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# Yearly Review of the PCT: 2003



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## Table of Contents

Introduction .....	1
PCT Contracting States.....	2
Number of international applications filed worldwide in 2003.....	3
Top countries of origin.....	5
Filings from developing countries .....	5
International Bureau as receiving Office.....	6
PCT-EASY/PCT-SAFE.....	7
Electronic filings .....	8
Designation of States .....	8
International Search and Preliminary Examination .....	9
Languages of filing/publication .....	11
Fields of technology .....	12
PCT seminars and presentations worldwide.....	14
Main PCT developments in 2003.....	14

## Introduction

The Patent Cooperation Treaty (PCT) system offers inventors and industry a simplified and cost-effective route for obtaining patent protection internationally. By filing a single "international" patent application under the PCT, protection for an invention can be sought simultaneously in each of more than 120 countries. Both applicants and patent Offices of PCT member States benefit from early assessments on the relevant state of the art and on the patentability of the inventions, as well as from a centralized international publication system and from simplified formality requirements. The assessments put applicants in a much better position to decide whether or not to proceed with the national patent granting procedure before the various designated patent Offices, and are of great use to those patent Offices when deciding whether or not to grant a patent.

The World Intellectual Property Organization (WIPO) is pleased to present the results of operations under the PCT in 2003, the year that marked the 25<sup>th</sup> anniversary of the start of PCT operations.

## PCT Contracting States

During 2003, five new Contracting States became bound by the PCT (on the dates shown in parentheses):

Nicaragua (March 6, 2003)  
Papua New Guinea (June 14, 2003)  
Syrian Arab Republic (June 26, 2003)  
Egypt (September 6, 2003)  
Botswana (October 30, 2003)

Namibia deposited its instrument of accession to the PCT on October 1, 2003, and became bound by the PCT on January 1, 2004, thus bringing the number of States which had acceded to the PCT by December 31, 2003, to 123, as follows:

Albania	Denmark	Madagascar	South Africa
Algeria	Dominica	Malawi	Spain
Antigua and Barbuda	Ecuador	Mali	Sri Lanka
Armenia	Egypt	Mauritania	Sudan
Australia	Equatorial Guinea	Mexico	Swaziland
Austria	Estonia	Monaco	Sweden
Azerbaijan	Finland	Mongolia	Switzerland
Barbados	France	Morocco	Syrian Arab Republic
Belarus	Gabon	Mozambique	Tajikistan
Belgium	Gambia	Namibia	The former Yugoslav Republic of
Belize	Georgia	Netherlands	Macedonia
Benin	Germany	New Zealand	Togo
Bosnia and Herzegovina	Ghana	Nicaragua	Trinidad and Tobago
Botswana	Greece	Niger	Tunisia
Brazil	Grenada	Norway	Turkey
Bulgaria	Guinea	Oman	Turkmenistan
Burkina Faso	Guinea-Bissau	Papua New Guinea	Uganda
Cameroon	Hungary	Philippines	Ukraine
Canada	Iceland	Poland	United Arab Emirates
Central African Republic	India	Portugal	United Kingdom
Chad	Indonesia	Republic of Korea	United Republic of Tanzania
China	Ireland	Republic of Moldova	United States of America
Colombia	Israel	Romania	Uzbekistan
Congo	Italy	Russian Federation	Viet Nam
Costa Rica	Japan	Saint Lucia	Zambia
Côte d'Ivoire	Kazakhstan	Saint Vincent and the Grenadines	Zimbabwe
Croatia	Kenya	Senegal	
Cuba	Kyrgyzstan	Serbia and Montenegro	
Cyprus	Latvia	Seychelles	
Czech Republic	Lesotho	Sierra Leone	
Democratic People's Republic of Korea	Liberia	Singapore	
	Liechtenstein	Slovakia	
	Lithuania	Slovenia	
	Luxembourg		

## Number of international applications filed worldwide in 2003

In 2003, the International Bureau of WIPO received 110,065 international applications filed worldwide.<sup>1</sup>

*Number of international applications filed in 2003 by country of origin, and corresponding percentages of the total*

Country of origin <sup>2</sup>		Number of applications	Percentage of all applications
US	United States of America	39,250	35.7
JP	Japan	16,774	15.2
DE	Germany	13,979	12.7
GB	United Kingdom	6,090	5.5
FR	France	4,723	4.3
NL	Netherlands	4,180	3.8
KR	Republic of Korea	2,947	2.7
SE	Sweden	2,491	2.3
CH & LI	Switzerland and Liechtenstein	2,379	2.2
CA	Canada	2,102	1.9
IT	Italy	2,023	1.8
AU	Australia	1,729	1.6
FI	Finland	1,497	1.4
CN	China	1,205	1.1
IL	Israel	1,161	1.1
DK	Denmark	1,021	0.9
ES	Spain	776	0.7
BE	Belgium	725	0.7
AT	Austria	620	0.6
IN	India	611	0.6
RU	Russian Federation	527	0.5
NO	Norway	448	0.4
ZA	South Africa	376	0.3
SG	Singapore	313	0.3
NZ	New Zealand	296	0.3
IE	Ireland	237	0.2
BR	Brazil	221	0.2
PL	Poland	144	0.1
HU	Hungary	141	0.1
MX	Mexico	123	0.1
TR	Turkey	98	0.1
CZ	Czech Republic	79	0.1
HR	Croatia	76	0.1
GR	Greece	71	0.1
UA	Ukraine	70	0.1

*[continued on next page]*

1 Figures for international applications filed in 2003 are based on the number of record copies of international applications received, under PCT Article 12, by the International Bureau in 2003 from PCT receiving Offices (including the Receiving Office Section of the International Bureau).

2 The figures relate to the country of residence of the applicant.

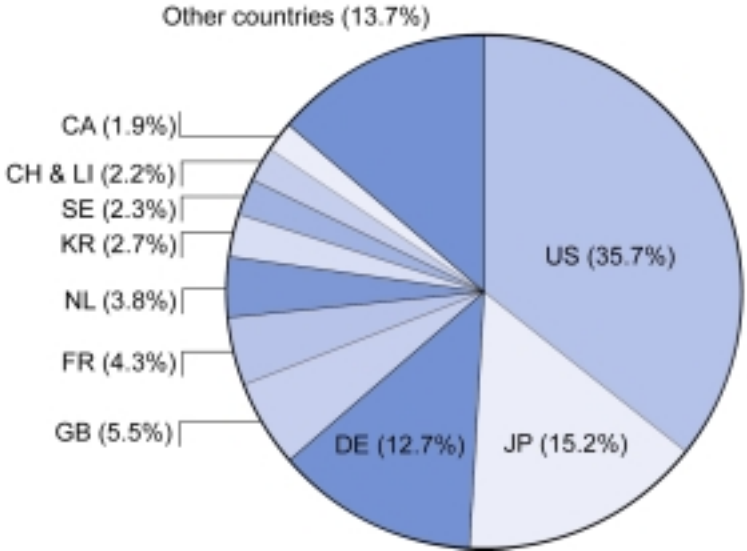
[Number of international applications filed in 2003 by country of origin, and corresponding percentages of the total, continued]

Country of origin		Number of applications	Percentage of all applications
SI	Slovenia	66	<0.1
LU	Luxembourg	52	<0.1
BG	Bulgaria	46	<0.1
IS	Iceland	42	<0.1
PT	Portugal	38	<0.1
YU	Yugoslavia	36	<0.1
CO	Colombia	28	<0.1
SK	Slovakia	26	<0.1
RO	Romania	25	<0.1
CY	Cyprus	19	<0.1
CU	Cuba	18	<0.1
BY	Belarus	17	<0.1
PH	Philippines	14	<0.1
EG	Egypt	11	<0.1
LV	Latvia	11	<0.1
BB	Barbados	9	<0.1
KZ	Kazakhstan	9	<0.1
MC	Monaco	9	<0.1
EC	Ecuador	7	<0.1
EE	Estonia	7	<0.1
MA	Morocco	7	<0.1
BA	Bosnia and Herzegovina	6	<0.1
VN	Viet Nam	6	<0.1
DZ	Algeria	5	<0.1
LT	Lithuania	5	<0.1
CR	Costa Rica	4	<0.1
GE	Georgia	4	<0.1
AM	Armenia	3	<0.1
ID	Indonesia	3	<0.1
VC	Saint Vincent and the Grenadines	3	<0.1
AE	United Arab Emirates	2	<0.1
CM	Cameroon	2	<0.1
LK	Sri Lanka	2	<0.1
MD	Republic of Moldova	2	<0.1
MK	The former Yugoslav Republic of Macedonia	2	<0.1
SD	Sudan	2	<0.1
TG	Togo	2	<0.1
TN	Tunisia	2	<0.1
TT	Trinidad and Tobago	2	<0.1
ZW	Zimbabwe	2	<0.1
AZ	Azerbaijan	1	<0.1
CI	Côte d'Ivoire	1	<0.1
KE	Kenya	1	<0.1
KG	Kyrgyzstan	1	<0.1
KP	Democratic People's Republic of Korea	1	<0.1
LC	Saint Lucia	1	<0.1
TOTAL		110,065	(100.0)

Although the above figures correspond to a large extent to the filings with the receiving Offices in the country of residence of the applicant, 19.1% (21,005) of these filings were made either with regional patent Offices or with the International Bureau as receiving Offices. The European Patent Office received 13.4%, the International Bureau as receiving Office received 5.7%, and each of the Eurasian Patent Office and the African Intellectual Property Organization received less than 1%.

**Top countries of origin**

Applicants from the United States of America filed the largest number of PCT applications in 2003 (35.7%), followed by Japan (15.2%), Germany (12.7%), the United Kingdom (5.5%) and France (4.3%). The chart below shows the top 10 countries of origin and the percentage share of applications from those countries.



**Filings from developing countries**

In 2003, the International Bureau received 5,950 international applications originating from developing countries. Of particular significance was the increase in applications filed by applicants from India (27.3%) and the Republic of Korea (15.5%). The top 10 developing countries from which international applications originated, along with the percentage share of all such countries, are shown in the table below:

<b>Country of origin</b> <sup>3</sup>	<b>Number of applications</b>	<b>% of all international applications from developing countries</b>
KR Republic of Korea	2,947	49.5
CN China	1,205	20.2
IN India	611	10.3
ZA South Africa	376	6.3
SG Singapore	313	5.3
BR Brazil	221	3.7
MX Mexico	123	2.1
CO Colombia	28	0.5
CY Cyprus	19	0.3
CU Cuba	18	0.3
All other developing countries	89	1.5
<b>TOTAL</b>	<b>5,950</b>	<b>100.0</b>

### **International Bureau as receiving Office**

Use of the International Bureau as receiving Office (RO/IB) continued to increase in 2003. The RO/IB received 6,487 international applications, an increase of 10.7% compared with 2002. Applications were filed by applicants from 67 countries in 2003, compared with 59 countries in 2002. Of those 6,487 applications, 12.5% benefited from a safeguard procedure, under which international applications are transmitted from another receiving Office to the International Bureau in its capacity as receiving Office while retaining their initial filing date. (Such a procedure takes place, for example, where applications have been filed with a "non-competent" receiving Office, or where they have been filed in a language which is not accepted by the other Office.)

The top 10 countries of origin of international applications filed with the RO/IB, along with the percentage share of applications filed with RO/IB, are shown in the table below:

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3. The figures relate to the country of residence of the applicant.



*Number of international applications filed with the RO/IB by top 10 countries of origin, and corresponding percentages of the total, in 2003*

Country of origin <sup>4</sup>	Number of applications	Percentage of all applications filed with RO/IB
NL Netherlands	2,668	41.1
US United States of America	597	9.2
IT Italy	425	6.6
FI Finland	396	6.1
DE Germany	392	6.1
CH & LI Switzerland and Liechtenstein	294	4.5
FR France	274	4.2
IN India	249	3.8
ZA South Africa	188	2.9
CA Canada	158	2.4
All other countries	846	13.1
TOTAL	6,487	100.0

#### **PCT-EASY/PCT-SAFE**

There has been a continued increase in the number of applicants taking advantage of the benefits of preparing PCT application request forms electronically using the PCT-EASY software. Of the 110,065 international applications filed in 2003, 49,054 (44.6%) contained a request which was prepared using the PCT-EASY software (compared with 39.7% in 2002). By the end of 2003, a total of 70 receiving Offices were prepared to accept the filing of international applications containing requests prepared using PCT-EASY together with PCT-EASY diskettes.

The distribution of PCT-EASY as a separate software product was discontinued at the end of 2003 and, on January 1, 2004, was replaced by the PCT-SAFE software, which permits applicants to prepare and file electronically a complete PCT application (description, claims and abstract as well as the request form). For further information, see *PCT Newsletter* No. 11/2003, page 7 at:

[www.wipo.int/pct/en/newslett/2003/pdf/11\\_2003.pdf](http://www.wipo.int/pct/en/newslett/2003/pdf/11_2003.pdf)

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4. The figures relate to the country of residence of the applicant.

## Electronic filings

During 2003, it was possible to file international applications electronically with the European Patent Office or the National Institute of Industrial Property (France) as receiving Offices, or for applicants registered under the PCT-SAFE pilot, with the International Bureau as receiving Office. During that year, the International Bureau received 634 international applications filed electronically with those Offices, as follows:

Receiving Office	Date when electronic filings became possible (2003 and earlier)	Number of international applications filed electronically in 2003
EP European Patent Office	1 November 2002	575
FR National Institute of Industrial Property (France)	29 April 2003	42
IB International Bureau as receiving Office	(pilot users only) 25 August 2003	17
		Total: 634

Note that it is now possible to file international applications electronically with the following receiving Offices:

Receiving Office	Date when electronic filing becomes possible in 2004
FI National Board of Patents and Registration (Finland)	1 January 2004
KR Korean Intellectual Property Office	1 January 2004
ES Spanish Patent and Trademark Office	15 January 2004
IB International Bureau as receiving Office	(no longer limited to pilot users) 12 February 2004

## Designation of States

In 2003, the average number of States designated per international application was 132 (this figure is higher than the number of PCT Contracting States as some States are double-counted if they are designated for both a national patent and a regional patent). The applicants in respect of 85.6% of international applications filed used the possibility of paying the maximum of five designation fees while making as many as all possible designations.

As a result of the reform of the PCT, for all international applications filed on or after January 1, 2004, applicants are deemed to have automatically designated all Contracting

States bound by the PCT on the international filing date, for the grant of every kind of protection available and, where applicable, for the grant of both regional and national patents. Therefore, WIPO will no longer publish such data on the average number of States designated.

### **International Search and Preliminary Examination**

In October 2003 the PCT Assembly appointed the National Board of Patents and Registration of Finland as an International Searching Authority (ISA) and International Preliminary Examining Authority (IPEA), bringing the number of Offices which have been appointed as ISAs/IPEAs to 12. The date of entry into force of the Agreement in relation to the functioning of the National Board of Patents and Registration of Finland as an ISA and IPEA is expected to be sometime in 2004.

In April 2003, the Spanish Patent and Trademark Office notified the Director General of WIPO that, further to its appointment as IPEA in October 2001, it was ready to start functioning as an IPEA in respect of international applications filed on or after June 1, 2003, and for which that Office is a competent IPEA.

The following Offices act, or will soon act, as ISAs and IPEAs under the PCT:

<b>International Searching and Preliminary Examining Authorities</b>	
AT	Austrian Patent Office
AU	Australian Patent Office
CA	Canadian Patent Office (starting date to be announced)
CN	China Intellectual Property Office
EP	European Patent Office
ES	Spanish Patent and Trademark Office
FI	National Board of Patents and Registration of Finland (starting date to be announced)
JP	Japan Patent Office
KR	Korean Intellectual Property Office
RU	Russian Patent Office
SE	Swedish Patent Office
US	United States Patent and Trademark Office

#### *International Search*

The number of international applications in respect of which each ISA engaged the international search procedure in 2003 is indicated below:

International Searching Authority		Number of applications	Percentage of all international applications
EP	European Patent Office	57,907	52.6
US	United States of America	24,813	22.6
JP	Japan	15,772	14.3
SE	Sweden	3,510	3.2
KR	Republic of Korea	2,581	2.3
AU	Australia	2,229	2.0
CN	China	1,182	1.1
ES	Spain	743	0.7
AT	Austria	737	0.7
RU	Russian Federation	579	0.5
TOTAL		110,053 <sup>5</sup>	100.0

#### *International Preliminary Examination*

The number of international applications in respect of which each IPEA engaged the international preliminary examination procedure in 2003 is indicated below. Compared with 2002, the overall number of international applications for which the international preliminary examination procedure was requested by applicants (by filing a “demand for international preliminary examination”) shows a decrease of 20.8%, a decrease which is mostly due to the modification of the time limit for entry into the national phase as adopted by the PCT Assembly in 2001.

International Preliminary Examining Authority		Number of demands filed	Percentage of all demands
EP	European Patent Office	30,936	48.3
US	United States of America	20,028	31.3
JP	Japan	6,547	10.2
SE	Sweden	2,667	4.2
AU	Australia	1,585	2.5
KR	Republic of Korea	1,108	1.7
CN	China	682	1.1
AT	Austria	246	0.4
RU	Russian Federation	210	0.3
TOTAL		64,009	100.0

5. Twelve of the international applications filed in 2003 are not included in this total because international processing had been discontinued or the International Searching Authority is not yet known.

## Languages of filing/publication

In 2003, international applications were filed in the following languages:

Language of filing <sup>6</sup>	Number of applications	Percentage of all international applications
English	69,627	63.3
Japanese	15,520	14.1
German	13,824	12.6
French	4,338	3.9
Korean	1,760	1.6
Chinese	1,014	0.9
Spanish	849	0.8
Swedish	716	0.6
Russian	549	0.5
Dutch	524	0.5
Italian	504	0.5
Finnish	441	0.4
Norwegian	190	0.2
Danish	125	0.1
Hungarian	24	<0.1
Slovenian	15	<0.1
Croatian	11	<0.1
Turkish	11	<0.1
Slovak	8	<0.1
Czech	7	<0.1
Portuguese	6	<0.1
Greek	2	<0.1
TOTAL	110,065	100.0

In 2003, 107,729 international applications were published in one of the seven languages of publication, as follows:

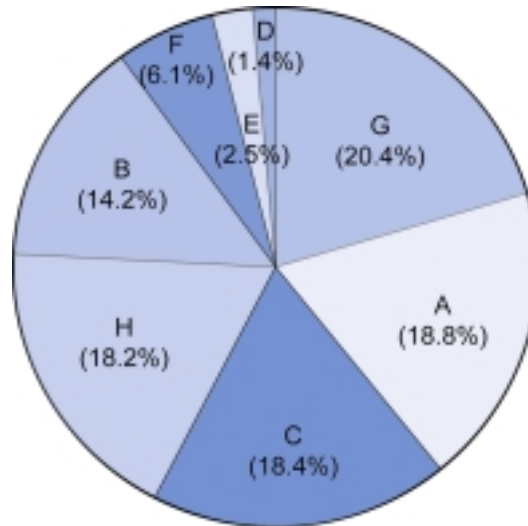
Language of publication	Number of applications	Percentage of all international applications
English	73,805	68.5
German	13,800	12.8
Japanese	13,517	12.6
French	4,439	4.1
Chinese	842	0.8
Spanish	758	0.7
Russian	568	0.5
TOTAL	107,729	100.0

6. An international application filed in a language other than one of the languages of publication under the PCT is published as a translation into a language of publication (see next table).

## Fields of technology

The main fields of technology to which published international applications related were physics, human necessities, chemistry and metallurgy, and electricity. The chart below shows the breakdown of PCT applications published in 2003 according to the eight main technical fields of the International Patent Classification (IPC).

*PCT applications published in 2003: breakdown according to the main technical fields under the IPC*



### *Main technical fields (sections) under the IPC:*

G	Physics	B	Performing operations; transporting
A	Human necessities	F	Mechanical engineering; lighting, heating, weapons, blasting
C	Chemistry; metallurgy	E	Fixed constructions
H	Electricity	D	Textiles; paper

The table on the next page shows the top 10 “classes” under which PCT applications were published (that is, the next level of detail after “section”).

For information on the specific contents of each main technical field, consult the IPC on the WIPO website at:

[www.wipo.int/classifications/fulltext/new\\_ipc/index.htm](http://www.wipo.int/classifications/fulltext/new_ipc/index.htm)

**Top 10 “classes” under which PCT applications were published in 2003  
according to the International Patent Classification**

<b>Title of Class [Title of Section]</b>	<b>No. of PCT applications published</b>	<b>% of all applications published</b>
Medical/veterinary science; hygiene e.g. diagnostic apparatus such as endoscopes, computer tomographs, artificial heart and kidneys, prostheses, medicinal preparations <i>[Human necessities]</i>	14,195	13.2
Electric communication technique e.g. broadcasting systems, secret communication, television systems, loudspeakers, microphones <i>[Electricity]</i>	9,378	8.7
Instruments; computing; calculating; counting e.g. artificial neural networks, 2 or 3 dimensional image generation, computer aided design, text processing equipment <i>[Physics]</i>	8,255	7.7
Basic electric elements Lasers, batteries and fuel cells, integrated circuits <i>[Electricity]</i>	6,700	6.2
Organic chemistry e.g. steroids, sugars, nucleic acids, antibiotics, vitamins <i>[Chemistry; metallurgy]</i>	6,240	5.8
Instruments: measuring; testing e.g. analyzing materials e.g. food, positioning and navigation systems, testing of engines and vehicles <i>[Physics]</i>	5,959	5.5
Biochemistry; beer; spirits; wine; vinegar; microbiology; enzymology; mutation or genetic engineering e.g. pasteurization, sterilization, tissue or cell cultures, preparation of compounds by using micro-organisms, methods of genetic engineering <i>[Chemistry]</i>	5,049	4.7
Organic macromolecular compounds, their preparation/chemical working-up; compositions based thereon e.g. polymers, starch, cellulose, viscose, rubber <i>[Chemistry]</i>	2,769	2.6
Instruments: optics e.g. optical fibers, microscopes, telescopes, liquid crystal displays <i>[Physics]</i>	2,286	2.1
Conveying; packing; storing, handling thin or filamentary material Containers, e.g. bottles, barrels, cans, cartons, apparatus for filling containers, conveyers <i>[Performing Operations Transporting]</i>	2,285	2.1
Others	44,613	41.4
Total	107,729	100.0

## **PCT seminars and presentations worldwide**

About 190 seminars and presentations that dealt with the use and advantages of the PCT, and the promotion of accession to it, were given by Officials of the International Bureau to about 12,000 users and potential users of the PCT system in the following languages: Arabic, Chinese, English, Finnish, French, German, Italian, Japanese, Korean, Persian, Russian and Spanish. The seminars and presentations were held in the following countries:

Afghanistan, Albania, Austria, Belgium, Burundi, Cambodia, Cameroon, Chile, China, Cuba, the Democratic People's Republic of Korea, Denmark, the Dominican Republic, Ecuador, Egypt, Fiji, Finland, France, Germany, Guinea, Guyana, India, Indonesia, Iran, Italy, Jamaica, Japan, Kenya, the Lao People's Democratic Republic, Luxembourg, Malta, Mexico, Mozambique, Namibia, Nepal, the Netherlands, Nicaragua, Norway, Panama, Papua New Guinea, Peru, the Philippines, the Republic of Korea, the Republic of Moldova, Saint Lucia, Saint Vincent and the Grenadines, Senegal, Seychelles, South Africa, Spain, Sri Lanka, Sweden, Switzerland, the Syrian Arab Republic, Tajikistan, Thailand, the former Yugoslav Republic of Macedonia, Tonga, Trinidad and Tobago, Tunisia, Turkey, Uganda, the United Kingdom, the United States of America, Uzbekistan, Venezuela, Viet Nam and Zimbabwe.

Those seminars and presentations included 22 specialized presentations on electronic filing matters, such as using the PCT-EASY or PCT-SAFE software, given to some 2,300 people.

## **Main PCT developments in 2003**

Detailed information on the main developments in the PCT during 2003 was published in the *PCT Newsletter* (available on the PCT website at: [www.wipo.int/pct/en/newslett/2003/index.htm](http://www.wipo.int/pct/en/newslett/2003/index.htm))—see, in particular, the following items:

- Electronic filing and processing of international applications: Nos. 05/2003 (France), 09/2003 and 02/2004 (International Bureau as receiving Office), 12/2003 (Finland and the Republic of Korea);
- Outline of the new international search and preliminary examination procedure: No. 12/2003;
- Overview of the changes to the PCT System as from 1 January 2004: No. 11/2003;
- Meeting of International Authorities Under the PCT: Nos. 03/2003 and 08/2003;
- PCT Assembly (in particular, amendments to the PCT Regulations and amendments concerning PCT fees): No. 10/2003;
- Working Group on Reform of the PCT: Nos. 06/2003 and 12/2003.