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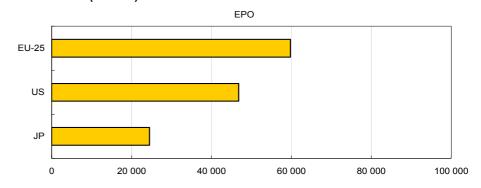


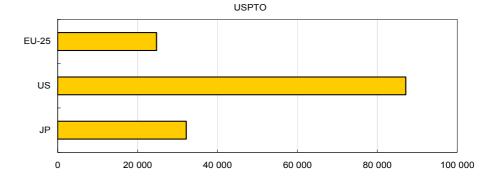
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### **National patent indicators**

Patent applications from the EU-25 to the European Patent Office higher than for the US

Figure 1: Total number of patent applications to the European Patent Office (EPO) in 2002 and patents granted by the US Patent and Trademark Office (USPTO) in 1999 (1)





(1) See methodological notes.

#### Main findings

- In 2002, patent applications to the EPO from the European Union, the United States and Japan were 59 756, 46 819 and 24 494 respectively. Whilst the USPTO granted 87 116 patents to US inventors in 1999, only 24 733 were awarded to inventors from the EU-25 and 32 178 to inventors from Japan.
- In 2002, within the EU-25, Germany was the largest contributor to patent applications to the EPO (41.0%), far ahead of France (14.3%) and the United Kingdom (12.1%).
- Among the EU-25 Member States, three countries led in patenting activities in relative terms (per million inhabitants and/or per million labour force). These were Germany, Sweden and Finland. Indeed, considering patents per million inhabitants, Germany registered 297 patent applications to the EPO (129 to USPTO), Sweden 290 (157) and Finland 307 (143).
- The United States specialised their patenting activities in "Physics" whereas the European Union specialised in "Performing operations; transporting". Most of Japan's patent applications to the EPO were in the "Electricity" domain whereas most of its patents granted by the USPTO were in "Physics".
- The number of patents granted by the USPTO showed an upward trend between 1985 and 1999 mainly for the United States but to a lesser extent also for the European Union and Japan.

#### Total patenting: domestic patents led at both the EPO and the USPTO

As shown in Figure 1, there are large differences between the number of domestic and foreign patents. In 2002, the EU-25 (59 756, see Table 1) made more patent applications to the EPO than for the United States (46 819) or Japan (24 494). Likewise, in 1999, there were more patents granted by the USPTO to the United States (87 116, see Table 2) than to Japan (32 178) or to the EU-25 (24 733).

Table 1 shows a relatively stable trend of patent applications from the Eu-25 to the EPO between 2000 and 2002.

In Japan (366) and in the United States (320) the number of patents applied per million labour force was slightly higher than for the EU-25 (284).

At national level within the EU-25, Germany led in absolute terms with 24 514 patent applications to EPO in 2002. This was more than twice the figures posted by France (8 556) and the United Kingdom (7 258).

Taking population into consideration, Finland, Germany and Sweden led with around 300 patent applications per million inhabitants in 2002. Six other Member States – Belgium, Denmark, France, Luxembourg, the Netherlands and Austria – recorded over 100 patent applications per million inhabitants to the EPO.

Expressed as a proportion of the labour force, Germany led with more than 600 patent applications (per million labour force) in 2002, but was closely followed by Finland and Sweden with 593 and 566 respectively.

Table 1: Patent applications to the EPO by priority year at the national level; total number, per million inhabitants and per million labour force, 1999 to 2002

	Total number				Per million inhabitants				Per million labour force			
	1999	2000	2001	2002	1999	2000	2001	2002	1999	2000	2001	2002
EU-25	56 603	60 740	60 806	59 756	125.8	134.7	134.5	:	:	293.1	292.0	284.4
EU-15	56 141	60 145	60 253	59 074	149.7	159.9	159.5	:	326.7	347.2	346.1	335.3
BE	1 465	1 470	1 390	1 452	143.4	143.5	135.4	140.8	335.7	333.3	322.9	333.5
CZ	108	107	116	122	10.5	10.4	11.3	12.0	21.0	20.8	22.7	24.1
DK	1 019	1 178	1 180	1 167	191.8	220.9	220.7	217.5	357.0	414.2	416.4	407.8
DE	23 536	25 086	24 819	24 514	286.9	305.3	301.7	297.4	594.4	635.9	626.7	618.5
EE	12	13	14	10	8.4	9.8	10.1	7.1	17.7	20.5	21.1	15.0
EL	67	72	97	109	6.2	6.6	8.9	9.9	14.7	15.7	21.3	23.4
ES	943	1 045	1 150	1 246	23.7	26.1	28.5	30.5	54.5	58.3	64.1	66.7
FR	8 055	8 401	8 592	8 556	137.7	143.0	145.5	144.2	315.0	326.2	331.6	327.0
IE	300	283	338	311	80.5	75.0	88.1	79.7	178.0	162.3	188.9	168.7
IT	4 144	4 473	4 548	4 747	72.8	78.6	79.8	83.3	177.5	190.5	192.4	198.1
CY	6	11	4 546 17	4 /4/ 5	8.4	15.5	79.6 24.1	7.6	177.5	34.6	52.0	16.3
	6											
LV		15	11	13	2.3	6.4	4.7	5.5	5.0	14.0	10.1	11.4
LT	4	9	8	10	1.0	2.5	2.2	2.8	2.1	5.1	4.7	5.9
LU	79	102	79	69	186.0	234.2	179.7	154.6	441.6	548.8	419.7	355.6
HU	173	205	182	193	16.8	20.0	17.9	19.0	42.5	50.3	44.5	47.1
MT	5	5	6	5	13.2	11.8	16.5	11.8	:	29.4	40.8	29.2
NL	3 308	3 879	4 456	3 934	209.9	244.5	278.7	244.3	419.2	480.0	540.8	468.9
AT	1 239	1 382	1 389	1 483	155.2	172.7	173.2	183.9	321.1	357.6	360.7	384.6
PL	80	121	117	179	2.1	3.1	3.1	4.7	4.7	7.0	6.7	10.4
PT	47	59	57	49	4.6	5.8	5.5	4.8	9.1	11.3	10.7	9.1
SI	43	72	58	103	21.9	36.2	29.4	51.7	45.1	74.9	60.4	105.2
SK	26	39	23	41	4.9	7.2	4.2	7.7	10.4	15.1	8.6	15.9
FI	1 737	1 796	1 792	1 593	336.7	347.2	345.9	306.6	657.6	674.0	668.9	592.9
SE	2 962	3 255	2 867	2 587	334.5	367.4	322.7	290.4	674.9	746.0	629.5	565.5
UK IS	7 239 42	7 665 43	7 499 35	7 258 52	121.9 150.6	128.6 154.0	125.3 123.9	180.9	254.5 269.5	267.3 268.6	261.5 218.0	250.8 322.0
LI	22	43 27	35 31	28	678.7	847.5	933.3	849.8	209.5	200.0	216.0	322.0
NO	564	637	594	610	126.8	142.3	132.0	134.8	242.0	270.9	251.4	255.2
EEA	57 230	61 448	61 466	60 446	:	:	:	:	:	:	:	:
CH	2 745	3 049	3 138	2 987	385.4	425.6	435.5	411.7	688.6	765.2	777.0	731.4
BG	31	23	28	36	3.8	2.8	3.5	4.6	:	6.7	8.2	10.6
HR	42	56	55	87	. :	12.2	12.3	:	. :	. :	:	48.8
RO TR	23	18	30	30	1.0	0.8	1.3	1.4	2.0	1.5	2.6	2.8
CA	67 2 277	88 2 563	88 2 707	118 2 713	:	:	<u>:</u> :	:	2.7	3.7	3.7	4.9
CN	723	2 563 1 693	2 707 1 042	1 480	:			:	: 1.0	2.3	: 1.4	2.0
JP	20 056	23 991	23 090	24 494	158.6	:	:	:	295.9	354.6	342.0	366.2
RU	632	619	666	591	:	:	:	:	8.7	8.6	9.4	8.2
US	44 213	48 859	47 157	46 819	162.8	:	:	:	314.0	339.3	324.8	319.9

Reference data on population and labour force come from Eurostat or OECD MSTI 2005/1.



Table 2 shows an upward evolution regarding patents granted by the USPTO between 1996 and 1998 to applicants from the United States. However, it decreased between 1998 and 1999.

Whilst the USPTO granted 87 116 patents to US inventors in 1999, only 24 733 were awarded to inventors from the EU-25 and 32 178 to inventors from Japan.

Taking the population into account, differences still remained substantial. In 1999, the United States recorded a ratio of 321 patents granted per million inhabitants. The same ratio was 254 and 55 for Japan and the EU-25 respectively.

Within the EU-25, Germany again led in absolute terms with 10 622 patents granted by USPTO in 1999.

Taking population into account, Sweden, Finland and Germany ranked highest with 157, 143 and 129 patents granted per million inhabitants respectively.

Expressed as a proportion of the labour force, Sweden came first with 317 patents granted per million labour force in 1999. Two other Member States – Germany and Finland – counted more than 200 patents granted. These ratios are however lower than for the United States (619) and Japan (475).

The data shown in table 2 for the years 2000 and 2002 are not comparable to the data of 1999 and before, due to administrative delays at the USPTO when granting the patents.

Table 2: Patents granted by the USPTO by priority year at the national level; total number, per million inhabitants and per million labour force, 1996 to 2002

		Per million in	habitants	Per million labour force						
	1996	1997	1998	1999	2000	2002	1996	1999	1996	1999
EU-25	25 595	27 363	27 445	24 733	18 376	3 925	57.2	55.0	:	:
EU-15	25 475	27 204	27 311	24 602	18 250	3 893	68.4	65.6	151.8	143.2
BE	668	727	684	599	437	133	65.9	58.6	159.5	137.2
CZ	28	39	36	29	24	11	2.7	2.9	:	5.7
DK	466	447	437	395	288	79	88.8	74.3	165.5	138.3
DE	10 585	11 326	11 781	10 622	8 335	1 623	129.4	129.5	270.8	268.3
EE	2	3	3	3	1	:	1.1	2.1	:	4.3
EL	27	24	25	10	11	7	2.5	0.9	6.3	2.2
ES	279	298	302	285	236	78	7.1	7.2	17.0	16.5
FR	3 967	4 224	4 148	3 685	2 447	464	68.5	63.0	157.9	144.1
IE	108	121	139	163	124	53	29.8	43.6	72.8	96.5
IT	1 700	1 787	1 716	1 670	1 375	356	29.9	29.4	74.5	71.6
CY	0	1707	1710	2	1 3/3	0	0.5	2.9	:	:
LV	3	1	4	1	3	0	1.3	0.4	133.3	0.9
LV LT	3 1	2	1	1	3	0	0.3	0.4		0.9
									:	
LU	23	34	35	36	31	17	55.4	83.7	:	198.8
HU	46	62	35	52	46	13	4.5	5.1	11.6	12.9
MT	2	1	1	3	1	:	5.4	7.9	:	:
NL	1 291	1 399	1 305	1 213	1 003	191	83.3	76.9	174.3	153.7
AT	459	559	561	520	450	88	57.7	65.1	120.1	134.7
PL	23	31	22	21	18	6	0.6	0.5	:	1.2
PT	5	14	13	12	13	7	0.5	1.2	1.0	2.4
SI	12	10	26	12	22	2	6.0	6.2	12.8	12.9
SK	3	8	6	6	7	:	0.5	1.1	<u>.</u> :	2.3
FI	752 1 563	852	836	738	446	116	147.0	143.0	307.7	279.3
SE UK	3 583	1 783 3 609	1 585 3 742	1 391 3 264	852 2 202	174 509	176.8 61.0	157.1 55.0	354.4 125.1	317.0 114.8
IS	14	14	25	23	16	1	52.2	84.3	96.6	151.0
LI	25	17	22	14	10	5	803.3	438.9	:	:
NO	247	269	278	224	134	44	56.6	50.3	111.2	96.1
EEA	25 881	27 664	27 769	24 994	18 536	3 976				
CH	1 293	1 489	1 354	1 286	1 008	207	183.1	180.5	329.7	322.5
BG	2	4	6	9	3	1	0.3	1.1	:	:
HR RO	9 5	12 4	11 6	7 5	10	4	2.0	:	:	:
TR	6	8	16	5 10	2 12	3 8	0.2	0.2 :	: 0.3	0.5 0.4
CA	3 033	3 511	3 842	3 486	3 099	1 550	101.8	:	U.3 :	U. <del>4</del>
CN	106	158	189	267	358	292	:	:	:	:
JP	32 047	33 902	32 751	32 178	28 235	6 874	255.3	254.5	477.5	474.7
RU	232	219	223	210	200	65	:	:	3.2	2.9
US	76 849	86 801	89 859	87 116	77 574	39 478	290.9	320.7	567.1	618.6

Reference data on population and labour force come from Eurostat or OECD MSTI 2005/1.



# Patenting activities by IPC section: US specialised in physics, EU-25 in performing operations - transporting

Table 3 shows patent applications to the EPO by IPC section. Within the EU-25 in 2002, the most important IPC sections were *Performing operations; transporting* — *section B* with 20.3% of the total patent applications followed by *Electricity* — *section H* and *Physics* — *section G* with shares of 17.0% and 16.7% respectively.

For the United States, the most important section in 2002 was **Physics** — **section G** with 22.4% followed by **Human necessities** — **section A** with 22.1%.

China, Japan and Canada were more specialised in *Electricity* — *section H* with 27.8 %, 24.4 % and 23.5% of total patent applications to the EPO respectively.

Russia's specialisations were noticeably different. Its most important sections were *Human necessities*— section *A* and *Chemistry; metallurgy*— section *C.* 

Within the European Union, the distribution varied at Member State level. For instance, Belgium specialised in **Chemistry**; **metallurgy** — **section C**; Denmark in **Human necessities** — **section A**; Ireland in **Electricity** — **section H** and the United Kingdom in **Physics** — **section G**.

The IPC sections where the EU-25 appeared the least specialised in 2002 were *Textiles; paper* — *section D* and *Fixed constructions* — *section E*.

Table 3: Patent applications to the EPO by priority year at the national level by IPC sections, as a percentage of total patent applications, 2002<sup>(1)</sup>

	Total Number	Human necessities	Performing operations; transporting	Chemistry; metallurgy	Textiles; paper	Fixed constructions	Mech. eng.; lighting; heating; weapons; blasting	Physics	Electricity
EU-25	59 756	15.1	20.3	14.4	2.1	4.2	10.2	16.7	17.0
EU-15	59 074	15.0	20.3	14.3	2.1	4.2	10.2	16.7	17.1
BE	1 452	15.5	18.0	25.9	3.9	3.9	5.0	13.6	14.1
CZ	122	19.0	24.3	14.6	3.5	6.5	15.0	11.4	5.7
DK	1 167	25.7	13.4	19.2	0.6	5.0	9.9	14.1	12.2
DE	24 514	11.4	22.9	14.8	2.1	3.7	13.7	15.7	15.8
EE	10	25.9	10.4	23.4	-	-	-	40.4	-
EL	109	27.6	17.6	15.1	0.9	10.1	5.5	8.6	14.6
ES	1 246	22.1	27.3	13.9	2.2	6.4	7.1	10.3	10.7
FR	8 556	16.8	18.9	14.0	1.3	3.6	8.8	17.5	19.0
IE . <del></del>	311	22.2	11.3	9.5	0.1	1.6	4.7	23.6	27.1
IT	4 747	20.9	27.5	10.9	3.1	6.0	10.8	9.6	11.2
CY	5	37.5	26.6	4.7	-	-	-	15.6	15.6
LV	13	27.7	7.7	8.7	7.7	-	21.2	11.6	15.4
LT	10	20.7	5.2	10.4	10.4	-	20.7	32.7	-
LU	69	11.0	23.0	21.7	1.9	4.4	16.9	12.4	8.7
HU	193	25.5	17.1	18.4	-	8.2	4.1	15.2	11.5
MT	5	21.4	-	-	-	7.1	-	49.9	21.4
NL	3 934	13.8	12.9	12.4	1.0	3.0	3.8	28.0	25.1
AT	1 483	15.6	23.0	10.6	4.3	9.2	9.5	12.9	14.7
PL	179	21.3	12.6	25.9	-	9.5	7.1	15.1	8.5
PT	49	18.9	22.4	13.4	6.1	15.3	6.1	9.2	8.7
SI	103	31.5	12.9	12.6	1.9	2.9	3.9	17.3	17.0
SK	41	14.5	16.9	27.1	-	4.8	25.4	6.5	4.8
FI	1 593	8.6	12.4	8.9	6.9	2.8	4.2	17.2	39.0
SE	2 587	19.0	21.1	9.9	2.2	4.5	7.4	17.0	18.8
UK	7 258	18.4	14.4	17.1	1.1	4.8	7.4	20.6	16.3
IS LI	52	45.1	9.3	17.6	1.9	3.9	3.7	15.9	2.6
NO NO	28 610	40.6 19.2	13.4 17.2	10.8 13.4	0.9	- 11.0	21.7 10.1	8.2 20.1	5.3 8.2
EEA	60 446	15.2	20.2	14.4	2.0	4.3	10.1	16.7	16.9
CH	2 987	19.6	20.6	14.8	2.4	3.5	7.6	18.9	12.6
BG	36	28.4	22.0	2.4	0.3	-	16.5	15.2	15.1
HR	87	25.2	15.5	24.0	1.1	11.5	8.0	11.5	3.2
RO	30	16.9	4.1	4.1	-	27.1	24.5	12.6	10.7
TR	118	24.8	14.9	8.8	7.7	5.9	21.6	5.3	11.0
CA	2 713	17.6	12.7	17.0	0.8	3.5	5.9	19.1	23.5
CN JP	1 480	21.5	8.9	15.1	1.4	3.8	7.6	13.8	27.8
JP RU	24 494 591	9.4 19.7	15.6 15.0	17.9 19.5	1.1 0.3	0.7 3.6	7.5 12.4	23.4 17.7	24.4 11.8
US	46 819	22.1	12.5	16.4	0.3 1.1	2.0	4.9	22.4	18.6
Ju	40 019	22.1	12.0	10.4	1.1	2.0	4.9	22.4	10.0

(1) When the IPC section of a patent was unknown, it was not classified. As a consequence, in some cases, the sum of IPC sections 'A-Human necessities' to 'H-Electricity' for a specific country does not equal to 100%.



When looking at patents granted by the USPTO by IPC sections, shown in Table 4, the situation does not differ fundamentally from the patent applications to the EPO. The United States were once again specialised in *Physics* — section *G* with 25.8 % and the EU-25 in *Performing operations; transporting* — section *B* with 22.0 %.

However, Japan and China, which counted the most patent applications to the EPO in *Electricity* — *section H*, were more specialised in *Physics* — *section G* in terms of patents granted by the USPTO with 32.0 and 23.2 % respectively of total patents granted.

Russia mainly specialised in *Chemistry; metallurgy—section C* with 21.1 % followed by *Physics — section G* with 20.0 %.

As already mentioned, the distribution showed particularities at Member State level. Denmark for instance concentrated on *Human necessities* — *section A*; Germany, Spain, France, Italy and Austria on *Performing operations; transporting* — *section B*, Belgium on *Chemistry; metallurgy* — *section C*, and the Netherlands, Finland and Sweden on *Electricity* — *section H*.

The situation in Norway with regard to USPTO granted patents differed compared to the applications to the EPO. Its most important section at the USPTO was *Human necessities* — *section A* whereas it was *Physics* — *section G* at the EPO.

Table 4: Patents granted by the USPTO by priority year at the national level by IPC sections, as a percentage of total patents granted, 1999 <sup>(1)</sup>

	Total Number	Human necessities	Performing operations; transporting	Chemistry; metallurgy	Textiles;	Fixed constructions	Mech. eng.; lighting; heating; weapons; blasting	Physics	Electricity
EU-25	24 733	13.9	22.0	13.1	2.1	2.6	11.7	16.9	17.6
EU-15	24 602	13.9	22.0	13.1	2.1	2.6	11.7	16.9	17.6
BE	599	11.8	20.1	24.9	3.5	3.1	5.5	19.9	11.1
CZ	29	6.8	10.2	24.4	-	6.8	10.1	23.9	14.3
DK	395	25.0	14.2	20.2	0.8	3.2	10.1	12.2	13.8
DE	10 622	10.9	25.0	13.6	2.2	2.0	15.4	15.7	15.0
EE	3	-	-	17.7	-	-	35.3	47.0	-
EL	10	39.0	5.0	18.2	6.7	- -	-	21.1	10.0
ES	285	39.0 25.1	28.7	10.7	3.2	4.9	7.6	7.4	12.3
FR									
	3 685	17.3	20.6	13.3	1.0	2.0	9.3	17.3	19.0
IE	163	20.4	11.9	6.6	0.1	1.8	4.5	23.8	30.6
IT	1 670	17.4	27.8	10.7	2.0	3.0	10.1	13.8	14.8
CY	2	50.0	-	-	-	-	-	50.0	-
LV	1	100.0	-	-	-	-	-	-	-
LT	1	-	-	-	-	37.6	-	62.4	-
LU	36	8.4	49.9	15.2	-	0.0	15.4	9.3	1.8
HU	52	25.8	3.8	31.7	-	1.9	10.2	6.7	19.9
MT	3	66.7	-	-	-	-	-	-	33.3
NL	1 213	12.9	15.8	15.6	1.0	2.7	6.3	21.6	23.9
AT	520	16.0	24.2	11.5	2.9	3.8	15.9	13.7	11.7
PL	21	23.7	16.1	24.2	-	7.2	-	13.6	15.2
PT	12	34.4	16.4	9.6	2.7	8.2	8.2	10.9	9.6
SI	12	21.7	-	24.3	-	16.2	-	25.7	12.2
SK	6	21.7	34.8	17.4	-	_	17.4	8.7	-
FI	738	9.3	16.1	8.4	8.3	1.4	5.1	14.3	36.7
SE	1 391	14.6	21.6	7.0	3.2	2.5	8.8	13.2	29.1
UK	3 264	16.1	15.5	12.5	1.2	5.0	9.4	23.2	17.0
IS	23	12.2	4.3	17.9	-	-	4.3	25.1	36.2
LI NO	14 224	17.6	39.7	26.7	-	-	7.1	-	5.3
EEA	24 994	20.0 13.9	19.8 21.9	10.6 13.1	0.2 2.0	11.4 2.7	11.8 11.7	17.7 16.9	8.5 17.5
CH	1 286	20.7	23.5	13.9	3.6	1.7	6.7	16.4	13.0
BG	9	15.0	-	13.0	-	-	33.7	11.2	26.9
HR	7	49.9	-	49.9	-	-	-	-	-
RO	5	-	46.9	10.4	-	-	-	6.0	36.5
TR	10	27.3	15.4	4.1	10.3	-	14.9	22.1	5.9
CA	3 486	19.2	20.4	9.0	0.7	6.6	7.4	19.9	16.5
CN	267	17.4	12.9	10.8	1.1	3.7	7.6	23.2	22.1
JP RU	32 178 210	5.2	16.5	8.7	0.7	0.5	7.9	32.0	28.2
US	87 116	10.4 17.9	13.1 16.9	21.1 9.2	0.7	1.7 3.0	15.0 6.6	20.0 25.8	18.7 19.6
00	07 110	۳.۱۱	10.8	3.4	0.7	3.0	0.0	20.0	19.0

(1) When the IPC section of a patent was unknown, it was not classified. As a consequence, in some cases, the sum of IPC sections 'A-Human necessities' to 'H-Electricity' for a specific country does not equal to 100%.



#### Long term upward trends in patent activities at international level

As shown in Figures 2 and 3, both the number of patent applications to the EPO and the number of patents granted by the USPTO displayed a general upward long term trend since 1985.

The trends of the European Union, Japan and the United States in terms of patents applications to the EPO were quite similar, with however a higher number of applications for the EU-25 than for the US and Japan.

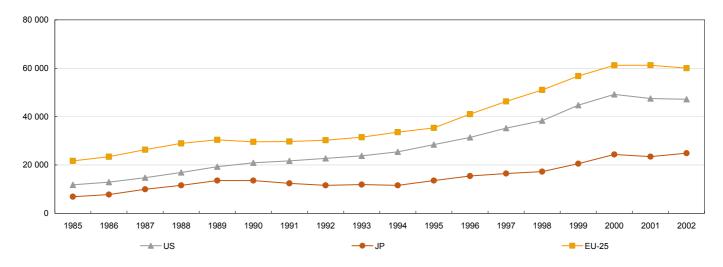
As already mentioned, larger differences between the number of domestic patents granted by the USPTO and foreign ones are observed. This difference continually increased between 1985 and 1999 (see Figure 3).

The EU-25 and Japan displayed a similar trend over the entire period (1985-1999) in terms of patents granted by the USPTO.

On the contrary, the United States more than doubled the patents granted from 1985 to 1999.

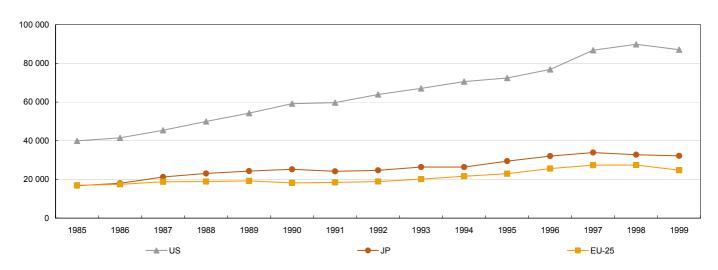
The European trend of patents granted by the USPTO is notably influenced by Germany, France and the United Kingdom. Indeed, these three countries counted for more than two thirds of the EU total.

Figure 2: Trend of patent applications to the EPO, EU-25, US and JP, 1985 to 2002 (1)



(1) See methodological notes

Figure 3: Trend of patents granted by the USPTO, EU-25, US and JP, 1985 to 1999 (1)



(1) See methodological notes



#### > ESSENTIAL INFORMATION - METHODOLOGICAL NOTES

#### Patent statistics produced by Eurostat

The production of patent statistics at Eurostat has been reorganised in 2005. This means that the data shown in this Statistics in Focus publication and also on the Eurostat webpage is not fully comparable to the data disseminated previously.

In 2005 only one single raw data base (mainly compiled on the base of the input from the European Patent Office (EPO), the United States Patent and Trademark Office (USPTO) and the Japanese Patent Office (JPO)) was used for producing an extended set of tables and indicators on the Eurostat webpage. This will also be done in the years to come. Data on the base of the data source OECD are no longer disseminated by Eurostat.

The data and indicators disseminated on the webpage are structured as follows:

#### Patents at the national level

- · Patent applications to the EPO by priority year
- Patents granted by the USPTO by priority year
- Triadic patent families by earliest priority year

#### Patents at the regional level

- Patent applications to the EPO by priority year
- Patents granted by the USPTO by priority year
- Triadic patent families by earliest priority year

Please find further explanation on the EPO patent applications and on the USPTO patent granted in the following paragraphs.

The new data production is as follows:

- Eurostat continues the production of the patent statistics (source: Eurostat/EPO) which began some years ago. This data is however now produced using the priority year of the application, and not the year of filing as previously. The data values are however similar.
- The data on EPO applications with data source OECD is no longer disseminated by Eurostat. This data is in general lower compared to the data released by Eurostat. This is due to the fact that all PCT applications designated to the EPO (= applications made in accordance with the procedure under the Patent Cooperation Treaty) are taken into consideration by Eurostat and only partially by the OECD.
- The Eurostat data related to the patents granted by the USPTO are shown by priority date, i.e. the first date of filing of the patent application anywhere in the world. This change in methodology towards the priority date by Eurostat means that the data on the USPTO patents granted decline from the year 2000 onwards, due to the delays between the priority date and the grant date caused by administrative procedures.

Eurostat has implemented the changes described above as only one single data source is used now (as described above) and as the data produced reflects better the innovation and R & D performance of an economy.

For all further details please see also the Eurostat metadata on patent statistics disseminated on the webpage.

#### Counting patents with multiple inventors

When a patent was invented by several inventors from different countries, the respective contributions of each country is taken into account. This is done in order to eliminate multiple counting of such patents. For example, a patent co-invented by 1 French, 1 American and 2 German residents will be counted as 1/4th of a patent for France, 1/4th for the USA and ½ a patent for Germany.

#### EPO patent applications by priority year

The data production provides users with data concerning patent applications to the *European Patent Office* — EPO. Data are given at the national level and cover the period from 1980 to 2002. EPO data refers to all patent applications by priority year as opposed to patent applications granted by priority year, which is the case of USPTO data.

#### USPTO patent granted by priority year

The data production provides users with data concerning patents granted by the *US Patent and Trademark Office* — USPTO by priority year. The time series covers the period from 1980 to 1999. Due to data availability, USPTO data refers to patents granted as opposed to applications, which is the case of EPO data. The data shown for 2000 and later are not comparable to the data of 1999 and previous years as being incomplete.

#### Triadic patent families by earliest priority year

The patent families available in NewCronos refer to triadic families: i.e. a patent is a member of the patent families if and only if it has been applied for and filed at the *European Patent Office* (EPO), at the Japanese Patent Office (JPO) and if it has been granted by the US Patent & Trademark Office (USPTO). Patent families, as opposed to patents, are provided with the intention of improving international comparability (the home advantage is suppressed; the values of the patents are more homogeneous).

#### Statistical abbreviations and symbols

: Not available

- Not applicable or real zero or zero by default

## Sections of the International Patent Classification (IPC)

Section A Human necessities;

Section B Performing operations; transporting;

Section C Chemistry; metallurgy; Section D Textiles; paper; Section E Fixed constructions;

Section F Mechanical engineering; lighting; heating;

weapons; blasting;

Section G Physics; Section H Electricity;

Section UNK IPC section unknown.

When the IPC section of a patent was unknown, this patent is not classified. Therefore in some cases, the sum of IPC sections A to H for a country does not add up to 100%.

Data presented in this Statistics in Focus shows the data availability in Eurostat's reference database as of October 2005.



### Further information:

Databases: EUROSTAT Website/Home page/Data

**◯** Science and technology

Research and development

• Survey on innovation in EU enterprises

High tech industry and knowledge based services

**Patent statistics** 

Patent applications to EPO by priority year

Patents granted by the USPTO by priority year

Triadic patent famillies by earliest priority year

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#### **European Statistical Data Support:**

Eurostat set up with the members of the 'European statistical system' a network of support centres, which will exist in nearly all Member States as well as in some EFTA countries.

Their mission is to provide help and guidance to Internet users of European statistical data.

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This document has been produced in collaboration with Sammy Sioen