

The Patent Cooperation Treaty (PCT) in 1994—A Review of Events and Accomplishments

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In a press release dated January 31, 1995, the World Intellectual Property Organization (WIPO) reviewed the results and achievements of the Patent Cooperation Treaty (PCT) for 1994. During the year, WIPO received just over 34 000 patent applications, representing an increase of 19.3% over 1993. These 34 000 applications would correspond to over 1.3 million national patent applications. During the year, 13 countries became PCT contracting states to bring the total to 73 nations party to the PCT. Four further countries will join the treaty during 1995. The press release also provided statistics on language of filing, demands for preliminary examination, and reviewed publication and meeting activities for the year.

BACKGROUND

The Patent Cooperation Treaty (PCT), which is administered by the World Intellectual Property Organization (WIPO), was concluded in 1970 and came into force in 1978. The intent of the signatories (or contracting states) was, amongst other things, to "...simplify and render more economical the obtaining of protection for inventions where protection is sought in several countries...", "...simplify and accelerate access by the public to technical information contained in documents describing new inventions...", and to "...perfect the legal protection of inventions". In effect, the PCT allows an inventor or patent applicant to file a single PCT patent application and designate a number of countries (designated states) in which protection is being sought. After filing, the application undergoes a prior art search by an International Search Authority, which may be a national patent office, e.g., U.S. Patent and Trademark Office, Japanese Patent Office, or Australian Patent Office or "regional" patent office, i.e., a patent office such as the European Patent Office covering a number of countries. The search report lists pertinent documents, but no determination as to patentability is made. There is also provision for optional preliminary examination. After 18 months the application is published.

However, WIPO neither grants PCT patents nor provides legal protection to the invention *per se*. Instead, the application is sent either to a national or regional patent office, where it is then prosecuted under their respective laws and hopefully (from the viewpoint of the applicant) granted. Note that to enter the national stage, the applicant will need to pay a national fee and provide a translation, if necessary, into the applicable language.

Although this procedure appears to provide little benefit over the "conventional" international patenting routes, there are a number of advantages to be gained using PCT applications. The most important of these is that the applicant or inventor is provided more time to decide whether one truly wishes to pursue foreign patent protection while deferring the associated costs, all for a nominal charge. Using the conventional international patenting route, the applicant will normally file for patent protection in his home country

first. Under the Paris Convention, one is then given 1 year to file the same application in other countries while being given the benefit of using one's original filing date to establish priority over other inventions. Under the PCT, the applicant is given 20 months from one's priority date to decide whether to enter the national stage. (This can be deferred in some cases to 30 months, if the applicant decides to proceed with preliminary examination). This additional time can be extremely helpful to an applicant who needs to further assess the viability of one's invention, decide upon the countries in which one really needs protection, and find funding or work on the next improvement. As indicated above, the cost of initially designating multiple countries is nominal, currently \$144 per country with no additional fee for more than 11 designations, cf. the cost of translating and prosecuting an application of unknown potential in multiple countries. Note that under the PCT, the applicant will have to eventually pay translation and prosecution costs once the PCT application enters the national phase. Other benefits include filing an application for multiple countries in one language, greater control during prosecution, and the ability to file internationally in many countries at the "last minute" while maintaining priority rights.

COUNTRIES JOINING THE PCT

In 1994, 13 countries joined the treaty as contracting states to bring the total membership to the PCT to 73 countries. The new countries are Armenia, China, Estonia, Georgia, Kenya, Kyrgyzstan, Liberia, Lithuania, the Republic of Moldova, Tajikistan, Slovenia, Swaziland, and Trinidad and Tobago. Armenia, Georgia, Kyrgyzstan, The Republic of Moldova, and Tajikistan all signed declarations of continuation of the PCT as successor States of the former Soviet Union. Table 1 provides a complete list of PCT signatories.

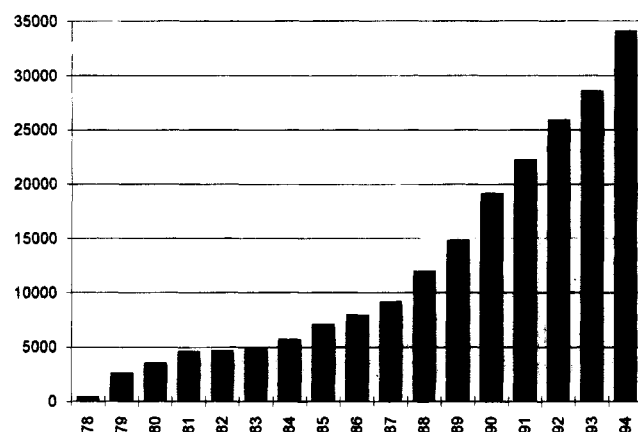
Four further countries will become bound by the PCT during 1995: Iceland, Mexico, Singapore, and Uganda.

Additionally, from July 1, 1994 it is now possible to include a designation for an ARIPO patent. This patent is issued by the African Regional Industrial Property Organization (ARIPO). Coverage is limited to five ARIPO countries, Kenya, Malawi, Sudan, Swaziland, and Uganda, who are also contracting states of the PCT. ARIPO is the third regional

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Table 1. The 73 Countries Party to the PCT

Africa:	Benin, Burkina Faso, Cameroon, Central African Republic, Chad, Congo, Côte d'Ivoire, Gabon, Guinea, Kenya, Liberia, Madagascar, Malawi, Mali, Mauritania, Niger, Senegal, Sudan, Swaziland, Togo
Americas	Barbados, Brazil, Canada, Trinidad and Tobago, United States
Asia and the Pacific	Armenia, Australia, China, Democratic People's Republic of Korea, Georgia, Japan, Kazakhstan, Kyrgyzstan, Mongolia, New Zealand, Republic of Korea, Sri Lanka, Tajikistan, Uzbekistan, Viet Nam
Europe	Austria, Belarus, Belgium, Bulgaria, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Monaco, Netherlands, Norway, Poland, Portugal, Republic of Moldova, Romania, Russian Federation, Slovakia, Slovenia, Spain, Sweden, Switzerland, Ukraine, United Kingdom

**Figure 1.** Number of PCT applications received since 1978.

patent issuing authority to join the PCT, the other two being the European Patent Office and OAPI (Organization Africaine de la Propriété Industrielle).

STATISTICS

WIPO reported continued steep growth in the number of PCT patent applications it received. During 1994 34 104 PCT applications were filed worldwide, an increase of 19.3% over 1993. This increase shows the increasing popularity of the PCT route as patent practitioners and organizations become more familiar with its benefits. However, this number remains modest when compared to the output of some of the major patent offices such as the U.S. Patent and Trademark Office which issued over 100 000 granted patents and the European Patent Office which published 114 000 applications and patents during 1994. Figure 1 provides

numbers of applications received by WIPO since the beginning of its operations in 1978.

The average number of designations per PCT application also continued to grow during 1994, rising from 13.7 designations in 1993 to 19.5, a 42.3% increase. These designations would correspond to 614 123 national applications and 49 165 regional patent applications, which in turn would give rise to a further 707 093 patent applications. These two totals would give rise to a very impressive 1 321 216 national patent applications. WIPO calculates that these designations would, on average, correspond to 38.7 national or regional applications in PCT contracting states per PCT application. The difference between the 19.5 designations and the 38.7 national or regional applications is due to the fact that each regional (European, OAPI, or ARIPO) patent covers several states.

WIPO also reported that the percentage of applications containing more than ten designations was 41.4%, another substantial increase over the 1993 percentage of 34.5%. It should be noted that with an average of 19.5 designations per application, these 41% of applications had to designate countries far in excess of the average. WIPO notes that many applicants are taking advantage of the possibility of designating any number of additional states free of charge provided that ten designation fees have been paid. This certainly appears to be true, with apparently many applicants designating all possible countries available under the PCT. It would be very interesting to know how many of these designations are eventually abandoned.

A European Patent was sought in 32 823 PCT applications which represents 96.2% of the total. In 1993 the respective figures were 28 155 and 98.5%

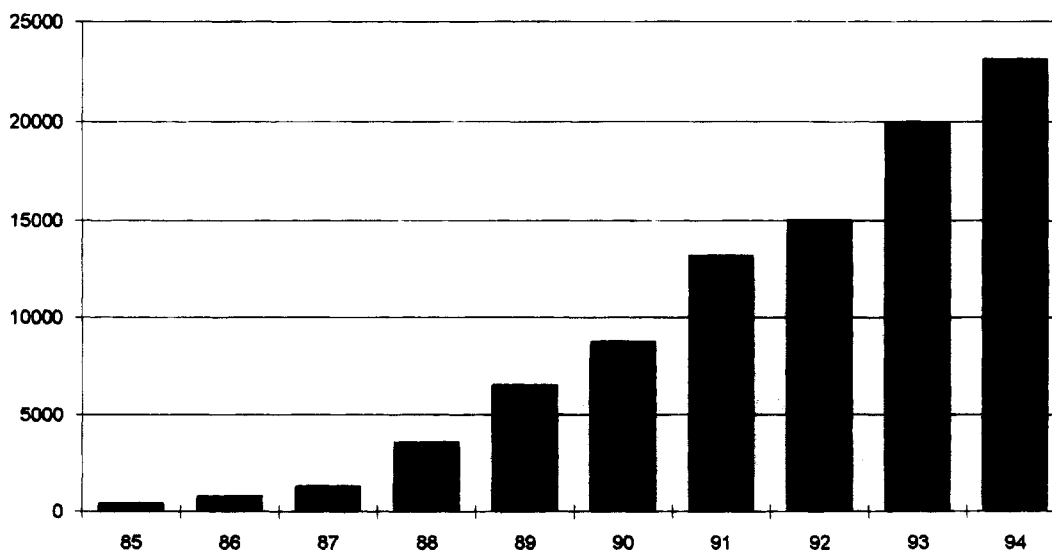
**Figure 2.** Requests for preliminary examination from 1985.

Table 2. PCT Applications by Country of Origin

country of origin ^a	no. of applications	percentage
United States	14798	43.39
Germany	4294	12.59
United Kingdom ^b	3212	9.42
Japan	2290	6.71
France	1631	4.78
Sweden	1250	3.67
Australia	803	2.35
Netherlands	780	2.29
Canada	748	2.19
Switzerland ^c	640	1.88
Finland	592	1.74
Denmark	523	1.53
Italy	518	1.52
Russian Federation	343	1.01
Austria	258	0.76
Norway	216	0.63
Belgium	205	0.60
Republic of Korea	190	0.56
New Zealand	147	0.43
Spain	142	0.42
Others (23 countries)	524	1.54
total	34104	100.00

^a Of all applications received, 4338 (12.7%) were filed at the EPO and 435 (1.3%) at WIPO, which from January 1, 1994 can act as a receiving office. These applications are included in the above according to the country of origin of the applicant. ^b Includes figures for Hong Kong and the Isle of Man. ^c Includes figures for Liechtenstein.

By country of origin, the United States had the largest number of PCT applications filed with 14 798. The U.S. was followed by Germany with 4294, United Kingdom with 3212, Japan with 2290, and France rounding out the top five with 1631. Table 2 lists the top filing countries and the corresponding percentage to all PCT applications filed.

With the U.S. and the U.K. accounting for just over 18 000 of the applications, English was the most favored language for filing applications accounting for 68.4% of the total, followed by German with 14.2%, and Japanese with 6.3%. Table 3 lists the languages of filing of PCT applications.

PRELIMINARY SEARCHES AND PRELIMINARY EXAMINATIONS

Although the United States had the largest number of filings, many U.S. applicants took advantage of using the EPO as the International Search Authority rather than the

Table 3. Language of Filing

language of filing	no. of applications	percentage
English	23340	68.4
German	4848	14.2
Japanese	2160	6.3
French	1768	5.2
Swedish	620	1.8
Russian	366	1.1
Finnish	319	1.0
Danish	174	0.5
Dutch	170	0.5
Spanish	135	0.4
Norwegian	110	0.3
Chinese ^a	94	0.3

^a Chinese became a language of filing on January 1, 1994.

Table 4. Countries Ranked as International Search Authorities

International Search Authority	no. of applications searched	percentage
EPO	18718	54.9
United States	8976	26.3
Sweden	2578	7.6
Japan	2156	6.3
Australia	939	2.7
Russian Federation	373	1.1
Austria	266	0.8
China ^a	98	0.3

^a China became an International Search Authority in 1994.

USPTO, with the EPO conducting almost 19 000 preliminary searches. Since the vast majority of U.S. applicants will have also filed a U.S. application and have a full search conducted by the USPTO, it appears that many applicants are using a "belt and suspenders" approach in trying to find all relevant art. The U.S. ranked second as an International Search Authority and Sweden, third. Details are provided in Table 4.

Requests for international preliminary examinations also increased by 15.7% in 1994 over 1993 to 23 133. The requests relate mainly to applications filed in 1993. Again, the EPO received the most requests for preliminary examination. Figure 2 provides a detailed look at requests filed from 1985.

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