

MAIN PROGRAM 12

Global Information Network and Intellectual Property Information Services

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- 12.1 Establishment and Operation of a Global Information Network**
 - 12.2 Provision of Intellectual Property Information Services**
 - 12.3 Establishment of the Standing Committee on Information Technologies (SCIT)**
 - 12.4 Internal Network Services**
 - 12.5 Internal Information Systems**
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Main objectives:

- ◆ To establish and operate the WIPO global information network addressing the needs of all Member States, providing fast and cost effective communications for the intellectual property community worldwide, and taking advantage of available public networks.
- ◆ To ensure that all Member States have the necessary means (hardware, software and training) for network connectivity, allowing enhanced access to intellectual property information and supporting the modernization of their intellectual property systems.
- ◆ To promote the use of intellectual property information by Member States, the intellectual property community and the public at large, thereby fostering the adequate protection and effective enforcement of intellectual property rights.
- ◆ To facilitate access to intellectual property information by developing countries, thereby providing a tool for technology transfer and economic development to the benefit of these countries and their inventors, industry, universities, research and development institutions.
- ◆ To establish a new mechanism, the Standing Committee on Information Technologies (SCIT), as a forum to discuss issues, facilitate coordination and provide guidance concerning the WIPO global information network and intellectual property information services.
- ◆ To make the network a new means of cooperation among the Secretariat, intellectual property offices and the private sector.

- ◆ To provide and maintain an internal automated systems architecture and internal information systems which enable staff to provide high quality services and to undertake an increasing workload with higher productivity and responsiveness to needs.

**Current
situation**

WIPO has undertaken a wide range of activities to provide intellectual property information to Member States, the intellectual property community and the public, yet these activities have been limited by technology constraints and the lack of an overall framework and common standards for making such information available in a digital networked environment.

The WIPO General Assembly in September 1997 requested the Director General, as a follow up to recommendations made by the WIPO Working Group on Information Technologies for Intellectual Property in July 1997, to make a proposal for the requirements for implementation of a global WIPO network and the effective use of information technology in WIPO activities.

As far as automation of internal operations is concerned, information systems are now used in virtually every aspect of the activities of the Secretariat, both for supporting internal operations and for communicating and exchanging information with industrial property offices and applicants using WIPO's market-oriented services. The architecture within WIPO involves a Networked Office System (NOS) consisting of a large number of personal computer workstations and a number of distributed servers, interlinked through a cabling and networking system; external communications facilities include links to industrial property offices, as well as to the public through the WIPO's Website on the Internet. Internal operations comprise four major areas: house-wide network and the Intranet; PCT system operations (Main Program 13); Madrid and Hague Systems operations (Main Programs 14 and 15); and other information systems.

**Strategy
for the
future**

This Main Program outlines a proposed framework and activities in response to the WIPO General Assembly's request. It should be noted that full implementation of this Main Program will be achieved progressively during and after the biennium period.

WIPO will provide the network to facilitate the access to and exchange of intellectual property information, and will liaise with providers of such information from public and private sectors.

WIPO will take full advantage of the network to improve the interaction between the intellectual property community members, thus enhancing the protection and enforcement of intellectual property rights.

WIPO will serve as a forum through which offices can concurrently develop an organized collection of information in electronic form (Intellectual Property Digital Libraries) that will be made accessible to the general public, with certain information being accessible only to designated communities (such as intellectual property offices), through the network.

Enhanced expert resources within the Secretariat will coordinate the development of the network, and aspects related to the network interfaces, equipment, technical assistance

and training. The Secretariat will outsource tasks in these areas to the maximum appropriate extent.

The Secretariat will initiate and coordinate pilot projects to assess the functional and technical aspects of the network, taking advantage of the rapid developments in information technology, with a view toward implementing flexible and scaleable solutions.

The automated systems architecture within the Secretariat will be maintained, modernized and developed to ensure that it can fully support all information technology activities within the Secretariat.

**New
program
activities**

- ◆ Establishment and operation of the WIPO global information network.
- ◆ Initiation of projects for making intellectual property information available on the network.
- ◆ Establishment and support of the SCIT.
- ◆ Development and modernization of information systems within the Secretariat to encompass new areas of activity, and their adaptation to support organizational changes and to integrate new developments, thereby increasing the Secretariat's operational effectiveness and efficiency.

**Expected
results**

- ◆ The initial deployment of the network infrastructure and the provision of technical and training services, utilizing modern and secure technologies.
- ◆ The facilitation, through deployment of the network, of the modernization of activities for the protection and enforcement of intellectual property rights.
- ◆ Improved access to intellectual property information through the network.

Sub-program 12.1

Establishment and Operation of a Global Information Network

Objectives:

- ◆ To establish a network infrastructure that makes available intellectual property information to the public and also provides sufficient telecommunication capacities and security mechanisms to allow intellectual property offices to access information useful for grant and registration activities.
- ◆ To support the deployment of information technology infrastructure in intellectual property offices, with special support to offices in developing countries, assisting them in building the necessary infrastructure and in training for use of the system.
- ◆ To implement and operate state-of-the-art facilities to ensure that the network will be operational 24 hours a day.

Background Certain external communication facilities exist in the Secretariat to allow the exchange of information with intellectual property offices and the public throughout the world: leased line links are now used by some intellectual property offices for the exchange of electronic data with the Secretariat; the Secretariat maintains a Website providing public information; and the staff of the Secretariat has access to the Internet and electronic mail facilities.

Main activities

- ◆ Defining the technical requirements and preparing the project specifications for the different network components; issuing the tender for the contracting of the various network components, technical assistance and training services; and initiating the deployment of the network.
- ◆ Establishing a dedicated network backbone with appropriate security facilities, in accordance with recommendations from the SCIT, and, where appropriate, in cooperation with certain intellectual property offices having established national or regional networks, to be used mainly for the exchange of data (e.g., intellectual property grant and registration information) and related information.
- ◆ Providing the basic assistance, materials and equipment necessary to allow the deployment and use of network infrastructure in developing countries, in coordination with development activities under Main Program 06.

Expected results

- ◆ The network backbone will be established.
- ◆ Public network facilities will be used to interconnect the intellectual property community and to make available intellectual property information.

- ◆ The network will provide an infrastructure where intellectual property offices, copyright collective management organizations and other users can exchange information, thus facilitating their activities.
- ◆ The network will be a useful mechanism for WIPO's cooperation for development activities, reaching a much wider range of beneficiaries in developing countries.
- ◆ The network will be used to provide information through the Intellectual Property Digital Libraries, to implement distance learning systems and to promote the sharing of knowledge regarding intellectual property among countries and the public.

Sub-program 12.2

Provision of Intellectual Property Information Services

Objectives:

- ◆ To promote the availability and exchange of intellectual property information for enhancing the worldwide use of such information and the means for the protection and enforcement of intellectual property rights, the transfer of technology, and the efficiency of grant and registration activities by intellectual property offices and the Secretariat.
- ◆ To develop the intellectual property information (both industrial property and copyright information) to be made available on the WIPO global information network in a progressive manner.
- ◆ To support the provision of information on the network through standardization, search and retrieval tools, security services and other useful mechanisms.

Background The cooperation and exchange of information among intellectual property offices and the Secretariat is mainly based on paper documents or portable electronic data carriers such as magnetic tape and CD-ROM. There is a growing need for on-line data exchange in addition to these conventional data carriers.

Main activities

- ◆ Establishing and promoting Intellectual Property Digital Libraries containing a comprehensive electronic set of intellectual property information (e.g., on international applications published under the PCT) to be made available on the WIPO global information network both to intellectual property offices and to the public.
- ◆ Continuing the development, and promoting the use, of standards for intellectual property information and for the dissemination of that information.
- ◆ Continuing the revision of the IPC, Nice, Vienna and Locarno Classifications as search tools for patent, trademark and design data, developing electronic management systems for such classifications, and publishing the classifications on CD-ROM and the network.

- ◆ Evaluating and addressing specific security requirements in the area of intellectual property information exchange.
- ◆ Developing and acquiring software applications to support the delivery of services on the network.
- ◆ Providing information and training on the use of the network and the Intellectual Property Digital Libraries, with special attention to the needs of intellectual property offices and users in developing countries.
- ◆ Commissioning pilot projects and activities for evaluating and validating potential standards and solutions, as well as for assessing the scalability of such solutions.

Expected results

- ◆ The provision of intellectual property information on the WIPO global information network, including the newly created Intellectual Property Digital Libraries, will allow access to valuable resources, thereby enhancing the protection and enforcement of intellectual property rights and the dissemination of technological information.
- ◆ The provision of intellectual property information on the network will facilitate coordination among the Secretariat, intellectual property offices and the private sector.
- ◆ The establishment of support services (including training) and the adoption of standards will facilitate the exchange and dissemination of intellectual property information in electronic form.

Sub-program 12.3

Establishment of the Standing Committee on Information Technologies (SCIT)

Objective:

- ◆ To establish and support the Standing Committee on Information Technologies (SCIT), which will provide guidance on the development of the WIPO global information network and on the provision of intellectual property information services.

Background The establishment of a new committee to address the global information network and related matters was proposed during the July 1997 session of the Working Group on Information Technologies for Intellectual Property.

Main activities

- ◆ Formulation of recommendations and policies by the SCIT, for approval by the WIPO General Assembly, concerning issues pertinent to the process of providing intellectual property information in a digital networked environment.

- ◆ Establishment of the minimum possible number of working groups by the plenary session of the SCIT, with a view to facilitating the participation by representatives from countries having limited qualified human resources, for example, (i) the Information Infrastructure Working Group, (ii) the Standards and Documentation Working Group, and (iii) the Security Working Group, financial assistance being provided for participants from developing countries and certain countries in Europe and Asia to participate in the SCIT plenary session and its working groups.
- ◆ Integration of the PCIPI into the SCIT, and the PCIPI Working Group on Search Information into the IPC Union (under the IPC Committee of Experts).
- ◆ Servicing of the SCIT and its working groups by the Secretariat.

Expected results

- ◆ The SCIT will facilitate the establishment and operation of the WIPO global information network and the provision of intellectual property information services on the network.
- ◆ The SCIT will facilitate the application of modern information technology for enhanced intellectual property protection and enforcement, especially in WIPO activities supporting the domestic infrastructure for intellectual property offices in developing countries.

Note:

The activity costs are to be financed from the Special Reserve Fund and will be presented in a separate document.

Sub-program 12.4

Internal Network Services

Objectives:

- ◆ To ensure that the automated systems architecture within the Secretariat, comprising the network, servers and workstations, can fully support all the services and applications required by the users.
- ◆ To offer quality services over the network in order to improve access to and exchange of information within the Secretariat and with its partners, and to increase user productivity and knowledge management.
- ◆ To ensure that users are able to use productively the technologies available.
- ◆ To maintain consistent standards throughout the Secretariat for hardware and software components.

Background WIPO's current internal client/server architecture has the following key elements:

- some 650 Personal Computer (PC) workstations using Windows 3.11 as the user environment.
- eighteen servers, including 12 Novell IntraNetWare 4.11 servers on high-end Intel based platforms for workstation management and office automation services; an IBM MVS/ESA mainframe server, located in the United Nations International Computing Center (running the main information systems for PCT system operations (CASPIA and CASPRO systems), for Madrid system operations (MAPS system) and finance operations (FINAUT system)); and five UNIX servers (running advanced technology systems for the PCT publication system (SPIDI), the Madrid Optical Disk system (MINOS), the human resource management system (IBM HR Access) and the Internet Domain Name dispute resolution system).
- the Networked Office System (NOS) connecting the client workstations located in eight buildings in Geneva occupied by the staff of the Secretariat; within each of those buildings there are one or more local area network (LAN) segments connected via routers and optical fiber backbones; the interconnection of the buildings provides for the integration of the LANs into the WIPO wide area network (WAN). WIPO staff have access to the NOS services through over 2,000 outlets. State-of-the-art cabling and networking systems provide flexibility and superior performance. NOS also provides access to WIPO's Intranet as well as controlled access to the Internet and the infrastructure to allow national and regional industrial property offices to have access to the Secretariat's information systems.

**Main
activities**

- ◆ Upgrading, maintenance and support for some 750 PCs connected to numerous servers, including replacement of about 400 PCs more than three years old, to enable migration to Windows NT (version 4 or 5).
- ◆ In coordination with human resources development (sub-program 16.2), support for staff training and implementation of new learning tools, to allow maximum use of technologies and systems, including standard software applications.
- ◆ Upgrading and adding servers as required to maintain performance as new users are connected or to service users in new locations, and development of network infrastructure to increase its capacity, to extend it to any new premises and to support the new PCT automation program as well as any necessary external interfacing.
- ◆ Provision of remote Internet access to the Secretariat's internal e-mail system for staff on mission.
- ◆ Regular coordination meetings and development of common standards, guidelines and tools for inclusion in the Office Automation Standards and Guidelines, in the context of an Information Technologies/ Information Systems plan.
- ◆ Participation in the Management Committee of the United Nations International Computing Centre (ICC) and in the Information Systems Co-ordination Committee (ISCC) of the United Nations System.
- ◆ Development of a security policy for WIPO systems, coordinated with the ICC security policy, and follow-up of its implementation and permanent application.

- Expected results**
- ◆ Provision of training to some 600 staff on the use of the standard tools available on the network.
 - ◆ Availability of up-to-date hardware, software tools and network facilities to meet user needs in a secure environment.
 - ◆ Availability of the NOS 250 days a year, 12 hours a day, with an availability rate (at the server level) of 99%.

Internal Network Services (in thousands of Swiss francs)											
Sub-program 12.4	Official Travel and Fellowships			Contractual Services				Operating Exp.		Equipment and Supplies	
	Staff Missions	Part. Govt Officials	Fellowships	Conferences	Consultants	Publishing	Other	Premises & Maint.	Comm. & Other	Supplies & Materials	Furniture & Equipment
Total	3,092	45	-	-	-	-	800	-	714	-	1,533

Note:

Certain specific activities costs under this sub-program in upgrading the office computing environment are to be financed from the Special Reserve Fund and will be presented in a separate document.

Sub-program 12.5

Internal Information Systems

Objectives:

- ◆ To develop and maintain appropriate information systems helping users cope with their workload and improving their responsiveness to business requirements, thereby increasing the effectiveness and efficiency of operations within the Secretariat.
- ◆ To ensure that information systems will be year 2000 compliant.

Background Automation is extensively used to enhance the effectiveness and efficiency of most administrative activities. Information systems support Finance Division operations, Human Resources Management, Cooperation for Development activities, and other activities. An Intranet provides access throughout the Secretariat to shared knowledge databases developed by the different units of the Secretariat and to the information on WIPO's Website. The Secretariat is also an advanced user of different electronic publishing technologies: CD-ROM, Internet Web, desk-top publishing and on-demand printing. The Secretariat is currently installing a Web server, connected to the Internet, for the WIPO Arbitration and Mediation Center's dispute resolution procedures concerning domain names on the Internet which will be a pilot project in many new areas including electronic commerce.

**Main
activities**

- ◆ Maintenance, development and upgrading of information systems in areas other than PCT, Madrid and Hague system operations, including in particular:

- **Financial Operations:**

Maintaining, upgrading and redeveloping the Finances automation system, to resolve the year 2000 problem and to respond to the new requirements related to accountability and transparency. A new modular system, FINAUT 2000, will offer new financial reporting and analytical tools and include a new budget system (in accordance with sub-program 4.2). [1,152,000 Swiss francs for consultants and 100,000 Swiss francs for Other Contractual Services].

- **Human Resources Management:**

Implementing the IBM HR Access package for personnel and payroll, and extending its use to recruitment and human resources management. [65,000 Swiss francs for consultants and 200,000 Swiss francs for Other Contractual Services].

- **Cooperation for Development:**

Implementing a new system (CODIS) for supporting the activities of the Cooperation for Development sector, with new project management tools. [72,000 Swiss francs for consultants].

- **Arbitration and Mediation:**

Participation in the development, installation and operation of the on-line dispute resolution system (sub-program 3.3), using state-of-the-art technologies: Lotus Notes/Domino, Oracle Financials, Cybercash etc. [80,000 Swiss francs for consultants].

- **Publications and documents:**

Implementing the electronic bookshop for WIPO publications (under sub-program 5.3), and developing the electronic archive for meeting documents. [72,000 Swiss francs for consultants].

- **Electronic forms and workflow:**

Implementing systems with Novell GroupWise and the associated Windows NT client, to streamline workflows and decrease paper circulation. [100,000 Swiss francs for Other Contractual Services].

- ◆ Provision of advice on technical aspects of projects of the Secretariat, and for Cooperation for Development projects.

**Expected
results**

- ◆ Successful development and on-going maintenance of the above-mentioned information systems.
- ◆ Information systems will be year 2000 compliant.

Internal Information Systems (in thousands of Swiss francs)											
Sub-program 12.5	Official Travel and Fellowships			Contractual Services				Operating Exp.		Equipment and Supplies	
	Staff Missions	Part. Govt Officials	Fellowships	Conferences	Consultants	Publishing	Other	Premises & Maint.	Comm. & Other	Supplies & Materials	Furniture & Equipment
Total	2,636	45	25	-	25	1,441	-	1,000	-	-	100

Program Budget Summary

Global Information Network and Intellectual Property Information Services (in thousands of Swiss francs)											
	Official Travel and Fellowships			Contractual Services				Operating Exp.		Equipment and Supplies	
	Staff Missions	Part. Govt Officials	Fellowships	Conferences	Consultants	Publishing	Other	Premises & Maint.	Comm. & Other	Supplies & Materials	Furniture & Equipment
Sub-program 12.1											
Sub-program 12.2	to be financed by Special Reserve										
Sub-program 12.3											
Sub-program 12.4 3,092	45	-	-	-	-	-	800	-	714	-	1,533
Sub-program 12.5 2,636	45	25	-	25	1,441	-	1,000	-	-	-	100
Total Costs	5,728	90	25	-	25	1,441	-	1,800	-	714	1,633

Staff needs and costs

Two additional Professional staff are required to implement new projects in the Information Systems Department.

Regular Budget Posts	Posts 1996-97				Posts 1998-99				Variation			
	<u>Total</u>	<u>D*</u>	<u>P</u>	<u>G</u>	<u>Total</u>	<u>D</u>	<u>P</u>	<u>G</u>	<u>Total</u>	<u>D</u>	<u>P</u>	<u>G</u>
Information Systems Department	18.5	1	11	6.5	20.5	1	13	6.5	2	0	2	0
Inter Office Information Services Department	14.5	1	7	6.5	14.5	1	7	6.5	0	0	0	0
Total	33.0	2	18	13	35.0	2	20	13	2	0	2	0

Staff costs (in thousands of Swiss francs)	Budget 1996-97	Budget 1998-99	Variation
Salaries of regular staff	7,324	8,405	
Salaries of short-term staff	261	480	
Social charges + other personnel costs	2,403	2,756	
Total staff costs	9,988	11,641	16.5%

Comparative Budget Summary

(In thousands of Swiss francs)						
<u>MAIN PROGRAM 12:</u> Global Information Network and Intellectual Property Information Services	Budget 1996-97	Budget 1998-99	Variation			
			Program		Cost	
			Amount	%	Amount	%
Program Activities	5,684	5,728	(211)	-3.7%	255	4.5%
Staff Costs	9,988	11,641	1,643	16.4%	10	0.1%
TOTAL	15,672	17,369	1,432	9.1%	265	1.7%