

# WIPO



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**WORLD INTELLECTUAL PROPERTY ORGANIZATION**  
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## **ASSEMBLIES OF THE MEMBER STATES OF WIPO**

### **Thirty-Second Series of Meetings**

**Geneva, March 25 to 27, 1998**

**AUTOMATION OF THE PCT SYSTEM**

*Memorandum by the Director General*

## Objectives

1. The automation of the PCT system is a project referred to in Sub-program 13.2 of the draft Program and Budget for the 1998–1999 biennium (see document A/32/2 – WO/BC/18/2). The objectives of this project, the implementation of which is expected to take three to four years, are the following:

- to streamline work procedures and to establish a more efficient and cost effective operation for the administration of the PCT through the implementation of an automated information and document management system for the Office of the PCT, thereby reducing the future need for growth of staff and program resources;
- to create and make available to receiving Offices and PCT applicants electronic filing software;
- to improve services for national and regional Offices and to establish generalized solutions for electronic data exchange between the Office of the PCT and the national and regional Offices as well as the PCT International Searching and Preliminary Authorities, including electronic publishing and the dissemination of PCT information;
- to offer further improved services to PCT applicants;
- to prepare the grounds for a future lowering of fees through the reduction of operating costs of the PCT system.

## Background

2. The functioning of the PCT system is, at present, predominantly based on paper. The increasing number of international applications will, if the system remains based on paper, require a corresponding proportional increase in staff for the handling of the growth in filings of international applications and in the demands for international preliminary examination. Measures to optimize the handling of international applications at the International Bureau under the present environment cannot be developed much further.

3. If the current mode of operations were maintained, the PCT would become increasingly more difficult to manage and this may have an impact on the quality of the work carried out. Moreover, the current mode of operations may not be able to respond adequately to the needs of the applicants and offices introducing their own automation.

4. With the increasing number of international applications filed, it becomes thus imperative to re-engineer the filing and processing of international applications and to use information technology to support these re-engineered processes, with due regard to the improvements to the PCT system that are being made through the ongoing amendments to the Regulations under the PCT.

### Main Features of the Project

5. A detailed study of the complex information and document management needs of the PCT system was carried out in 1997 by the consultants Deloitte & Touche Consulting/Praxis plc., and recommendations for the implementation of a computerized information and document management system have been elaborated by them. The study proposed automation of the PCT operations of the International Bureau with the introduction of an electronic document management system for supporting re-engineered processes capable of handling the increasing number of international applications, whether they are received in electronic or in paper form. International applications received on paper would be converted to electronic form and would then be stored and processed using the said electronic document management system.
6. To enable applicants to more easily file international applications and to avoid mistakes, electronic filing software (PCT-EASY) would be further developed and deployed. Sub-systems would be developed for receiving Offices, permitting them to receive international applications in electronic form, carry out automated formality checks and transmit record copies to the International Bureau and search copies to the International Searching Authorities in electronic form. This would allow more efficient processing by the receiving Offices and the International Bureau, by greatly reducing the formalities review and eliminating the manual handling of the applications filed with the PCT-EASY software.
7. The automation of the PCT system would permit the International Bureau to communicate to designated and elected Offices copies of international applications, priority documents, international search and preliminary examination reports, as well as all notifications provided for under the PCT and its Regulations, in electronic as well as paper form. It would also permit to effect such communications upon request, allowing the national and regional Offices to receive, for the national phase, only the information they need when it is needed.
8. Existing standards for electronic filing, coding and transmission of data would be followed, and, where necessary, new such standards would be developed on the basis of international and industry standards, in order to ensure full compatibility of the system used in the International Bureau with those used in the national and regional Offices.
9. The automated PCT system would moreover become a significant provider of information for the global information network (see Main Program 12, Sub-Program 12.1). Therefore, the implementation of the PCT automation project and of the global information network project would be fully coordinated. The network would play an essential role for the transmittal and communication of documents, notifications and information in electronic form between the PCT Offices and the International Bureau. For example, international applications would be filed in electronic form with receiving Offices; record and search copies, as well as copies of priority documents (where available in electronic form), would be transmitted by electronic means through the network to the International Bureau and the International Searching Authority; international applications published in electronic form would be able to be accessed or communicated via the information network; national and regional Offices would be able to request the International Bureau, through the network, to send any documents when needed and, if desired, in electronic form; international search reports and

international preliminary examination reports would be made available through the network, etc.

#### Expected Benefits

10. The new system would benefit *applicants* by permitting them to file international applications in electronic form, to avoid mistakes in their applications and to pay lower fees. It would benefit *receiving Offices* by permitting them to process the incoming international applications electronically, including automatic formality checks, and to electronically transmit international applications to International Searching Authorities as well as record copies and priority documents to the International Bureau. It would benefit the *International Bureau* by permitting the electronic processing of international applications, including their publication, in an automated fashion, by receiving through electronic means international search and preliminary examination reports, and by allowing the automatic communication to designated and elected Offices of all information and documents needed for the national processing of an international application either in paper or in electronic form upon receipt of a request (which could also be transmitted in electronic form using the global information network). The latter would greatly benefit *all Offices* of or acting for the PCT Contracting States, which would be in a position to better and more economically cope with their workload resulting from the increasing number of international applications.

11. The introduction of the automation system and the greater use of data in electronic form would permit the International Bureau to change from a paper-oriented operation to an operation handling documents in electronic form, thus *reducing the need of staff* for formality examination and publication, the *space needed for storage* of paper files of international applications as well as the *cost for publication* of international applications. By enabling the International Bureau to make communications to designated and elected Offices of documents required, upon request, in either electronic or paper form, depending on the needs and means of the Office concerned, it would *reduce printing, paper and mailing costs*. The saving in staff and storage space would result in a *need for less additional premises* for the Office of the PCT than would be the case without automation. (See also paragraph 17, below.)

12. Since the state of the art contained in international applications is of highest value as technical information resources, the general public should be able to access PCT information in electronic form and in searchable form. The implementation of the automation of the PCT system would also allow for more cost-effective and efficient publication and dissemination of information contained in international publications through use, for example, of CD-ROMs and the Internet.

#### Budget Estimate

13. On the basis of the study referred to in paragraph 5, above, the *budget* for the project is estimated not to exceed 40 million Swiss francs. As indicated in Sub-program 13.2 of the draft Program and Budget for the 1998-1999 biennium, the new automation system would be financed by the Special Reserve Fund for Additional Premises and Computerization.

14. It is to be noted that the costs would not have to be incurred solely during the 1998-1999 biennium. A substantial part of the costs would be incurred in the 2000-2001 biennium, and the remainder in the 2002-2003 biennium.

15. No detailed costs can be given in view of the intention to out-source the development of the system on the basis of an international tender (see paragraph 18, below), but those costs are expected to cover the following:

- design of the overall system and prototyping of individual sub-systems such as electronic document management system, image capture and storage, publishing system, etc.;
- acquisition of hardware and software necessary for the new system, including upgrading of the internal network;
- detailed development of the overall automation system, namely, programming, systems engineering and database construction;
- detailed testing of the new system, with the active participation of the users;
- management of the development and implementation of the new system;
- re-engineering of the processing of international applications and implementation of the new system, including training and possible redeployment of staff;
- modifications of original specifications evolving through the system development process and testing as well as other unforeseen needs;
- WIPO staff costs linked to the project, including the creation of three professional posts and including also, while the PCT staff is involved in system testing and training, temporary loss of productivity and the hiring of short-term staff for maintaining the PCT operation;
- the hiring of consultants to assist the PCT staff in the development of the project;
- independent quality assurance and verification;
- staff missions and third party travel related to the project.

16. The indispensable automation of the PCT requires a considerable but worthwhile investment. According to the conclusions of the study referred to in paragraph 5, above, the savings made through automation would allow a *cost recovery of the proposed investment* for the new system *in approximately four years* from the start of the development of the system.

17. This cost recovery is expected because of *savings* in two main areas: (1) on staff costs, from what otherwise would have been increasingly labor-intensive operations, and (2) on supplies and general operational expenses, particularly on items such as paper, printing and mailing. Specifically, staff savings (about 60 posts, corresponding to approximately 10 million

Swiss francs) and non-staff savings (also corresponding to approximately 10 million Swiss francs) are expected to be made in the year of the completion of the project. The savings made possible by the new system would continue to accrue thereafter. As an example, in the year in which the number of international applications received would be twice the number of international applications received in 1997 (54,400), the needed increase of staff would be lower by over 100 posts as compared with the increase that would have been necessary in the absence of the implementation of the automation project, and this would entail savings in staff costs of 20 million Swiss francs for that year alone.

#### Proposed Plan of Action

18. It is intended to out-source, based on an international tender, the development of the automation of the PCT system. The tender documents are intended to be prepared with the help of independent consultants. The tender procedure is foreseen to take place in the Summer of 1998. The development and implementation of the automation of the PCT system is estimated to last three to four years after its start, following the conclusion of the international tender procedure.

19. It is intended to advertise the automation project, and to invite expressions of interest to participate in the tendering procedure, in several newspapers with worldwide circulation and to inform all WIPO Contracting States of this advertisement to permit them to draw the attention of qualified firms to the project. An outline of the project and a questionnaire for assessing whether a company expressing interest has the necessary qualifications to carry out such a major high technology project would be published on WIPO's website on the Internet. Companies with proven experience in developing and deploying complex electronic document management systems, capable of handling very large volumes of documents, would qualify to make bids.

20. For the deployment of the project, it is foreseen that, in a first phase, prototypes of elements of the automation system would be developed and tested prior to spending major funds for automation. Teams of the Office of the PCT staff would be created to assist as representative future users in the development and testing of such prototypes. The full-scale development and implementation would follow that first phase.

21. Consultants would be engaged, also on the basis of an international tender, to assist the International Bureau in controlling the development and implementation of the system (independent quality assurance and verification).

22. The International Bureau intends to consult, whenever appropriate during the development of the system, interested Offices in order, in particular, to ensure the interface and interoperability of the operations of the International Bureau with the automated systems of the interested Offices. It is to be noted that, in December 1997, the International Bureau presented the study referred to in paragraph 5, above, to representatives of national and regional Offices having experience in automation and computerized systems for the processing of patent applications, including Offices of developing countries, in order to take advantage, to the greatest extent possible, of the experience of the said Offices. The International Bureau

received valuable comments from those Offices which will be taken into account for the development of the system.

23. Special attention will be given to the needs of smaller Offices, in particular, of developing countries, to ensure that they benefit to the greatest extent possible from the PCT automation.

24. The Assembly of the PCT Union will be kept informed of the development of the system through progress reports, which will allow all the PCT Contracting States to express their views on that development.

*25. The Assemblies of the Member States are invited to approve the automation project outlined in the present document, to authorize the financing of that project by the Special Reserve Fund for Additional Premises and Computerization and to earmark an amount of up to 40 million Swiss francs for that purpose.*

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