Chapter 3
WORLDWIDE PATENTING ACTIVITY

Patent activity is recognised throughout the world as an indicator of innovative activity. This chapter examines worldwide patent activities in terms of patent applications and grants. The statistics mostly cover the five-year period from 2007 to 2011. The effects of the recent worldwide recession in 2009 are visible in this chapter. After a decrease in patent applications in 2009, generally attributed to the worldwide recession, the number of patent applications rebounded in 2010 and have grown further since. This suggests that the effects of the recession on the patenting activities have been limited. Comparable statistics on the usage of the PCT system appear in Chapter 5.

Applications reported hereafter are counted by the calendar year of filing and grants by the calendar year of grant. Statistics are derived primarily from the WIPO Statistics Database[15], as collected from offices all over the world. Patent statistics are sometimes retrospectively updated, and where necessary and possible missing counts have been supplemented using other sources, but otherwise no estimated counts have been included to compensate for missing data. Considering that not all the offices report filing statistics on a regular basis, some of these data should be interpreted with care, especially when referring to countries outside the IP5 Blocs.

It should be noted that the number of inventions that lead to patent applications is less than the total number of applications filed. This is because the first filing with respect to an invention is usually made in one office, and often followed by applications made to many other offices within one year, each such application claiming the priority of the earlier first filing. First filings can be thus seen as an indicator of innovation and inventive activity, while foreign filings are an indicator of an intention for international trade and of globalisation.

While demand for patent protection is considered principally by counting each national, regional or international application only once, alternative representations are also given in this chapter in terms of the demand for rights, after cumulating the number of designated countries over applications within regional procedures.

In this chapter, applications are counted in terms of patent filings; first filings; patent applications entering a grant procedure; and demand for national patent rights. These counting methods are associated with separate sections within the chapter.

- "*Patent filings*" include direct national, direct regional, and international PCT applications;
- "*First filings*" include initial patent applications filed prior to any later subsequent filings to extend the protection to other countries;
- "*Patent applications entering a grant procedure*" include direct national, direct regional, national stage PCT, and regional stage PCT applications;
- "*Demand for national patent rights*" includes direct national, designated regional, national stage PCT, and designated regional stage PCT applications.

The counts of patent grants in this chapter are based on extractions from the WIPO Statistics Database. They are counted in the year that the grants are issued or published. As with the applications, alternative presentations are also given in this chapter for grants in terms of the demands for rights, after cumulating the number of designated countries over applications within regional procedures.

[15] See footnote p.3.

The last part of this chapter discusses inter-bloc patent activity in terms of application flows between blocs and in terms of patent families. A patent family is a group of patent filings that claim the priority of a single filing, including the original priority forming filing itself and any subsequent filings made throughout the world. The set of distinct priority forming filings (that indexes the set of patent families) in principle constitutes a better measure for first filings than aggregated domestic national filings. IP5 Patent families are a filtered subset of patent families for which there is evidence of patenting activity in all IP5 Blocs.

GUIDE TO FIGURES IN CHAPTER 3

Due to the complexity of the patent system, different representations of the patent filing process are made to illustrate complementary parts of the process. The following scheme can guide the reader to graphs that correspond to the different representations. This aims also at describing the terminology used throughout the Chapter 3.

• **Figs. 3.1, 3.2, 3.3 and 3.4** show the numbers of ***patent filings*** in terms of application forms filled out. All of the following are counted once only: Direct national, direct regional filings (filed with the EPO, EAPO, ARIPO[16]), and PCT international filings.

• **Figs. 3.5, 3.6 and 3.12** show the numbers of requests for patents as ***patent applications*** that entered a grant procedure. Direct applications to the offices are counted at the date of filing. PCT applications are counted at the moment they enter the national or regional phase. Direct national and direct regional filings are counted once only. PCT filings are replicated over the numbers of national/regional procedures that are started.

• **Figs. 3.7, 3.8 and 3.9** show the equivalent numbers of ***demands for national patent rights***. Direct national filings are counted once only. The counts for PCT applications entering national procedures are replicated over the number of countries where they enter this phase. The counts for direct regional filings and PCT regional phase filings are replicated over the number of countries designated in the applications at the time that they enter the regional procedure. This gives a representation in terms of national patenting.

• **Figs. 3.13, 3.14, 3.15** and **Table 3** show the numbers of ***patent families*** that are generated as the set of first filings, counted once each only, and also show the flows between blocs in terms of the first filings for which claims to priority rights were made with subsequent filings in other countries.

• Regarding grants, **Fig. 3.10** shows the numbers of ***granted patents***. All grants are counted once only (in an analogous way to Figs. 3.5, 3.6 and 3.12 for applications).

• **Fig. 3.11** shows the numbers of ***validated national patent grant registrations***. Direct national grants are counted once only, but counts for regional office grants are replicated over the numbers of countries for which the grant provides valid registrations. This gives a representation in terms of national patent rights (analogous to Figs. 3.7, 3.8 and 3.9 for applications).

[16] The EAPO is the Eurasian Patent Office. The ARIPO is the African Regional Intellectual Property Office.

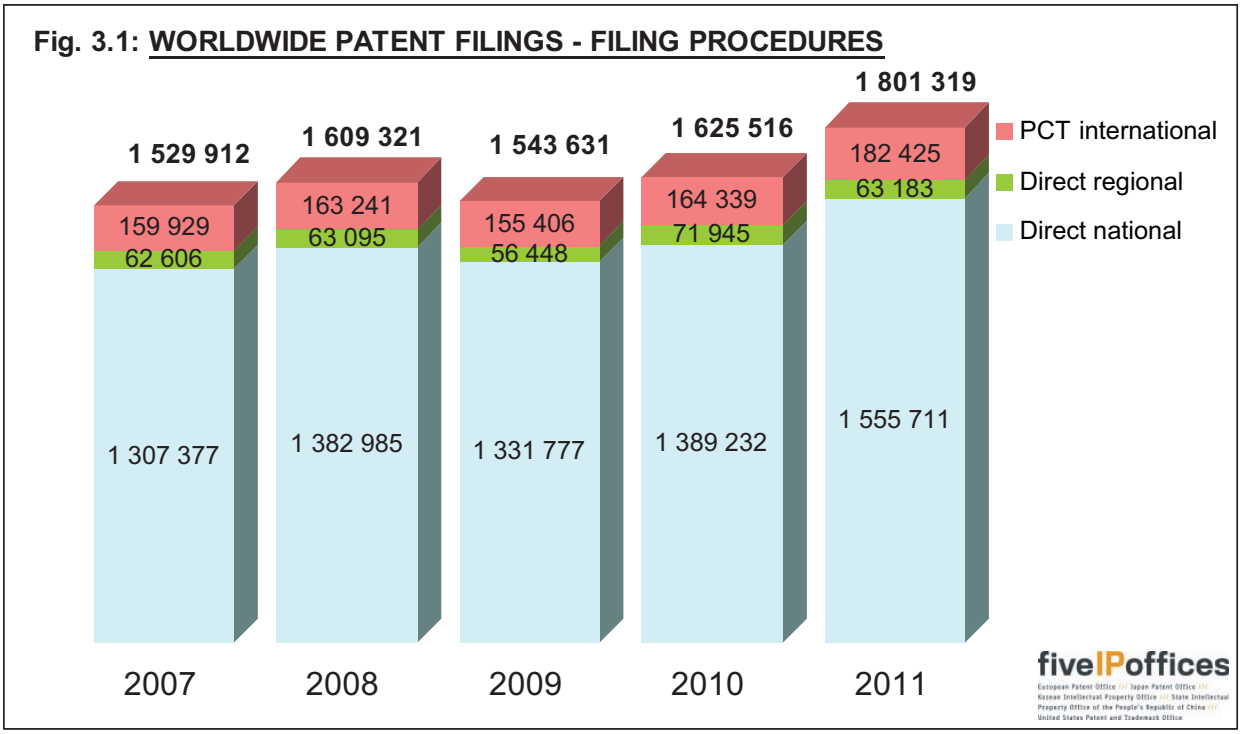
PATENT FILINGS

Patent filings counted in this section include direct national, direct regional, and initial PCT applications.

This section (with Figs. 3.1, 3.2, and 3.3) shows the numbers of patent applications that were filed throughout the world. These can be filed according to the direct national, direct regional, or PCT international procedures. These applications are counted once only. The number of countries designated by regional filings and the number of countries associated with the PCT filings are not used in determining these counts. The number of applications filed represents a measure of the overall numbers of actions taken to assert IP rights around the world, although some inventions lead to filings in more than one office.

Fig. 3.1 shows the breakdown of applications filed by the three types of filing procedures.

Fig. 3.1: WORLDWIDE PATENT FILINGS - FILING PROCEDURES

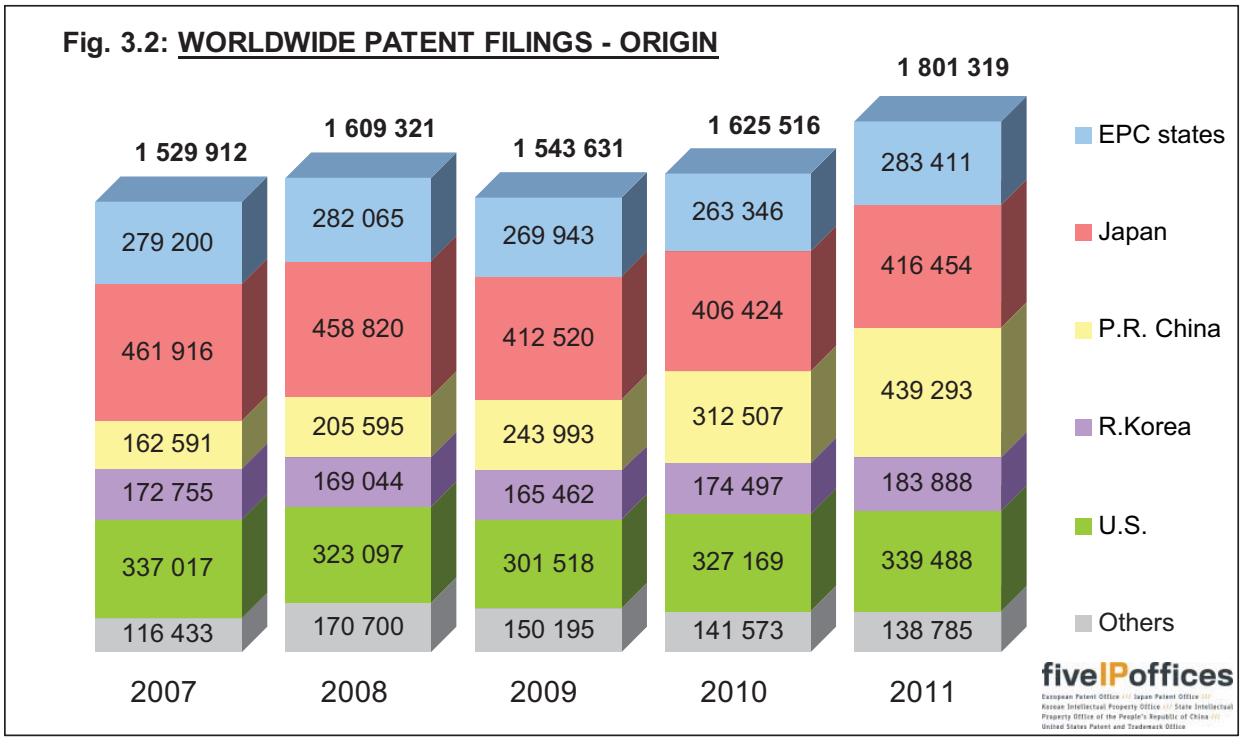


The number of patent filings in 2011 increased by 11 percent to 1.8 million.

In 2011, the number of PCT international, and direct national applications increased by 12 percent and 11 percent respectively. The decline in the number of direct regional applications by 12 percent is a consequence of an earlier temporary surge in regional direct applications in 2010 in response to a rule adjustment on filing divisional applications at the EPO. In 2011, 86 percent of the applications were filed according to direct national procedures.

Relatively speaking, the PCT system continues to make an important contribution that will be discussed later.

Fig.3.2 shows the breakdown of the worldwide patent filings of Fig. 3.1 by bloc of origin (residence of first-named applicants or inventors).

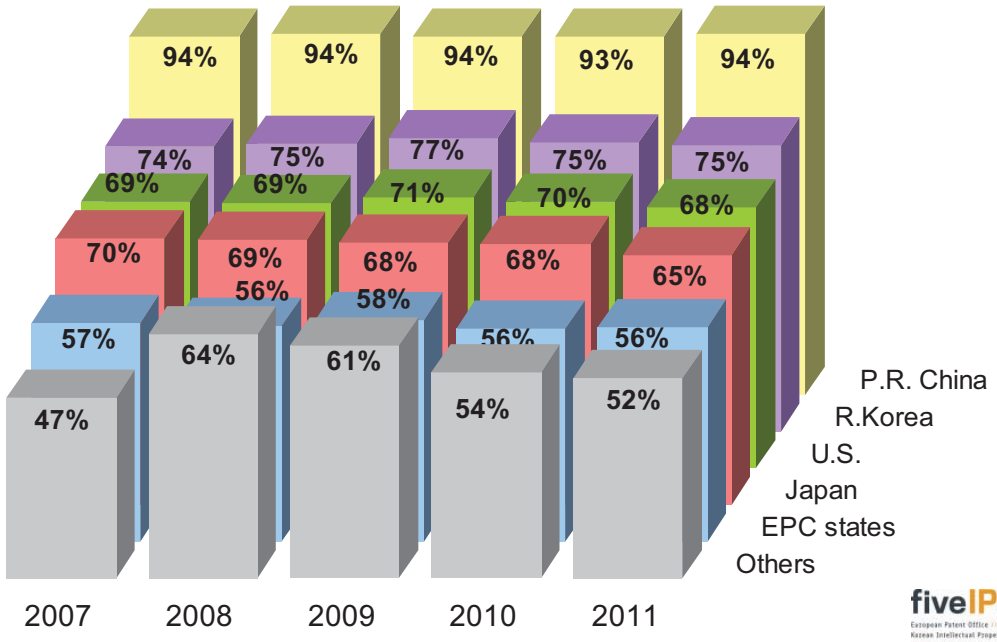


The IP5 Blocs were the origin of 91 percent of the patent filings overall from 2007 to 2011. The annual share grew from 89 percent in 2008 to 92 percent in 2011. The number of patent filings originating from each IP5 region increased in 2012.

Most national applications are made by residents of the countries concerned. To a large extent, applications abroad are made using regional or international procedures.

Fig. 3.3 shows the proportion of patent filings throughout the world that are filed within the home bloc of origin (residence of first-named applicants or inventors).

Fig. 3.3: WORLDWIDE PATENT FILINGS - PERCENTAGE FILED HOME



The proportion of patent filings made at home remains stable, except for Japan and the U.S. where it declined somewhat in 2011 compared to 2010. For the IP5 Blocs, P.R. China had the largest proportion of filings made at home in 2011 with 94 percent. The EPC states[17] had the lowest proportion with 56 percent in 2011.

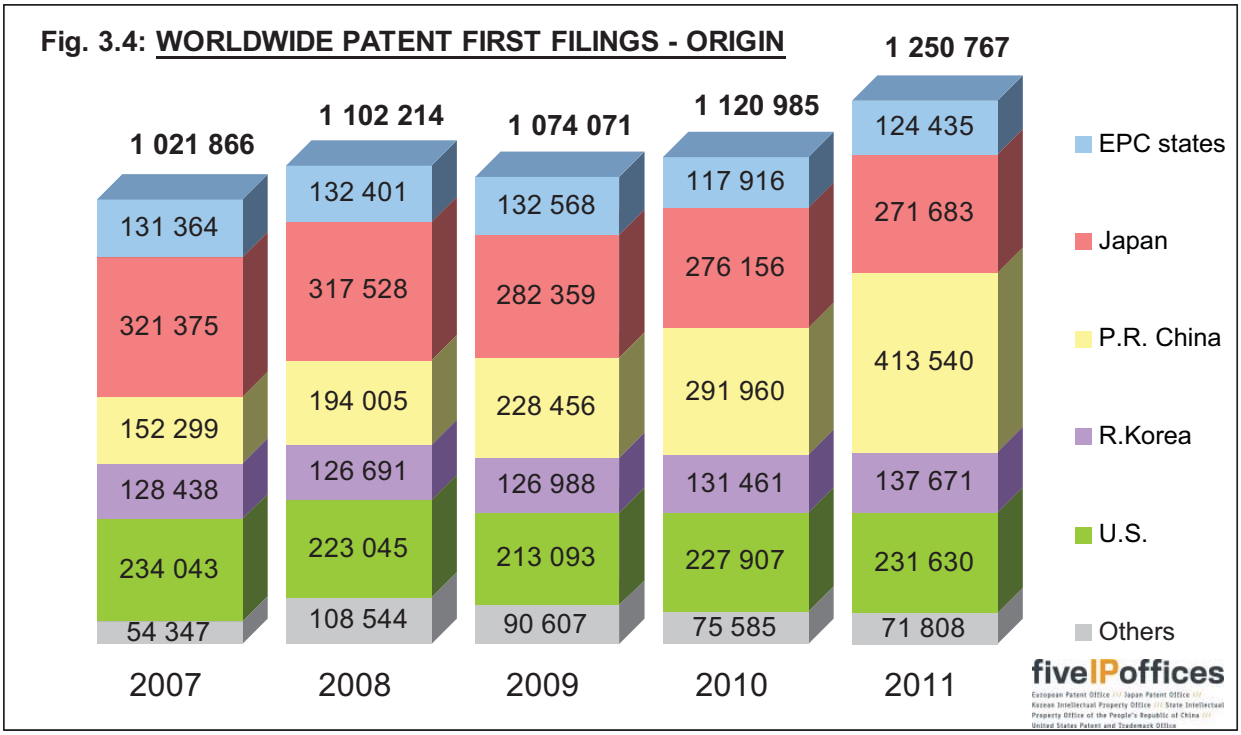
[17] For the purpose of reporting statistics for the EPC states considered as a bloc, an application by a resident in an EPC state to another EPC state or to the EPO is considered to be filed within the bloc of origin. See the EPO section of Chapter 2 for a listing of EPC states.

FIRST FILINGS

Patent filings counted in this section (with Fig. 3.4) consist of initial applications. All of the following are counted once only: Direct national, direct regional filings, and PCT international filings.

The process of obtaining patent protection starts with the first filing, an initial patent application made to protect an invention or an innovation prior to any later subsequent filings to extend the protection to other countries.

Fig. 3.4 shows the development of first filings in the major filing blocs of origin (residence of first-named applicants or inventors).



P.R. China recorded 413 540 first filings in 2011, the highest number of first filings by any bloc within the IP5 area. This was an increase of 42 percent compared to 2010 number. There were also increases in first filings from the EPC states, the U.S. and R. Korea of 6 percent, 2 percent and 5 percent respectively in 2011, while Japan had a decrease of 2 percent. Overall, first filings increased by 12 percent between 2010 and 2011.

Comparison of Figs. 3.2 and 3.4 demonstrates that there are considerable numbers of subsequent filings, where the first filing for an invention at one office leads on to further filings.

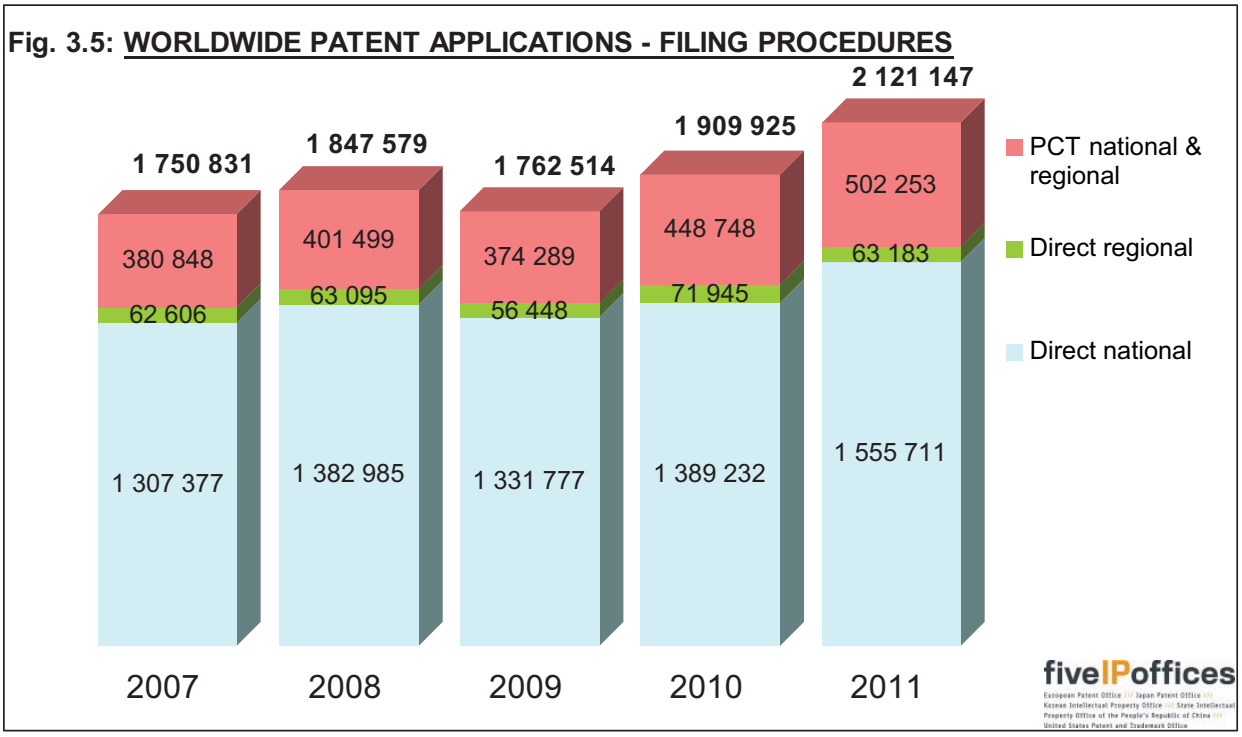
PATENT APPLICATIONS ENTERING GRANT PROCEDURES

Patent applications counted in this section include direct national, direct regional, national stage PCT, and regional stage PCT applications.

This section (with Figs. 3.5 and 3.6) describes the development of the number of requests for patents that entered a grant procedure. Note that direct national and direct regional applications enter a grant procedure when filed, while in the case of PCT applications, the grant procedure is delayed to the end of the international phase. In the following figures, the PCT application numbers count the applications that entered a national/regional stage in the corresponding year. This leads to higher numbers than in the previous section, because one PCT international filing usually enters into several national or regional procedures. For example, one PCT application (as reported in Fig. 3.1) may result in an EPO PCT regional phase entry, a U.S. PCT national phase entry, and an Australian PCT national phase entry, thus producing three PCT national/regional entry phase applications.

Fig. 3.5 shows the development of worldwide patent applications by filing procedure.

Fig. 3.5: WORLDWIDE PATENT APPLICATIONS - FILING PROCEDURES



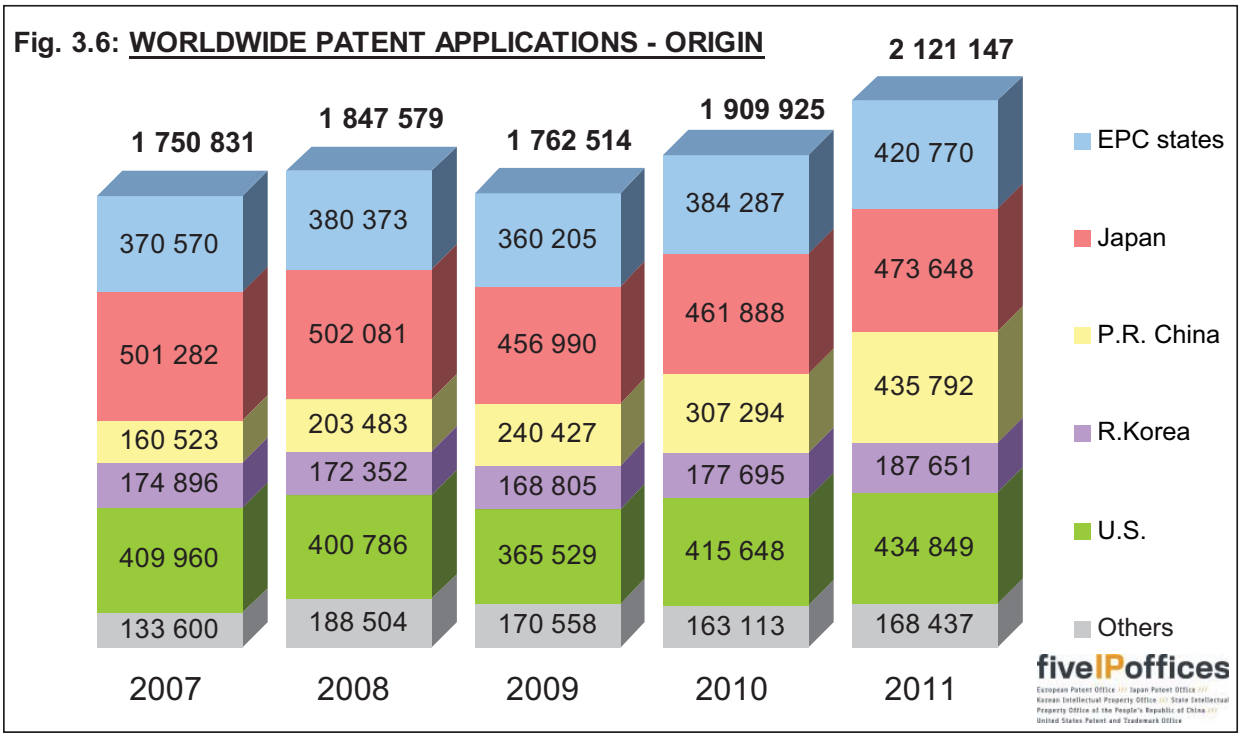
In 2011, more than 2.1 million patent applications were filed worldwide. This represented an 11 percent increase compared to 2010.

While the number of direct regional applications decreased in 2011 as a consequence of a change in regulations at the EPO[18], both the numbers of direct national and of PCT national/regional applications increased further by 12 percent.

[18] See page 29 for an explanation.

Fig. 3.6 shows the origin (residence of first-named applicants or inventors) of the worldwide patent applications of Fig. 3.5 entering a national or regional granting procedure.

Fig. 3.6: WORLDWIDE PATENT APPLICATIONS - ORIGIN



The number of patent applications increased for each of the IP5 Blocs in 2011, with Japan remaining the region from which the largest share of applications originate. The largest percentage increase in applications by origin in 2011 came from P.R. China (42 percent).

These data should be interpreted with caution as the origins of the PCT applications entering national procedures are not reported in detail by all offices outside the IP5.

DEMANDS FOR NATIONAL PATENT RIGHTS

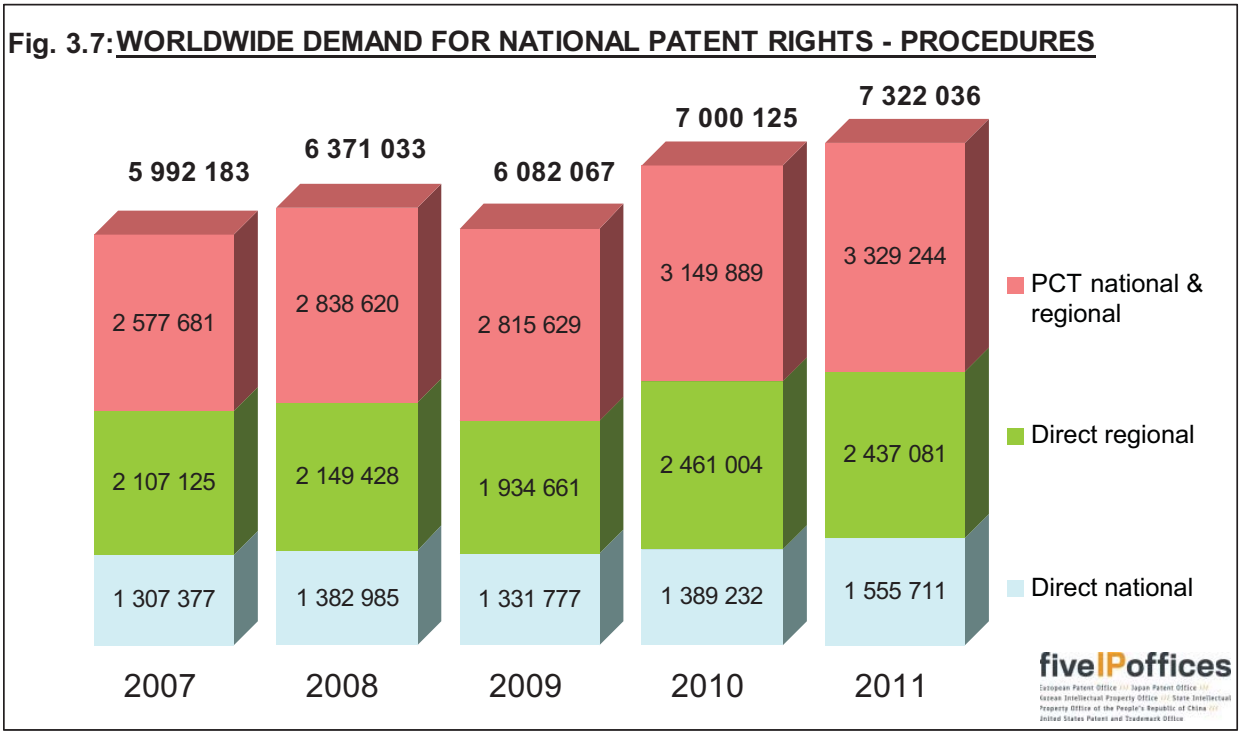
Patent applications counted in this section (with Figs. 3.7, 3.8 and 3.9) include direct national and national stage PCT applications, and designated countries in regional and in regional stage PCT applications.

With an increasing use of international and regional systems, and also the increasing number of countries joining such systems, the number of applications filed corresponds to a far larger number of demands for national patent rights. This cumulates the number of designated countries over applications. It effectively measures the number of national patent applications that would have been necessary to seek patent protection in the same number of countries if there were no international or regional systems.

The direct national applications have effect in one country only, as does any PCT application entering one national phase procedure. But direct regional applications and PCT applications entering in a regional system are demands for almost each and every individual member country. So, demand counts for regional offices are expanded to the numbers of countries covered by regional systems[19].

Fig. 3.7 shows the development of demand for national patent rights broken down by filing procedures.

Fig. 3.7: WORLDWIDE DEMAND FOR NATIONAL PATENT RIGHTS - PROCEDURES

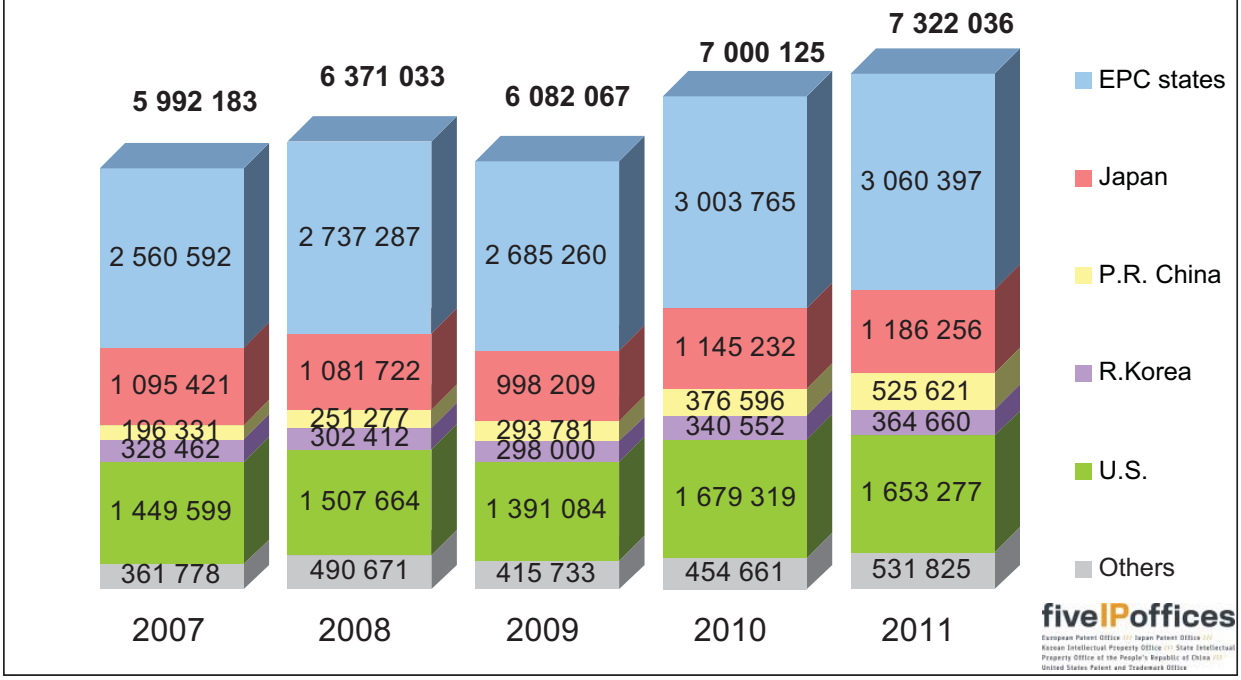


The demand for patent rights measured in terms of equivalent national patent rights increased by 4.6 percent from 2010 to 2011. In addition to the growing number of patent filings, the ongoing growth shown on Fig 3.7 illustrates the effect of the centralised procedures (regional and international) to help users of the system to expand their patent protection without needing to make separate applications to every country of interest.

[19] At the end of 2011, 80 states were party to a regional patent system, EPC 38, EAPC 9, ARIPO 17, Organisation Africaine de la Propriété Intellectuelle (OAPI) 16. This compares to 71 states at the beginning of 2007. Also at the end of 2011, 144 states were party to the PCT, compared to 136 states at the beginning of 2007.

Fig. 3.8 shows the trend for the demand of national patent rights by blocs of origin (residence of first-named applicants or inventors) and is based on the same data as Fig. 3.7.

Fig. 3.8: WORLDWIDE DEMAND FOR NATIONAL PATENT RIGHTS - ORIGIN

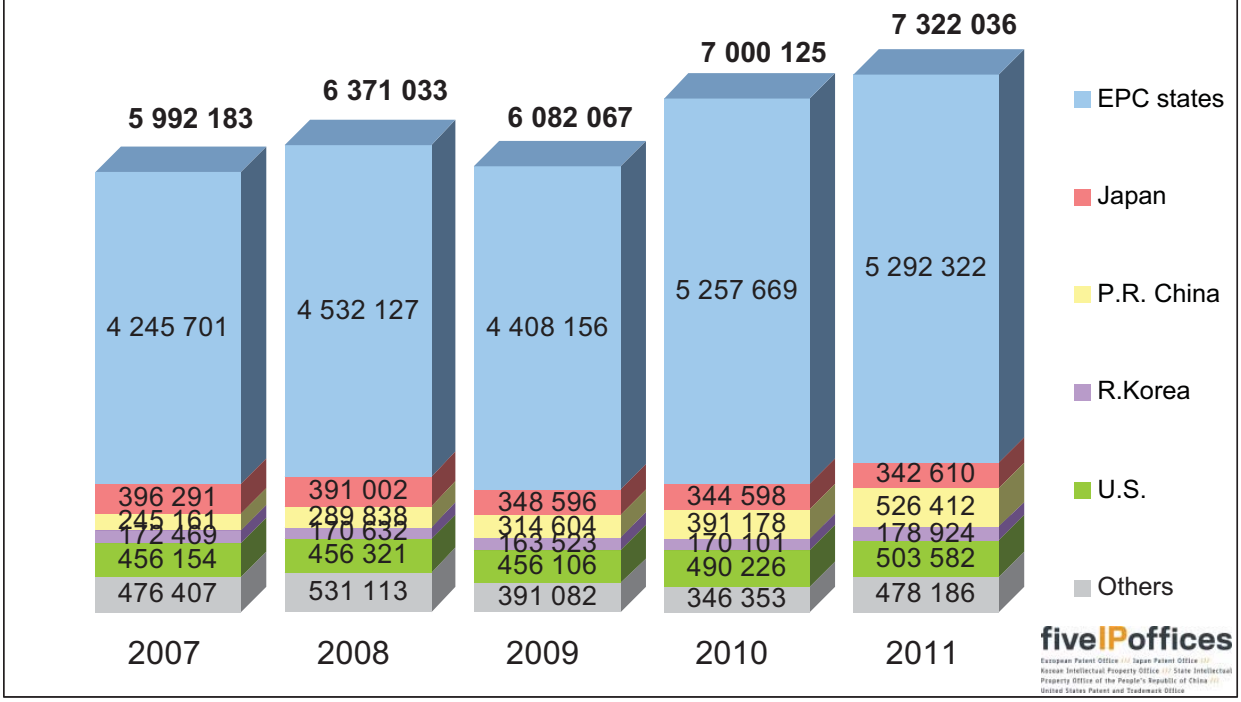


From 2010 to 2011, the demand for patent rights increased from all blocs except from the U.S.

The large share of the EPC states reflects, among other factors, the intensive use of the international and regional systems there.

Fig. 3.9 shows the distribution of the demand for national patent rights according to the filing or targeted blocs and is related to the data in Fig. 3.7 and Fig. 3.8.

Fig. 3.9: WORLDWIDE DEMAND FOR NATIONAL PATENT RIGHTS - FILING BLOC

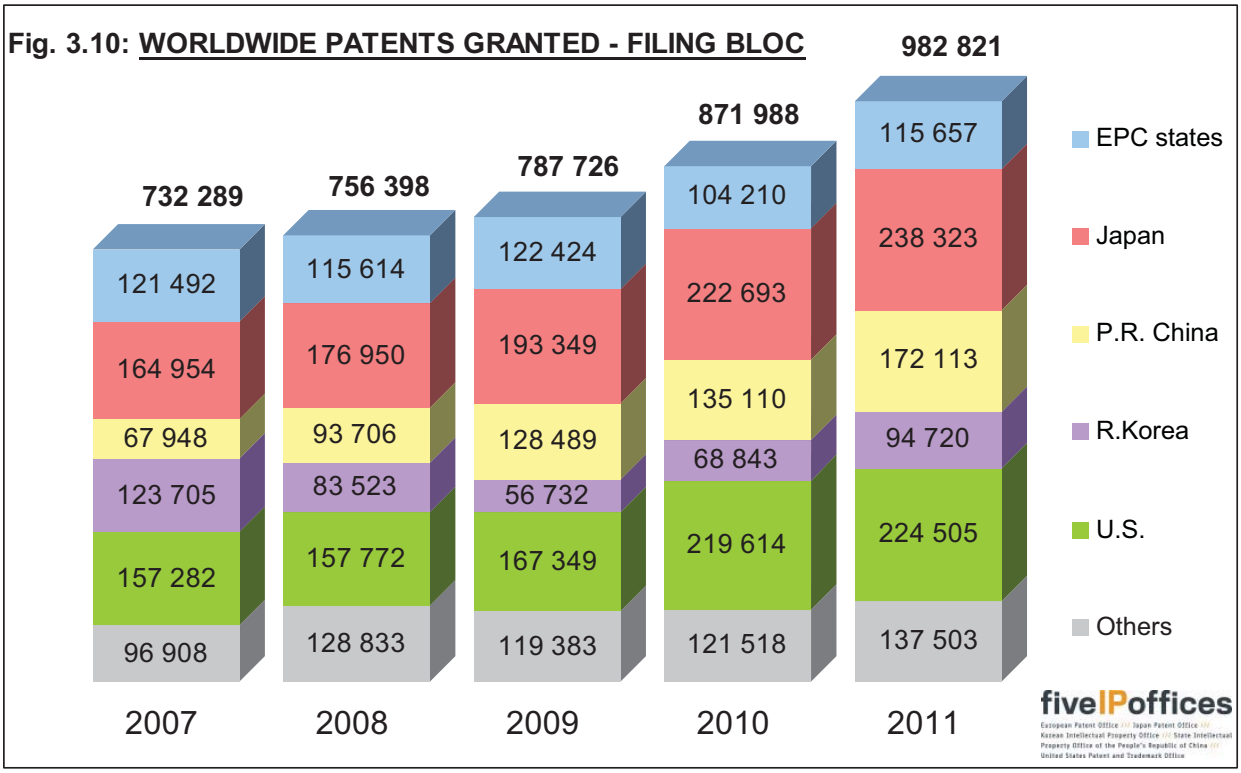


This chart demonstrates the influence of regional patent systems on global demand for patents. In 2011, the demand for national patent rights increased in the EPC states, P.R. China, R. Korea, and the U.S., while decreasing marginally in Japan. Demand in P.R. China and Others had the largest increases at 35 percent and 38 percent respectively.

PATENT GRANTS

The development of the use of patent systems is shown in this section in terms of grants.

Fig. 3.10 displays the cumulative numbers of patents granted in each of the blocs.



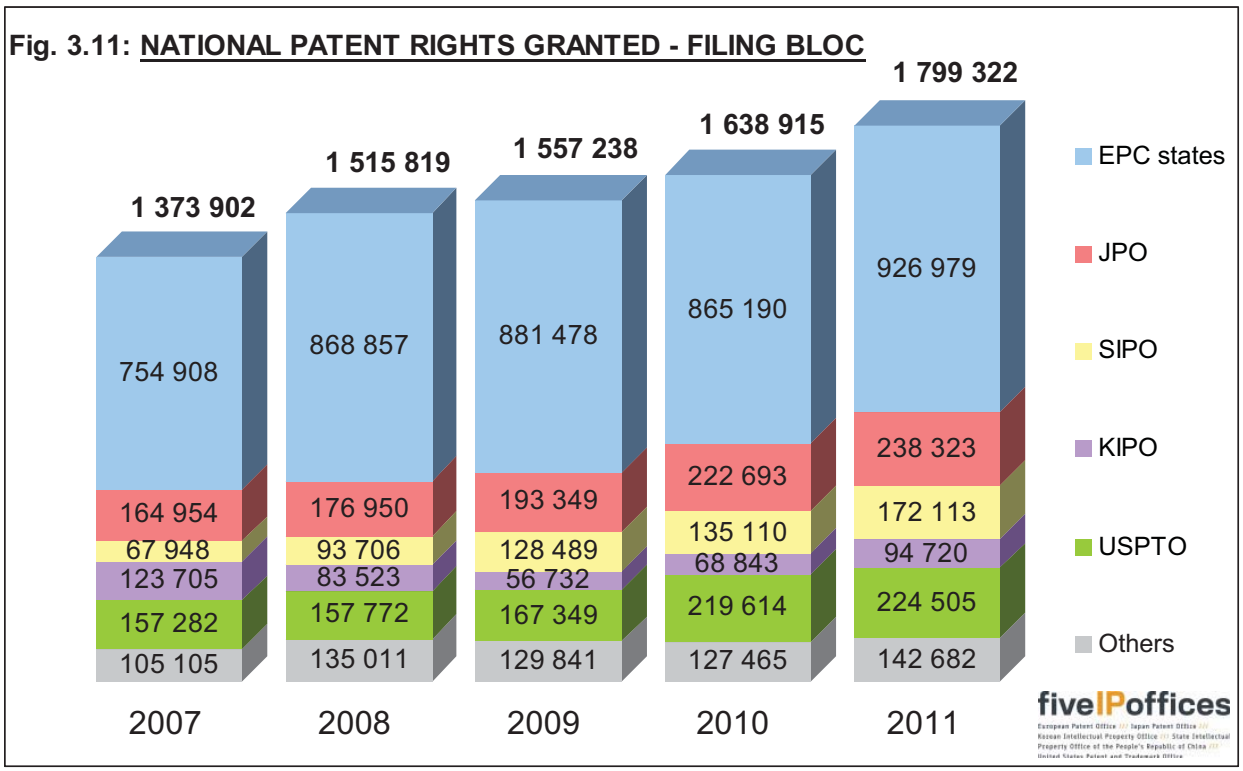
The total number of patents granted in the world increased by 13 percent in 2011. The number of grants increased in each bloc, although with different rates of growth.

The data for Others should only be compared between years with caution. The changes from year to year may reflect changes in the number of grants as well as different numbers of countries reporting their count of grants.

Patent grants are counted once only per office, although the same invention may lead to grants at several offices. However, each grant action by a regional office (e.g. the EPO) can lead to as many national patents as the number of member states that have been designated[20]. This has an effect only in EPC states and Others, as shown in the following Fig. 3.11.

[20] National patents can also be created in other states that have extension agreements with the EPC.

Fig. 3.11 illustrates the development of the validated national grants resulting from the decisions reported in Fig. 3.10. Direct national grants are counted once only, but counts for regional office grants are replicated over the numbers of countries for which the grant provides valid registrations. This gives a representation in terms of national patent rights obtained in each bloc.



Almost 1.8 million patent rights were granted in 2011, which represents a 10 percent increase compared to 2010.

The fact that the EPC states bloc is made up of many countries, with an option for a centralised grant procedure at the EPO, explains why the number of patent rights granted there in Fig. 3.11 is much larger than the number of grant actions shown in Fig. 3.10.

INTER-BLOC ACTIVITY

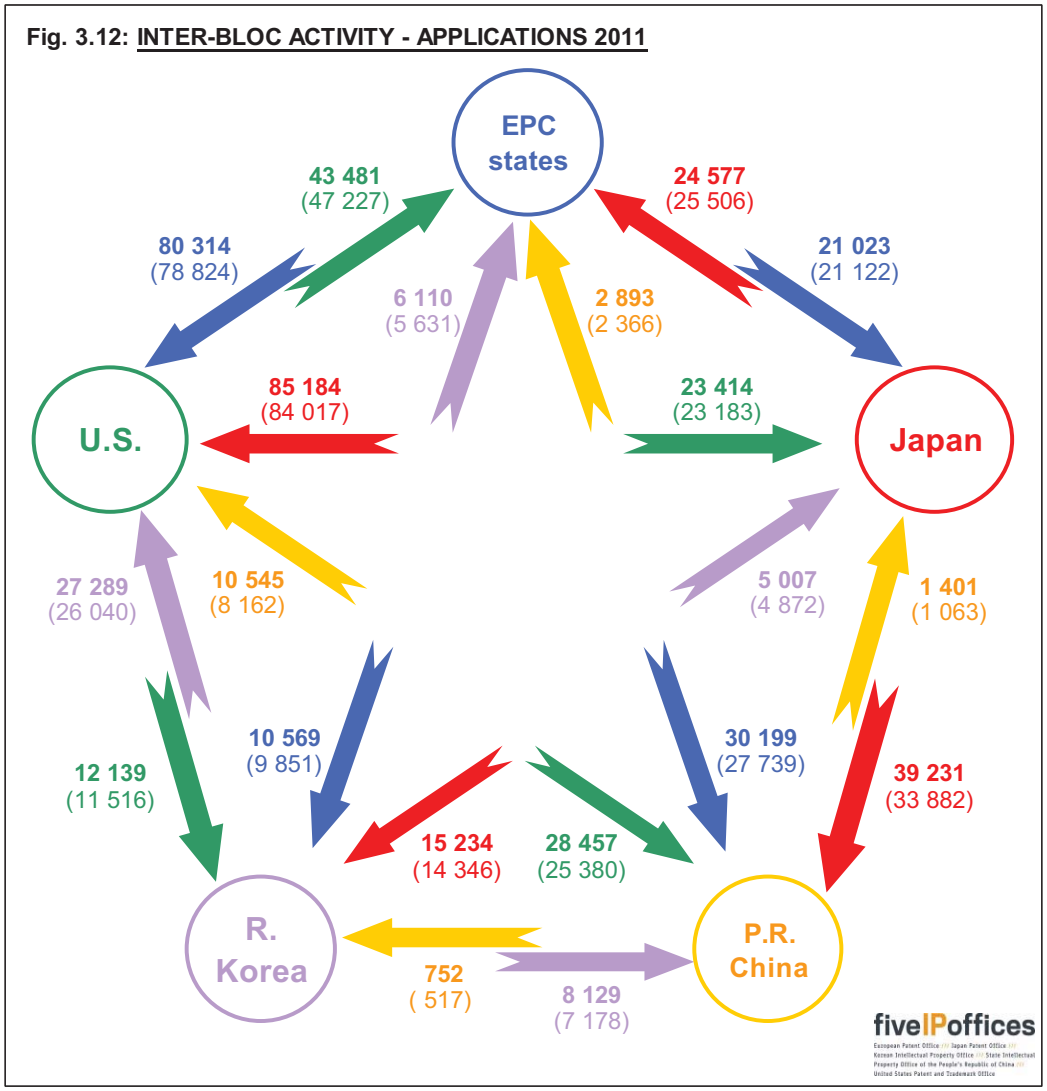
In this section, the flows between the different blocs and especially the IP5 Blocs are analysed first in terms of applications and then in terms of patent families.

FLOWS OF APPLICATIONS

Fig. 3.12 shows the flows, between IP5 Blocs by origin (residence of first-named applicant or inventor), of distinct patent applications entering a grant procedure (as in Fig. 3.5) in 2011, with 2010 figures given in parentheses.

Direct applications to the offices are counted at the date of filing. PCT applications are counted at the moment they enter the national or regional phase. Direct national and direct regional filings are counted once only. PCT filings are replicated over the numbers of national/regional procedures that are started.

Fig. 3.12: INTER-BLOC ACTIVITY - APPLICATIONS 2011



As a general pattern, applicants worldwide filed many more applications in the U.S. than in any of the other IP5 Blocs. U.S. applicants applied more in the EPC states than in any of the other regions. In 2011, flows from Japan and the U.S. to the EPC states declined as well as the flow from the EPC states to Japan. All other flows between blocs increased compared to 2010.

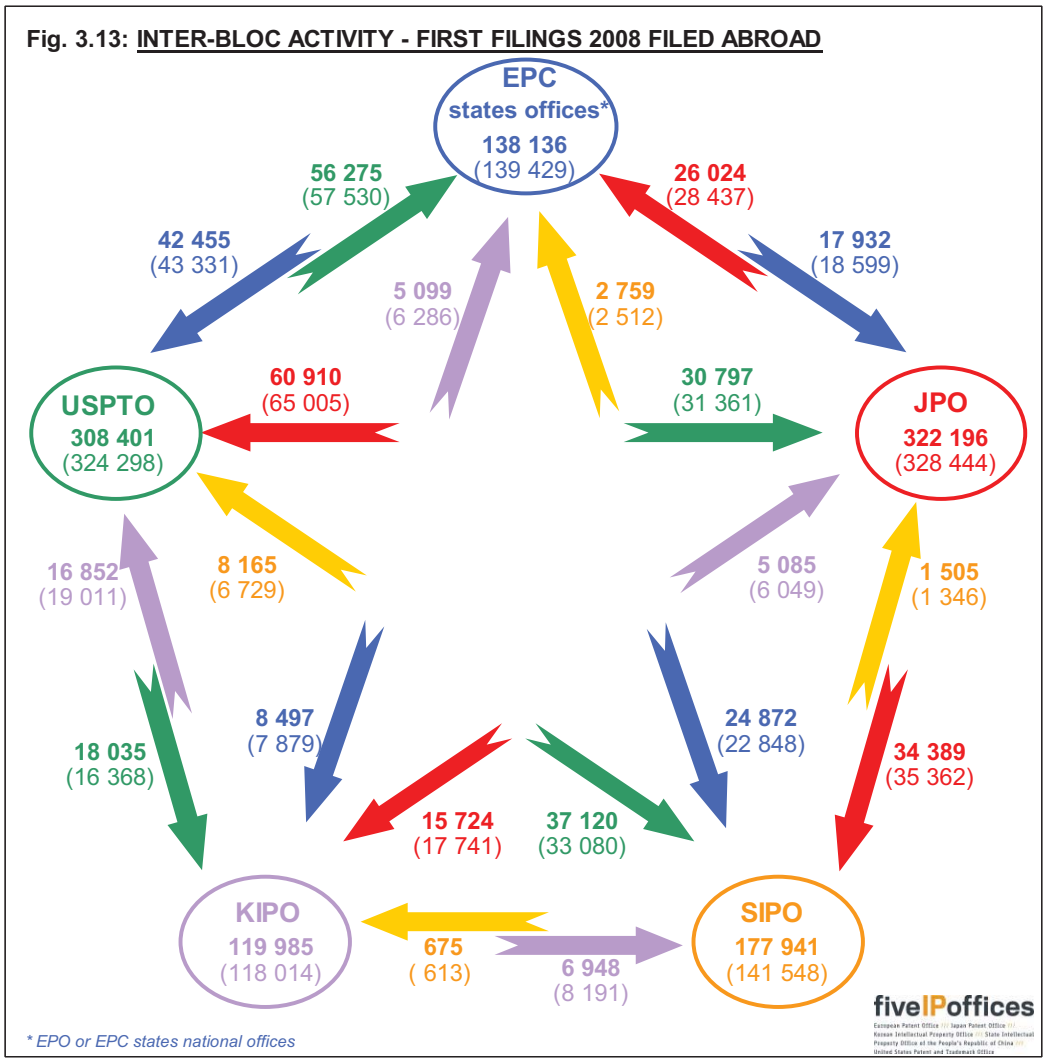
PATENT FAMILIES

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

The information in this section on flows between blocs of patent families was obtained from the DOCument DataBase (DOCDB)[21] of worldwide patent publications. The statistics are based on the references to priorities that were given in published applications and grants. Where no reference to a priority appears in an application, it is considered to be a first filing. Otherwise it is a subsequent filing. This differs to some extent from other statistics in this chapter that are based on counts of filed patent applications provided by individual patent offices, where domestic applications are used as a proxy for first filings. Here, the number of applications is counted based on the bloc of origin for which priority was claimed. Due to the delay in publication (relative to the time of filing), patent families counts can only be reported with any degree of accuracy after several years have passed. It should be noted that the definition of a patent family has changed slightly from previous reports, in that groups that consist entirely of utility model filings only are now excluded[22].

[21] DOCDB is the EPO master documentation database with worldwide coverage containing bibliographic data, abstracts and citations (but no full text).
[22] See Chapter 6 for a description and statistics on utility models.

Fig. 3.13 shows the flows of patent families from first filings (at the patent offices of the specified IP5 Bloc) to subsequent filings among the IP5, with application counts based on the bloc of the patent office from which the claimed priority was filed. The number given for each bloc is the total number of first filings in 2008, now including utility models only where they are quoted as priorities by other filings that were for patents for invention. The flow figures between blocs of origin and target blocs indicate the numbers of 2008 first filings from the bloc of origin that led to subsequent filings in the target bloc. The comparable figures for 2007 are given in parentheses.



The following Table 3 shows details of flows of patent families between blocs for the priority years 2007 and 2008. Each percentage under a number translates this number into a proportion of the number of first filings made in the initial filing bloc where the priority filings were made.

Even though the numbers for IP5 patent families after 2007 may not yet be complete, because more time is needed to gather all evidence of subsequent filing activity from first filings in later years, the numbers for 2008 in Fig. 3.13 and the corresponding numbers in the lower part of Table 3 are nevertheless fairly complete.

Table 3: NUMBERS OF PATENT FAMILIES[23]

Year of priority: 2007

Origin of the priority	First filings in bloc of origin	Number of priority claims in subsequent filings in								IP5 patent families
		Any other bloc	Any other IP5 bloc	EPC States	Japan	P.R. China	R. Korea	U.S.	Others	
EPC States (N.O., EPO)	139 429	49 275 35.3%	47 271 33.9%		18 599 13.3%	22 848 16.4%	7 879 5.7%	43 331 31.1%	18 865 13.5%	5 516 4.0%
Japan (JPO)	328 444	74 348 22.6%	72 790 22.2%	28 437 8.7%		35 362 10.8%	17 741 5.4%	65 005 19.8%	16 396 5.0%	7 765 2.4%
P.R. China (SIPO)	141 548	7 691 5.4%	7 542 5.3%	2 512 1.8%	1 346 1.0%		613 0.4%	6 729 4.8%	803 0.6%	337 0.2%
R. Korea (KIPO)	118 014	21 082 17.9%	20 897 17.7%	6 286 5.3%	6 049 5.1%	8 191 6.9%		19 011 16.1%	2 986 2.5%	2 282 1.9%
U.S. (USPTO)	324 298	77 326 23.8%	67 154 20.7%	57 530 17.7%	31 361 9.7%	33 080 10.2%	16 368 5.0%		45 525 14.0%	9 820 3.0%
IP5 blocs	**1 051 733**	**229 722** **21.8%**	**215 654** **20.5%**	**94 765** **9.0%**	**57 355** **5.5%**	**99 481** **9.5%**	**42 601** **4.1%**	**134 076** **12.7%**	**84 575** **8.0%**	**25 720** **2.4%**
Others	79 261	14 943 18.9%	15 144 19.1%	3 947 5.0%	2 269 2.9%	1 658 2.1%	893 1.1%	13 919 17.6%		324 0.4%
Total	**1 130 994**	**244 665** **21.6%**	**230 798** **20.4%**	**98 712** **8.7%**	**59 624** **5.3%**	**101 139** **8.9%**	**43 494** **3.8%**	**147 995** **13.1%**	**84 575** **7.5%**	**26 044** **2.3%**

Year of priority: 2008

Origin of the priority	First filings in bloc of origin	Number of priority claims in subsequent filings in								IP5 patent families
		Any other bloc	Any other IP5 bloc	EPC States	Japan	P.R. China	R. Korea	U.S.	Others	
EPC States (N.O., EPO)	138 136	48 211 34,9%	46 639 33,8%		17 932 13,0%	24 872 18,0%	8 497 6,2%	42 455 30,7%	18 180 13,2%	6 277 4,5%
Japan (JPO)	322 196	70 317 21,8%	69 066 21,4%	26 024 8,1%		34 389 10,7%	15 724 4,9%	60 910 18,9%	14 527 4,5%	7 453 2,3%
P.R. China (SIPO)	177 941	9 036 5,1%	8 927 5,0%	2 759 1,6%	1 505 0,8%		675 0,4%	8 165 4,6%	821 0,5%	361 0,20%
R. Korea (KIPO)	119 985	18 790 15,7%	18 635 15,5%	5 099 4,2%	5 085 4,2%	6 948 5,8%		16 852 14,0%	2 412 2,0%	2 014 1,7%
U.S. (USPTO)	308 401	74 771 24,2%	66 118 21,4%	56 275 18,2%	30 797 10,0%	37 120 12,0%	18 035 5,8%		43 597 14,1%	12 065 3,9%
IP5 blocs	**1 066 659**	**221 125** **20,7%**	**209 385** **19,6%**	**90 157** **8,5%**	**55 319** **5,2%**	**103 329** **9,7%**	**42 931** **4,0%**	**128 382** **12,0%**	**79 537** **7,5%**	**28 170** **2,6%**
Others	80 487	15 598 19,4%	15 827 19,7%	4 115 5,1%	2 010 2,5%	1 852 2,3%	880 1,1%	14 597 18,1%		381 0,5%
Total	**1 147 146**	**236 723** **20,6%**	**225 212** **19,6%**	**94 272** **8,2%**	**57 329** **5,0%**	**105 181** **9,2%**	**43 811** **3,8%**	**142 979** **12,5%**	**79 537** **6,9%**	**28 551** **2,5%**

Source: EPO DOCDB Database

From information in Table 3, out of all first filings in the IP5 Blocs in 2007 (1 051 733), 20.5 percent formed patent families that included at least one of the remaining IP5 Blocs (215 654). Proceeding to a higher degree of selectivity, only 2.4 percent of all first filings in the IP5 Blocs in 2007 formed "IP5 patent families", where activities of first and/or subsequent filings were made in all the IP5 Blocs.

[23] For the U.S. (USPTO), the numbers of first filings here includes U.S. provisional applications, while they are excluded in Fig. 3.4.

The proportions of IP5 patent families differed considerably according to the bloc of origin of the priority filings (EPC states 4.0 percent, U.S. 3.0 percent, Japan 2.4 percent, R. Korea 1.9 percent, P.R. China 0.2 percent and for Others 0.4 percent).

Fig. 3.14 presents a separate diagram for each IP5 Bloc to display the percentages of first filings in that Bloc that led to subsequent filings in each of the other IP5 Blocs. The diagrams show graphical displays of 2007 patent family data that are also presented in Table 3. Four coloured circles appear in each diagram with each circle representing the percentage of subsequent filings in an IP5 Bloc resulting from the number of first filings in the bloc of origin. Areas where the circles overlap correspond to subsequent filings in more than one other IP5 Bloc. Recall that, in the case of the EPC states the activities at national offices are included as well as the EPO.

Above each diagram appears first the total number of first filings that were received in each of the IP5 Blocs in 2007. Then the proportions of those first filings that led on to subsequent filings in each other bloc are shown.

Underneath the coloured diagrams, the percentages next to the bloc combinations show subsidiary percentages of subsequent filings that flowed to more than one other IP5 Bloc. These proportions also appear in the upper part of Table 3.

For instance, patent families from first filings in EPC member states that were subsequently filed in the P.R. China and the U.S. blocs are indicated in the graphical display by the area where the green and yellow circles overlap in the first diagram. The corresponding percentage is 14.1 percent, as shown next to the pair of yellow and green dots that appear lower down in the figure. The non-overlapping areas of the graphical displays are representative of the percentage or number of patent families that were not subsequently filed in any of the other IP5 Blocs. For instance, for first filings in EPC states, the small non-overlapping area of the P.R. China circle indicates that only a small percentage and number of the patent families from EPC states were filed in P.R. China without also being filed in at least one of the other IP5 Blocs, as well.

The very last combinations down the table correspond to the proportion of IP5 Patent families.

Fig. 3.14: 2007 PATENT FAMILIES - PERCENTAGES OF FIRST FILINGS WITH SUBSEQUENT FILINGS IN OTHER IP5 BLOCS

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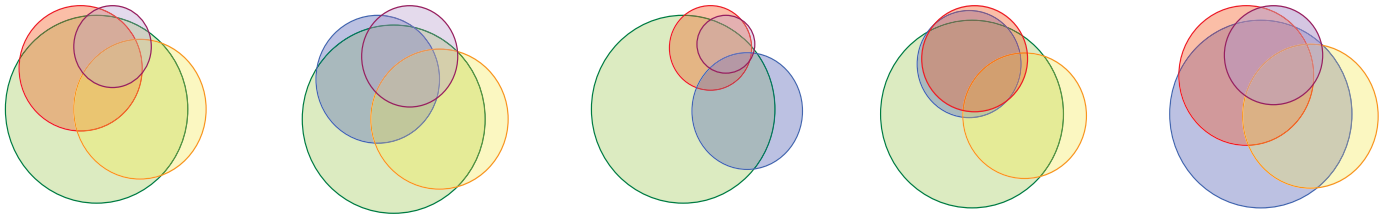
	First filings in	EPC states offices*	Japan (JPO)	P.R. China (SIPO)	R. Korea (KIPO)	U.S. (USPTO)
		139 429	328 444	141 548	118 014	324 298
Bilateral families with subsequent filings in						
EPC states		-	8.7%	1.8%	5.3%	17.7%
Japan		13.3%	-	1.0%	5.1%	9.7%
P.R. China		16.4%	10.8%	-	6.9%	10.2%
R. Korea		5.7%	5.4%	0.4%	-	5.0%
U.S.		31.1%	19.8%	4.8%	16.1%	-



Three bloc families with subsequent filings in						
EPC states & Japan		-	-	0.6%	2.6%	8.4%
EPC states & R. Korea		-	2.8%	0.3%	-	4.4%
EPC states & P.R. China		-	5.5%	-	3.5%	8.2%
EPC states & U.S.		-	8.1%	1.3%	5.0%	-
Japan & R. Korea		4.7%	-	0.3%	-	4.0%
Japan & P.R. China		9.1%	-	-	3.2%	5.8%
Japan & U.S.		12.5%	-	0.8%	4.5%	-
P.R. China & R. Korea		4.8%	4.2%	-	-	3.8%
P.R. China & U.S.		14.1%	9.0%	-	5.8%	-
R. Korea & U.S.		5.2%	4.4%	0.4%	-	-
Four bloc families with subsequent filings in						
EPC states & Japan & R. Korea		-	-	0.3%	-	3.7%
EPC states & Japan & P.R. China		-	-	-	2.0%	5.4%
EPC states & Japan & U.S.		-	-	0.5%	2.5%	-
EPC states & R. Korea & P.R. China		-	2.4%	-	-	3.5%
EPC states & R. Korea & U.S.		-	2.7%	0.3%	-	-
EPC states & P.R. China & U.S.		-	5.3%	-	3.4%	-
Japan & R. Korea & P.R. China		4.1%	-	-	-	3.2%
Japan & R. Korea & U.S.		4.5%	-	0.3%	-	-
Japan & P.R. China & U.S.		8.6%	-	-	3.0%	-
P.R. China & R. Korea & U.S.		4.5%	3.5%	-	-	-
IP5 families		4.0%	2.4%	0.2%	1.9%	3.0%

** EPO or EPC states national offices*

From figure 3.14 and Table 3, the 2007 data indicate that the U.S. market may be considered as the most important foreign market for the other IP5 Blocs since, for each of those blocs, subsequent applications in the U.S. represent the highest percentages among target blocs. The percentages of subsequent applications filed in the U.S. following 2007 first filings in the EPC member states, Japan, P.R. China and R. Korea are 31.1 percent, 19.8 percent, 4.8 percent and 16.1 percent, respectively.

For first filings in the EPC member states, the largest percentage of subsequent filings is directed to the U.S. (31.1 percent). In general, first filings in the EPC member states tend to result in a higher percentage of subsequent filings elsewhere, as compared to the first filings in other IP5 Blocs as seen in Fig. 3.14 and the first data row of Table 3.

For the first filings in Japan, the largest percentage of subsequent applications is directed to the U.S. (19.8 percent).

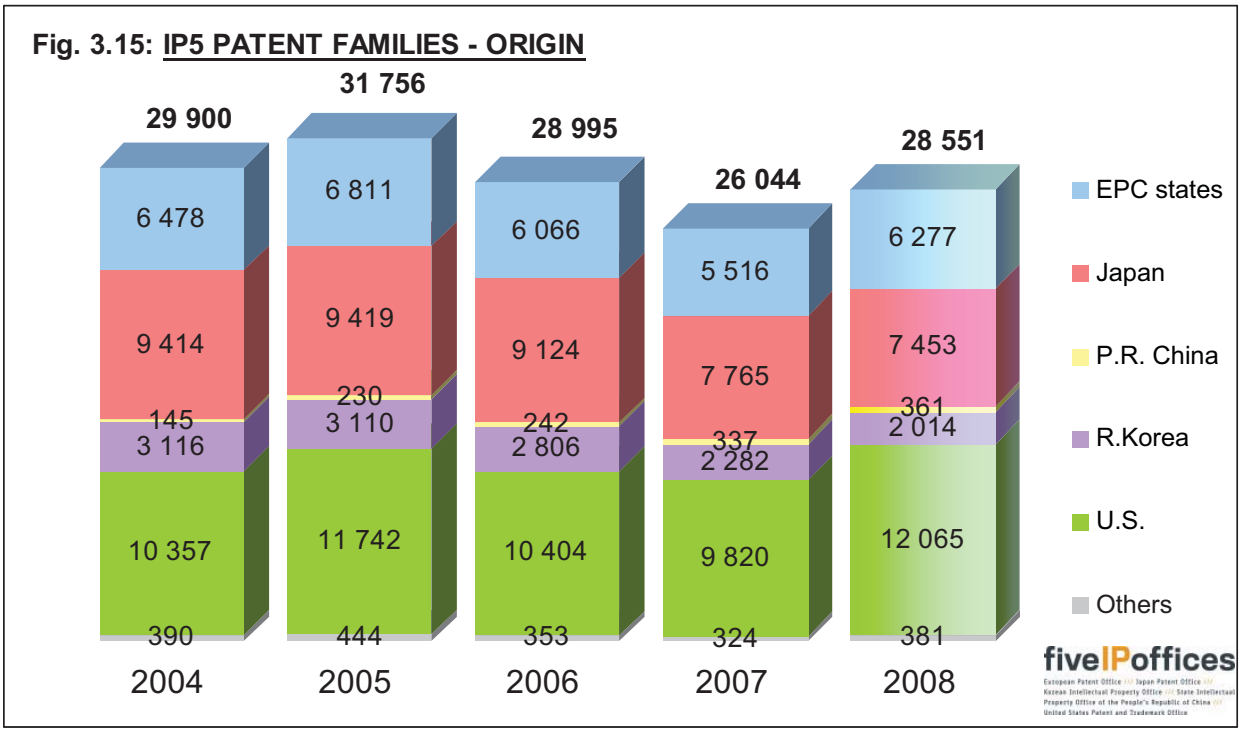
For the first filings in P.R. China, the percentage of subsequent applications filed in the U.S. (4.8 percent) is the largest. The percentage that were filed in both the EPC member states and Japan is about 0.6 percent. The percentage of subsequent applications that were filed in the EPC member states, Japan, and the U.S. is about 0.5 percent, indicating that many of the subsequent applications filed in both the EPC and Japan have also been filed in the U.S. Despite the low proportions of first filings in P.R. China that led to subsequent applications anywhere else, rapidly growing numbers of first filings have resulted in continued growth of the absolute numbers of patent families flowing out to other IP5 Blocs, as can be seen by comparing the 2007 and the preliminary 2008 data displayed in Table 3 (8 927 compared to 7 542).

For the first filings in R. Korea, the percentage of subsequent applications filed in the U.S. (16.1 percent) is the largest, followed by P.R. China (6.9 percent). In addition, the percentage of subsequent applications filed in the EPC member states is 5.3 percent. This last percentage is close to the percentage of subsequent applications filed in both the EPC member states and the U.S. together (5.0 percent), indicating that most of the subsequent applications filed in the EPC member states have been also filed in the U.S.

Among the first filings in the U.S., the percentage of subsequent applications filed is highest in the EPC member states (17.7 percent). The percentage of subsequent applications filed in P.R. China (10.2 percent) is the next highest, although Japan is not far behind at 9.7 percent.

Regarding activity in an IP5 Bloc that resulted from first filings in other IP5 Blocs, the percentage of first filings leading to IP5 families is slightly growing for all IP5 Blocs in particular for the EPC States and the U.S., as is demonstrated by comparing 2007 and 2008 data in Table 3.

Fig. 3.15 shows the development over time of IP5 patent families by bloc of origin (residence of first-named applicants or inventors) of the priority forming filings. To indicate that the figures for 2008 are still provisional, the last column is partially shaded.



The total number of IP5 patent families in 2008 was 28 551, of which 42 percent were from the U.S., 26 percent were from Japan, 22 percent were from the EPC states, 7 percent were from R. Korea, 1 percent were from P.R. China, and 1 percent were from Others. This number will probably increase when the data set for 2008 becomes complete a little later on.

The number of IP5 families went down in 2006 and 2007 and increased again in 2008, especially from the U.S.