The Patent Cooperation Treaty at 40

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Today inventors around the world have access to a system, known as the Patent Cooperation Treaty (PCT), which offers a cost-effective way to seek patent protection for their high-value technologies in multiple countries. That system, which has just celebrated its 40th year of operation, has become an essential component of the international patent system.

Today, the PCT includes 152 member countries. In the words of WIPO Director General Francis Gurry, the PCT is “truly a global system and a global treaty” that is at “the center of worldwide patenting activity.”

The world’s largest companies (see p. 4), leading universities and research institutions and individual inventors use the PCT as a strategic option to seek patent protection in multiple countries, since a single international patent application filed under the PCT has legal effect in all the countries bound by the Treaty.

ADVANTAGES OF THE PCT

The PCT offers users a number of advantages. In particular, applicants can postpone decisions about the countries in which they want to seek patent protection, and the significant associated costs, by up to 18 months longer than under the traditional patent system. They can also benefit from valuable feedback about the potential patentability of their inventions; at present, 22 patent offices that serve as International Searching Authorities partner with WIPO to provide users with such feedback. This additional time and feedback creates opportunities for applicants to continue the technical development of their invention, test the market for it and, if necessary, find business partners and secure financing.

The PCT also offers national and regional patent offices a number of advantages, in particular, by providing them with the same value-added information on the potential patentability of an invention as provided to applicants, and by freeing those offices from having to evaluate the formal aspects of the application. In this way, the PCT process facilitates decision-making and can increase confidence in the quality of the patents if ultimately granted.
About the Patent Cooperation Treaty (PCT)

The Patent Cooperation Treaty (PCT) offers users of the patent system a cost-effective means of protecting their inventions internationally.

The PCT facilitates the process of seeking potential patent protection in multiple countries and postpones some of the major costs of such internationalization. The granting of patent rights, however, remains under the control of the national or regional patent offices concerned.

By filing a single “international” patent application within 12-months of filing the first patent application with a national or regional patent office, an applicant can set in motion the process of seeking patent protection in up to 152 countries.

The PCT also helps national and regional patent offices with their patent granting decisions; and facilitates public access to a wealth of technical information relating to inventions through the PATENTSCOPE database.

WHAT USERS ARE SAYING ABOUT THE PCT

“WIPO’s Patent Cooperation Treaty is a cornerstone of our IP business,” notes Alexander Kurz, Executive Vice President for Human Resources, Legal Affairs and Intellectual Property Management, Fraunhofer, Europe’s largest applied research organization. “It provides a great deal of legal security and gives us additional time to find the optimal commercial partner and the most appropriate market for our inventions. It is an excellent way to establish IP rights internationally. That’s why we use it,” he says.

Brazil’s pioneering aviation giant, Embraer, uses the PCT for similar reasons. “The PCT is an extremely useful tool that is supporting our drive to expand our global footprint,” explains Wander Menchik, Head of Embraer’s Technology Development Program. “It is particularly useful because it provides a preliminary opinion on the possibility of obtaining a patent grant on a given technology in different countries, and buys the company additional time to take strategic business decisions in relation to a particular technology for which protection is being sought. So it is a cost-effective option that takes the legwork out of the process of obtaining patents in international markets and provides us with feedback that is invaluable in shaping the patenting strategies for our new technologies.”

Smaller outfits, like US-based Nokero, a small social enterprise that produces eco-friendly solar-powered lights for resource-poor householders in developing countries, also find value in the PCT. “Patents are a big part of our business strategy when it comes to patenting. Because we operate in so many different markets, we use WIPO’s Patent Cooperation Treaty,” says Steve Katsaros, Nokero’s founder. “Every startup has limited funds and the PCT is a great mechanism for delaying patent filing costs, allowing time to test the market and overcome any unforeseen technical problems. Without the PCT, protecting an invention in international markets would be a high-risk strategy with huge upfront costs,” he notes.

SUSTAINED GROWTH

Since it began operating in 1978, the PCT has enjoyed remarkable growth. In the first six months of its existence, just 459 international patent applications were filed under the system. Twenty-six
Around 243,000 international applications were filed via the PCT in 2017, up 4.5 percent on 2016, representing the eighth consecutive year of growth. Applicants based in the United States filed the most applications, followed by those in China and Japan.

Two Chinese technology companies were the top filers of international patent applications in 2017, with Huawei in first place and ZTE in second.

Source: WIPO Statistics Database, March, 2018
years later, one million applications had been filed, and nearly 13 years after that, in February 2017, the three millionth PCT application was published. Every week, on average around 5,000 international patent applications are published in WIPO’s PATENTSCOPE database. PATENTSCOPE includes some 70 million patent documents, as well as the 3.4 million international patent applications that have gone through the PCT system to date. PATENTSCOPE offers users invaluable information with respect to who is patenting and where, and in which fields of technology.

Over the last 40 years, with just one exception, in 2009, at the height of the global economic crisis, the PCT has enjoyed steady annual growth in the number of international patent applications filed. In 2017, a record 243,500 international patent applications were filed under the PCT, representing a 4.5 percent increase on figures for 2016.

Since its inception, applicants based in the United States have filed the largest numbers of PCT applications every year, filing nearly 57,000 international patent applications in 2017 alone. But, since the early 2000s, there has been a marked increase in the use of the PCT in Asian countries and, in particular, phenomenal growth in its use by applicants from China. Since 2003, China has posted PCT annual growth rates of more than 10 per cent. And in 2017, China became the second largest user of the system, nudging Japan into third place (see p.4). At current growth rates, it looks set to become the PCT’s top user by 2020.

“The rapid rise in Chinese use of the international patent system shows that innovators there are increasingly looking outward, seeking to spread their original ideas into new markets as the Chinese economy continues its rapid transformation,” noted WIPO Director General Francis Gurry when releasing 2017 data on WIPO’s filing and registration services in March 2018. “This is part of a larger shift in the geography of innovation, with half of all international patent applications now originating in East Asia,” he explained.

A BEACON OF MULTILATERAL COOPERATION

The PCT is an excellent example of multilateral work sharing and cooperation in the field of intellectual property (IP). It involves the active collaboration of more than 100 national and regional patent offices which, together with WIPO, move the applications through the PCT procedure in line with the Treaty’s requirements.

The PCT system also relies heavily on the engagement of both applicants and their legal representatives. The positive impact of the system on the process of seeking international patent protection is widely recognized within the IP legal community. For example, T. David Reed, former Senior Patent Advisor at Procter and Gamble Company, a major PCT user, once summed up the PCT as “the greatest advance in foreign patent practice and patent portfolio management since the Paris Convention came into force in 1883.”
AN EFFECTIVE RESPONSE TO A REAL NEED

At its core, the PCT addresses two very real needs and this is the key to its remarkable success. On the one hand, it offers applicants a practical tool to assist them in seeking patent protection in international markets. And on the other hand, for the patent offices of PCT member countries, it serves as an effective work-sharing platform and creates opportunities to generate efficiency gains in processing international patent applications.

The partnership of national and regional patent offices of PCT member countries has also been central to the PCT’s success. Their engagement, insights and experiences, along with feedback from users, has enabled the system to evolve and respond to practical real-world needs. That, coupled with a dedicated international team of support staff, both at WIPO’s headquarters and within the patent offices of member countries, has made it possible for the PCT to become recognized as a reliable and high-quality service provider.

A TOOL FOR ECONOMIC DEVELOPMENT

From the outset, as noted in the Treaty’s Preamble, the desire “to foster and accelerate the economic development of developing countries,” has been integral to the PCT’s vision and evolution. Today, developing and least developed countries make up the bulk of the PCT’s membership. Each of these countries benefits from technical support from WIPO both in terms of enabling them to navigate and use the PCT and more generally to support the development of national IP systems. Also, certain patent applicants from these countries can benefit from a 90 percent reduction for
one of the main PCT-related filing fees. These countries can benefit from the technical information that flows also the PCT system, especially, with respect to international applications that do not ultimately seek patent rights in those jurisdictions, and thereby become part of the public domain in those countries.

THE WAY AHEAD

The PCT has come a long way in the past four decades and has recorded many notable achievements. But there is still much to achieve to ensure it continues to support “innovation, investment and development,” as foreseen by its founders. That is why, together with its partners, the PCT is continuing to push ahead to improve its services, for the benefit of all stakeholders.

Some fifteen months ago, at the time of the publication of the three millionth international patent application under the PCT, WIPO Director General Francis Gurry published a document entitled The PCT System – an Overview of Possible Future Directions and Priorities. The overview provides policymakers with “food for thought” on the broad directions and priorities for future work to further improve the PCT for the benefit of users and IP offices alike.

“The key to future improvements [in the PCT] lies in putting renewed emphasis on the ‘Cooperation’ aim which underpins the Treaty,” Mr. Gurry wrote. “In the view of the International Bureau, it is now mainly up to the Contracting States and the national and regional Offices which perform roles under the Treaty to put further life into that ‘Cooperation’ aim with a view towards making the PCT system fully effective as a tool to support innovation, investment and development that those same Contracting States designed it to be,” he added.

In light of the PCT’s remarkable success over the past 40 years, and with the ongoing constructive collaboration of all stakeholders, we can look to the future with some optimism, confident in the fact that the PCT will remain “fit for purpose” for many decades to come.

The Patent Cooperation Treaty: Milestones

1966 — Decision by the Executive Committee of the Paris Union to commission a study which resulted in the establishment of the PCT

1970 — PCT adopted at a the Washington Diplomatic Conference on the PCT

1978 — PCT enters into force on January 24
   On June 1, PCT operations begin and the first international application is filed.

1988 — For the first time, more than 10,000 international applications are filed in a single year

1991 — PCT membership rises to 50 countries

1997 — 50,000 applications are filed in one year

1999 — 100th country joins the PCT

2001 — 100,000 international applications are filed in one year

2004 — 1 million international applications are filed in total

2007 — PCT becomes the principle means of seeking foreign patent protection, overtaking the Paris Convention

2011 — 2 millionth international patent application is filed

2016 — 150th country joins the PCT

2017 — 3 millionth international application is published

2018 — 40 years since PCT operations began