

## ANNEX C

### STREAMLINING AND AUTOMATING THE OFFICE OF THE PATENT COOPERATION TREATY: PRELIMINARY ASSESSMENT OF THE BENEFITS OBTAINED

#### **Automating the Office of the PCT**

400. In 1998, the Assemblies of the Member States of WIPO approved an automation project, now called the IMPACT (Information Management for the Patent Cooperation Treaty) Project, to modernize and make more effective and efficient the operations of the PCT system at the International Bureau of WIPO (IB). Due to the increase in the number of international applications (IAs) filed, the PCT system had reached a stage in its development whereby, without extensive administrative reorganization and automation, it would have begun to lose value to users.

401. The IMPACT Project was seen as an opportunity to adopt more efficient working methods rather than to impose new technologies on existing systems or simply automate the working methods as they were at the time. The improvement of services to the national offices of PCT Contracting States through, *inter alia*, electronic data exchange and the development of electronic filing were of paramount consideration, as were the provision of enhanced benefits to all users of the PCT system.

402. At its first session in 2001 (see document PCT/R/1/26, paragraph 66), the Committee on Reform of the PCT recognized that streamlining and simplifying the filing and processing of IAs should be a prime objective of the Office of the PCT (OPCT). In order to achieve that objective, automating the operations of the IB was given high priority.

#### **Assessment of Advantages and Efficiency Gains in 2002-2003**

403. It is difficult to quantify initial efficiency gains from the pilot phase of the IMPACT, as assessments to weigh the improvements in the quality of services as well as the efficiencies and cost advantages gained by the IB, Contracting States and the users of the PCT system can only realistically be undertaken once the IMPACT project has been fully deployed (towards the end of 2003) and the Processing Teams (PTs) have been operational for some time (during 2004). Nevertheless, at the time

of writing this document in February 2003, evidence of some qualitative and quantitative benefits can already be identified. These advantages are described below.

### **1. Preliminary Presumed Benefits Resulting from the Implementation of the Processing Teams (PTs)**

404. In line with the IMPACT Project's phase-by-phase implementation, the OPCT began introducing changes in its working methods and structure in mid-2001. The new structure was based on the concept of Processing Teams (PTs): the PT structure ensures that the same team processes an IA from arrival at the IB to international publication and its follow-up. This is the most logical and effective way of reengineering the work process to take full advantage of the IMPACT. The formation of the PTs was carried out in advance to prepare for the deployment of IMPACT, thereby minimizing any disruption in services offered to users. Following the success of the pilot PT, the IB took a decision at the end of 2002 to progressively create PTs. All 13 PTs are expected to be in place by April/May 2003.

#### **File availability**

405. Prior to the creation of the PTs, an IA file circulated several times between the centralized storage area (compactus) and the Examination and Publication Sections. With the implementation of the PTs, the IA file remains in the PT throughout its "IB life", eliminating the need for each Section to request files from the compactus. This not only increases efficiency within the PT, but will also lead to a significant reduction in the size of the centralized storage area. While some files will still be required from centralized and remote storage areas (often involving transportation from areas several kilometers from the main buildings; see 2(d), below), this activity will decrease as files are increasingly stored electronically.

#### **File processing**

406. The former file circulation system was disruptive to workflow and, combined with the risk of misplacing of files, created tensions between operational services. The new PT structure provides logistical and structural advantages that should lead to faster, more efficient, and more accurate file processing as well as faster follow-up after the publication date.

#### **Enhancement of knowledge and skills of the Staff**

407. The structure of the Operations Department of the OPCT before the creation of the PTs was such that discrete Sections worked in isolation with minimal contact or integration among colleagues and little appreciation by the majority of the staff of the importance of their role in the PCT system. In the framework of the PTs, staff have a better overview of the progress of each international application and are implicated

throughout the examination and publication process. This change has an important impact on training staff, enhancing their knowledge and skills which are essential to sophisticated, expeditious and streamlined procedures and working environment that the IMPACT will create.

## **2. Preliminary and Presumed Benefits of Deployed Elements of the IMPACT IB Project**

### **Internal procedures**

408. As the automation of the OPCT procedures reaches its conclusion through the IMPACT project, large volumes of paper will no longer need to be manipulated, reducing manual tasks and processing time as well as paper, photocopying and postage costs. One way in which the reduction in the use and dissemination of paper is being achieved is through the large-scale scanning of paper documents. As documents enter the IB it is intended that they will be scanned so that the documents can subsequently be routed and processed electronically (with the expectation that the amount of scanning required will decrease over time as applications are filed electronically). As the IMPACT project has not yet been implemented to the point where it is capable of serving a fully electronic IB, the IB is required to carry out its operations on the basis of a partly paper/partly electronic file. In 2002, some 114,048 record copies were received by the IB, which could not be scanned and had to be distributed internally on paper. Once the record copies can also be scanned through IMPACT, it would be possible to contain the increase in the staff members and to absorb workload corresponding to approximately 12 staff members.

409. As a result of the partial deployment of IMPACT in 2002, the IB was able to scan some 131,971 priority documents, 60,336 International Preliminary Examination Reports (IPERs), 17,903 translations of IPERs, 104,173 record copies in the form of pamphlets, and 40,397 corrected versions of pamphlets - a total of 354,780 documents (10 million pages). After full deployment of the IMPACT system in 2003, all incoming communications concerning IAs will be scanned and routed electronically to the appropriate PT staff member for action. This step should eliminate entirely the need for PTs to route and manipulate paper copies, which in turn should permit faster file processing and quicker response time in dealing with requests for documents and information from PCT users. If the IB were to receive all incoming communications in electronic format, a further five staff members could be freed for redeployment. These staff will be needed elsewhere within OPCT in the post-IMPACT environment.

### **Transition from a paper-based to automated environment**

410. The movement away from duplication via massive photocopying has already created a more efficient workplace and also substantially benefited the working environment. The most important improvements reported by the staff are the elimination of exposure to noise, pollution from toner particles in the air and the change from manual to computer-based activity. Systematic staff development and

training have been indispensable in this transition away from a paper-based workplace.

### **Scanning of the master copy of the published IA (pamphlet)**

411. Scanning has also permitted the production in electronic form of the master copy of the IA for publication (the pamphlet). This “electronic master pamphlet” replaces the paper master pamphlet (now approximately 2,000 copies per week of about 33 pages per pamphlet) which, from 1978 until September 2002, was the basis for international publication. Moreover, an additional 700 paper copies per week (about 12 pages each) were produced for the weekly republications. Apart from the reduced cost, the elimination of large quantities of paper has freed five out of sixteen staff for redeployment. In addition, in a joint effort with the European Patent Office (EPO), published PCT pamphlets are currently dispatched and made available on DVD shortly after the publication date via the ESPACE-WORLD and esp@cenet systems. As of January 2003, it is anticipated that the IB will be in a position to provide PCT pamphlets on DVD on the date of publication.

### **File storage**

412. PCT Rule 93.2 stipulates that record copies and files must be kept by the IB for 30 years. In order to accommodate the vast volume of paper that the IB has been required to safeguard, WIPO has been obliged since 1987 to rent storage space outside its main premises. By the end of 2002, the volume of storage space required was over 1,800 m<sup>2</sup>, spread over six different storage areas. These areas must be rented as all available storage space in the WIPO-owned buildings is fully occupied. An additional 750 m<sup>2</sup> will need to be rented in 2003 for storage of additional files and cartons containing scanned documents. Apart from rental costs, it is necessary to make the files and pamphlets stored in these rented areas available to the staff in the main buildings, with the attendant transportation costs. With the completion of the IMPACT Project in 2003, the advent of the “electronic pamphlet”, the progress of the PCT-SAFE project for electronic filing, and with information being stored progressively online, on CD and on DVD, proportionately less storage space will be required in future. Furthermore, as far as PCT pamphlets are concerned, by early 2003 some of the staff members involved in managing pamphlet storage will be redeployed to other tasks in the IB, thereby contributing to the containment of staff growth.

### **3. Communication on Request (COR)**

413. Principally under PCT Article 20 and Rule 87, the IB is required to communicate documents to national Offices, in particular when those Offices are designated/elected in IAs. An integral part of the IMPACT Project is its ability to furnish those documents to national Offices on CD or DVD instead of paper, on a Communication on Request (COR) basis. At present, the IB is able to furnish national Offices copies of the following PCT documents on CD or DVD:

- PCT pamphlets (the IA plus the International Search Report (ISR)) under PCT Article 20;
- priority documents under PCT Rule 17.2(a);
- international Preliminary Examination Reports (IPERs) and, if applicable, the English translations thereof, under PCT Article 36(3)(a);
- declarations under PCT Rule 4.17; and
- PCT pamphlets as published and, if applicable, republished in the PCT Gazette under PCT Rule 87.

### **Systematic and Specific COR**

414. The above-mentioned documents can be made available systematically on a weekly basis (Systematic COR – copies of all documents relating to an IA in which an Office is designated/elected) or on specific request when needed by the Office, usually when an IA enters the national phase in that Office (Specific COR). By the beginning of 2003, only one national Office was receiving all categories of communications (Systematic COR) on DVD while several other large Offices were already systematically receiving priority documents on DVD. In contrast, at the time of drafting this document, seven Offices were still systematically receiving published and republished pamphlets on paper and eight offices were systematically receiving IPERs on paper.

415. The IB in 2002 provided 42 national/regional offices with 171,383 documents (8 million sheets) on paper following 96,538 requests. The cost to the IB for copying, paper and postage was CHF 435,000 in 2002. This cost will be greatly reduced once specific COR is fully deployed. The OPCT is accordingly striving to determine which Offices are in a position to make the transition from the receipt of paper copies to the receipt of CDs or DVDs. The OPCT will be able to achieve substantial savings once it no longer prints and mails paper copies of PCT documents, and the offices will also benefit from the elimination of the manipulation and storage of paper. Overall, the cost of mailing all PCT communications in 2002 (576,439 envelopes and boxes with a total of more than 278 tons of paper) was almost CHF 1,950,000. As the cost of sending a Rule 87 DVD and a CD with specific or systematic COR to all offices would be only about CHF 94,000, the costs of PCT communications will be halved.

416. As far as staffing needs are concerned, during 2003 the IB could contain the staff increase by absorbing the workload corresponding to seven staff members in the area of PCT communications and dissemination.

### **Preliminary Assessment of Advantages and Efficiencies in 2004-2005**

417. By the beginning of the 2004-2005 biennium, the IMPACT Project is expected to be fully deployed and the PTs will have been in place for some months. This will permit the IB to make a more accurate assessment of the efficacy of the new working methods and the advantages to users compared to the pre-IMPACT PCT system, but any real benefit will not be quantifiable until at least one year after full deployment, i.e. early 2005. As with any IT project, the post-implementation phase is critical for the deployed system. This phase concerns not only basic maintenance and

fine-tuning of modules but also identification of enhancements that are necessary for the system to continue to serve the user community.

418. On January 1, 2004, many amendments to the Regulations under the PCT will enter into force affecting several functions within the OPCT. These amendments include the designation of all Contracting States on the international filing date (Rule 4.9), the introduction of a “flat fee” (Rule 15), the introduction of an International Search Opinion (Rule 43bis) and its transmittal as an International Preliminary Report on Patentability (Rule 44), amongst others. The impact of these amendments on the work of the OPCT will be assessed during 2004 and 2005.

419. The willingness of Contracting States to collaborate with the IB, not only by taking advantage of the possibilities provided by the new structure and technical systems, but also by providing constructive input to ensure the PCT achieves its maximum potential, will be a crucial element in the success of the OPCT’s efficiency efforts beyond 2005.

### **Preliminary Assessment of Advantages and Efficiencies in 2006-2007**

420. Several critical factors will have an effect on the operations of the OPCT by the 2006-2007 biennium, in particular the state of the world economy affecting the growth in PCT filings.

421. While the difficulty in establishing reliable projections of PCT growth has been acknowledged, the OPCT is working to establish systematic and flexible projection methods that will permit it to adapt the PT organizational structure and workflow procedures to changing levels of PCT demand. Inherent in this process is an undertaking on the part of OPCT to continue to assess the quality and efficiency of the manner in which it processes PCT applications in order to adjust and streamline its activities in the best interests of the user community.

### **Quantitative Conclusions**

422. The potential quantitative benefits shown above could result in the containment of growth by some 25 posts based on the successful automation of the IB through full deployment of the IMPACT Project and receipt by the IB of all communications electronically. This would result in cost savings of up to Sfr1,800,000 annually. Similarly, the transition from a paper based to a fully automated IB could result in savings of up to Sfr2,000,000 annually.

[Appendix A follows]