the amount of effort, as well as the costs a user has to invest in prosecuting an application in multiple jurisdictions. Currently, when filing globally, an applicant has to prepare a different patent application for each of the IP5 jurisdictions. The PHEP explores what can be done to bring IP5 offices' systems closer together and to reduce the differences in patent application and granting procedures. The panel's overall objective is to align IP5 practices to make it simpler for applicants to enter the patent granting system and harmonize procedures to reduce users' and patent offices' workload.

It is important to distinguish the areas where the PHEP operates. The PHEP endeavours to harmonize patent practices and procedures. It does not, however, deal with substantive patent law harmonization, which is dealt with in other international forums.

The PHEP was created at the request of users, and its work remains dedicated to addressing their needs. Work began in June 2013, when the industry associations of the IP5 regions presented the PHEP with an initial list of harmonization topics and target areas. Later in 2014, the PHEP agreed to focus on three areas for potential procedural harmonization. The first area is unity of invention, co-led by the EPO and SIPO. The second is citation of prior art, under the leadership of the USPTO and KIPO. Then third comes written description and sufficiency of disclosure, led by the JPO.

Presenting a united front

Currently, the differing legal systems operating at the various IP5 offices lead to differences in the assessment of unity of invention. The way the EPO, for example, determines lack of unity is different to the approach followed by other IP5 offices. For applicants acting globally, these differences result in additional effort and costs.

Based on the feedback from industry, the PHEP is attempting to align IP5 practices and apply the same standard when determining whether an application fulfills the unity of invention requirement, at least for international applications filed via the PCT. The long-term goal is for applicants to draft their applications so that the unity of invention requirement is met in all five jurisdictions.

Citation of prior art is another topic on the PHEP work plan. In some offices, when filing an application, the applicant has to disclose any known prior art. Currently the IP5 offices apply different criteria, placing an unnecessary and repeated burden on any applicant wishing to file in more than one region. Therefore the PHEP is trying to establish common ground for the citation of prior art. IP5 Industry's suggestion is to explore IT-based solutions, making it easier to submit relevant prior art just once, taking effect in each jurisdiction where applications are pending.

Similarly, the PHEP is addressing harmonization in the area of written description and sufficiency of disclosure. The first step has been to conduct considerable research to outline differences in practice between the five offices. Under the current system, when someone files an application, the individual IP5 offices demand different requirements as to how the claims should be reflected in the body of the application. The PHEP is looking at ways to better integrate procedures to make the processing of applications easier for applicants filing in multiple jurisdictions.

Staying consistent

Once the IP5 offices have aligned their various practices for the three harmonization topics selected, the world of IP will have moved closer to a common standard, and applicants can focus on the substantive issues of prosecuting an application.

Progress is already underway. So far the PHEP has produced comprehensive reports outlining the relevant practices of the IP5 offices for unity of invention and citation of prior art and compiled a list of terminology for written description and sufficiency of disclosure. Case studies are being carried out to examine the issues in detail.

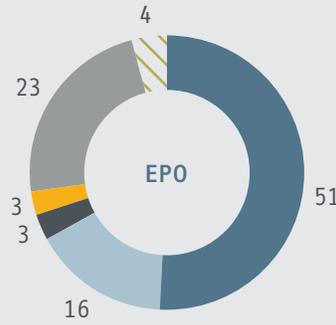
By the end of 2018, the PHEP aims to be in a position to identify how to resolve current divergences in practice between the five offices, particularly as regards unity of invention. It can then issue recommendations at IP5 level.

Overall, PHEP's aim is to align the five offices' practices. The IP5 offices would work together to save costs for applicants and allow them to prepare applications for all five regions more efficiently. At the same time, all five offices would be able to increasingly rely on each other's work and manage their workload and resources more effectively.

2016 patents granted

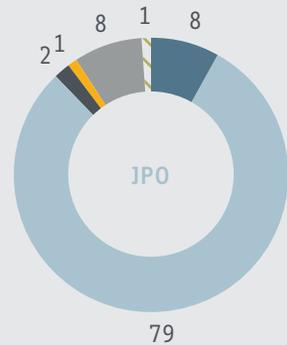
Origin distribution in percent

+10%



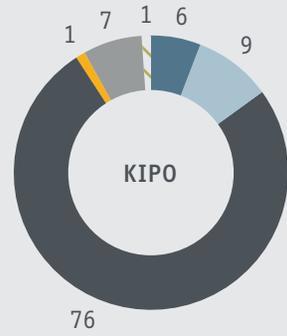
EPO total grants
2016: 95 940
2015: 68 421

+40%



JPO total grants
2016: 203 087
2015: 189 358

+7%



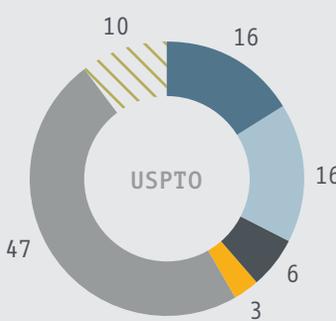
KIPO total grants
2016: 108 875
2015: 101 873

+7%



SIPO total grants
2016: 404 208
2015: 359 316

+12%



USPTO total grants
2016: 303 051
2015: 298 407

+2%

EPC states Japan R. Korea P.R. China U.S. Others

IP5 total grants 2016: 1 115 161 2015: 1 017 375

Quality management

Quality matters to the IP5 offices

Quality management is a central focus of the IP5 offices' co-operation. Higher quality means a better service for the public and more efficient interaction between the offices. For this reason, the five leading IP offices routinely exchange information on the best ways to manage and enhance quality.

Regulations and legal frameworks may differ between the various IP5 offices, but the methods used to actually manage quality are broadly the same. All offices check work done by examiners and formalities officers, all consider user feedback and, wherever possible, all use metrics-based approaches for quality management.

Quality in knowledge-based organizations can be intangible in some respects, and this can make it difficult to measure and hence to manage. Timeliness is one aspect of quality that can be readily measured. Timeliness is essential in the patent process, firstly when it comes to the delivery of search results for applicants, but equally when it comes to work-sharing at patent offices worldwide. The faster one office is at searching an application, the sooner a second office can take advantage of those search results and thereby provide applicants with a more comprehensive overview of pertinent prior art.

To help the IP5 offices better understand the timeliness aspects of the search and granting of patents, the offices have started to set up metrics that can be applied to all five offices. For this, they had to choose appropriate time points in the five patent grant processes that are common to all of the offices. This then allows the offices to develop comparable metrics when measuring the timeliness of certain procedures. This gives them a better overview of the work-sharing potential among the IP5 offices.

When it comes to servicing applicant needs, each office runs its own timeliness initiatives. The EPO, for example, runs early certainty initiatives which cover search, examination and opposition. The EPO is not alone in seeking to reduce pendency time; the other IP5 offices are also working towards eliminating procedural delays as far as possible.

Quality events

Every year, the offices hold a quality management meeting, where they discuss quality issues and exchange views and experiences on how they manage quality. Among the issues discussed in recent years was using metrics and user feedback in order to evaluate quality performance. These meetings help to identify possible best practice approaches and are an opportunity for the offices to hear fresh ideas on a range of quality management topics.

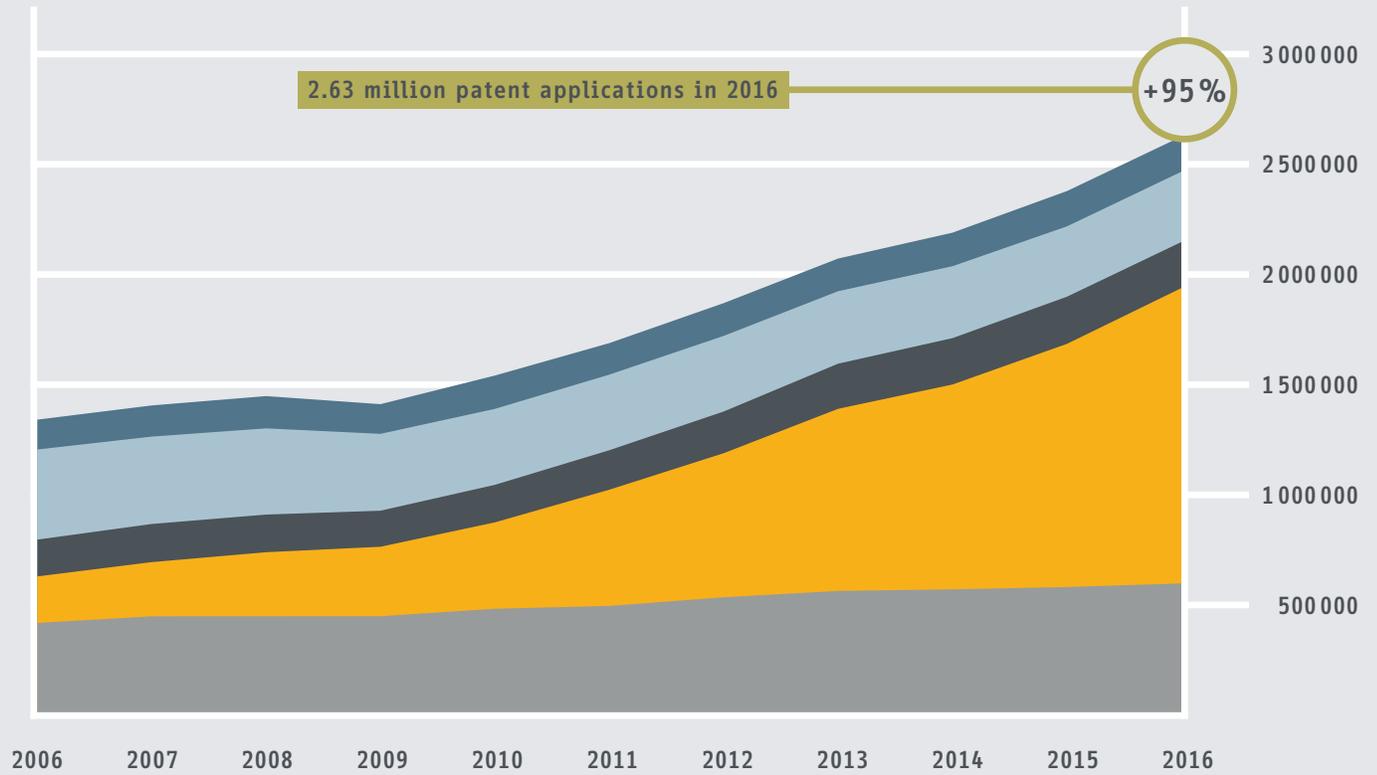
The IP5 offices recognize that in order to serve applicants and the public better, they need to incorporate applicant feedback into quality processes. That is why the offices discussed this topic extensively in 2016 and exchanged views on how they gather user feedback and incorporate it into improvement actions.

Discussions during these meetings are based on a Plan, Do, Check, Act (PDCA) cycle matrix, an initiative established by SIPO. This matrix summarizes the core elements of the quality management systems in place at each office. Each office contributes information in an annual update. This improves transparency by allowing the individual offices to know exactly what the other offices are doing.

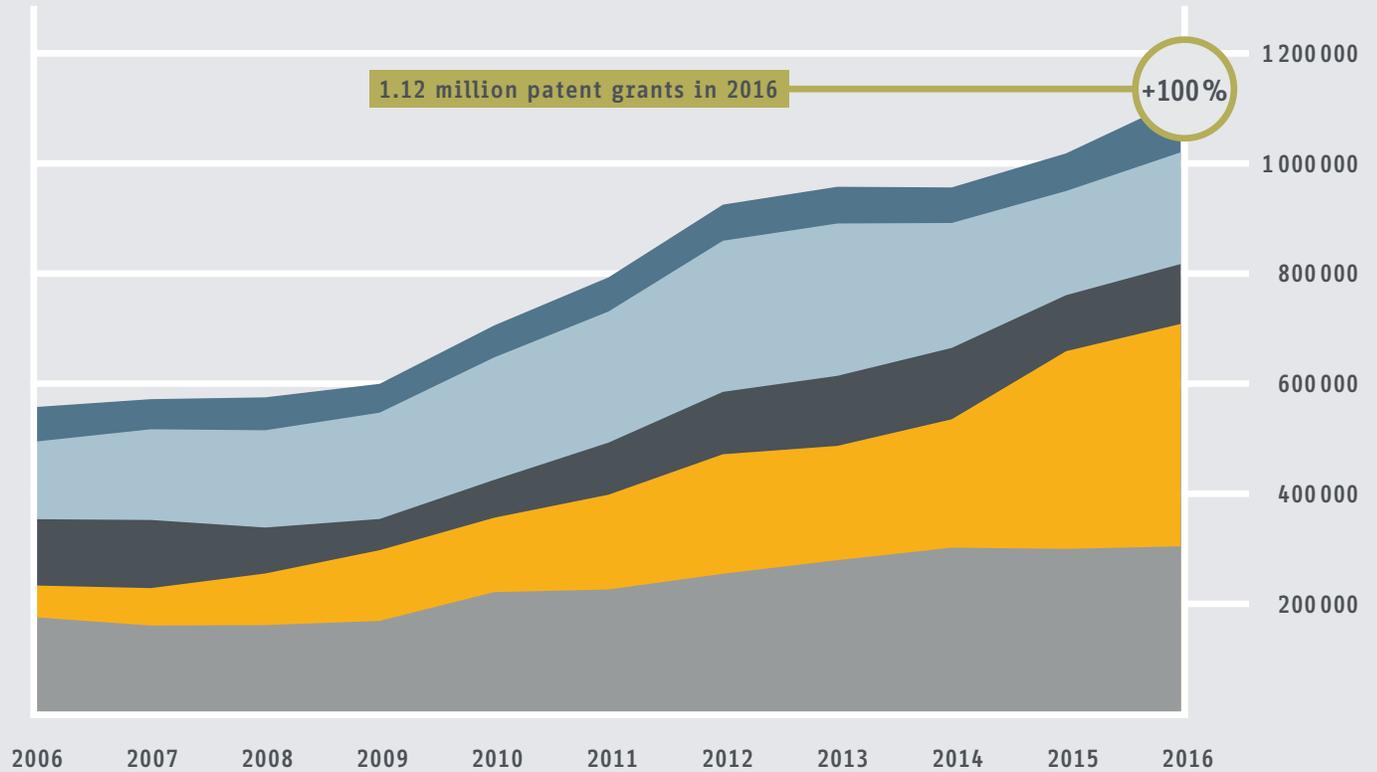
By taking part in such initiatives, the offices aim to improve their ability to tackle the increasing number of global patent applications, improve efficiency and in due course improve the quality of service provided to users.

Patent applications and grants at the IP5 offices

Patent applications



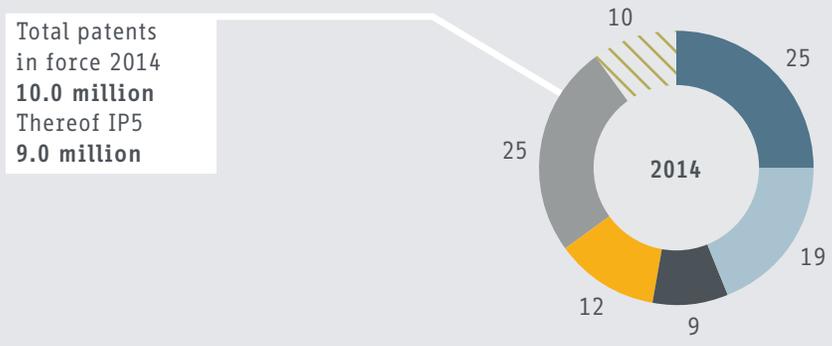
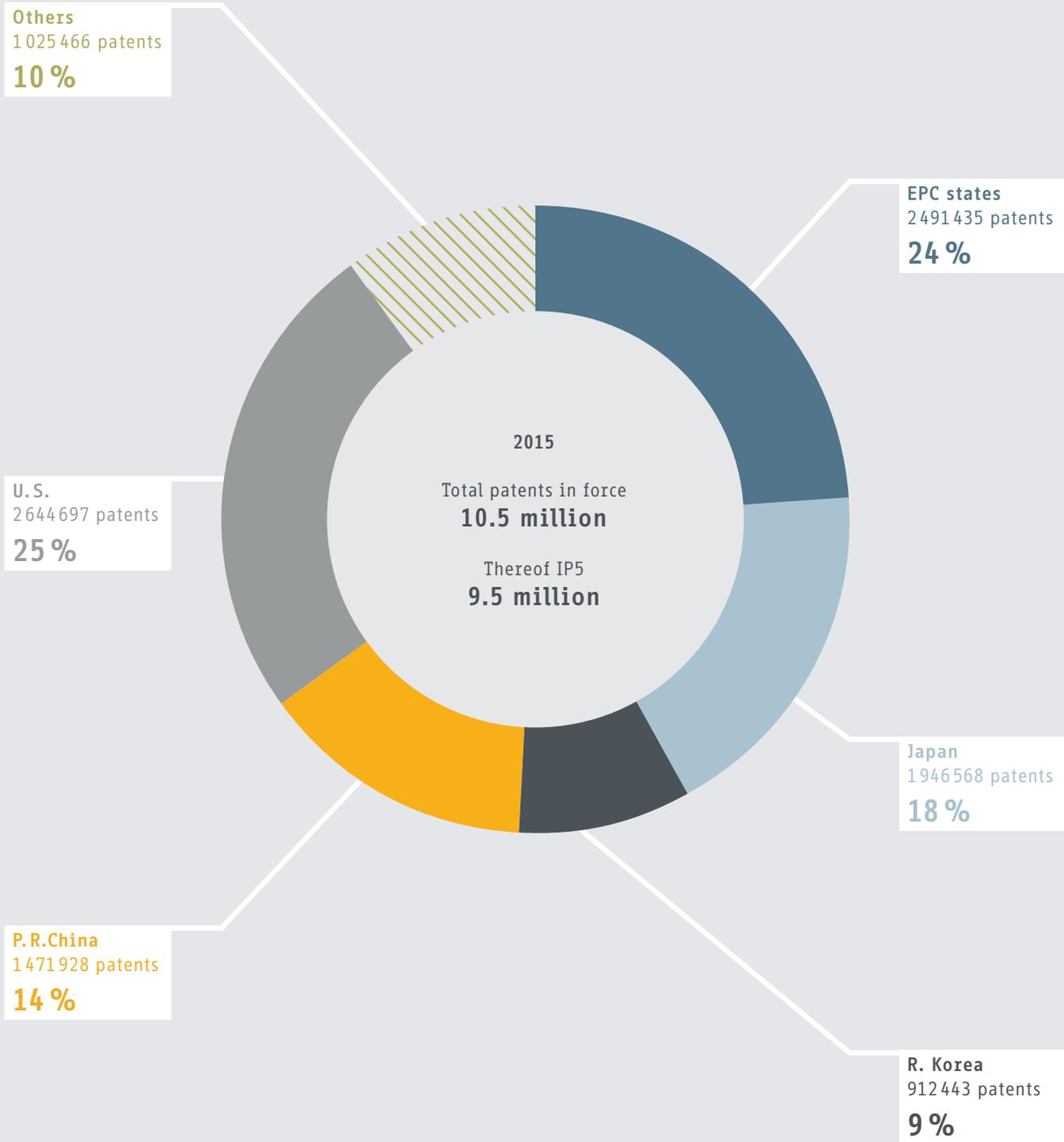
Patent grants



■ EPO
 ■ Japan
 ■ R. Korea
 ■ P.R. China
 ■ U.S.

Patents in force

End of 2015 and 2014 in comparison



Common Citation Document

An application tool for consolidating patent offices' search results

The Common Citation Document (CCD) application is a patent information tool that has been developed to provide single-point access to citation data for inventions filed at dozens of patent offices. This improves access to information for examiners, companies and inventors.

CCD is a free web application that consolidates search results from more than 30 patent authorities by providing details of citations from patent searches and applicants for the same patent filed at more than one office in parallel.

Today CCD is an IP5 initiative, launched in November 2011. The EPO plays a major role as the provider of the CCD data it collects from offices worldwide. In just a few simple steps, CCD allows users to access and assess cited prior art at patent family level. This is thanks to a global database, which is maintained by the EPO, to which the IP5 offices and several dozen other IP offices worldwide provide their search report citations. Examiners worldwide, as well as the public, have access to this data, offered via a single interface and visualized on a single page, thus providing a valuable overview of all the prior art cited against a patent in various offices where the patent was filed.

This free patent citation search and analysis tool includes a sophisticated interface which allows users to open and view two patents in parallel. It also provides a graphical timeline of citations. Within the search form on the CCD homepage, a user simply enters a publication number, application number or priority number and can then view all documents cited by the IP5 offices at dozens of other patent offices for the same patent.

Features include the capability to view the full text of cited patent documents; multiple panes for viewing lists and patent documents simultaneously; a list by source of citation and connection to a specific patent application; and a compilation of classifications and fields searched for an entire patent family. The quality of the data is being continuously improved. For example, the relevance of the citations is now available for some office citations.

Moreover, CCD allows you to control the flow of information and the final output of the citation data, so you are only viewing the data that is relevant to you, whether you are a company or inventor seeking a simple, direct list of related prior art or alternatively a patent examiner seeking a detailed list of citations in the form of a PCT international search report.

When examining a patent application, examiners generally start with a search for prior art. The development of CCD offers a graphical overview of all offices' search results in one view.

As one of the tools providing access to citations already made by an examiner in one office, CCD can accelerate the search process performed by subsequent offices for the same application. This form of work-sharing avoids unnecessary duplication of effort among examiners.

Applicants and the public, meanwhile, benefit from quick and easy access to the search results produced by examiners worldwide, providing them with a comprehensive view of all citations for one invention. Users, therefore, do not need to access different webpages in different languages to see the citation data, but instead can view it on a single page.

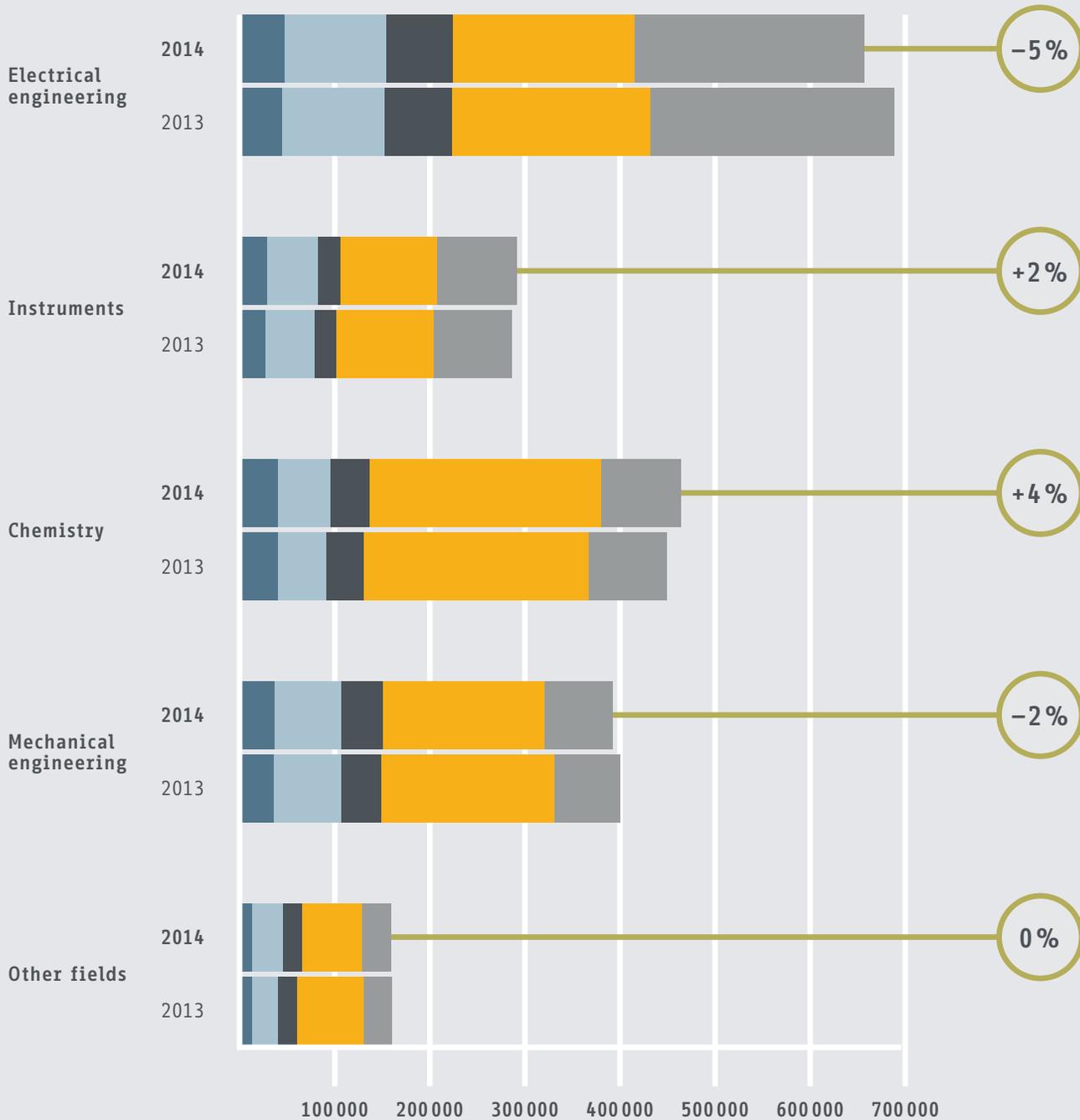
Work on the project is not yet complete: not all "enriched" citation data (with a relevance indicator) is currently available from the Korean, Japanese and American patent offices. However, negotiations are underway to increase both the availability and fullness of the citation data and are due to be concluded in the coming years.

Ultimately, the creation of the CCD application is part of an ongoing process of technical harmonization at international level to drive greater integration of the global patent system. The total number of citations in the system has now reached around 250 million and is the result of the tremendous patent data acquisition and curation effort performed by the EPO.

Applications filed

Sector of technology

Patents are classified by the IP5 offices in accordance with the IPC. Classification takes place at different stages of the procedure in the different offices.



First filing prioritization

First things first

This IP5 initiative encourages the five offices to provide prompt first office actions for first filings.

Timing matters. When an applicant files a first application, normally in the country of residence, they then have 12 months to file in any other subsequent regions where they wish to seek protection for the same invention.

Publication normally takes place 18 months from the earliest filing date. Ideally, therefore, the office of first filing should provide an initial opinion about the application well before publication (18 months), indicating its primary view on the patentability of the subject-matter. This helps applicants decide whether to proceed elsewhere with an application, modify it or withdraw it before publication.

A growth in patent filings, however, meant that offices were struggling to provide their opinion on patentability within this crucial timeframe. Sometimes, first offices were even lagging behind later offices when it came to examining an application. Differing systems made the matter even more complex: in Japan, China and Korea there is a so-called deferred examination system, which means that examination of an application can be frozen for up to several years until the applicant decides that it should be examined.

To improve their service to users, the IP5 devised a test approach to prioritizing the examination of first filings. This approach encourages offices to deliver a result for those first filings where an application claiming priority was filed at the office of second filing. As a result, the offices piloted a scheme where first offices aim, where legally feasible, to provide their initial opinions on patentability within 15 months from the date of first filing. This is intended to help applicants decide on further steps before the publication date, which is typically 18 months from the date of first filing.

Thanks to the experiences gained in a series of feasibility pilot projects run with the IP5 offices since 2010, overall examination timeliness has improved significantly. Some offices even provide their first opinion within the all-important 12 months.

2

Involving users
in IP5 co-operation

Industry associations regularly met with Trilateral offices before they joined in at IP5 level.

BusinessEurope (BE), the Japan Intellectual Property Association (JIPA), the American Intellectual Property Association (AIPPLA) and the Intellectual Property Owners Association (IPO) were present at meetings as of 2012. The Korean Intellectual Property Association (KINPA) represented Korean industry at these meetings, while the Patent Protection Association of the People's Republic of China (PPAC) was happy to accept on China's behalf.

Speaking with one voice

Recognizing the vital importance of industry involvement

The IP5 offices realized early on that industry involvement was essential in order to ensure the development of the global patent system in accordance with users' needs. How else can you ensure that you provide quality services to users and the public as a whole without involving the key stakeholders, namely industry? That is why industry representatives regularly take part in annual IP5 meetings. As a result, IP5 Industry has become a vital component of IP5 co-operation and an architect of its notable successes.

IP5 co-operation first started in May 2007, against a backdrop of ever-growing application numbers, an increasing proportion of patents filed in multiple offices and a growing geographical diversity of prior art. To respond to the increasing globalization of the patent process, the world's five largest intellectual property offices decided to co-operate. Together, the IP5 offices handle about 80% of global patent applications and 95% of all work carried out under the PCT. Initially, technical harmonization was a logical step to ease the workload.

The overriding objective behind collaboration was to eliminate unnecessary duplication of work, enhance the efficiency of the examination process for patents worldwide, improve quality standards and ensure the stability of patent rights, thereby helping to address the growing backlog in applications worldwide. The work of the IP5 endeavours to ensure better services for applicants and the public, make access to the patent system more straightforward and enhance legal certainty.

Open dialogue, the regular exchange of ideas and continuing co-operation help forge closer links between the five leading IP offices. The heads of the IP5 offices meet annually to review progress regarding on-going projects and decide on future strategy.

To achieve its aims, the IP5 also recognizes the importance of open communication with others involved in the patenting process. To this end, it brings on board the views of WIPO, which acts as an observer at all IP5 meetings, and, most importantly, the users of the IP system. The IP5 is aware that it needs structured input and informed feedback from industry to help improve the patent system as a whole.

Through regular meetings and consultations with industry representatives of the IP5 regions, known as IP5 Industry, the IP5 offices strive to ensure user involvement at an early stage of IP5 projects and initiatives. Indeed, starting from the annual IP5 Heads meeting in Corsica in 2012, industry has been involved in all high-level IP5 meetings. Each year, a full day is devoted to discussions at the highest level with user representatives from the five regions. This allows IP5 heads to hear users' views and proposals concerning current and planned projects and also for industry to indicate additional areas in which the IP5 offices might co-operate. Moreover, it communicates a clear message: IP5 projects and co-operation initiatives are user-driven.

Global initiative involves users

As well as being the kick-off for direct industry involvement in IP5 Heads meetings, 2012 also marked the year that the IP5 launched the Global Dossier initiative. To ensure continued industry involvement and address user requirements, users were invited to attend annual Global Dossier Task Force (GDTF) meetings, the first of which was held in January 2013.

Since then, four GDTF meetings have been held. At these meetings IP5 Industry engages with representatives from the IP5 offices and WIPO and proposes results and progress they would like to see. Industry provides input and takes part in a dialogue, as an equal partner, on technical-related issues.

In addition, and following the ninth IP5 Heads meeting in Tokyo in 2016, it was decided to expand industry involvement to include other IP5 topics and projects, such as harmonization of patent practices and quality measures. This led to the creation of the IP5 Industry Consultation Group (ICG), which met for the first time in Munich in January 2017. The inaugural meeting of the ICG was dedicated to a series of non-Global-Dossier-related issues, such as the topics currently dealt with in the IP5 Patent Harmonization Expert Panel.

Meanwhile, Industry has strengthened its own network of industry professionals in the IP5 regions. IP5 Industry regularly exchanges views in order to achieve a consensus prior to IP5 meetings and present a united viewpoint embodying industry opinions. Being able to give and receive direct input in such a structured manner is a powerful way for the IP5 offices' representatives and industry to communicate. Having to deal with different, otherwise numerous industry organizations would hamper progress and dilute opinions. Speaking in one united voice ensures that the message is clearly heard.

BusinessEurope is the leading advocate for growth and competitiveness at European level, standing up for companies across the continent and campaigning on the issues that most influence their performance. A recognized social partner, we speak for all-sized enterprises in 34 European countries whose national business federations are our direct members. The organization is headquartered in Brussels at the heart of the EU institutions. We work on behalf of our member federations to ensure that the voice of business is heard in European policy-making. We interact regularly with the European Parliament, Commission and Council, as well as other stakeholders in the policy community. We also represent European business in the international arena, ensuring that Europe remains globally competitive.

BusinessEurope

Thierry Sueur

Building on the Trilateral co-operation, the creation of IP5 has been a milestone in multilateral patent co-operation. This step was taken in order to deal with unnecessary duplication of work among the IP5 offices and the growing backlogs of patent applications, and to promote efficiency and quality.

There is currently a worldwide backlog of over four million unprocessed patent applications. More than 200 000 inventions each year give rise to patent applications filed in two or more of the IP5 offices. This growing trend of patent applications in the five regions justifies closer and more dynamic co-operation. BusinessEurope has actively endorsed it without remaining a passive witness.

Our priority is patent quality for the global patent system. Companies need high-quality patents at reasonable costs and pendency without red tape. Improvements to the patenting process in all systems will result not only from separate efforts by offices and by applicants, but even more from joint co-operation. At the same time, harmonising the search and examination environment of each office and standardizing the information-sharing process will bring concrete benefits to European companies operating in a global environment.

Building on our experience of co-operation with US and Japanese industries, we have co-led the establishment of parallel co-operation among industries in the IP5 regions. This resulted in a first formal meeting between IP5 offices and IP5 Industry in 2012. The interaction between IP5 offices and Industry has the added value of bringing a more practical and user-oriented focus to this co-operation. Industry will gear IP5 offices towards projects that meet its needs more closely.

It is our conviction that the IP5 co-operation gained in dynamism once the interaction with Industry became formal and regular. Martin Luther King Jr said “We may have all come on different ships, but we’re in the same boat now.” European business will remain fully committed to making the journey of the IP5 co-operation boat a continuing success in the future.



Thierry Sueur
Chairman, Patents Working Group,
BusinessEurope

The Japan Intellectual Property Association (JIPA) was established in 1938 as a non-profit and non-governmental IP organization. JIPA assists Japanese companies in leveraging IP effectively to enhance their international competitiveness, and makes various proposals aimed at enabling domestic and overseas IP systems to contribute to industrial development. JIPA has about 1300 members, most of whom are leading Japanese companies.

Japan Intellectual Property Association

Kenji Kondo

The Japan Intellectual Property Association (JIPA) sincerely congratulates the IP5 offices on the 10th anniversary of IP5 co-operation and the 6th anniversary of co-operation between the IP5 offices and IP5 Industry.

Our business activities are rapidly expanding into global markets. Users have high expectations of obtaining stable and reliable patent rights, with the appropriate timing and in a cost-efficient manner. IP5 co-operation, covering more than 80% of the world's patent applications, is an ideal and practical forum for responding to these needs.

We would like to highlight the continuous efforts to improve the quality and efficiency of patent examination. These activities are measured by quality metrics and user feedback. During the early stages, JIPA proposed the so-called "Four Same" (format, search, examination and patent) project with its "step-by-step" approach. Unification of format, e.g. the Common Application Format, has been achieved. We expect that on-going initiatives, including the Patent Harmonization Expert Panel ("Same" examination), will further reduce costs.

The Global Dossier is an outstanding contribution to the patent system. It improves the transparency of examination and aims at work-sharing between the offices. JIPA is confident that the evolution and optimization of the Global Dossier will advance harmonization further than ever.

Meetings of the IP offices are one of the key features of IP5 activities. They enable IP5 Industry to meet and discuss initiatives, and ultimately generate effective co-operation, enabling the transformation of Industry priorities into initiatives.

JIPA appreciates and fully supports the initiatives set out in the IP5 Joint Statement in Tokyo 2016. It hopes that the exploration of emerging technologies will advance the development of a common patent system, and wishes IP5 co-operation continued success.



Kenji Kondo
President, Japan Intellectual
Property Association (JIPA)

As a leading organization that collectively addresses the IP needs of various industry members in Korea, the Korean Intellectual Property Association (KINPA) provides an important forum for sharing valuable experiences in dealing with IP matters, in order to ultimately improve the IP industry as a whole, as well as providing significant networking opportunities between Korean companies large and small.

Korean Intellectual Property Association

J. Kenneth Oh

As the new President of KINPA, I wish to congratulate the IP5 on its tenth anniversary. Our co-operation with the IP5 offices should be strengthened through increased communication, the active exchange of opinions and the provision of various viewpoints on many important initiatives.

In particular, the achievements made with respect to the Global Dossier and patent classification issues are noteworthy. Numerous members of KINPA have fond memories of various IP5-related initiatives. For example, at the Tokyo 2016 meeting, KINPA members were delighted with the agreement on the future agenda items of enhancing relations with users, exploring the readiness to respond to emerging technologies and providing high-quality and reliable examination results.

However, there is room for improvement, and much more progress can be made, in particular with respect to improved communication. While the exchange of ideas among the IP5 offices is important at government level, more practical insights from industry members need to be provided. In this regard, KINPA will play a vital role in providing a channel through which members from Korean industry can voice their concerns.

Building upon the successful co-operation thus far, KINPA will work even more closely with IP5 to further strengthen our ties. Additionally, KINPA will listen to feedback from the IP5 and make efforts to establish more concrete action items that will benefit everyone. It is my hope that IP5 will continue to grow for many years to come.



J. Kenneth Oh

President, Korean Intellectual Property Association (KINPA)

The Patent Protection Association of China (PPAC) was founded in Beijing in 2003 by various Chinese enterprises. As a non-governmental organization, PPAC acts as a link between the government and enterprises in China for the benefit of enterprises in patent protection. In recent years, under the guidance of the innovation-driven development strategy and national IP strategy, it has provided professional services in many aspects, and in doing so has fully embraced the role of building bridges and forming bonds in the field of intellectual property.

Patent Protection Association of China

Xuehong Zhang

The time has passed so quickly. It has been more than five years since the IP5 offices and IP5 Industry formally established a dialogue with a view to working on various areas of patents and procedures. With extraordinary efforts by all concerned, great achievements have been made, and a lot of changes have happened with regard to our daily work. Today, users can obtain patent information efficiently and conveniently via the Global Dossier portal, and can apply to accelerate the examination procedure at the desired office using the common PPH form. The process is just like climbing, with each step taking us closer to a beautiful outlook.

It is a great honour for me to attend the IP5 meetings. Previously, as IP practitioners we were used to adapting to and complying with existing patent systems and processes. Under the framework of IP5 co-operation, we have the opportunity to identify existing problems and take part in developing new patent processes, designing unified forms and exploring IT-based solutions to improve the efficiency of IP5 work systems. The experience has been unforgettable and is a highlight of my career as an IP professional.

The IP5 Heads and IP5 Industry meetings are efficient and pragmatic. They are high-level meetings which discuss concrete and detailed issues. In addition, the IP5 website offers a large pool of information. Though the legal systems differ from country to country, IP5 co-operation keeps bringing forward creative solutions on the basis of these differences, all of which help to promote patent harmonization and the unification of examination standards.

To work with such prominent IP figures is a rewarding experience. We can exchange opinions freely and share creative thoughts. We believe that IP5 co-operation will continue to deliver successful outcomes to the benefit of all concerned.



Xuehong Zhang
Vice-President, Patent Protection Association of China (PPAC)

Headquartered just outside of Washington, DC, USA, the American Intellectual Property Law Association (AIPLA) is a national bar association constituted primarily of lawyers in private and corporate practice, government service and the academic community. AIPLA represents a wide and diverse spectrum of individuals. It is governed by a 19-member Board of Directors, led by 2016–2017 President Mark L. Whitaker, Morrison & Forester, LLP.

American Intellectual Property Law Association

Mark L. Whitaker

As a founding member of the Industry Trilateral, AIPLA was pleased to participate in the formation of IP5 Industry. The collaborative framework already in place for the Industry Trilateral was replicated for IP5 Industry, providing a solid foundation for unprecedented co-operation focused on improving patent procurement systems.

AIPLA members who have been involved since the formation of IP5 Industry are continually impressed by the level of co-operation within it, including the demonstrated willingness to commit the time and effort necessary to address identified problems and undertake work on new projects. IP5 Industry has nurtured the ability to work together and seek consensus, share concerns that impact day-to-day user practice and identify common issues that confront the global IP user community, while at the same time bring diverse user perspectives that facilitate creative problem-solving.

In addition, the transparency of the IP5 offices and their willingness to receive suggestions from IP5 Industry on potential projects have generated an unprecedented level of energy and initiative to identify problems/challenges and reach agreement on projects. The Common Citation Document was a big step forward and helped provide impetus to the Global Dossier. The formation of the Global Dossier Task Force may be the single most successful collaboration thus far. The decision of the IP5 offices to listen to IP5 Industry on the task force from the very start has greatly contributed to the success of that effort. Work on the Patent Harmonization Expert Panel provides the potential for tackling procedural harmonization at a greater level.

I hope that users will continue to work together to achieve collaborative examination, document exchange and, ultimately, cross-filing capabilities that satisfy users and practitioners worldwide.



Mark L. Whitaker
President, American Intellectual Property Law Association (AIPLA)

The Intellectual Property Owners Association (IPO) is an international trade association representing companies and individuals in all industries and fields of technology who own, or are interested in, intellectual property rights. IPO's membership includes about 200 companies and more than 12000 individuals who are involved in the association either through their companies or as inventors, authors, law firms or attorney members. IPO membership spans 50 countries. IPO advocates for effective and affordable IP ownership rights and offers a wide array of services, including supporting member interests relating to legislative and international issues, analyzing current intellectual property issues, providing information and educational services, and disseminating information to the general public on the importance of intellectual property rights.

Intellectual Property Owners Association

Vanessa Pierce Rollins

IPO has been involved with IP5 Industry since its inception in 2012 and was pivotal in helping make that first Industry meeting happen. Because the IP5 includes patent office representatives from China, Europe, Korea, Japan and the U.S., Industry representatives were tasked with making certain that associations from all five of those jurisdictions attended that first meeting. Industry associations already existed for the Trilateral meetings, so those same associations – BE, JIPA, AIPLA and IPO – were in place to attend. KINPA agreed to attend for Korea.

We were left with finding representatives from China. I remember reaching out personally to people we had met during IPO's annual fact-finding trips to China. We discussed the importance of the IP5 and its ongoing efforts to harmonize patent procedural patent law, achieve a common patent classification system and eliminate unnecessary work duplication among the IP5 offices. We were delighted that representatives from Huawei Technologies Co., ZTE Corp., Shanghai Zhenhau Heavy Industries Co., Datang Group and Patent Protection Association of the People's Republic of China responded to us, as this ultimately paved the way for the creation of IP5 Industry.

Since that first meeting with Industry, the IP5 has continued to engage with and seek input from Industry representatives on several major IP5 initiatives. I was lucky to be involved in 2013 in the very first Global Dossier Task Force meeting in The Hague. At that time, the idea of the Global Dossier seemed like a futuristic fantasy, one that might be achieved "someday." Instead, the IP5 offices attacked the project, resulting in swift implementation of the passive phase in all five offices. I believe that significant Industry co-operation with the offices helped achieve this fantastic outcome. During development, the offices regularly sought Industry feedback, and continue to do so as the project moves into designing the active phase.

I am grateful for the opportunity to represent IPO at the IP5 meetings and for the continuing collaboration between IP5 industry and the offices.



Vanessa Pierce Rollins
Senior Counsel, International and
Legal Affairs, Intellectual Property
Owners Association (IPO)

Credits

Published by
European Patent Office
Munich, Germany
© EPO 2017

Editors
Frank Hafner (executive)
Niclas Morey

Freelance writer
Lois Hoyal

Editorial support (EPO)
Irene Schellner
Camille-Rémy Bogliolo
Robert Rankin
Panagiotis Rigopoulos
Paul Schwander
Piotr Wierzejewski
Gerard Owens

Graphic design
Anzinger und Rasp
Munich, Germany

Printed by
Vogl Druck GmbH
Munich, Germany

Photos
Portraits come from the photographic
archives of IP5 Industry.

Reproduction
All copyright and publishing rights reserved.

