

# The Patent Cooperation Treaty (PCT) and its Advantages

*Encouraging creativity and innovation*



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- 1) What is the PCT?**
- 2) Why use the PCT? What are its advantages?**
- 3) Recent PCT Developments**



# 1) What is the PCT?



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# What is the PCT?



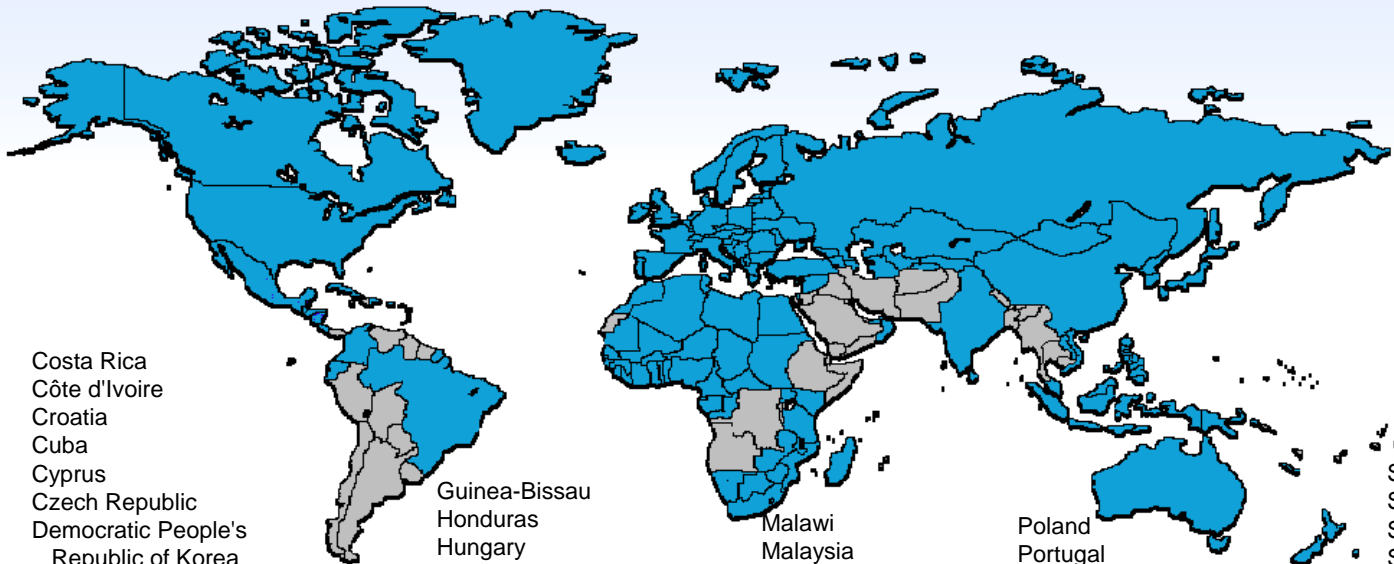
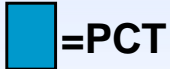
- A mainly procedural international treaty facilitating certain steps in the process of obtaining patents internationally
- More specifically, the PCT establishes a procedure for the filing and processing of a single application for a patent which has legal effect in the countries which are Treaty members
- Simplifies the procedure for obtaining patent protection in many countries, making it more efficient and economical for:
  - (1) users of the patent system (applicants and inventors);  
and
  - (2) patent Offices



- The decision on granting patents is made exclusively by national or regional Offices in the national phase
- Signed in June 1970, in Washington, D.C., and became operational in June 1978 with 18 States
- As of 1 March 2007, the PCT has 137 Contracting States



# What is the PCT?



- Albania
- Algeria
- Antigua and Barbuda
- Armenia
- Australia
- Austria
- Azerbaijan
- Bahrain
- Barbados
- Belarus
- Belgium
- Belize
- Benin
- Bosnia and Herzegovina
- Botswana
- Brazil
- Bulgaria
- Burkina Faso
- Cameroon
- Canada
- Central African Republic
- Chad
- China
- Colombia
- Comoros
- Congo

- Costa Rica
- Côte d'Ivoire
- Croatia
- Cuba
- Cyprus
- Czech Republic
- Democratic People's Republic of Korea
- Denmark
- Dominica
- Dominican Republic (28 May 07)
- Ecuador
- Egypt
- El Salvador
- Equatorial Guinea
- Estonia
- Finland
- France
- Gabon
- Gambia
- Georgia
- Germany
- Ghana
- Greece
- Grenada
- Guatemala
- Guinea

- Guinea-Bissau
- Honduras
- Hungary
- Iceland
- India
- Indonesia
- Ireland
- Israel
- Italy
- Japan
- Kazakhstan
- Kenya
- Kyrgyzstan
- Lao People's Dem Rep.
- Latvia
- Lesotho
- Liberia
- Libyan Arab Jamahiriya
- Liechtenstein
- Lithuania
- Luxembourg
- Madagascar

- Malawi
- Malaysia
- Mali
- Malta
- Mauritania
- Mexico
- Monaco
- Mongolia
- Montenegro
- Morocco
- Mozambique
- Namibia
- Netherlands
- New Zealand
- Nicaragua
- Niger
- Nigeria
- Norway
- Oman
- Papua New Guinea
- Philippines

- Poland
- Portugal
- Republic of Korea
- Republic of Moldova
- Romania
- Russian Federation
- Saint Lucia
- Saint Vincent and the Grenadines
- San Marino
- Senegal
- Seychelles
- Sierra Leone
- Singapore
- Slovakia
- Slovenia
- South Africa
- Spain
- Sri Lanka
- Sudan
- Swaziland

- St. Kitts and Nevis
- Sweden
- Switzerland
- Syrian Arab Republic
- Tajikistan
- The former Yugoslav Republic of Macedonia
- Togo
- Trinidad and Tobago
- Tunisia
- Turkey
- Turkmenistan
- Uganda
- Ukraine
- United Arab Emirates
- United Kingdom
- United Republic of Tanzania
- United States of America
- Uzbekistan
- Viet Nam
- Yugoslavia
- Zambia
- Zimbabwe



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# What is the PCT?

## Growth in PCT member States over last 10 years

<u>1996</u>	<u>1997</u>	<u>1998</u>	<u>1999</u>	<u>2000</u>	<u>2001</u>	<u>2002</u>	<u>2003</u>	<u>2004</u>	<u>2005</u>	<u>2006</u>
Turkey	Yugoslavia	Cyprus	United Arab Emirates	Algeria	Colombia	Saint Vincent and the Grenadines	Papua New Guinea	San Marino	Comoros	Honduras
Israel	Ghana	Croatia	South Africa	Antigua and Barbuda	Ecuador	Seychelles	Guinea		Nigeria	El Salvador
Cuba	Zimbabwe	Grenada	Costa Rica	Mozambique	Equatorial Guinea		Syrian Arab Republic		Libyan Arab Jamahiriya	Malaysia
Saint Lucia	Sierra Leone	India	Dominica	Belize	Philippines		Egypt		St. Kitts and Nevis	Lao People's Democratic Republic
Bosnia and Herzegovina	Indonesia		United Republic of Tanzania		Oman		Botswana			Guatemala
	Gambia		Morocco		Zambia					
	Guinea-Bissau				Tunisia					



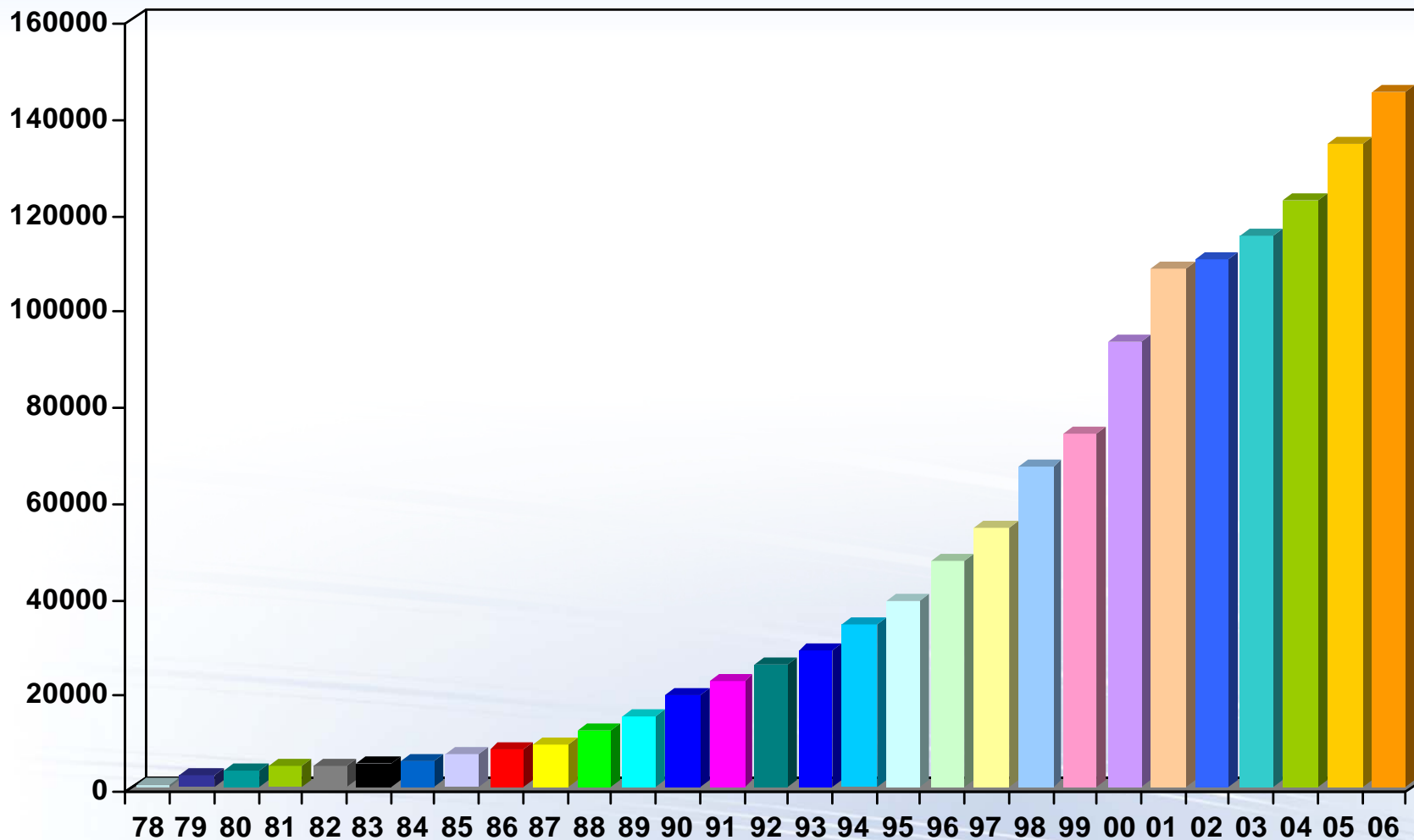
### 2007

Malta  
Bahrain  
**Dominican Republic**



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## Growth in PCT Filings



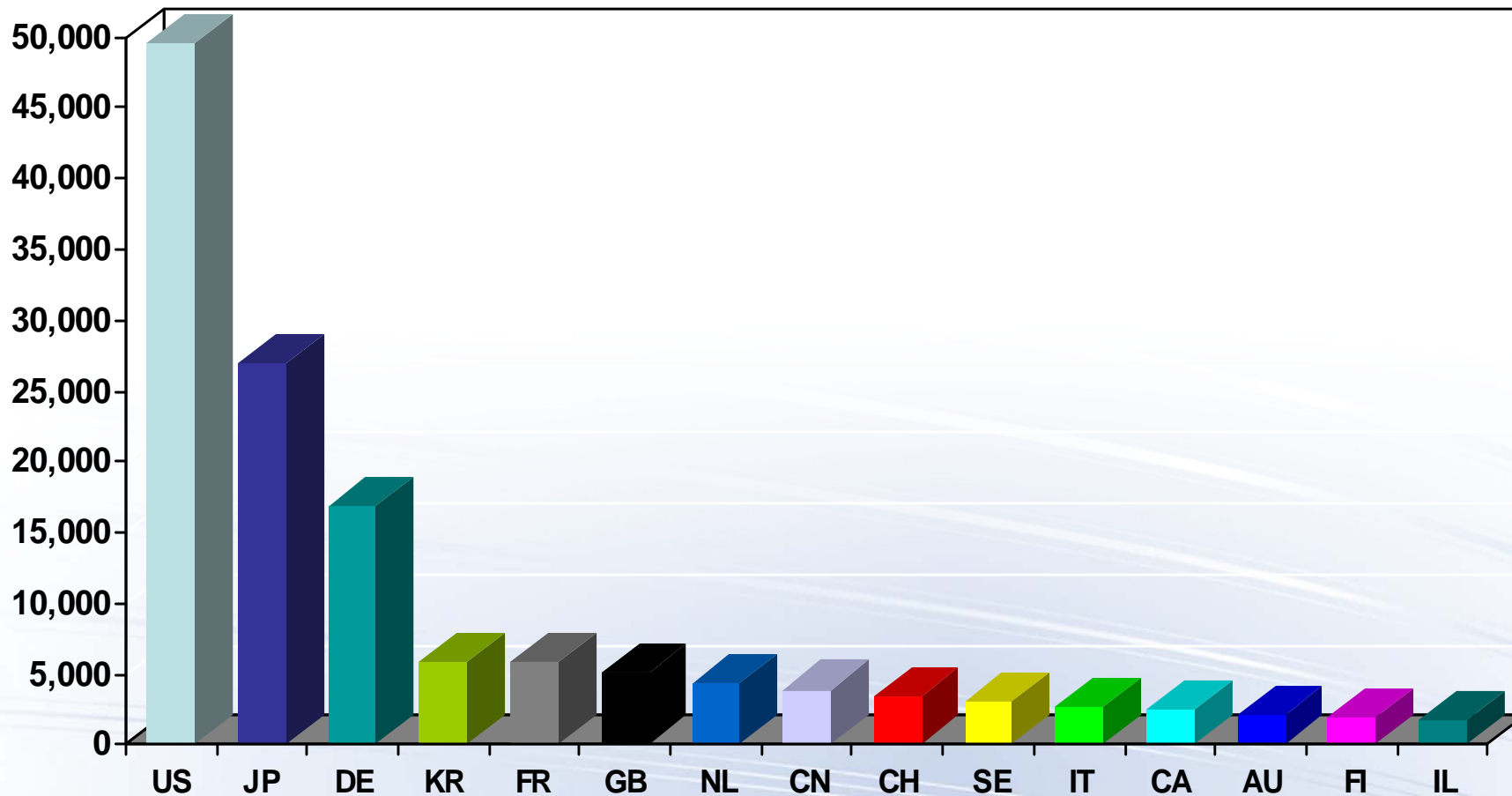
6.4%  
increase in  
2006

145,300  
(est.) total  
filings in  
2006





## International applications received by country of origin in 2006



# Filing Trends

Country of Origin	2002	2003	2004	2005	2006 (est.)	Change Compared with 2005
United States of America	41,296	41,028	43,350	46,697	49,555	6.1%
Japan	14,063	17,414	20,263	24,841	26,906	8.3%
Germany	14,326	14,662	15,218	16,000	16,929	5.8%
Republic of Korea	2,520	2,949	3,558	4,688	5,935	26.6%
France	5,089	5,171	5,185	5,741	5,902	2.8%
United Kingdom	5,376	5,206	5,026	5,085	5,045	-0.8%
Netherlands	3,977	4,479	4,285	4,516	4,393	-2.7%
China	1,018	1,295	1,706	2,493	3,910	56.8%
Switzerland	2,755	2,861	2,899	3,277	3,403	3.8%
Sweden	2,990	2,612	2,850	2,873	3,123	8.7%
Italy	1,982	2,163	2,189	2,345	2,723	16.1%
Canada	2,260	2,270	2,105	2,320	2,532	9.1%
Australia	1,759	1,680	1,837	1,998	2,139	7.0%
Finland	1,762	1,557	1,672	1,890	1,915	1.3%
Israel	1,174	1,130	1,227	1,458	1,725	18.3%
All Others	8,045	8,722	9,254	10,278	9,165	-10.8%
<b>Total</b>	<b>110,392</b>	<b>115,199</b>	<b>122,624</b>	<b>136,500</b>	<b>145,300</b>	<b>6.4%</b>

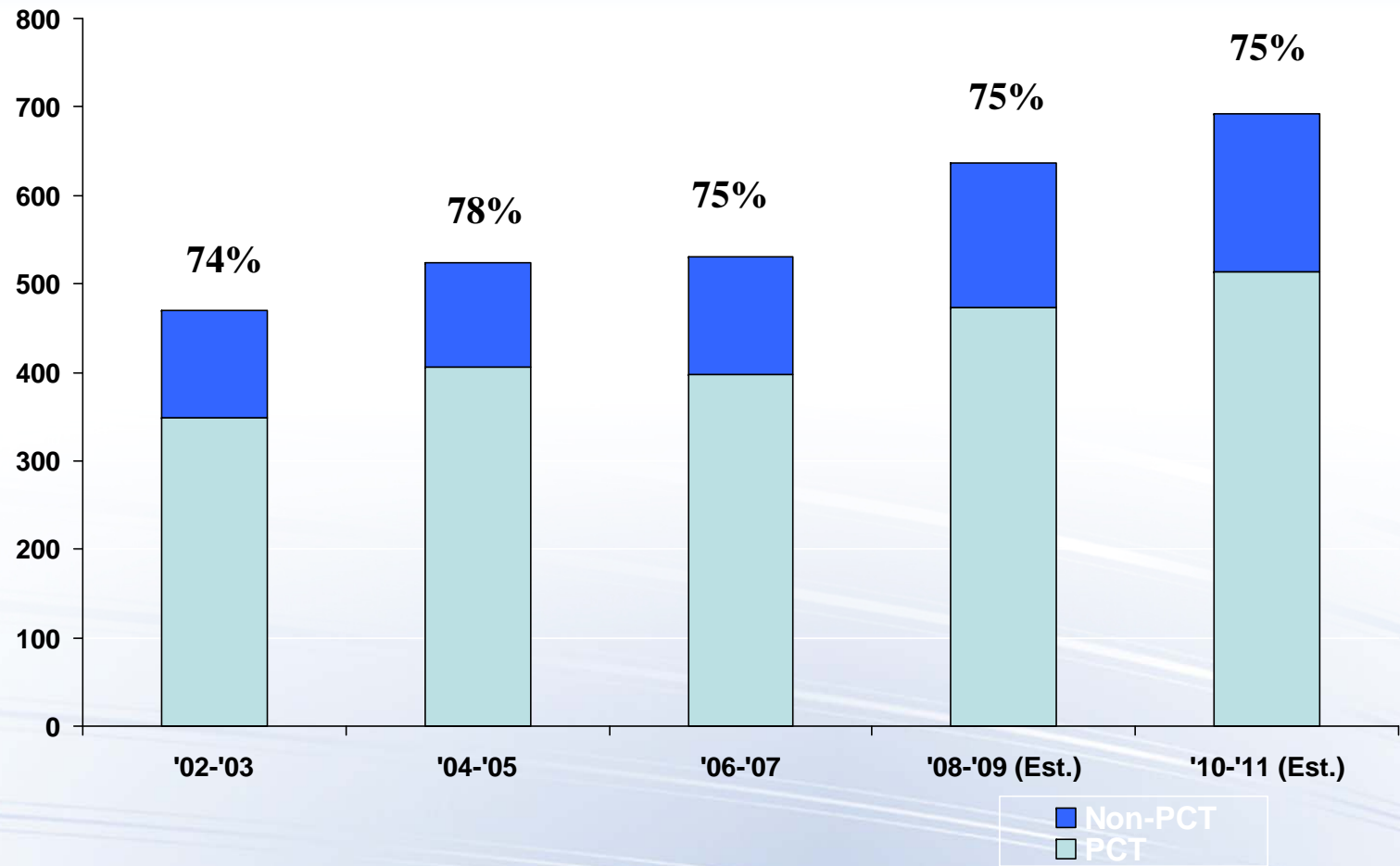
Source: WIPO Statistics Database

Highest increases from China, Rep. of Korea, Israel & Italy

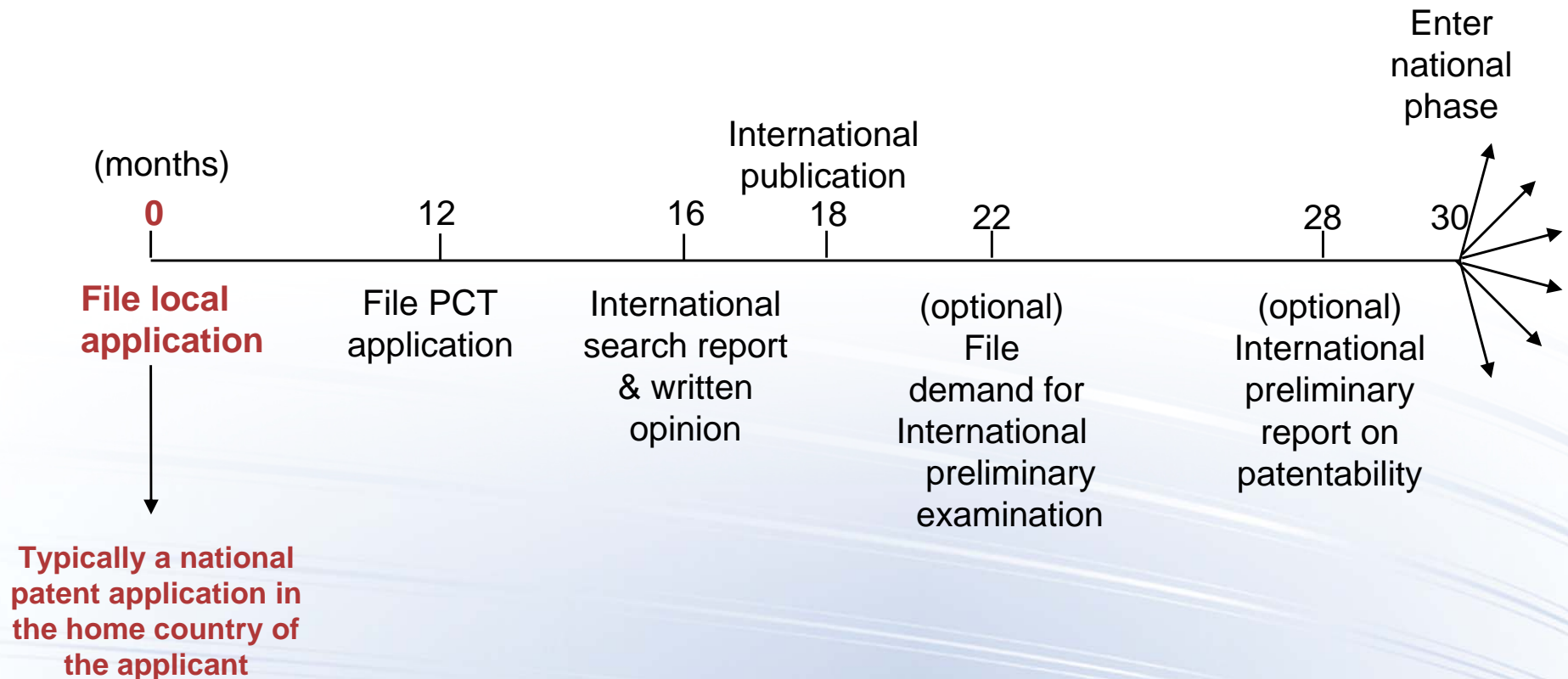


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## PCT Income as % of total WIPO Income



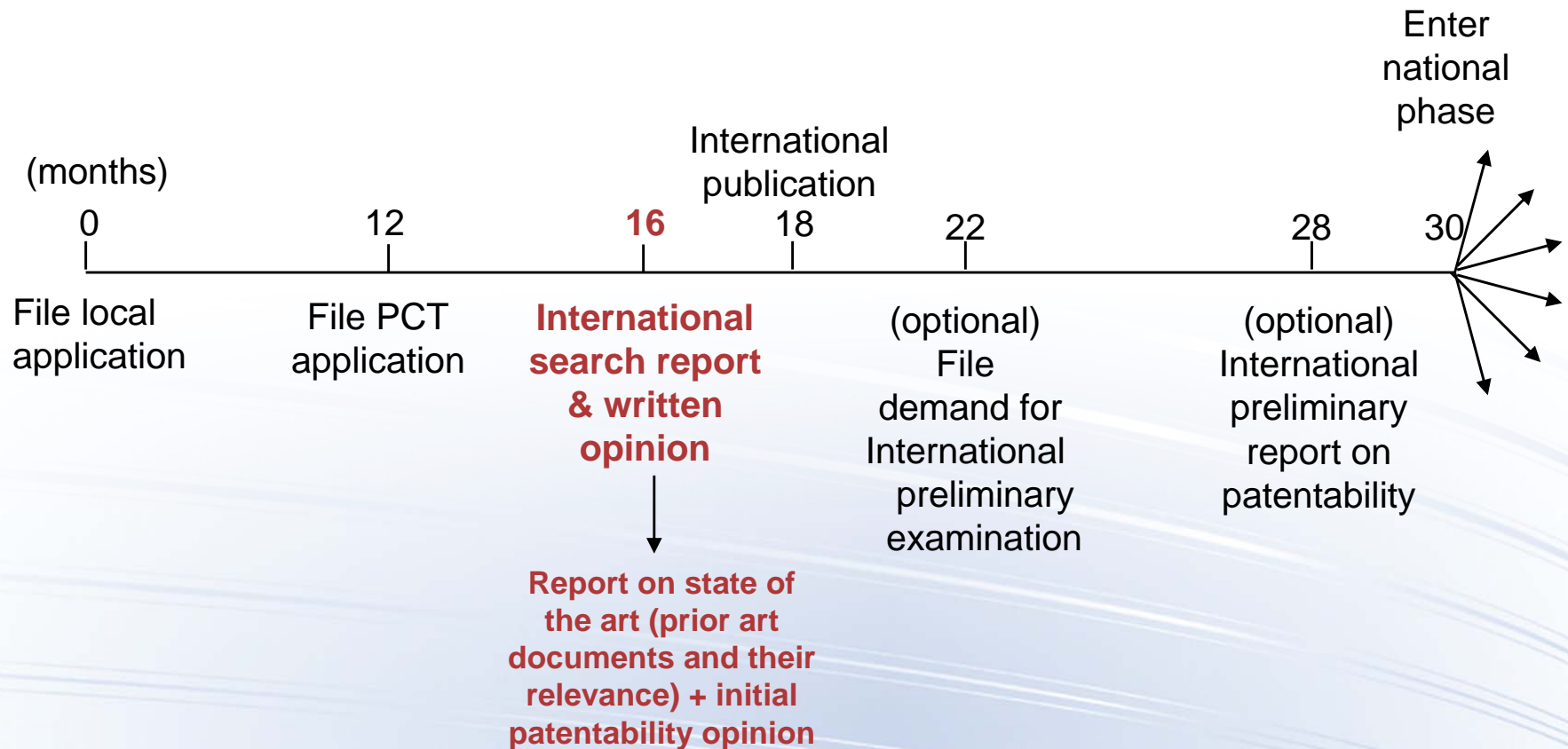
## The PCT System --typical use, in more detail



## The PCT System --typical use, in more detail



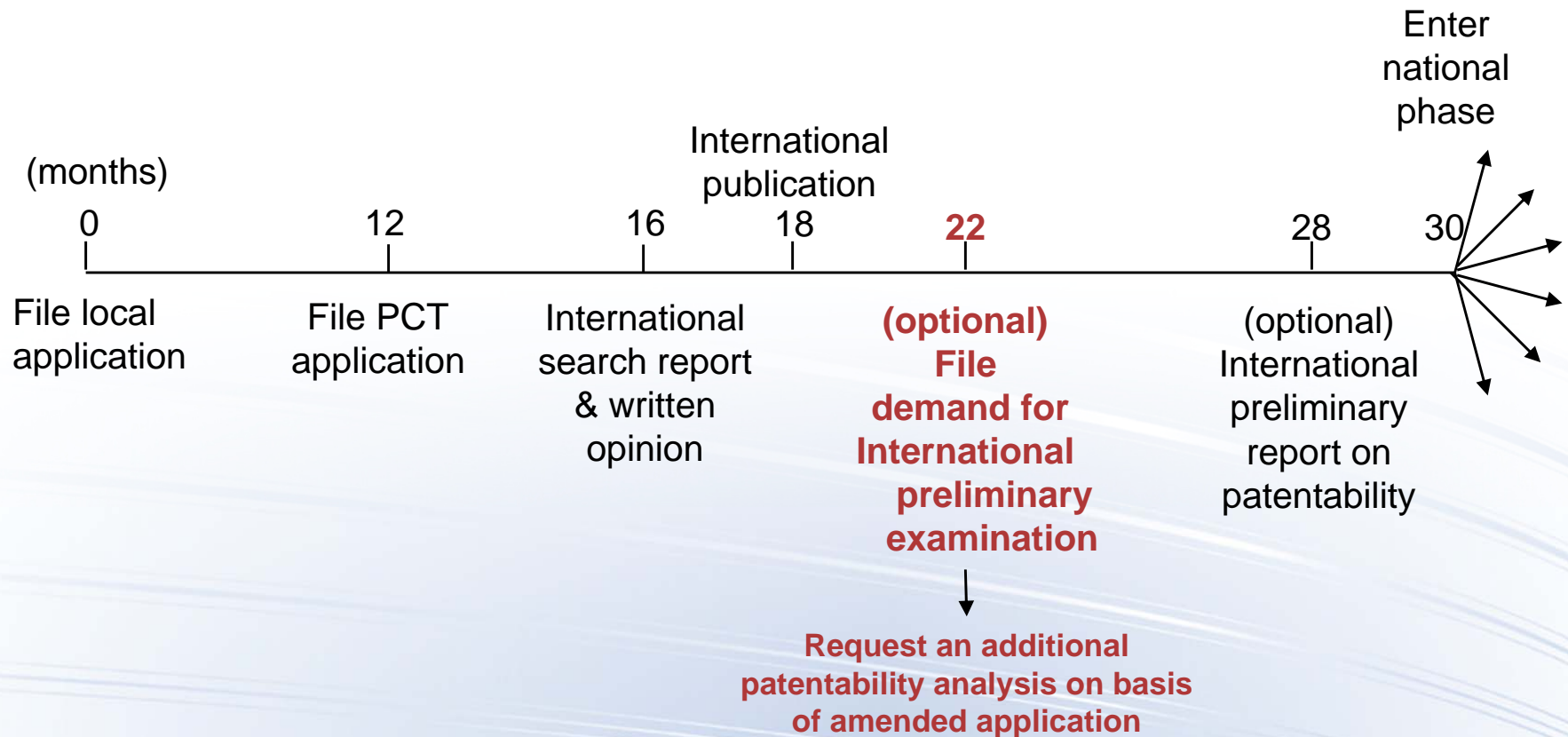
## The PCT System --typical use, in more detail



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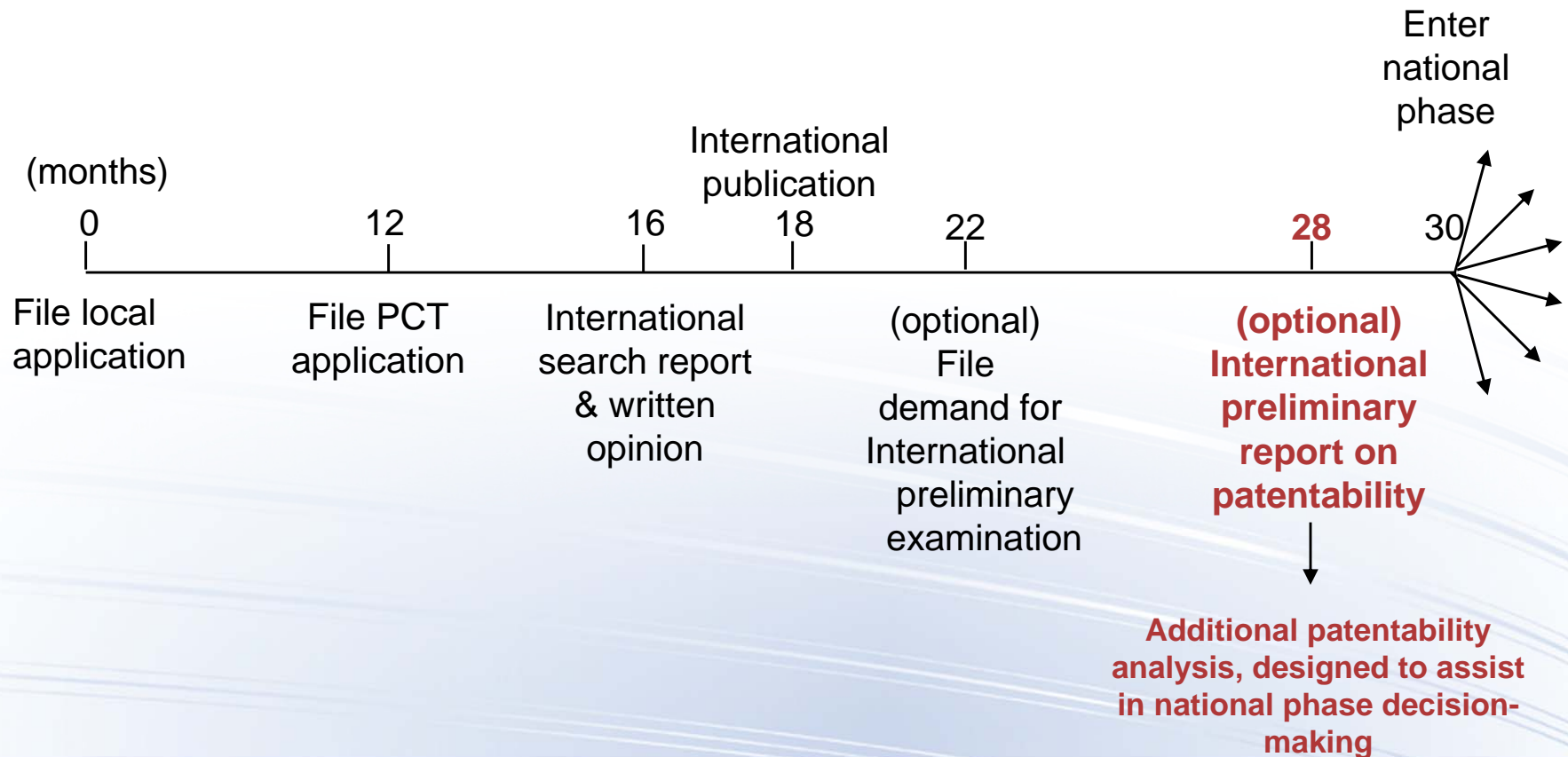


## The PCT System --typical use, in more detail

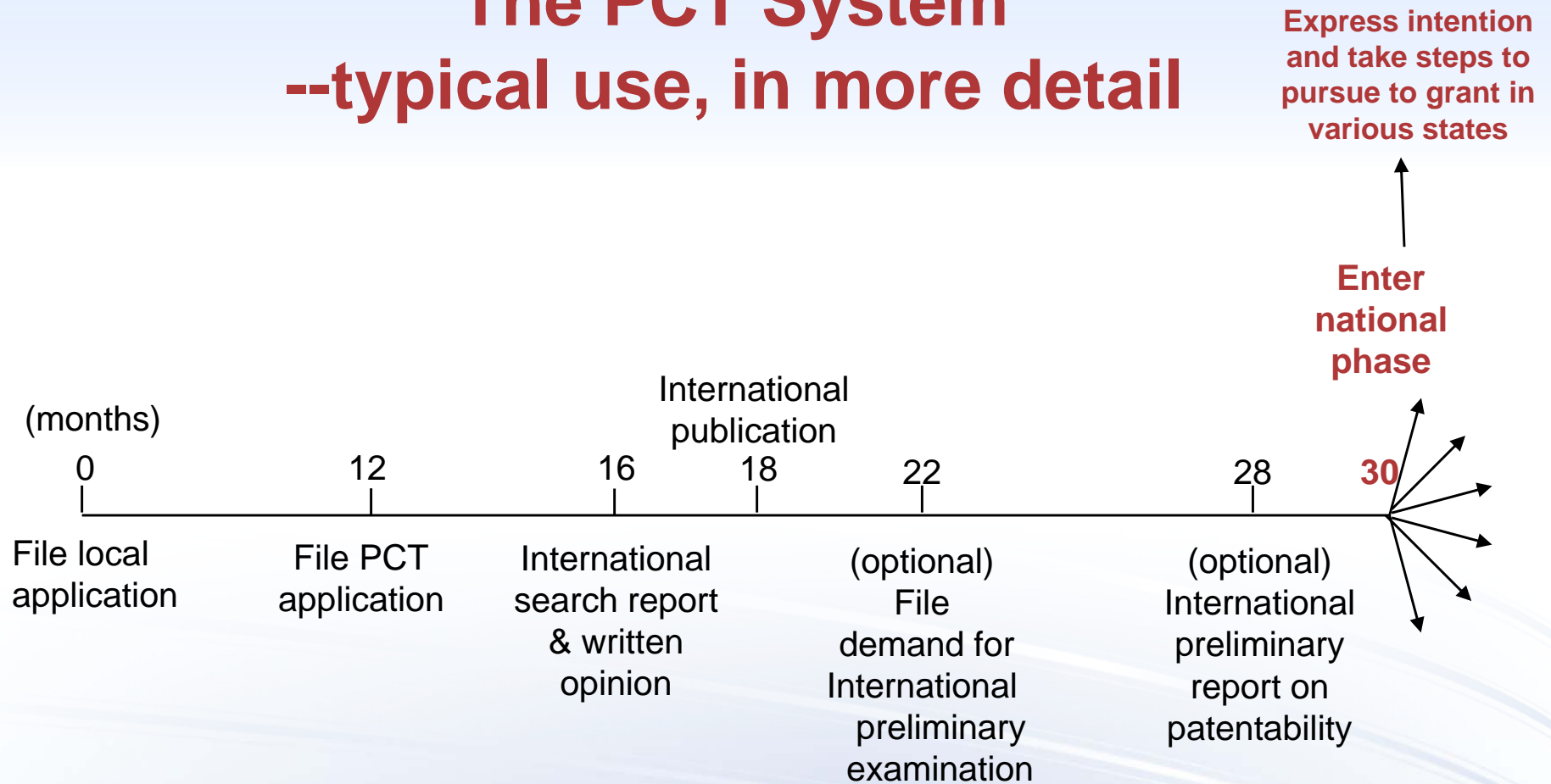




## The PCT System --typical use, in more detail



## The PCT System --typical use, in more detail



# **(2) Why use the PCT? What are its advantages?**



## Why use the PCT?

Because, as the cornerstone of the international patent system, it provides a worldwide system for simplified filing and processing of patent applications, which--

1. brings the world within reach
2. postpones the major costs associated with internationalizing a patent application
3. provides a strong basis for patenting decisions
4. is used by the world's major corporations, universities and research institutions when they seek international patent protection
5. allows you to apply securely and easily online, and to save money by doing so



## 1. Brings the world within reach



How?

PCT application = Legal effect of a regular national patent application in all PCT States



## 2. Postpones the major costs associated with internationalizing a patent application

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### What are those large initial costs?

- 1) Translations of the patent applications (which are highly technical documents) into various national languages
- 2) Official fees for payment to national/regional patent offices (for example, filing fees, claims fees, etc.)
- 3) Fees for the services of local patent agents/attorneys in the designated states

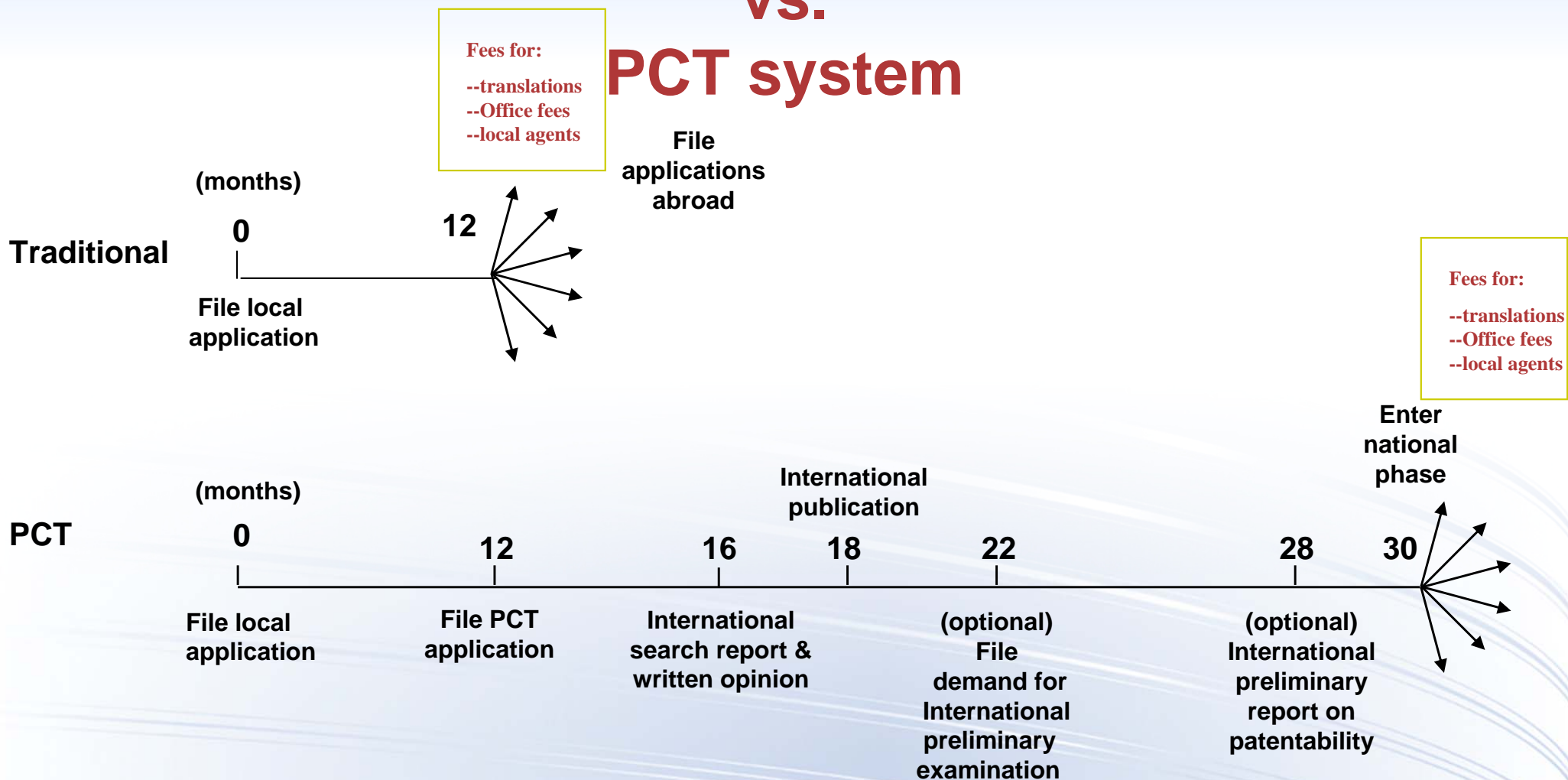


## When are these costs incurred?





## Traditional patent system vs. PCT system



# PCT Costs--in perspective

According to IP Global Estimator, the total cost of hypothetical application (RO/US, ISA/EP, 46 pages/12 claims w/3 independent, national phase in US, CA, AU, MX, JP, EPO, and EP validation in FR, DE, IT, NL, SE & GB, + maintenance fees--from filing until expiration of 10 national phase patents at 20 years from the filing date) would be USD \$201,322

Thus, the PCT filing fees, including the international search by the EPO, (total: USD \$3,354) represented **1.7% of what the PCT applicant could expect to pay throughout the full life of this patent family!**

If the payment of annual maintenance fees is eliminated from the above calculation, the total amount that the applicant would expect to pay to see his/her patents granted is reduced to USD \$85,183. PCT filing fees would then represent **3.9%** of this amount



### **3. Provides a strong basis for patenting decisions**



Together with the time gained (as previously explained) and the postponement of the significant costs, it is the

**information about the potential patentability of the invention**

that is received during the PCT process which is the most valuable for the PCT applicant



# What does this potential patentability information consist of?



## Why use the PCT?

In Chapter I of the Treaty (before the international publication), it is the content of the

**International Search Report (ISR)**

and the

**Written Opinion of the International Searching Authority**

In Chapter II of the Treaty (after international publication), it is the content of the

**International Preliminary Report on Patentability (Chapter II)  
(IPRP (Ch. II))**



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# Why use the PCT?

C. DOCUMENTS CONSIDERED TO BE RELEVANT		
Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
X	JP 50-14535 B (NCR CORPORATION) 28 May 1975 (28.05.75), column 4, lines 3 to 27	7-9, 11
X	GB 392415 A (JONES) 18 May 1933 (18.05.33) Fig. 1	1-3
Y	page 3, lines 5-7	4, 10
A	Fig. 5, support 36	11-12
X	GB 2174500 A (STC) 5 November 1986 (05.11.86) page 1, lines 5-15, 22-34, 46-80; Fig. 1	1-3
Y		4
A	US 4322752 A (BIXTY) 30 March 1982 (30.03.82) claim 1	1
A	GREEN, J.P. Integrated Circuit and Electronic Compass. IBM Technical Disclosure Bulletin, October 1975, Vol. 17, No. 6, pages 1344 and 1345	1-5

**Symbols indicating which aspect of patentability the document cited is relevant to (for example, novelty, inventive step, etc.)**

**Documents relevant to whether or not your invention may be patentable**

**The claim numbers in your application to which the document is relevant**



# Example: content of the written opinion of the ISA

<b>WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY</b>		International application No.
<b>Box No. V</b>	<b>Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement</b>	
1. Statement		
Novelty (N)	Claims <u>Claim(s) 3-15</u> YES Claims <u>Claim(s) 16</u> NO	
Inventive step (IS)	Claims <u>Claim(s) 8, 10-12</u> YES Claims <u>Claim(s) 3-7, 9, 14-16</u> NO	
Industrial applicability (IA)	Claims <u>Claim(s) 3-16</u> YES Claims _____ NO	
2. Citations and explanations:  <b>INDEPENDENT CLAIM 3</b>  Document US-A-5 332 238, which is considered to represent the most relevant state of the art, discloses (cf. relevant passages indicated in the ISR) a device from which the subject-matter of INDEPENDENT CLAIM 3 Document US-A-5 332 238, which is considered to represent the most relevant state of the art,		

Reasoning supporting the assessment

Patentability assessment of claims





# Example: content of the international preliminary report on patentability (Ch. II)

INTERNATIONAL PRELIMINARY REPORT ON PATENTABILITY		International application No.	
Box No. V	Reasoned statement under Article 35(2) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement		
1. Statement			
Novelty (N)	Claims	<u>Claim(s) 4, 5, 6-8, 9-10</u>	YES
	Claims	<u>Claim(s) 3</u>	NO
Inventive step (IS)	Claims	<u>Claim(s) 5, 6-8, 9-10</u>	YES
	Claims	<u>Claim(s) 3, 4</u>	NO
Industrial applicability (IA)	Claims	<u>Claims 3-10</u>	YES
	Claims	_____	NO
2. Citations and explanations (Rule 70.7)			
<p>A surgical knife for use in making incisions is disclosed in US-A-9 999 999 (hereinafter referred to as document 1) comprising the following features:</p> <p>A, B, C - see column 1, lines 20-55 and Figures 2,3.</p> <p>D, E - see column 3, lines 70-110 and Figure 4.</p> <p>The subject-matter of Claim 3 does not therefore meet the requirements of Article 33 (2) of the PCT.</p>			

**Reasoning supporting the assessment**

**Patentability assessment of claims (usually, as amended)**



# What does the applicant do with the information from the ISR, ISO and IPRP Ch. II?

He/she uses it as a basis for their patenting decisions-- decisions about:

- 1) whether to enter the national phase
- 2) where to enter the national phase

Example--

Based on the information received during both Chapters I and II, the Procter & Gamble company found that it:

- abandoned 20% of PCT filings at national phase (did not enter national phase at all anywhere);
- when it did enter national phase, it did so in only 70% of the States it had originally intended to patent in



**4. Is used by the world's major corporations,  
universities and research institutions  
when they seek international patent protection**



# Top Applicants

2006 Ranking	Position Changed	Applicant's Name	Country of Origin	PCT Applications Published in 2006	Change Compared with 2005
1	0	KONINKLIJKE PHILIPS ELECTRONICS N.V.	NL	2,495	3
2	0	MATSUSHITA ELECTRIC INDUSTRIAL CO., LTD.	JP	2,344	324
3	0	SIEMENS AKTIENGESELLSCHAFT	DE	1,480	81
4	0	NOKIA CORPORATION	FI	1,036	137
5	0	ROBERT BOSCH GMBH	DE	962	118
6	+2	3M INNOVATIVE PROPERTIES COMPANY	US	727	122
7	0	BASF AKTIENGESELLSCHAFT	DE	714	58
8	+11	TOYOTA JIDOSHA KABUSHIKI KAISHA	JP	704	305
9	-3	INTEL CORPORATION	US	690	-6
10	-1	MOTOROLA, INC.	US	637	57
11	+6	MITSUBISHI DENKI KABUSHIKI KAISHA	JP	616	178
12	+9	QUALCOMM INCORPORATED	US	608	229
13	+24	HUAWEI TECHNOLOGIES CO., LTD.	CN	575	326
14	-1	TELEFONAKTIEBOLAGET LM ERICSSON (PUBL)	SE	572	61
15	+9	FUJITSU LIMITED	JP	571	213
16	+12	LG ELECTRONICS INC.	KR	567	238
17	+1	E.I. DUPONT DE NEMOURS AND COMPANY	US	523	100
18	+5	HEWLETT-PACKARD DEVELOPMENT COMPANY, L.P.	US	509	150
19	-7	HONEYWELL INTERNATIONAL INC.	US	508	-11
20	-6	SAMSUNG ELECTRONICS CO., LTD.	KR	505	22

Source: WIPO Statistics Database

No change to top 5 applicants--increased usage by Matsushita, Toyota, Huawei and several others



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## Other PCT users

<b>IBM (US)</b>	<b>Nestle (CH)</b>	<b>Shell (NL)</b>	<b>Daimler Benz (DE)</b>
<b>Hitachi (JP)</b>	<b>Novartis (CH)</b>	<b>Elf (FR)</b>	<b>Volvo (SE)</b>
<b>British Telecom (GB)</b>	<b>Colgate Palmolive (US)</b>	<b>Salomon (FR)</b>	<b>Ford (US)</b>
<b>MCI (US)</b>	<b>L'Oreal (FR)</b>	<b>CNRS (FR)</b>	<b>Nissan (JP)</b>
<b>AT&amp;T (US)</b>	<b>Rhone Poulenc (FR)</b>	<b>MIT (US)</b>	<b>Renault (FR)</b>
<b>Microsoft (US)</b>	<b>Hoechst (US y DE)</b>	<b>University of Texas (US)</b>	<b>Honda (JP)</b>
<b>Boeing (US)</b>	<b>Glaxo (GB)</b>	<b>CalTech (US)</b>	<b>Kawasaki (JP)</b>
<b>McDonnell Douglas (US)</b>	<b>Leica (CH)</b>	<b>Johns Hopkins(US)</b>	
		<b>University of Michigan (US)</b>	
		<b>Columbia University (US)</b>	
		<b>Wisconsin Alumni Research Foundation (US)</b>	
		<b>University of Florida (US)</b>	
		<b>Stanford University (US)</b>	



**5. apply securely and easily online, and  
save money for doing so!**



# Why use the PCT?

## PCT Electronic filing overview

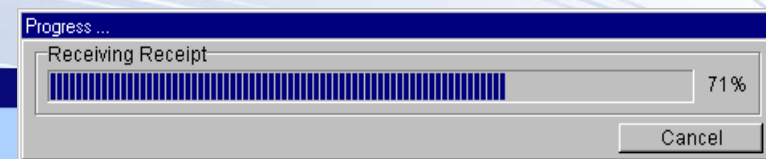
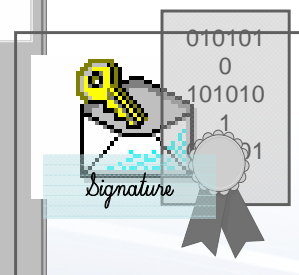
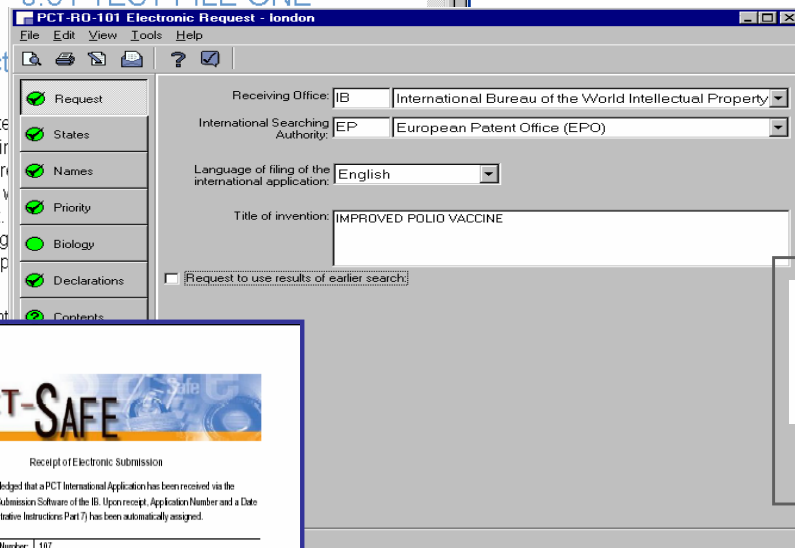
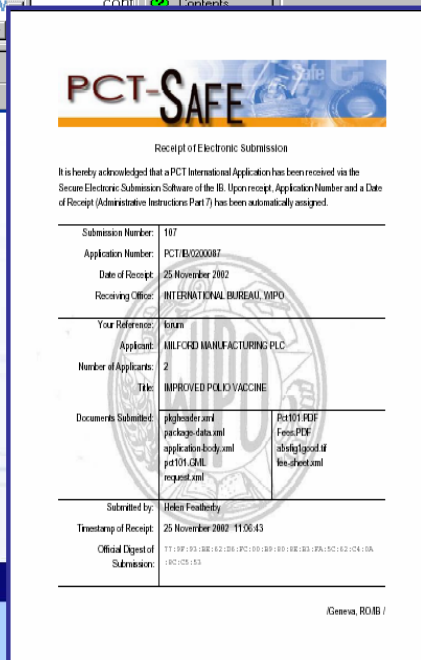
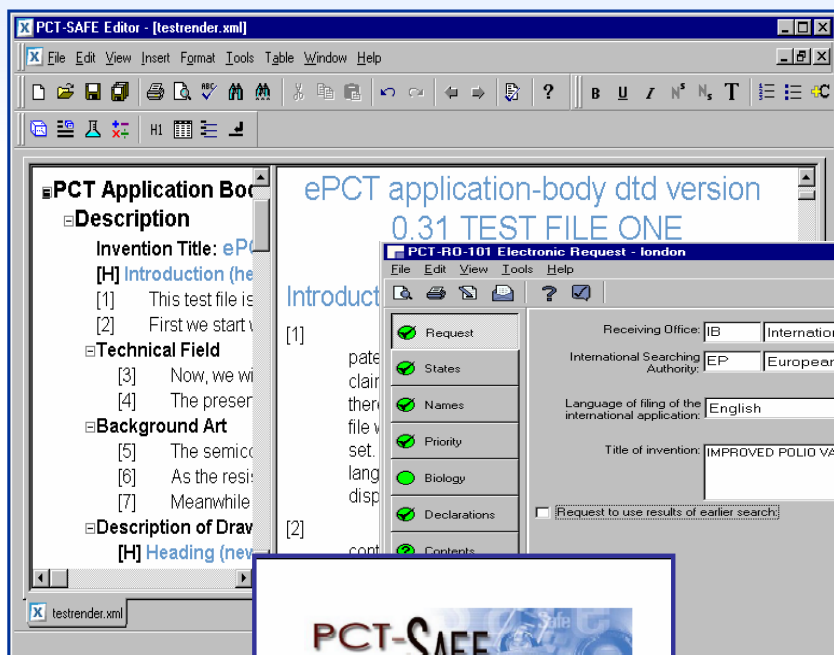
1. Prepare application body: in XML using the **PCT-SAFE** Editor or in PDF

2. Prepare Request using free, WIPO-produced **PCT-SAFE** software

3. Electronically sign: WIPO Customer digital certificate or other

4. Transmit (on-line or on CD-R)

5. Receive a receipt (for on-line filings)



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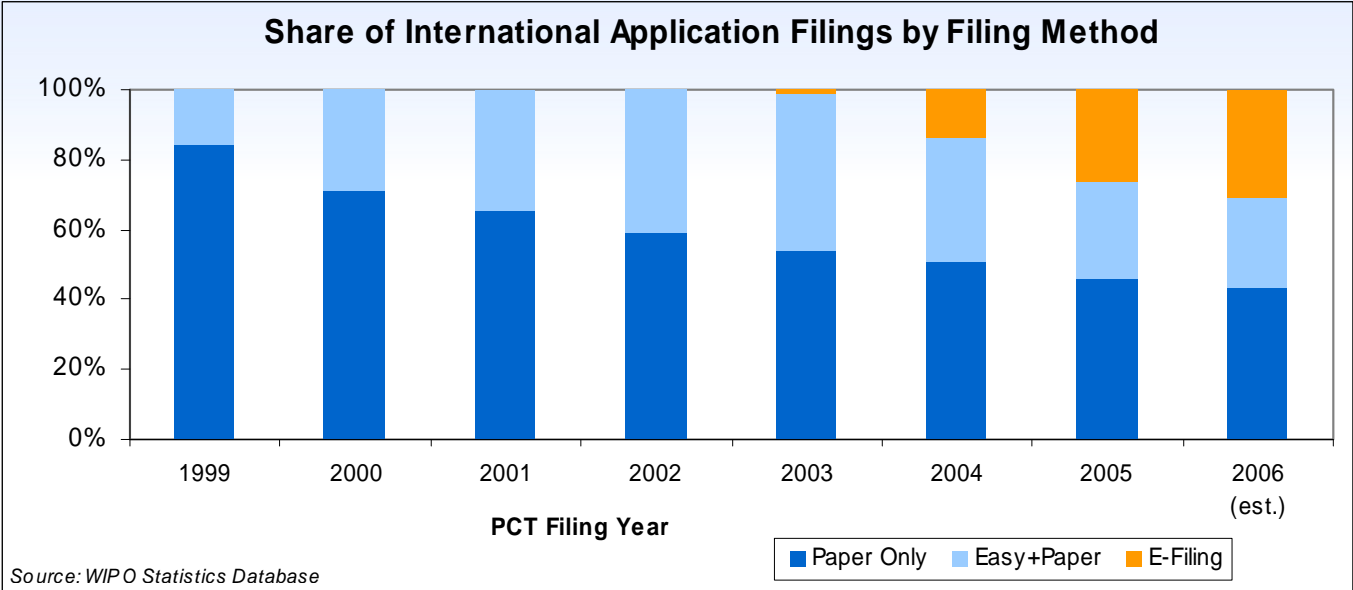
# PCT E-filing fee reductions

- **100 Swiss francs:** paper filings  
request printout created with PCT-SAFE  
diskette prepared with PCT- SAFE
- **100 Swiss francs:** electronic filings  
request not in character coded format (for ex.,  
PDF)
- **200 Swiss francs:** electronic filings  
text of application not in character  
coded format (for example, PDF)
- **300 Swiss francs:** electronic filings  
text of application in character coded  
format (for example, **XML**)





# Increased Electronic Filing



31% of applications are filed electronically

Less than half (44%) are filed on paper only

19 receiving Offices accept PCT electronic filing

Filing Method	1999	2000	2001	2002	2003	2004	2005	2006 (est.)
Paper	84.1%	71.3%	65.3%	59.0%	54.2%	51.1%	46.0%	43.5%
Easy+Paper	15.9%	28.7%	34.7%	41.0%	44.9%	34.7%	27.8%	25.4%
E-Filing				< 1.0%	1.0%	14.1%	26.2%	31.1%

Source: WIPO Statistics Database



# **(3) Recent PCT Developments**



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- 1) April 1, 2007 Amendments to the PCT Regulations**
- 2) Recent PCT Meetings and Issues**
- 3) Things we're working on**



# April 1, 2007 Amendments to the PCT Regulations

Effective April 2007:

- restoration of the right of priority
- applications filed with parts missing
- rectification of obvious mistakes
- addition of patent documents of the Republic of Korea (KR) to the PCT minimum documentation



# Recent PCT Meetings and Issues

- Working Group on PCT Reform--April 23-27, 2007
  - International publication in multiple languages
  - Supplementary international searches
  - Use of earlier national search results by Office other than ISA
  - Swiss proposal re disclosure requirements
  - Proposed amendments on withdrawals



# Things we're working on

- Priority document digital access service
- extension of national phase entry information availability
  - 27 countries currently providing data, with 1.2 million national phase notifications, updated monthly
- patent landscaping tools
- private file inspection
- XML processing



- **For further information about the PCT, see**

<http://www.wipo.int/pct/en/>

- **For general questions about the PCT, contact the PCT Information Service at:**

Telephone: (+41-22) 338 83 38

Facsimile: (+41-22) 338 83 39

E-mail: [pct.infoline@wipo.int](mailto:pct.infoline@wipo.int)



Questions?



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