

Chapter 5

THE IP5 OFFICES AND THE PATENT COOPERATION TREATY (PCT)

This chapter presents statistics describing various activities of the IP5 Offices that relate to the PCT system. The graphs cover five-year periods that include the latest year for which reliable data are available.

Graphs are presented that display the shares, by origin, of those patent applications and grants using the PCT filing route. Descriptions are given of additional activities of the IP5 Offices under the PCT, as RO for applicants in their respective territories, as ISA and as IPEA. PCT searches are a significant workload item at the IP5 Offices in addition to those already described in Chapter 4.

Statistics in this chapter are derived from the Intellectual Property Statistics of WIPO⁵⁴ and from the IP5 Offices.

Selected statistics for patent families are included in this chapter. A patent family is a group of patent filings that claim the priority of a single filing.⁵⁵

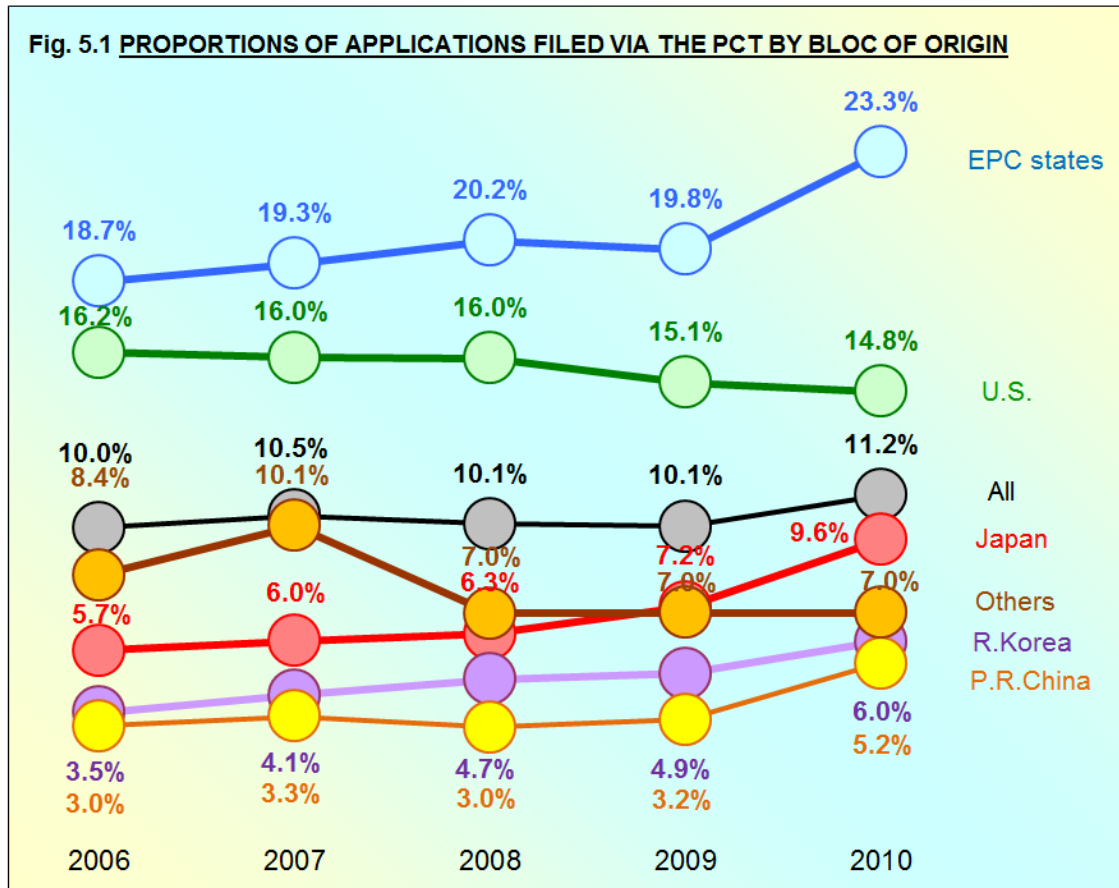
⁵⁴ This edition refers to general patent data as of March 2012, and to July 2012 for PCT international applications.

⁵⁵ For a further discussion of patent families, see the term definitions in Annex 2 and the statistics presented earlier in Figs. 3.13 to 3.15 and Table 3.

THE PCT AS FILING ROUTE

PATENT FILINGS

Fig. 5.1 shows, for each bloc of origin (residence of first-named applicants or inventors), the proportions of all patent applications filed that are PCT international applications. Applications are counted in the year of filing.



On average, 11.2 percent of the applications were filed via the PCT route in 2010.

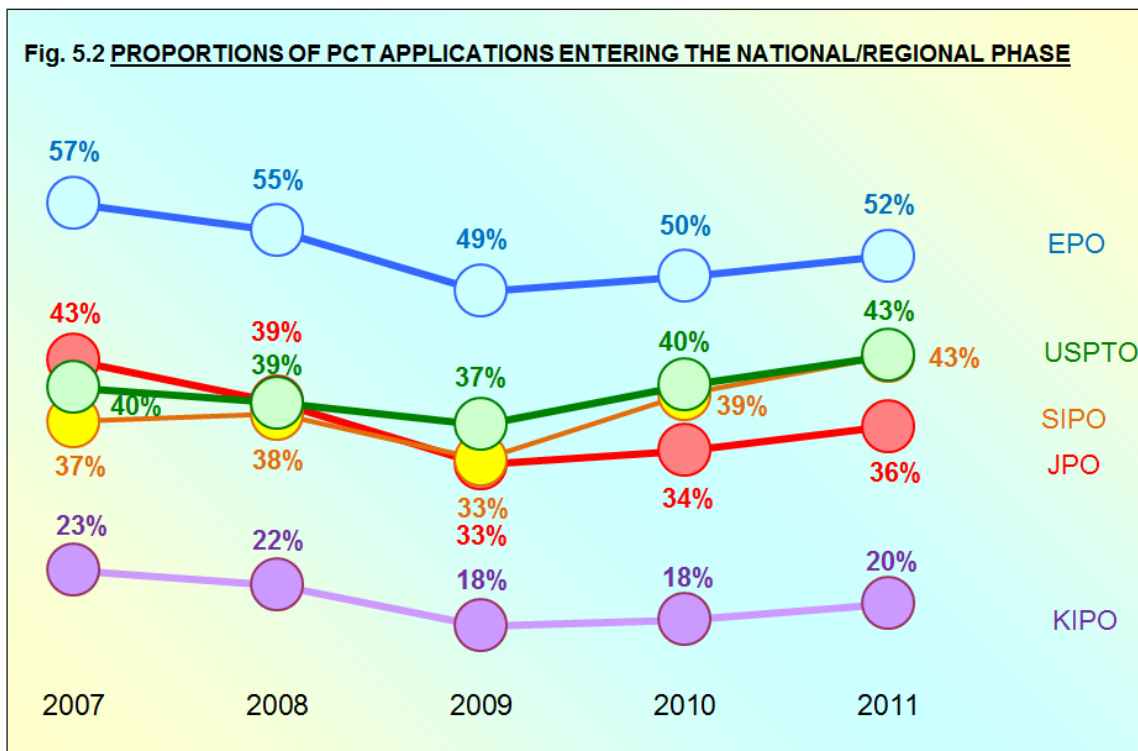
In 2010, the proportion of applications filed via the PCT increased, with the exception of applications originating from the U.S. and from Others. In the case of the U.S., the decline of the proportion can be partially explained by the decrease in absolute numbers of PCT international applications. The proportions for EPC states origin applications⁵⁶ and U.S. origin applications continue to be higher than the proportions for applications from the remaining blocs.

⁵⁶ EPC states applications are applications made by residents from within the EPC bloc as a whole. See the EPO section of Chapter 2 for a listing of EPC states.

NATIONAL/REGIONAL PHASE ENTRY RATE

After the international phase of the PCT procedure, applicants decide whether they wish to continue further with their applications in the national or regional phase for each country of interest. A decision has to be made for each country or regional organisation. If the decision is made to proceed further, the applicant has to fulfil the various requirements of the selected PCT contracting states or organisations. The application then enters the national or regional phase.

Fig. 5.2 shows the proportions of PCT applications in the international phase that entered the national or regional phase at each of the IP5 Offices. Applications are counted in the year corresponding to the date when the delay to enter the national or regional phase has expired⁵⁷.



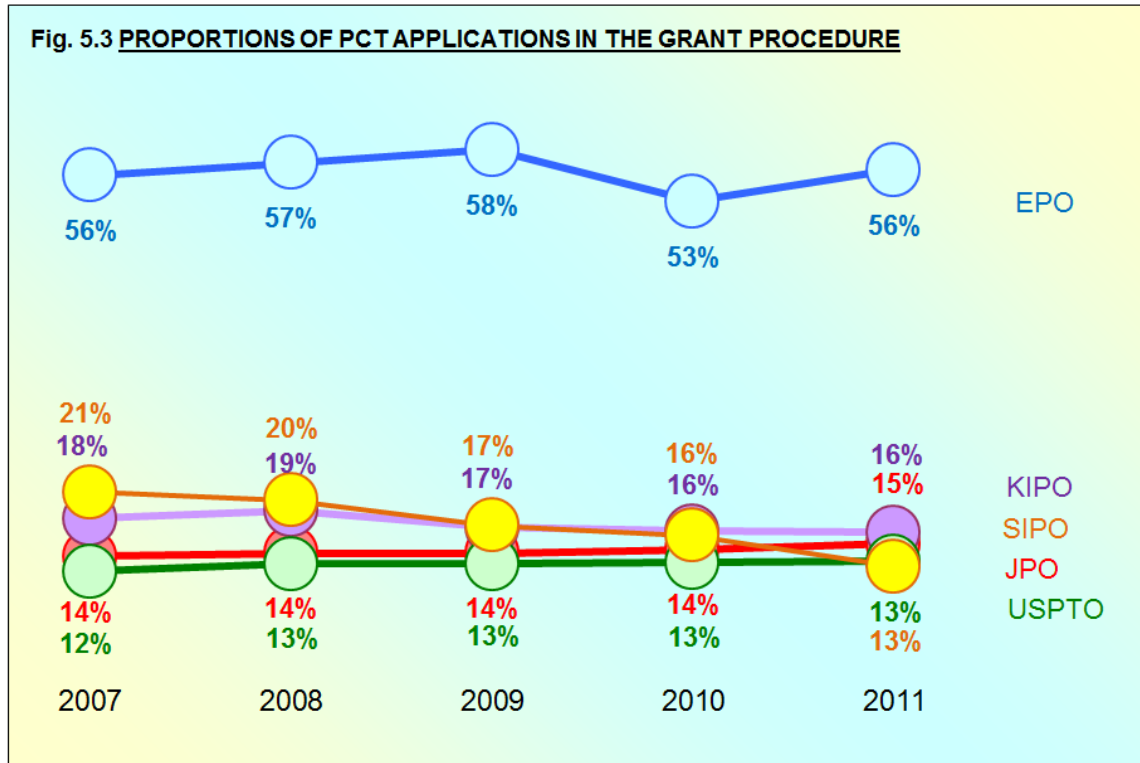
A higher proportion of PCT applications enter the regional phase at the EPO than enter the national phase at the JPO, the KIPO, the SIPO, or the USPTO. This is due to the multinational dimension of the EPO, which provides an opportunity to proceed further with a unique procedure for several countries.

There is a general declining trend observed at all Offices up to 2009. In both 2010 and 2011, the proportions grew for all Offices, with the EPO retaining the highest proportion.

⁵⁷ It should be noted that proportions of PCT applications entering national phase at EPC contracting state national offices are not reported here.

SHARE OF PCT APPLICATIONS

Fig. 5.3 shows the share of PCT among all applications that entered the grant procedure at each Office (as presented earlier in Fig. 4.1).

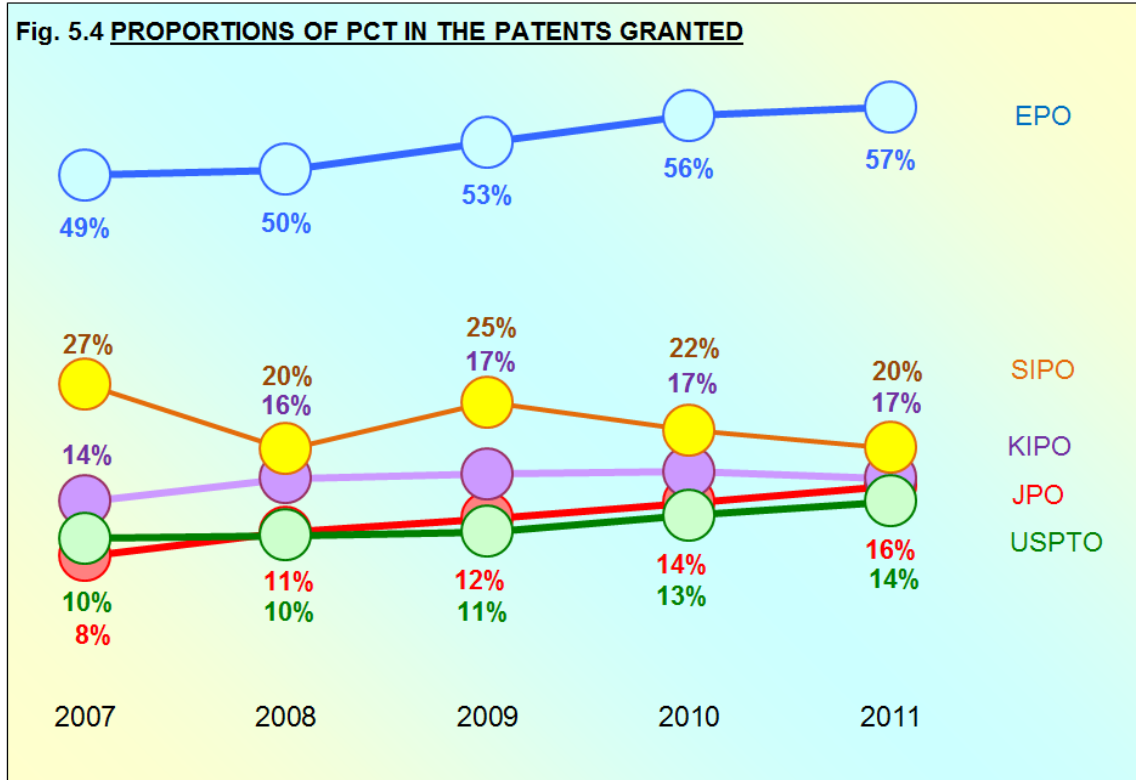


As has already been mentioned above, the EPO has a higher proportion of PCT applications than the other Offices.

The EPO had an increasing proportion of PCT national/regional applications in 2011 after an unusual decrease in 2010. This decrease can probably be explained by the rule adjustment discussed earlier that led to additional divisional non-PCT applications in 2010 as a one-off effect. The SIPO had a decrease in the PCT share of all applications that entered the grant procedure in 2011, mainly due to the higher growth rate of the patent applications via Paris-route than the growth rate of PCT applications entering national phase.

PCT GRANTS

Fig. 5.4 shows the proportions of patents granted by each of the IP5 Offices that were based on PCT applications.



Granted patents generally relate to applications that had been filed several years earlier.

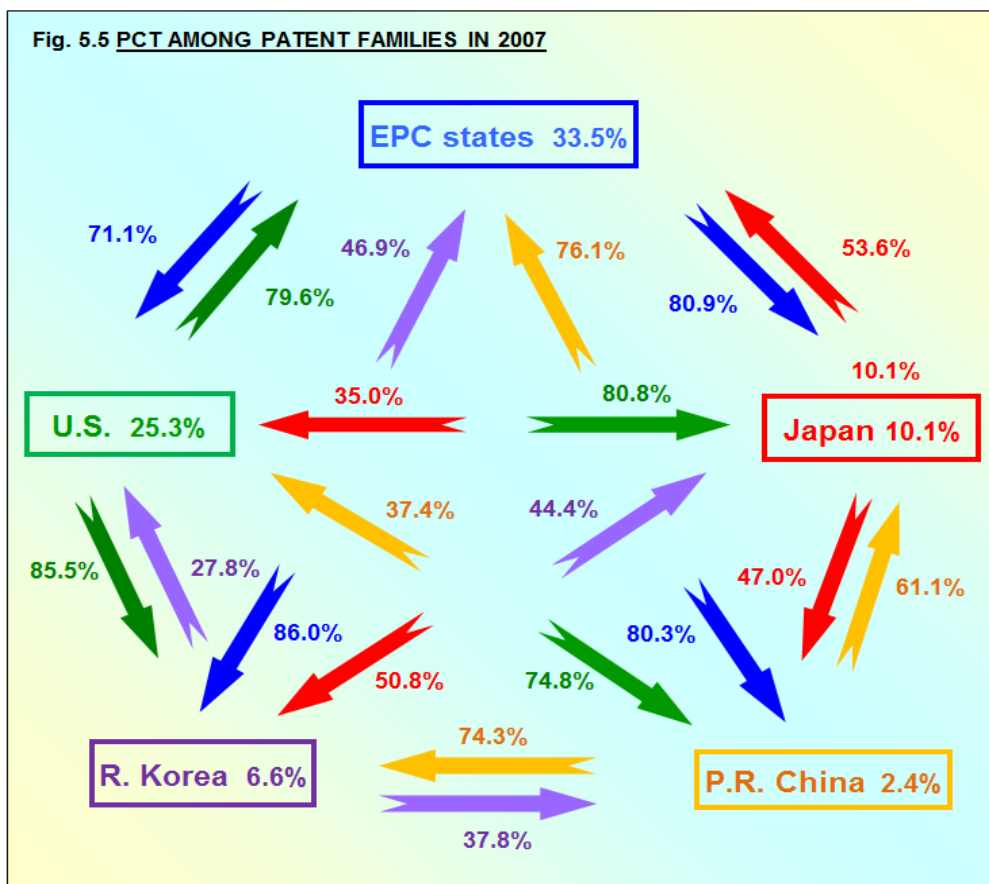
Over the period, there was a general increase of the proportion of PCT in granted patents. The SIPO, however, had a decreasing proportion from 2009 to 2011, which can be explained by the faster growth of patent applications through Paris-route than PCT applications entering into national phase.

PATENT FAMILIES AND PCT

A patent family is a group of patent filings that claim the priority of a single filing.⁵⁸

The PCT system provides a good way to make subsequent patent applications in a large number of countries. Therefore it can be expected that many patent families flowing between blocs will use the PCT route. In this section, the use of the PCT system implies that at least one PCT application has been made within the family of filings for the same invention. Historical tables for the years 1995 to 2007 can be found in the statistical data file that is attached to the web based version of this report.

Fig. 5.5 shows the usage of the PCT among patent families in 2007. Two types of percentages are shown. The first, next to the name of each bloc⁵⁹, is the proportion of the overall number of first filings for the bloc that generated families using the PCT. The second, next to the arrows indicating flows between-blocs, shows the share of total patent family flows that used the PCT system. This figure is based on first filings in 2007, and can be compared with Fig. 3.13.

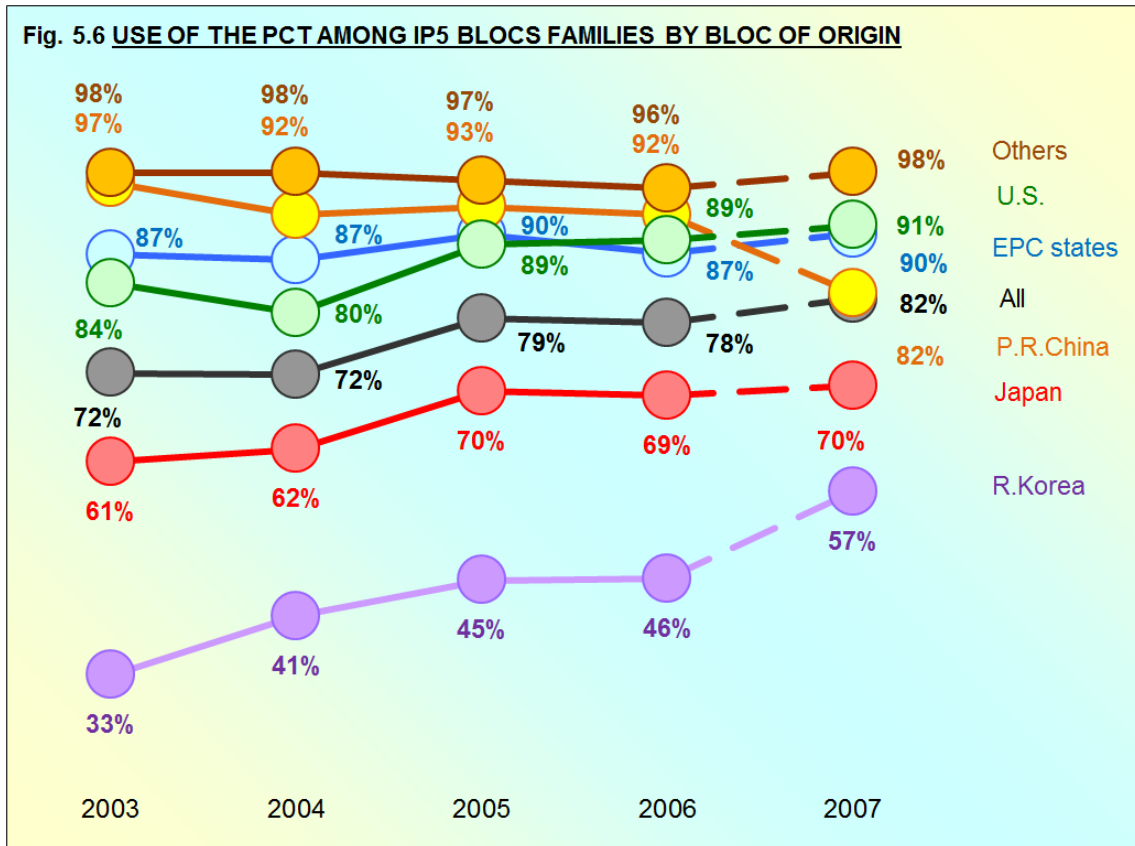


⁵⁸ For a further discussion of patent families, see the term definitions in Annex 2.

⁵⁹ EPC states applications are applications made by residents from within the EPC bloc as a whole. See the EPO section of Chapter 2 for a listing of EPC states

In general, the usage of the PCT route is far higher when making applications abroad rather than at home. Applicants from the U.S. and the EPC states prefer to use the PCT system to a greater extent than applicants from P.R. China, Japan, and R. Korea.

Fig. 5.6 shows the proportions of IP5 Blocs patent families by bloc of origin (residence of first-named applicants or inventors), as given earlier in Fig. 3.15, that made some use of the PCT system.



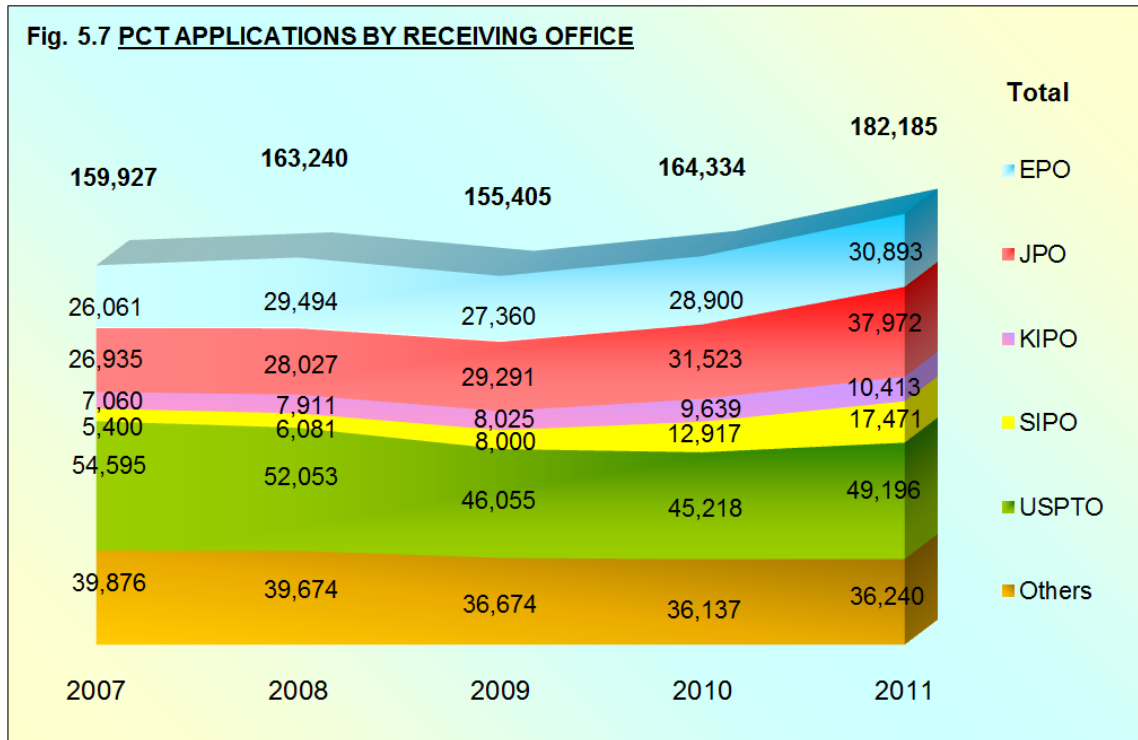
Since IP5 Blocs patent families represent highly internationalised applications, it is not surprising that the average rate of PCT usage is high compared to the overall usage of PCTs among applications in general, as was shown in Fig. 5.1. The usage of the PCT system has generally grown in the IP5 Blocs families over the period from 2003 to 2006.

Comparable data back to 1995 for IP5 Blocs patent families, as well as for Four Blocs patent Families and Trilateral patent families (that were used in previous editions) are given in the statistical data attached to the web based version of this report.

PCT AUTHORITIES

Under the PCT, each of the IP5 Offices acts as RO, mainly for applicants from its own geographical zone, and as ISA and IPEA for non-residents and residents. The following graphs show the trends from 2007 to 2011.

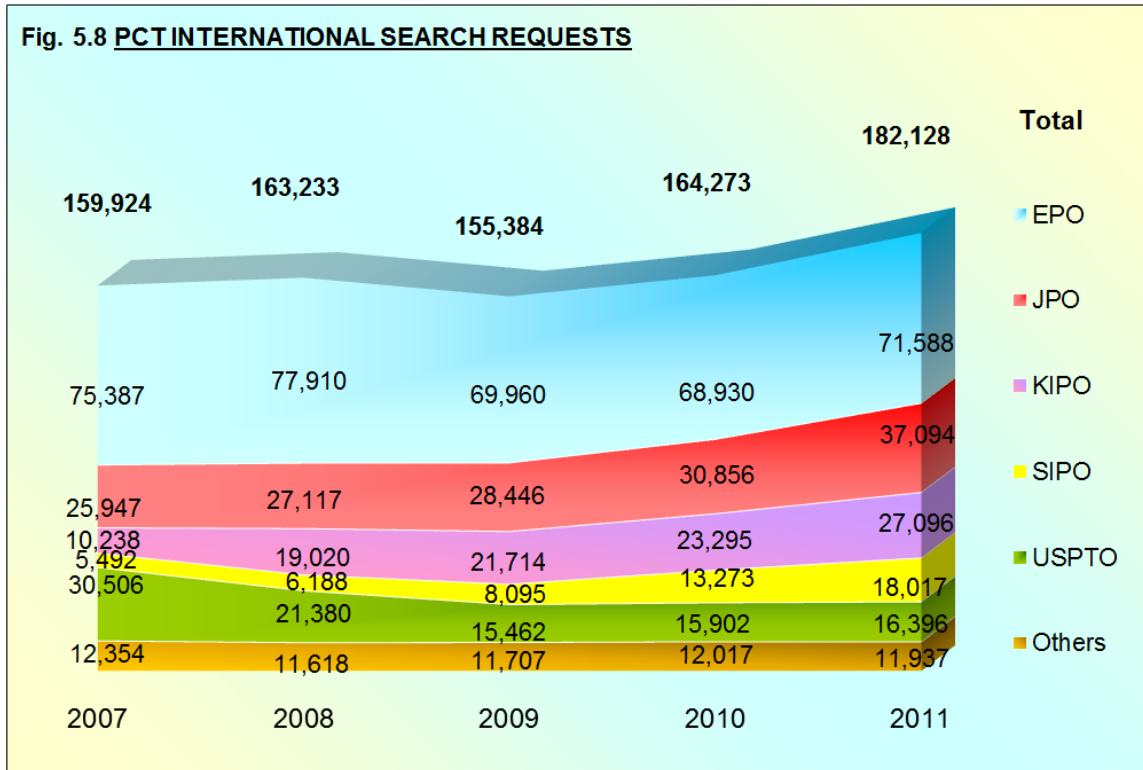
Fig. 5.7 shows the breakdown of PCT international filings by ROs over time.



The totals for PCT international filings are also shown in Fig. 3.1. After a decrease of about 5 percent in 2009, total PCT international filings increased by 6 percent in 2010 and 11 percent in 2011. The compound annual growth rate from 2007 to 2011 was 3.3 percent.

In 2011, the IP5 Offices had an overall increase of PCT international filings of 14 percent. The JPO (20 percent in 2011) and the SIPO (35 percent in 2011) had the largest increases. Together the IP5 Offices were receiving office for 80 percent of the PCT international filings in 2011 (75 percent in 2007).

Fig. 5.8 shows the breakdown over time of the numbers of international search requests to Offices as ISA.

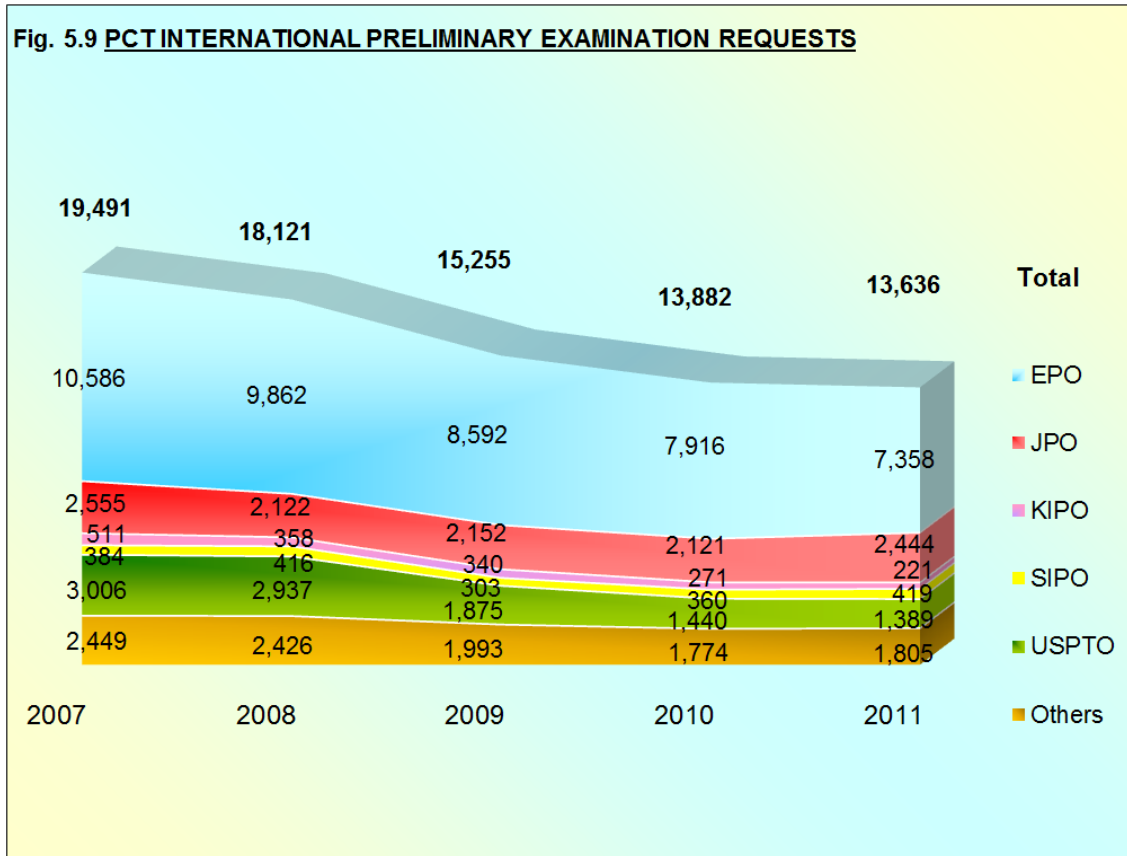


The IP5 Offices together received 93 percent of the PCT international search requests in 2011, compared to 92 percent in 2007. During this time period, the proportion of applicants that selected the KIPO (15 percent in 2011) and the SIPO (10 percent in 2011) to perform the PCT international search grew rapidly.

In 2011, strong growth was experienced by the KIPO (16 percent), the JPO (20 percent), and the SIPO (36 percent). The EPO and the USPTO both experienced smaller increases.

Since 2006, the KIPO has acted as an available ISA for international applications filed under the PCT in the RO/US, or the RO/IB where at least one of the applicants is a resident or national of the U.S. Although it increased in 2011, the combined number of international search requests to the KIPO and the USPTO remained relatively stable from 2006 to 2010.

Fig. 5.9 shows the breakdown over time of the numbers of international preliminary examination requests to Offices as IPEA.



The number of requests for international preliminary examination has declined substantially after rule changes (in 2004) regarding time limits to enter the national or regional phase and the introduction of a written opinion on patentability with the international search report. This made the international preliminary examination less attractive for most applicants. Together, the IP5 Offices were in charge of 87 percent of the IPEA work in 2011, the same percent as in 2007.

The EPO has consistently performed the highest proportion of the international preliminary examinations each year. Annually, from 2007 to 2011, the EPO performed over half of the international preliminary examinations with at least three times more examinations each year than any other office during the period.