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**INTERNATIONAL PATENT COOPERATION UNION**  
**(PCT UNION)**

**PATENT COOPERATION TREATY (PCT)**  
**WORKING GROUP**

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CRITERIA FOR ADDITION OF LANGUAGES OF PUBLICATION UNDER THE PCT

*Document prepared by the International Bureau*

## SUMMARY

1. The Working Group is invited to discuss possible criteria which might be adopted, in the form of a Common Understanding, by the PCT Assembly for future addition of languages of publication under the PCT.

## BACKGROUND

2. At its 36<sup>th</sup> session in September-October 2007, the PCT Assembly adopted, with effect from January 1, 2009, an amendment to PCT Rule 48.3(a), thereby adding two new languages of publication (Korean and Portuguese) to the PCT. As of January 1, 2009, the ten languages of publication under the PCT will be the following:

Arabic, Chinese, English, French, German, Japanese, Korean, Portuguese, Russian and Spanish.

3. In response to a suggestion made by several delegations during the September/October 2007 session of the PCT Assembly to develop criteria for assessing future requests for the addition of languages of publication under the PCT, the Secretariat stated that it would be happy to make proposals for possible criteria available for consideration at the next session of the PCT Assembly in 2008 (see document PCT/A/36/13, paragraph 171).

## CONSIDERATION OF POSSIBLE CRITERIA

4. In its assessment of appropriate criteria for the addition of a language of publication under the PCT, the Secretariat notes that any proposal put forward to the PCT Assembly must properly balance the interests of different users of the patent system, including costs incurred as well as convenience, and recognize the political importance of the question of language.

5. The published international application serves two main purposes: as a legal document, specifying the scope of rights sought in Contracting States; and as an information source, documenting new technology in a systematic manner. As a legal document, the published international application may have effects in Contracting States which differ according to the language of publication. The international application also needs to undergo processing in the international phase, including formalities processing and international search and, optionally, preliminary examination.

6. Any criteria for adding languages of publication under the PCT must thus take into account at least the following aspects:

- (a) the benefit to applicants in being able to access the PCT system using their own language;
- (b) the costs to the system overall of dealing with a large number of different publication languages;
- (c) the effectiveness of processing of the international application in the international phase, including international search and preliminary examination and translation of the reports;
- (d) the effectiveness of processing in the national phase if designated Offices more frequently have to rely on translations of reports;
- (e) whether the disclosure function of the international patent system can remain effective for the purpose of dissemination of technological information to the general public, industry and research institutions if international applications are published in too wide a range of languages.

*Processing in the International Phase*

7. The PCT places no restriction on the language in which the description, claims, text matter in drawings and abstract of an international application can be filed, other than what is accepted by a particular receiving Office. However, the request (Form PCT/RO/101) must be submitted in a language of publication, and translations of the description, claims, text matter in drawings and abstract into a language of publication must, where necessary, be provided under Rule 12.3 (where the language in which the international application is filed is not accepted by the International Searching Authority) or Rule 12.4 (where the language in which the international application is filed is accepted by the International Searching Authority but is not a language of publication).

8. The quality of machine translation is expected to constantly increase, providing an ever more useful tool for third parties or examiners wishing to obtain a basic understanding of the contents of a document, such as an international application, in order to learn from it or to make a preliminary comparison with a later patent application which is under examination. However, there is no expectation that such translations will become sufficiently accurate to be useful for publication purposes and thus legal purposes in the near future. Consequently, while the availability of machine translation is important, it will remain essential to file international applications in, or translate international applications into, a language which is acceptable to the competent International Searching Authority: there does not appear to be any benefit to the applicant in allowing the international application to be published in a particular language unless there is at least one International Authority willing to accept it also for the purposes of international search.

9. For the International Bureau, each new language of publication means that new staff are required who are competent in the relevant languages: although correspondence with the International Bureau must be conducted in English or French, it is necessary to process the request (which may be in any language of publication) and to be able to deal with checks and queries which relate to the body of the application to be published. Furthermore, it is necessary to maintain translation capacity in each publication language for abstracts, search reports and written opinions. While most of the translation work is outsourced, it is necessary to keep at least a minimum capacity within the International Bureau for quality control and urgent or system needs. Furthermore, while the costs for the International Bureau of outsourced translations are largely dependent on the number of applications involved and covered by the international filing fee, there are fixed costs in maintaining contracts. It would be necessary to ensure that all of these costs were provided for in the program and budget. Increased reliance on translated rather than original reports, especially if the quality of translation is not carefully monitored, would also have consequential effects in the national phase.

10. It should also be noted that each new language of publication needs to be supported by IT systems and Forms (especially the request), both of which need to be maintained in each language. While the International Bureau is given great assistance by the relevant patent Offices in updating the various legal and technical resources, maintaining all of them takes significant time and effort, which reduces the speed with which the International Bureau can react to new requirements from Contracting States and increases the risks that some applicants and Offices will be operating with out of date systems and Forms.

#### *Effective Disclosure and Searching*

11. As noted above, machine translation is becoming increasingly effective. Various systems are being tested for allowing simultaneous full-text searching of patent applications (and other documents) in different languages, including bulk translation of documents into one language to be placed in a database and searched, as well as translation of queries to simultaneously search databases in different languages. However, these translations are not yet of anywhere near the standard provided by a professional human translator and are not seen as being fully equivalent to individually searching and understanding each set of documents in their original language. Efficient searching requires as much information as possible to be available from common sources in a limited number of languages so that the largest amount of information can be found and understood without needing separate searches by expensive experts in many different languages.

## STATISTICAL ANALYSIS

12. Some of the quantifiable factors that could be taken into account in finding an appropriate balance in the definition of criteria for the addition of publication languages include:

- (a) number of speakers of the language (native and secondary);
- (b) number of States (PCT and total) for which the language is an official one;
- (c) number of PCT applications filed in that language;
- (d) number of domestic applications (first and priority) made in that language (providing indicators of potential use in PCT processing and degree of use of language as an original source of patent documentation);
- (e) whether the language is supported by at least one PCT International Authority.

13. The following (as yet incomplete) tables provide some estimated<sup>1</sup> figures quantifying the various items (together with PCT filings, for comparison of domestic and international figures) for the top 20 languages by number of native speakers and for other languages of relevance to the PCT (either international filings made or support by an International Authority).

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<sup>1</sup> The figures for first filings in a particular language are not available from the WIPO statistics and are here estimated as being 80% of the number of direct filings by residents in Offices where that is the official (or dominant) language (see “Patent Applications as Indicators of Inventive Activity” in preface to WIPO Patent Report 2007). Filings in regional Offices are treated as single national filings. Where Offices allow filings in more than one language, filings are split between languages using estimates or figures from annual reports, which do not generally distinguish between resident and non-resident filings.

Language	Native Speakers (millions)	Non-Native Speakers (millions)	Total (millions)	Rank (total)	States official language (Total [PCT])	PCT Filings in 2006	Estimated Domestic Filings in 2005 (Total [first filings])	PCT IAs accepting language
<b>Mandarin Chinese</b>	873	178	1051	1	2 [2]	3,510	133,000 [74,500]	1
Hindi	370	120	490	3	2 [1]	0		
<b>Spanish</b>	350	70	420	4	22 [12]	1,167	23,000 [3,300]	2
<b>English</b>	340	510	850	2	61 [36]	89,206	570,000 [213,000]	14
<b>Arabic</b>	206	24	230	6	26 [13]	0		-
<b>Portuguese</b>	203	10	213	9	8 [4]	11	6,600 [3,200]	1
Bengali	196	19	215	8	2	0		
<b>Russian</b>	145	110	255	5	4 [4]	642	36,000 [20,000]	1
<b>Japanese</b>	126	1	127	11	2 [1]	24,542	427,000 [294,000]	1
<b>German</b>	101	128	229	7	7 [7]	16,840	190,000 [45,000]	2
Punjabi	88		88	13	2	0		
Javanese	76		76	16	1	0		
<b>Korean</b>	71		71	18	2 [2]	3,584	161,000 [98,000]	1
Vietnamese	70	16	86	14	1	0		
Telugu (India)	70	5	75	17	1	0		
Marathi (India)	68	3	71	18	1	0		
Tamil	68	9	77	15	3	0		
<b>French</b>	67	63	130	10	34 [26]	5,174	25,000 [15,000]	4
Urdu	61	43	104	12	2	0		
Italian	61		61	20	5	1,023		

Other PCT Languages								
Language	Native Speakers (millions)	Non-Native Speakers (millions)	Total (millions)	Rank (total)	States official language (Total)	PCT Filings in 2006	Estimated Domestic Filings in 2005 <sup>2</sup> (Total [first filings])	PCT IA support
Swedish	9.3		9.3	74	2	444	3,000 [2,000]	3
Finnish	6		6		1	418	2,000 [1,500]	2
Norwegian	6.3		6.3	111	1	173	6,000 [1,000]	1
Danish	6		6		1	140	1,800 [1,300]	2
Hungarian	14.5		14.5	57	3	41	1,200 [600]	
Slovenian	2.2		2.2		3	22	350 [250]	
Turkish	60	15	75	21	3	17		
Czech	12		12	66	1	16		
Croatian					2	11		
Slovak	6		6	104	2	8		
Icelandic								1

(Sources: vistawide.com referencing Ethnologue Languages of the World, Wikipedia.org, WIPO IP statistics)

<sup>2</sup> Where 2005 data has not been received for a State with a particular official language, the most recent figures were used instead where the State had previously reported more than 1000 filings in a year.

14. From the tables, it can be seen that all of the official languages of the United Nations and all languages which are official languages in more than 5 States are already languages of publication. Consequently, while the criteria “official language of the United Nations” or “official language in more than 5 States” would have been significant in the past, these criteria do not seem to be relevant as factors in deciding whether to add further languages in the future. Furthermore, of the remaining languages in the top 20 by number of speakers (whether native or as a secondary language), only Italian is significantly used for patent purposes in the national systems of States where the language is an official language; in those States, most national patent disclosures are made in a different official language (for example: whereas there are about a total of 490 million Hindi speakers, almost all national patent applications filed in India are filed in English); number of speakers does not appear to be of itself a significant factor in use of a language in the patent system even at the national level.

#### PROPOSED POSSIBLE CRITERIA

15. In light of the above, the International Bureau is considering presenting draft criteria to the PCT Assembly for the future addition of a publication language under the PCT, to be adopted by the Assembly in the form of a Common Understanding, based on the following:

(a) *Benefit in accessibility for applicants:* Will the applicant gain a practical benefit in accessing the system by allowing publication of the international application in a particular language? Noting that the applicant can file the application in any language permitted by the receiving Office to gain the initial filing date, there is only a benefit in allowing access to the system in dispensing with the need for a translation for the purposes of international search if the application as filed can be searched by an International Searching Authority.

*A new language of publication should only be added if it is accepted for processing by at least one International Searching Authority.*

(b) *Effect on conducting patent searches:* Is the language proposed one which is particularly important to the patent system because of the amount of original research conducted and first published in that language, so that patent filings in that language already constitute a major body of patent literature requiring search?

*A new language of publication should only be added if the combined number of applications which are first filed in that language (that is, without claiming priority from another application, whether in that language or another) in all Offices which accept that language (including under the PCT) represent a certain number of all first filings worldwide, for example, [20.000] per year.*

(c) *Accessibility of information to the public:* It is important that a wide body of readers should have a chance of understanding an international application in the language in which it has been published.

*A new language of publication should only be added if adequate machine translation tools are publicly available for translation into [at least English][], and which can be integrated into at least one public database providing free access to international applications freely or at acceptable cost to the database supplier[.]*

16. It is proposed that, in order for a new language of publication to be added, it must fulfill all three criteria set out in paragraph 15(a), (b) and (c), above.

17. As indicated in paragraphs 4 to 6, 9 and 10, above, the cost and flexibility implications for the International Bureau for each additional language of publication are considerable and might have an impact on fees. The additional legal and technical maintenance needs would also affect the ability of the International Bureau to respond quickly to changing needs and expectations of applicants and Contracting States. However, it seems likely that any new language which met the above criteria would not present a major difficulty to the International Bureau, provided the necessary budgets were allocated to cover costs, in particular those relating to translation. In addition, it would need to be ensured that the decision on entry into force allowed the necessary lead time required to change systems, to ensure that staff with appropriate language skills could be made available or hired, and that new translation outsourcing contracts could be secured in time. Consequently, though these issues are significant, it is believed that there is probably no need for criteria explicitly addressing IB costs on top of the factors already included for other reasons.

#### DISCUSSION BY THE MEETING OF INTERNATIONAL AUTHORITIES

18. The proposals for possible criteria for future addition of languages of publication outlined in this document were also discussed during the 15<sup>th</sup> session of the Meeting of International Authorities (PC/MIA), held in Vienna from April 7 to 9, 2008. The discussions of the Meeting are outlined in document PCT/MIA/15/13<sup>3</sup>, paragraphs 59 to 63, reproduced in the following paragraphs:

##### “LANGUAGES OF PUBLICATION

“59. Discussions were based on document PCT/MIA/15/5.

“60. The Meeting expressed its general support for the for the proposed criteria for the addition of publication languages set out in document PCT/MIA/15/5, subject to the comments and suggestions appearing in the following paragraphs.

“61. The Meeting noted that it may be preferable to replace, in the proposed second criterion (combined number of applications which are first filed in the language concerned in all Offices which accept that language), the fixed number of applications (20,000) with a figure expressed as a percentage of all applications filed worldwide without claiming priority.

“62. Following a question by one Authority, the Secretariat stated that the term “adequate machine translation tools” in the proposed third criterion (public availability of adequate machine translation tools for translation into at least English ...) might, in practical terms, mean that at least one database provider considered those tools to be of sufficient quality that he was willing to include those tools in his database.

“63. While noting the importance of accessibility of the information to Offices and third parties, one Authority questioned whether it was necessary to include a provision related to the provision of machine translation if the first two criteria had been met, establishing the utility to a significant body of applicants of the addition of the language.”

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<sup>3</sup> See [http://www.wipo.int/meetings/en/details.jsp?meeting\\_code=pct/mia/15](http://www.wipo.int/meetings/en/details.jsp?meeting_code=pct/mia/15)

*19. The Working Group is invited to comment on the criteria which are under consideration by International Bureau for the future addition of languages of publication under the PCT.*

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