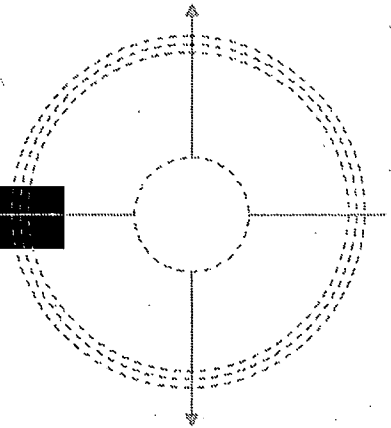I✦I Industrie Canada IC Industrie Canada

Report of the Working Group on the Reorganization of Industry Canada Libraries and their Automation

APRIL 94

From Just in Case collection development to Just in Time document delivery

Canada
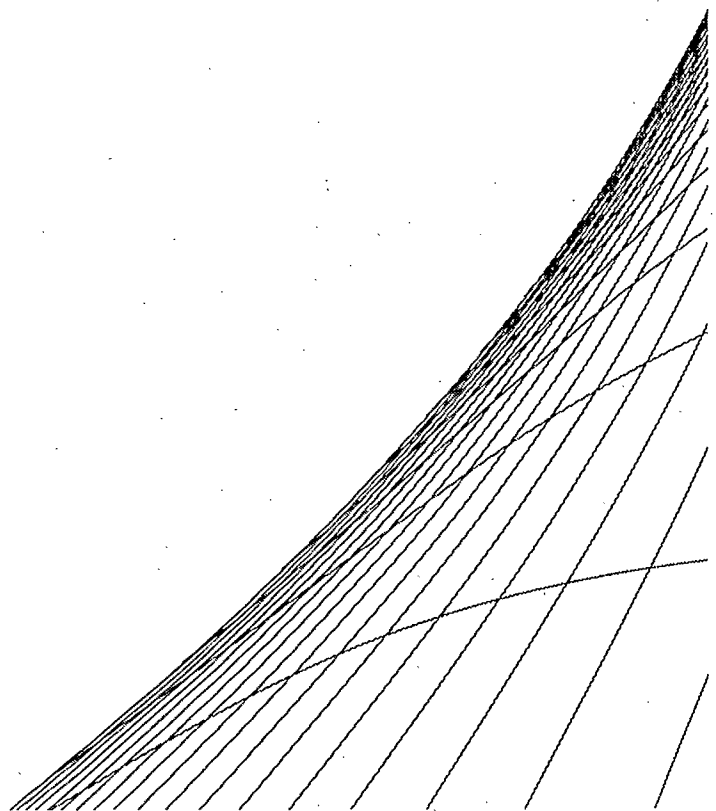
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Report of the Working Group on the Reorganization of Industry Canada Libraries and their Automation

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*From Just in Case collection development
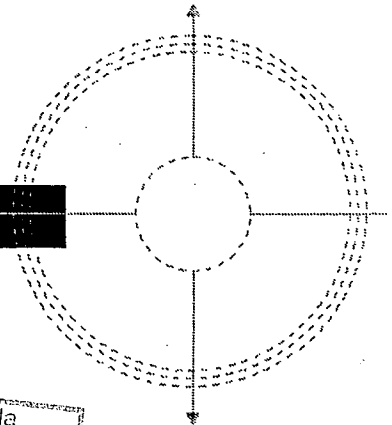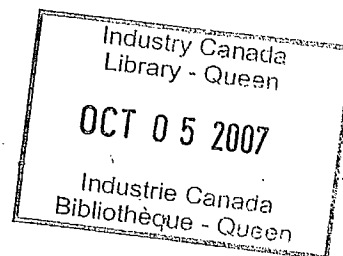to Just in Time document delivery*

Canada

TABLE OF CONTENTS

PART 1: FINAL REPORT

PART 2: APPENDICES

Appendix I   Members of the Working Group

Appendix II-I   Conceptual Framework

Appendix II-II   Report of the Sub-Committee on Client Needs

Appendix II-III   Report of the Sub-Committee on Service To Business

Appendix II-IV   Report of the Sub-Committee on State of the Art Library Services

Appendix II-V   Stock Taking Exercise

Note: Appendices are available on request

EXECUTIVE SUMMARY

The Working Group examined Industry Canada libraries and resource centres in the context of the amalgamation of Industry Canada's founding Departments, taking into account the new knowledge-based orientation of the Department. It also looked at the benefits to the department of increasing the use of information technology by the libraries.

The Industry Canada libraries and resource centres presently provide access to a wide variety of databases. Compatibility and financial issues need to be resolved before increased networking of these databases can be accomplished. Library clients are mostly Industry Canada employees, but some services also have a fair proportion of external clients. The expectations of the main group of internal clients are for the same level of library service, with increased delivery of electronic information, and additional training to help them access and retrieve relevant information. Information technology provides the opportunity to extend the reach of library services to Industry Canada employees in the regional offices and to business, thus reinforcing the role of the Department as provider of strategic information. The libraries and resource centres have a major role to play in that respect, as they can provide the expertise in the retrieval and in the packaging of information.

The Working Group recommends that the Department take advantage of opportunities offered by information technology to broaden the access to information through library services, both within the Department and outside the Department. A rapid move toward the virtual library would also provide the opportunity for demonstrating Industry Canada's leadership in the delivery of electronic library services in the federal government context. Any savings realized through the review of library services should be re-invested in the library. Libraries over the years have been considered as overhead, but they should rather be considered as a program of the Department.

The Working Group proposes an organizational structure based on a decentralized model where information services remains close to the clients, but where libraries coordinate the efforts to facilitate the access to information. At a higher level, the contribution of the libraries as provider of strategic information should be recognized in the organizational structure, and their new position should contribute to improved coordination and efficiency in the delivery of strategic information to clients.

1.0   INTRODUCTION

1.1   Background

In June 1993, an important reorganization of the federal government brought together Industry, Science and Technology (ISTC), Consumer and Corporate Affairs (CCA), Communications Canada (DOC), and Investment Canada, to form the new Industry Canada Department.

All these constituents had their own departmental libraries, as well as some other specialized libraries and resource centres. These services and their approximately 4,000 internal clients are spread over three main locations: the former ISTC and Investment Canada are located in the C.D. Howe building in downtown Ottawa; the former DOC is located in the Journal Tower North building, also in downtown Ottawa; and the former CCA is located in Hull, at Place du Portage I. Plans are underway to move some employees into two main locations. There are also two research centres, both managed as Special Operating Agencies: the Communications Research Centre (CRC) located in the West-end of Ottawa, and the Centre for Information Technologies Innovation (CITI) located near Montreal. The new department has about 2,000 employees in the different regions of the country. The existence of multiple physical locations has an impact on service delivery and needs to be considered in the planning of future library services. In this context, it is also important to consider the opportunities offered by the available information technologies.

A few studies had been carried out by the founding departments shortly before the amalgamation to address library related issues. This document takes into consideration the recommendations of these studies, as most of them still apply to the new organization.

Another factor that has been considered is the current budget rationalization exercise. All departments are facing reductions of their operational budgets in order to cope with the federal deficit. As a result, the new department is reviewing the way it delivers services and is attempting to reorganize them in a cost-effective manner. Libraries and other related services are no exception. The budget rationalization exercise has also triggered initiatives at the inter-departmental level: efforts are being made to share some services between departments in order to achieve additional savings. The involvement of Industry Canada in the Locally Shared Support Services (LSSS) initiative has been considered in this document.

1.2   Information management in Industry Canada

The new department is more knowledge based and relies on the use of strategic information to support industrial competitiveness. In January 1994, the Information Management

Committee (IMC) decided to inventory the information assets of the new department in order to identify the key services involved in information delivery, increase the sharing of our resources and organize information delivery to internal and external clients in a cost-efficient way. This initiative is consistent with the Treasury Board directive on management of government information holdings (MGIH) that requires departments to identify and create a corporate inventory of their

Figure 1

information assets for the purpose of facilitating access to government information.
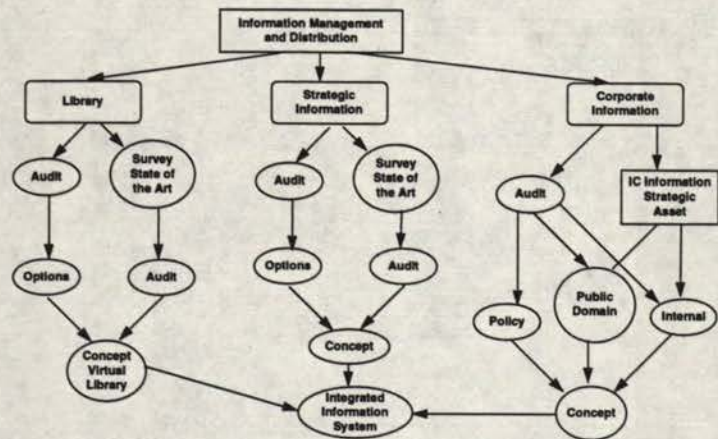
Three different audit groups were created to study libraries and related services, strategic information, and corporate information (see Figure 1). The findings of these three groups will be analyzed to put together a strategy for information management within Industry Canada. Of the strategic review on library systems, the Chairman of the Information Management Committee, M. Kevin Lynch says:
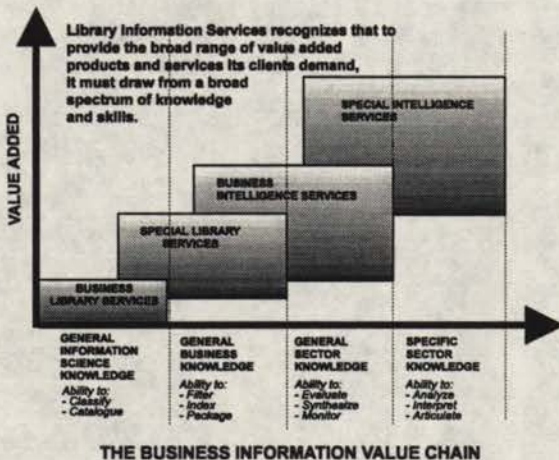
"we...will look at options for consolidating and linking our libraries and library services across the country. However, the review will not just focus on consolidation, but on how the library system can be integrated into Industry Canada's strategic information plan."

Figure 2 depicts an information value chain and shows how building value added products is related to levels of knowledge.

Figure 2

The challenge for libraries and related services is to use their expertise as information navigators as well as their knowledge of their client needs to increase their participation in the delivering of value added information.

Figure 3 presents the information environment of Industry Canada. This model depicts the full scope of the information collections and constituents of the department. To ensure that all corporate information is treated as a valued asset of departmental and national importance, the model must be brought under a well developed and implemented Information Management Infrastructure.
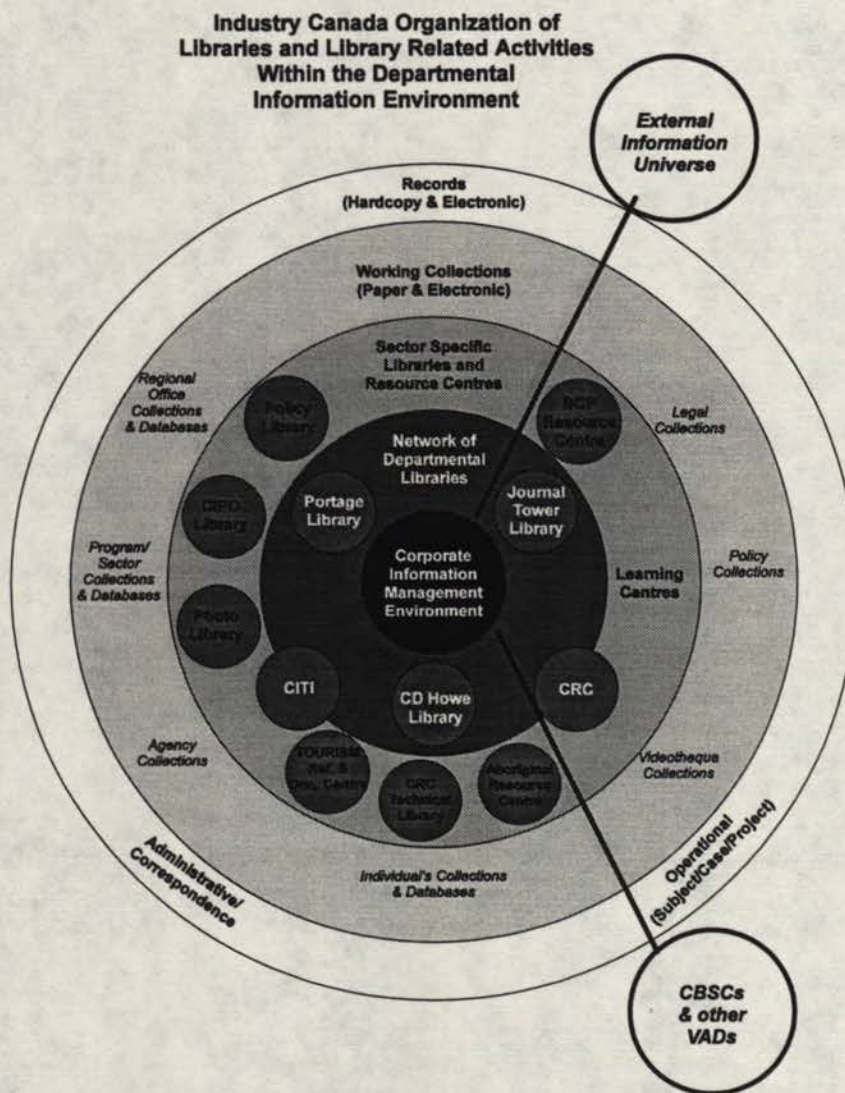
Figure 3

Decisions on an effective organizational structure for Industry Canada libraries are pending the recommendations of this report and in this context, it is urgent that IMC adopts the proposed action plan in a timely fashion.

Other initiatives are underway to harmonize the corporate information infrastructure: the network environment is being re-engineered to meet the current needs, and a uniform financial system is being implemented throughout the department. The Department is also studying the role of the CBSCs (Canada Business Service Centres) in the global information management structure of the Department.

1.3   Objectives

The major objectives of the Working Group on the Organization of Industry Canada libraries and their automation are:

- to present an inventory of IC libraries and other information resource centres, with a description of their mandate, clients and resources.

- to evaluate the actual and potential contribution of libraries and resource centres to the delivery of strategic information within the department.

- to identify and evaluate opportunities for libraries and related services to increase their information delivery to business.

- to determine the advantages and the feasibility of using more information technology in the delivery of library related services.

- to define the role of librarians in the orientation of the Department towards increased knowledge-based information delivery, and in the context of a trend towards a virtual library.

- to propose an efficient organizational framework for Industry Canada libraries that would allow some savings, while maintaining the quality and levels of service that meet our client needs.

- to make recommendations to Information Management Committee on the reorganization of Industry Canada libraries and resource centres and their future direction.

1.4   Methodology

A working group was created to study information delivery by libraries and related services. Every section of the department was invited to participate in this study. Five sub-committees were created to address specific issues:

- the sub-committee on the position of Industry Canada libraries within the Departmental information infrastructure provided a conceptual framework of information delivery within IC, and defined the mandate of the information areas.

- the sub-committee on stock taking compiled a list of information services available within Industry Canada and distributed a questionnaire to collect information on their resources, clients and services. The findings were analyzed to provide a comprehensive picture of the current situation, and to support our recommendations.

- the sub-committee on client needs identified the needs of IC's internal clients. Nine focus groups (7 in Ottawa, 1 in Montreal, and 1 in Winnipeg) were held to assess the level of satisfaction with the current services and the client expectations in the new organizational context. Client oriented surveys that had been conducted prior to the reorganization were also examined to determine if their recommendations could apply to the new Department. All these findings have been compared to assessments of client needs prepared by library and resource centre managers in order to propose recommendations.

- the sub-committee on service to business evaluated the present and potential role of libraries and related services in the delivery of information to external clients from the input received from library and resource centre managers.

- the sub-committee on state of the art library services analyzed the major trends and models for the delivery of information services to identify best practices that could be applied to our organization.

The report of this Working Group is based on the findings of these sub-committees, and their reports are included as submitted in Appendix II.

2. 0   ASSETS

A survey undertaken by IC's Operations Audit Branch (Appendix II-V) demonstrates that Industry Canada libraries and other related services constitute a major asset in terms of expertise, collections, and information technology applications. These resources are dedicated to the delivery of economic, business, legal, scientific and technical information which meets the information requirements of the Department, and they offer a foundation upon which Industry Canada libraries can expand their services to better serve the Canadian public.

2.1   Existing services

With the new organization, Industry Canada inherited 6 libraries (the former ISTC, Investment Canada, CCA and DOC departmental libraries, CRC's, and CITI's), 7 resource centres and a number of working collections.

The *former ISTC library*, currently referred to as the C.D. Howe Library, specializes in industrial and economic policy, industry studies, economics, science, technology, and trade. Most of its clients are internal to the Department (95%).

The *former Investment Canada library* holds mostly information on investments and corporations. Its clients are also for the main part internal to the Department. In this report, the library is referred to as the Policy Library.

The *former CCA library* is currently known as the Industry Canada Portage Library. It specializes in law and policy applied to competition, consumer affairs, and corporate information. The Portage Library clients are mainly Industry Canada employees. Services are also provided to CIPO on a cost recovery basis.

The situation of the *former DOC library* is special in that, following the reorganization of the federal government, the library clients and employees were split between the newly formed Heritage Canada and Industry Canada departments. The collection's main focus is on telecommunications (spectrum management, policy, socio-economic and technological aspects), and on arts and culture. The main clients are from Industry Canada, Heritage Canada, and from the Government Telecommunications and Informatics Services (GTIS).

For its part, the *CRC library* collection specializes in scientific and technical aspects of broadcasting, satellite and optical communications, and electronic components. Although the collection supports mostly research and development activities of the CRC laboratories, 30% of the library's clients are from other organizations which have partnership agreements with CRC (e.g. the Canadian Space Agency, the Defense Research Establishment Ottawa, Vistar).

The *CITI library* is known as ISIR: the Integrated Service of Information Resources. Its collection is specialized in technical and human aspects of information technology and in IT applications. ISIR's clients are mostly CITI personnel (70%), but it also provides services to partners through the National Exchange Program.

Resource Centres in Industry Canada were created to fill specific needs which could not be handled by the existing libraries of the departments in which they were established. They are all very diverse in the clients they serve, the services offered and the level of dedicated resources.

The *Photographic Service* holds more than 100,000 photographs and slides. It provides services to all government departments and to external clients.

The *Learning Centre* contains resource materials e.g. videos, tapes, tests, booklets to be used by Industry Canada employees. A small number of resources is dedicated to running the Centre, including handling the collection which is linked with the Industry Canada main library.

The *Tourism Reference and Documentation Centre* was created in the early 70's by governments and business for use by tourism businesses, as well as by federal and provincial governments employees. Most of its 8,000 holdings are tourism research papers/reports.

The *Resource Centre of the Bureau of Competition Policy* is a specialized research facility which provides research and reference services to the Bureau. Its collection consists mostly of reports, policy papers, and legal and legislative documents of precedential value to competition law. The Centre receives competition complaints and information queries from the public, screens and refers such matters to the appropriate area in the Bureau. Access to the Resource Centre is restricted to Bureau personnel, due to the legal/confidential nature of some of the material in the collection.

The *Resource Centre of the Canadian Intellectual Property Office (CIPO)* is also primarily dedicated to research materials of a highly specialized nature. The centre is for the public and staff use. CIPO houses other large collections of Canadian and foreign patents, trade-marks, copyright, and industrial design documents which are managed by the different product lines (e.g. trade-mark office, copyright office).

The *Aboriginal Economic Program's Resource Centre* was established to manage the increasing amount of documentation concerning Aboriginal business issues. Its 2,000 documents are primarily used by staff, however a variety of services are available to a small number of external clients.

The **CRC Technical Library** holds specifications and catalogues on electronic components. It serves mostly CRC clients, but also provides services to the Defense Research Establishment Ottawa, and to the Canadian Space Agency.

In summary, the resource centres generally perform similar functions to Industry Canada libraries, however their holdings and services are more specialized/focused than the libraries and there is little evidence of duplication of holdings.

2.2   Human resources

The table 1 shows the number of employees working in the 6 main Industry Canada libraries as of March 31, 1994. Their salary represents a value of close to $ 1.7 M.

Table 1: Library staff as of March 31, 1994	CD-Howe	Policy	Portage	J. Tower*	CRC	CITI	TOTAL
Professionals	6 F	2 F 1 P	5 F 2 P	3 F	1 F 1 P	4 F	21 F 4 P
Library technicians	2 F	1 F		2 F	1 F	2 F	8 F
Support staff	4 F	1 F	6 F	2 F	1 F 1 P	1 P	15 F 1 P

F = Full time ; P = Part time
* Excluding Heritage Canada employees

The next table shows the number of employees in the resource centres. The salary budget for some of the resource centres was not provided, but from the classification levels, we can estimate that the salaries represent approximately $ 480K.

Table 2: Library staff as of March 31, 1994	Learn. Centre	Photo. Serv.	TRDC (Tourism)	Competi -tion	CIPO	Aborig. Resource. Centre	Techn. Library	TOTAL
Professionals		2 F		3 F	1 F	1 F		7 F
Library technicians			1 F	2 F				3 F
Support staff	1 F		1 F				1 F	3 F

The areas of expertise of the human resources in the departmental libraries and resource centres include:

-   management of information sources and technology
-   collection development, organization and analysis
-   database selection and database searching (on-line and cd-roms)
-   training in database searching (CD-ROMs and library catalogues)
-   proactive dissemination of information based on client needs profiles
-   high speed network navigation (e.g. Internet)
-   management of access to restricted information sources
-   provision of professional reference services
-   provision of interlibrary loan services
-   purchasing and negotiation with the publishing community

With respect to on-line searching, the librarians have expertise in accessing over 1,000 commercial databases with a variety of complex and sophisticated user interfaces. Some of the most frequently used on-line systems include Dialog, Infomart, and InfoGlobe.

2.3   Operating budgets

The 6 main Industry Canada libraries spend close to $ 1.5 M in operating budgets (O&M) on an annual basis. In 1993-1994, they also received $ 284K in additional funding, either for special projects, at the mid-year review, or through cost recovery. In average, 70% of the operations budgets is allocated to collection development, in print and in electronic format. The remaining 30% is spent on systems developments, interlibrary loans, online searching, temporary help, library supplies, etc.

The Tourism Resource Centre, the Photographic Services, CIPO, and the CRC Technical Library spend together approximately $ 200K annually on operations. Information on the budgets of the other resource centres have not been provided in the survey.

2.4   Collections

The 6 main Industry Canada libraries together hold close to 127,000 monographs, more than 3,100 periodicals, about 1,900 annual reports, at least 32,000 microforms, almost 700 Video-cassettes, motion pictures and photographs, and approximately 600 sound recordings. The holdings of the resource centres are primarily research monographs (i.e. more than 7,000 of the 11,000 total holdings of the Tourism Canada and of the Aboriginal Resource Centre collections are research monographs).

The libraries also have about 60 CD-ROM subscription titles, of which 25% are available on the Department's Corporate Information System (CIS). Among the resource centres, only the Tourism Centre and the CRC Technical Library currently offers access to CD-ROMs. Table 3 shows the list of available CD-ROMs. The first column lists the CD-ROMs that the libraries share on the CIS. The other columns show the stand alone versions in the different libraries (the asterisk indicates heaviest use).

Table 3: CD-ROM COLLECTIONS	CIS	CD-HOWE	POR-TAGE	POLICY	J. TOWER	CRC	CITI	TRDC
ABI-Inform	X*				X*			
Actualité Québec	X		X		X		X*	
Auditor General Reports		X	X		X			
Books in Print					X	X	X	
BRIO							X	
Business Dateline	X							
Canadian Business & Current Affairs	X*				X			
Canadian Business Disk	X*							
Canadian Newsdisc							X	
Canadian Periodical Index					X			
C.C.H.S.T.							X	
CHOIX							X	
Compact D/ Canada	X*							
Compact D/ Worldscope				X				
Compton's Multimedia							X	
Computer Database							X	
Computer Select	X*				X*		X*	
Constitution Canada					X			
CRTC					X			
Directory of Corporate Affiliations		X						
Dr. Dobb's Journal							X	
Dun's Business Locator			X*	X				
Econlit	X							
Encyclopedia of Associations		X						X
ERIC							X	
F & S Indexes Plus	X							
Faulkner Communications					X			
Gartner Group							X*	
General Business File				X*				
Globe & Mail, Financial Times	X							
Grand Robert Electronique					X		X	
Harrap's Multilingual Dictionary					X			
Hospitality Index								X
ICP Software Database							X	
IHS of Elect. Components & Specs.						X		
Inspec					X*	X*		
Language of the World							X	
Leisure, Rec. & Tourism Abst.								X

Table 3: CD-ROM COLLECTIONS	CIS	CD-HOWE	POR-TAGE	POLICY	J. TOWER	CRC	CITI	TRDC
Library of Congress					X			
Magazine Rack							X	
Moody's US Business				X				
Moody's Int. Corporations	X							
Nat.Economic, Social, & Envirom.	X		X					
National Trade Databank	X							
New York Times					X			
NTIS						X*		
Public Affairs Info. System (PAIS)		X						
Repère					X			
Serials Directory					X			
Statistical Abstracts of the U.S.		X						
Support on Site							X	
Termium			X		X	X	X	
Time Magazine Compact Almanach							X	
Treasury Board Publications		X	X		X	X		
U.S. Exports of Merchandises	X							
U.S. Imports of Merchandises	X							
Zyzomis (Encyclopedie Hachette)					X			

* Indicates heaviest use

The table shows some duplication in CD-ROM subscriptions between the libraries. The networking of the actual stand-alone subscriptions will considerably limit the level of duplication. There are however some titles which do not support network licenses, and some others for which duplicate subscriptions is more cost-effective than network licensing. The situation may change over time, but in the short term, it is foreseeable that a minimum level of duplication will continue to exist between the libraries for some CD-ROM subscriptions. The savings that will be achieved in 1994-1995 by reducing duplicate subscriptions are in the range of $ 30K, but these savings will be reinvested in upgrading to network licenses. Despite the reduction in the duplication of titles, we estimate that the net cost of providing CD-ROMs access will increase from $ 200K in 1993-1994 to $ 350K in 1994-1995 to support additional network access.

In the 6 main Industry Canada libraries, collection development for print documents and CD-ROMs represented about $ 1.2 M in expenditures for 1993-1994.

2.5   Electronic catalogues

There are currently 4 different library systems at various implementation stages in the 6 main Industry Canada libraries. Consequently, there are also 4 different user interfaces for the library catalogues. The Table 4 shows the different modules that have been implemented, and

the ones planned in the various libraries:

Table 4: Electronic Catalogues	CD-Howe (Sydney)	Portage (Infor. Navigator)	Policy (Sydney)	J. Tower (Infor. Navigator)	CRC (MultiLis)	CITI (Minisis)
Electronic catalogue				P		
Cataloguing						
Circulation				P		
Acquisitions					P .	
Serials control	P			P	P	P

= Implemented; P=Planned

In the resource centres, Tourism Canada and the Bureau of Competition Policy have their own catalogues. In addition to the electronic catalogue, the library system of Tourism Canada (Minisis) manages the cataloguing and the acquisition functions; the automation of circulation and serials control are in the planning stage. The Bureau of Competition Policy uses the library system Inmagic; all of the modules listed in the above table are already implemented.

Currently, department-wide connectivity to the library catalogues is provided through the Corporate Information System for the CD-Howe library, and through Internet for CRC and CITI.

In order to move towards an integrated information management, it is essential that libraries move towards a departmental cataloguing system. The cataloguing module is only a part of library integrated systems that manages all of the library functions (cataloguing, circulation, acquisitions, and serials control). The cost for such a system is estimated to $ 1M.

2.6   Technology

The "technology park" of the Industry Canada libraries and resource centres includes close to 100 personal computers of very different levels of sophistication. Only some of them are used as personal computers: some are servers, and others are workstations for accessing the library catalogues and the CD-ROMs. Most of them run DOS or Windows, but there are also a few Macintosh machines. There are at least 4 dedicated servers (one the C.D. Howe Library, one at the Journal Tower Library, one at CRC, and one at CITI), some of them operating in the

DOS environment, and some others in UNIX. The inventory also includes printers (laser and dot matrix), CD-ROM drives (single units, towers, and jukebox), facsimiles, modems, microform equipment, photocopiers, and one optical character reader.

By moving towards a common library system and by increasing the networking of the information resources, it will be possible to streamline the utilization of the dedicated servers and of the CD-ROM drives, and to reallocate these equipment to support other functions in the virtual library context (e.g. archiving of electronic information, access to purchasing information, etc.). With increased remote access, there will still be a need for the workstations located in the libraries as their will be used for training and for local access.

2.7   Global Perspective

The departmental budget for libraries and resource centres ($ 4.2M in salaries and operating costs) represents less than 1% of the total departmental budget.

INDUSTRY CANADA
TOTAL EXPENDITURES BY SECTOR
1993-1994

■ SISB	■ CIPO	■ CCA	▢ DM-ADM
■ MPI	▢ COMPETITION	■ REGION	▢ POLICY
■ CRC-CITI	▢ SITT	■ CORPORATE	■ LIBRARY
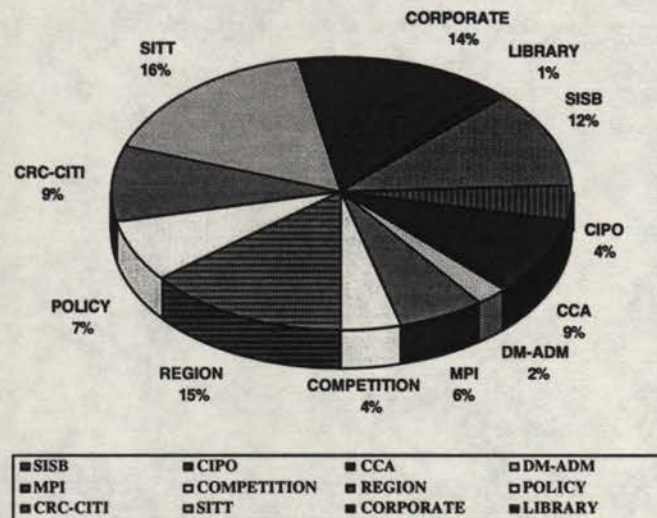
Figure 4

In comparison, the sectors spend approximately $ 3.6M a year to acquire print and electronic information because the libraries can not provide the expected level of information resources due to budget constraints. This situation affects the sharing of information throughout the Department.

The costs in salaries and in operating budgets of maintaining the sector specific resource centres and working collections adds up to the $ 3.6M and increases the contrast with the level of resources allocated to the sharing of information assets through library services.

3.0   LIBRARY SERVICES AND OPPORTUNITIES

3.1   Focus on Client Needs

The primary clients of Industry Canada libraries and resource centres are departmental employees. A Sub-committee on Client Needs was mandated to assess the needs of Industry Canada's internal clients. It is important to note that Industry Canada employees use the library services in their work to support the mandate of their respective sections, which often involves response to the information needs of external clients. The work of the Sub-committee was guided by the following important considerations:

- the changing nature of the requirements of employees of Industry Canada as the Department moves toward a vision of enhancing the competitiveness of Canadian industry through the provision of strategic information;

- the varying levels of disruption in reporting structures and physical locations being experienced by Industry Canada employees as a result of the amalgamation of founding departments;

- the levels of expectations that different employees groups within Industry Canada have with respect to library services on the basis of their past levels of services; and,

- the ability of Industry Canada employees to embrace the enhanced access to information made possible through information technologies.

3.2   Findings

The assessment of services to internal clients was largely based on the results of the client focus groups and on the ability of the library to provide the services with existing resources. Here are the major findings on the needs of our internal clients. The full report of the Sub-committee describes the methodology, and provides more detailed information (see Appendix II.II)

- focus group participants and other studies on client needs show a high degree of satisfaction with existing library and other related information services, both in terms of the quality of information and particularly the service provided by the library/ resource centre staff;

- the core information services in Industry Canada are used frequently;

- most of the information services provided were regarded as important. The traditional library services - reference and loans- were rated the most highly;

- there is a shared vision of the libraries / information centres as "gateways to information" and a "strategic resource" rather than an administrative overhead;

- library users are on the whole not generalists. They are specialists in specific areas of economics, law, business, science, and consumer affairs. The collections, services and expertise in the various libraries and information centres reflect the specialized information requirements of their clientele, and the diversity within the Department;

- library users within Industry Canada are fairly sophisticated in their information requirements and their degree of comfort with technology. This is increasingly the case with younger Industry Canada employees. Thus, there is a general support for the increased provision of more library services electronically, and increasing demand for the libraries to have access to electronic databases and Internet, and for training in these areas. This need is further emphasized by the requirement for services in the regions and the move towards the virtual library.

- the major concern expressed by focus group participants, particularly those in the scientific or technical fields, was regarding the timeliness of information.

- focus group participants were not aware that information services delivery could change for them as a result of the departmental amalgamation. Most participants expected the same level of service to which they were accustomed prior to the amalgamation;

- participants generally regarded the prospects of grouping library services in one location as inefficient. The costs and inconvenience of travel time, and concerns about the ability of one library to serve diverse needs were most prevalent. Centralization of some services - administration and acquisitions - made sense to participants;

- some felt that a centralized library concept would be more viable with increased electronic access to essential information. Improved electronic access was strongly supported by all participants. The general enthusiasm was conditional on the availability of electronic journals and the necessity of maintaining the ability to browse hard copies. There were also concerns about the level of "computer readiness" of the users, and the prospects of information overload;

- in discussions relating to the best ways for departmental libraries and information centres to absorb budget cuts, focus group participants seemed reluctant to suggest that

any services should be dropped or reduced. Some of them had strong negative reactions to the very idea of cut-backs. Most participants supported maintenance of the services of qualified librarians;

- it was suggested that service cuts should be preceded by a comprehensive survey of users and librarians. When pressed, participants offered the following suggestions for absorbing cuts:

    - reducing multiple copies of journals, etc.;
    - streamlining administration;
    - replacing periodical routing with circulation of tables of contents; and,
    - eliminating duplication of material available through other government departments.

- those who are currently being physically relocated (such as parts of Policy; parts of Spectrum, Information Technologies and Telecommunications; and Legal Services) were very concerned about loss of direct access to their research materials.

3.3 Specific Library Services and Opportunities

The opportunity for Industry Canada Libraries is therefore:

- to take advantage of the current heightened awareness of the strategic value of information,

- to enhance the position of the Libraries in Industry Canada from simply an administrative organization that manages an information repository to an organization that provides a mission critical service and manages a national asset of strategic economic importance,

- to show national leadership in the Federal Government by being among the first information service providers to take advantage of the national Information Technology Infrastructure as a mechanism to enhance the international competitiveness of the economy,

- and to make the immense amount of available strategic information accessible to Canadian Business in a timely and affordable manner.

To this end the Committee explored the full scope of opportunities for service to business and took into consideration the overlap with other private and/or public organizations. The detailed assessment is found in Appendix II-III. The Committee grouped the opportunities into three categories of services:

Group 1-Core Services: As the name suggests this group includes the fundamental library services of information management, access to information through manual as well as electronic means, physical loaning of information, inter-library loans, electronic dissemination of information, reference services and the selective dissemination of information (SDI) based on pre-established information needs.

Group 2 -Value Added Products and Services: This group of services focuses on the building of information and intelligence products targeted to the specific information needs of selected markets or groups of clients.

Group 3-Education Services: These services include: building a greater awareness of the value of information; informing clients as to what information is available, how to find it, how to access it and how to select and retrieve only the most useful information; and how to use and navigate information systems on CD-ROMs or networks such as Internet.

Table 5 shows that the Libraries of Industry Canada are well positioned to provide services to both internal and external clients especially in the "Core Services" area. Their collections are of prime value to Canadian businesses as are the skills of their staff. Constraints due to limited resources account for the low scores in extending direct services to external clients.

Table 5 SERVICE GROUP	POSITIONING FOR SERVICE DELIVERY	
	to Internal Clients	to External Clients
CORE SERVICES		
National Business Information Infrastructure	9	8
Walk-in Access	9	6
Electronic Access (catalogue only)	9	9
Electronic Delivery (catalogue and content)	7	5
Lending Service including inter-library loans	9	5
Pro-active Information Dissemination Service ("Just in Time" SDI)	7	6
VALUE ADDED PRODUCTS AND SERVICES		
Building Information Products (advisory role to programs)	6	5
Building Intelligence Products (advisory role to programs)	5	3
Bulletins and Business Research Guides (Path Finders)	8	7
EDUCATION SERVICES		
Educate Business Regarding the Value of Information	6	6
Information Source Navigation and Filtering Skills	9	5

Maximum score: 9

3.4   Conceptual Service Model (Current)

Figure 5 is a conceptual model of the current business environment of Industry Canada's Libraries. The model depicts the business environment as having four fundamental components. The Librarians, the clients of the Libraries (Net-users of information, the Net-producers of information), the Library Collections, and the Information Management Environment. The main "stakeholders" in this model include the Libraries themselves and the internal clients of the Libraries. To further differentiate the stakeholders the clients are separated into two groups: the Users of Information and the Departmental Producers of Information. Distinguishing the clients in this

THE CONCEPTUAL MODEL OF THE CURRENT
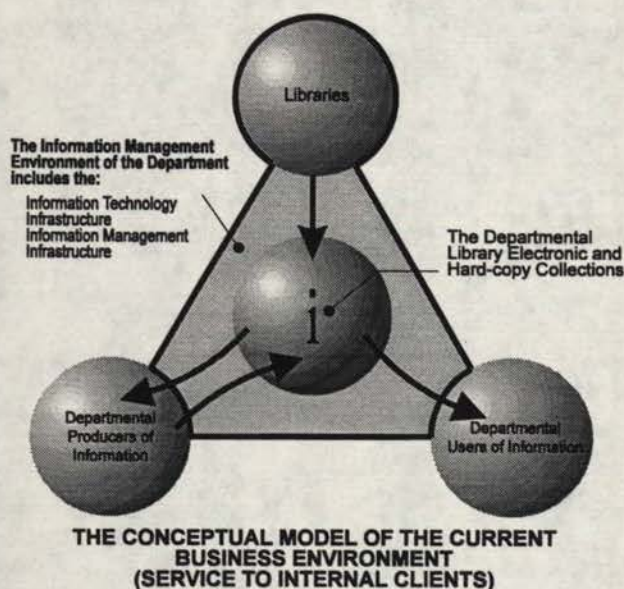BUSINESS ENVIRONMENT
(SERVICE TO INTERNAL CLIENTS)

Figure 5

manner is important since the Departmental Producers represent an important source of "value-added" information for the Libraries as well as being an important user of information. Historically, there has been no formal recognition of the role or responsibilities the Departmental Producers should have in relation to the Libraries except that it is widely accepted that many of the reports and documents produced by this client group are not deposited in the Libraries - though they should be. This concern is addressed further in the Recommendations of this report.

The Information Management Environment component of the model represents the physical components, systems, policies, procedures and work processes that enable the Libraries to manage their hard-copy and electronic collections and to deliver services. This model does not presume that all of the Department's Information Management Environment is dedicated solely to the support of the Libraries and their collections. It is accepted that only a portion of the Information Management Environment of the department is directly related to the Libraries. However, the Libraries must work closely with the informatics service organizations of the department to manage, maintain and disseminate the hard-copy and electronic information that make up their collections.

The Information Management Environment has two main components: the Information Technology Infrastructure and the Information Management Infrastructure. The Information Technology Infrastructure forms the "physical utility" by which electronic information can be gathered and disseminated. Though it is imperative that the Libraries have access to an efficient and well supported Information Technology Infrastructure their main concern is the proper implementation of the second component of the Information Environment: the Information Management Infrastructure. It is the discipline of Library Science combined with the department's information management policies, procedures, work processes and best practices that make up the Information Management Infrastructure of Industry Canada. It is this "Information Management Infrastructure" that enables the Libraries to manage information as a sharable asset and a mission critical resource on behalf of the Department and not simply as an operational or administrative expense.

The flow of information and services is depicted by the arrows in the model. The Libraries are shown as performing, among many other tasks, the primary task of collection development. Collection development involves, among other things, determining the content of the information collection, classifying the information, and cataloguing the holdings. The Librarians are also responsible for facilitating all interactions (shown as the curved arrows) between their clients and the library collections. This may be done through support services such as reference services, education services, or "value-added" services such as creating a specific information products for the client.

3.5 Conceptual Service Model (Recommended)

A revised conceptual service model uses intermediaries as a means of buffering the Libraries from the demands of an expanded client base. It is the belief of this committee that this approach is essential to maintain quality services to internal clients. Figure 6 clearly demonstrates the nature of this multi-tiered approach to ser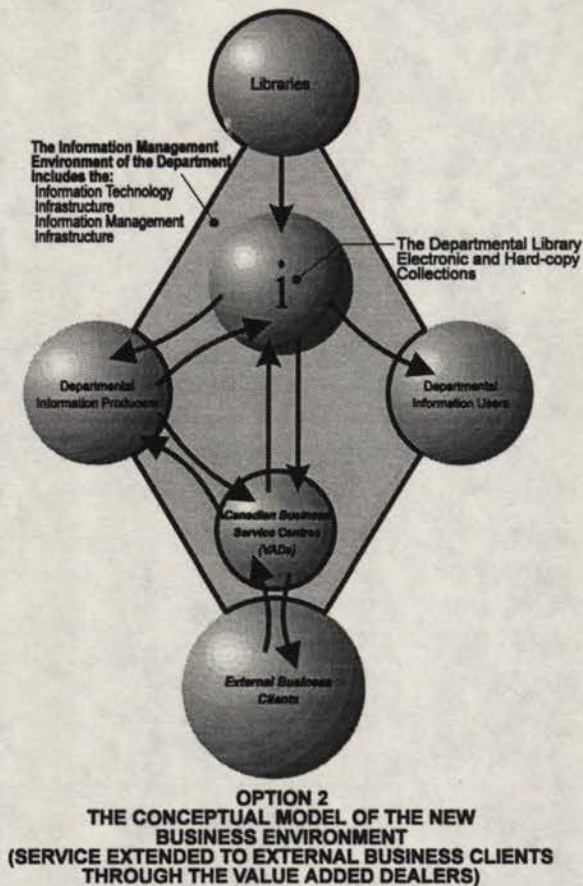vice delivery. The diagram shows that the Information Management Environment can be extended to include the external business clients. As the Information Management Environment becomes highly automated and technology driven there would be minimal direct impact on the Libraries. This aspect of the strategy falls directly in line with the objective to satisfy greater demands for service through information technology and automated systems.

The other implication of this strategy is that the intermediary organization becomes an integral part of the service delivery mechanism. Organizations such as the Canadian Business Service Centres (CBSCs) and resource centres could provide the primary contact points for service requests. The Libraries would, in turn, provide the necessary support to these organizations through the Information Technology Infrastructure and Information Management Infrastructure of the Department. This strategy will require that agreements be reached between these front line service groups and the Libraries.

OPTION 2
THE CONCEPTUAL MODEL OF THE NEW
BUSINESS ENVIRONMENT
(SERVICE EXTENDED TO EXTERNAL BUSINESS CLIENTS
THROUGH THE VALUE ADDED DEALERS)

Figure 6

External business clients of the Libraries should therefore be encouraged to use the "store front" service organizations being currently established by the Federal Government. The relationship of the front line organizations to the Libraries could be as "Value Added Distributors" of the Library services. Through this relationship with organizations such as the CBSCs, Industry Canada Libraries will be in a better position to ensure the increased demand for service does not diminish the quality of service to internal clients or to the Value Added Distributors.

The successful realization of the concepts represented by the two recommended models is predicated on the support and acceptance of the overall vision for Library Information Services by management and personnel and the complimentary functional support provided to the Resources Centres in their program delivery role.

3.6 A Special Relationship With Canada Business Service Centres

This proposed Value Added Distributor relationship with the CBSCs opens up additional opportunities. It was brought to the attention of the Committee that the CBSCs may have a need for specialized services that the Libraries of Industry Canada may wish to provide:

- each CBSC must develop its own information collection. The IC Libraries could provide expertise in this regard.

- the CBSC's have identified a need for Library support. The IC Libraries could provide national library support to the CBSCs.

- the CBSC's are actively developing information products for such services as "fax back" response. The IC Libraries could provide support in the design and packaging of these information products.

- each CBSC has an "Enhanced Service Area". The Winnipeg CBSC identified the need for a Librarian in this area and staffed the position two years ago. The IC Libraries may wish to staff these positions in other CBSCs.

Developing a special relationship with the CBSCs offers many mutual benefits. As a well defined and contained client, extending services to the CBSC should be a manageable resource issue. As a front line organization that is mandated to have direct contact with business, the CBSC is in an excellent position for filtering the service requests that an extension of services to business could generate for the Libraries. In return the support of the IC Libraries would permit the CBSCs to offer new or enhanced services that would not be as feasible otherwise.

4.0   VISION - Library Information Services

Industry Canada has committed itself to be the key source of business information for government and industry and a world leader in exploiting business information and applying it as knowledge - the knowledge that is critical to Canada's competitiveness and prosperity. "Library Information Services" plays an important role and the vision of their future should be seen as:

- a critical element of the information management infrastructure of the department;
- establishing alliances with Departmental information services branches and divisions, external information service organizations, and "front-line" organizations such as the Canada Business Service Centres.

This recognition of the role of the Library Information Services and these alliances will form the building blocks of a comprehensive national information infrastructure that will promote and provide access to national and international sources of information and intelligence to support businesses.

Library Information Services have extensive expertise in the development and management of information collections that are of strategic importance to the department and, by extension, to business. The Library Information Services offer expertise and knowledge in areas such as:

- identification of information sources;
- information selection, acquisition and quality assessment;
- subject area classification and indexing;
- information brokerage;
- the navigation of electronic information systems such as CD-ROMS and networks such as the Internet, which provides access to literally thousands of on-line databases;
- value added products and services;
- training and education in the use of library information systems, in the navigation of the myriad of external sources of information both in conventional and in electronic format, and the use of the departmental collections as a strategic corporate resource.

Industry Canada is committed to ensuring that Canada builds an efficient and pervasive information technology infrastructure to serve its stakeholders and to treat information as one of its tangible products. However, the department well understands that building the technology infrastructure of the information highway is only half the task. The other half is providing the content - the information. The "content" being referred to here is not simply e-mail or huge databases of raw data, but well structured, meaningful, useful and timely information. The most effective way to harness the potential of the technologies both

available now and being implemented within the Department is to adopt a "virtual library"concept (see Figure 7). The "virtual library" uses the information highway as a cost effective medium to:
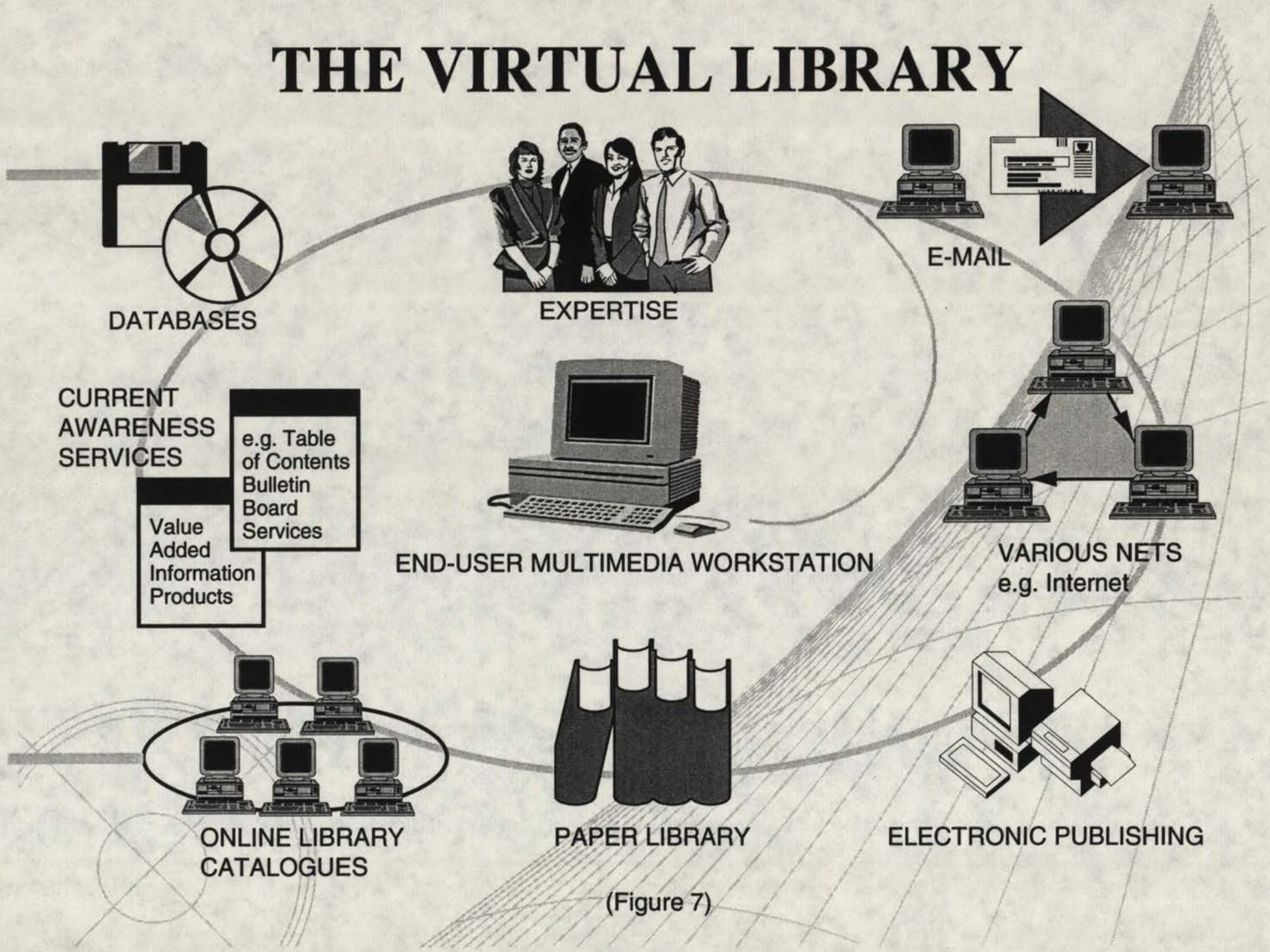
- broaden services to all branches of the department in all regions;
- expand service offerings to include the electronic delivery of information;
- offer specialized selective dissemination of information services on a "just in time" basis versus "just in case";
- act as a node to external information sources and services.

Critical to this concept is the quality of service provided to the clients of Library Information Services. Significant cultural change and new ways of doing business require equally sensitive and responsive services to ensure change does not diminish quality. The Library and Information Sciences have developed over the years from a concept of just in case to one of just in time information delivery. This experience is a vital asset as the department strives to ensconce its personnel and clients in the discipline of information management. To this end Library Information Services are well positioned to act both as managers of change as well as agents of change - to offer quality services that facilitate the adaptation to the new culture that arises as the department moves from a program delivery organization to a knowledge based institution.

Through this vision, and with the support of senior management the department can successfully restructure its information complex and take a quantum leap forward - to achieve a state where information is a strategic corporate resource of national competitive value. Information is a resource to be made available, accessible and affordable to the department, government and industry.

In addition, by adopting this vision, the Department would make a tangible demonstration of its commitments to develop the electronic highway by using the virtual library concept as a show case of communication and information technology to support government delivery of services. This could also be a way to support the Canadian industry by using this project to show case canadian products.

THE VIRTUAL LIBRARY

DATABASES

EXPERTISE

E-MAIL

CURRENT AWARENESS SERVICES

e.g. Table of Contents Bulletin Board Services

Value Added Information Products

END-USER MULTIMEDIA WORKSTATION

VARIOUS NETS e.g. Internet

ONLINE LIBRARY CATALOGUES

PAPER LIBRARY

ELECTRONIC PUBLISHING

(Figure 7)

5.0   TRENDS IN LIBRARY SERVICES

The Sub-committee on State of the art library services was asked to identify the major trends that affect libraries in general as well as in the federal government context. It also described state of the art library initiatives in both private and public sector and identified best practices.

A survey of the literature shows that the major trends in delivering services are the move towards a virtual library with corresponding changing in the role of library professionals and an emphasis on value-added products.

Recent developments on the federal government scene, such as the Locally Shared Support Services and the National Library AMICUS project, also impact on the vision of Industry Canada library services.

5.1   Impact of technology: Towards the virtual library

The Industry Canada libraries and resource centres participate in the management, retrieval, analysis and dissemination of information through a strategy to achieve the vision of a virtual library.

The widespread use of technology in a networked environment is making this transition possible. In a compendium of articles entitled *The Virtual library: visions and realities,* Kaye Gapen, Director of the University Library at Case Western Reserve University, describes the virtual library as follows:

> .."the concept of remote access to the contents and services of libraries and other information resources, combining an on-site collection of current and heavily used materials in both print and electronic form, with an electronic network which provides access to and delivery from external worldwide libraries and commercial information knowledge sources."

Industry Canada libraries and resource centres must use the latest connectivity technology to make information accessible and deliver services across the country.

5.1.1   Multi-media collections and timely services

The above definition implies a significant culture change **from a "just in case" approach to collection development, to one of "just in time" document delivery.**

Industry Canada libraries and resource centres will still need to rely upon print sources but they have for some time been collecting information in a variety of media. Information materials in electronic format (such as online databases and CD-ROMs) have been used by the libraries and resource centres. Table 6 shows the service components of a virtual library and the current and short term implementation status of electronic information delivery within Industry Canada libraries.

Libraries will make use of wide area networks and of the departmental Corporate Information System to deliver timely information to their clientele's desktop. Network access to a wider selection of CD-ROMs, to a unique catalogue of library holdings and to more databases will improve service delivery. To maximize the usefulness and timeliness of information disseminated, services should be delivered in real time.

Table 6:
    Virtual Library Services
    Current Situation
	CD
	Howe
		Portage
		& CIPO
			Policy	Journal
				Tower
					CRC	CITI

E-mail services						
Current awareness						
Electronic full-text						
Access to union catalog						
Desktop access to catalog				P		
Desktop access to CD-ROMs				P	P	P
Internet access to OPAC						
Internet navigation	P	P	P	P	P	
Table of contents service	P	P		P		P
Document image management					P	P

= Implemented;P=Planned

5.1.2 Node to external services

It has been possible for some time to connect to remote library and other information services through modems. Through high speed networks such as Internet, the virtual library will broaden access to information and improve the cost-efficiency of library operations.

The libraries will broaden the information base accessible to their clientele through information resources available on high speed networks.

- Electronic publications: Governments, academia, and the private sector are now producing journals, reports, directives, directories, etc., in electronic and in CD-ROM format.

- Databases in non-textual formats: New cartographic, numeric, audio, video, multimedia sources of information can be used to fill library client needs.

- Electronic table of contents services and document delivery services: These could be used to provide just in time information.

- Union catalogues such as the National Library's DOBIS/AMICUS: Extensive bibliographic databases support interlibrary loan and reference services.

5.2   Library professionals as facilitators and navigators

The traditional facilitating role of the librarian is changing. Although libraries have been electronically accessing the world of information for years through union catalogues, on-line and CD-ROM database services, the high speed networks expand the scope of available information even further. Librarians have and will continue to provide a gateway to the world of information and train their clients to select from a broad range of databases available locally or remotely, and to navigate the Internet to access other library catalogues, to locate and transfer files from other computers, to subscribe to news groups, etc.

In Canada, the emergence of CANARIE will have a significant impact on the evolution of Canadian libraries. It should be viewed as an opportunity for the federal library community to play a major role in the development of our national research and education network by:

- providing access to their library catalogues, either through the union catalogue or through direct access, in order to encourage resource sharing in cataloguing and interlibrary loans;

- encouraging the standardization of retrieval and display formats;

- facilitating the navigation in the high speed networks by collaborating in the design of user interfaces;

- providing expertise for the indexing of networked resources; and

- encouraging electronic publishing in their respective organizations, and seeing that the

resulting information products are distributed electronically in an organized and consistent manner.

Librarians are well positioned to take a leadership stance in the new electronic environment: they can negotiate licensing/copyright agreements with suppliers of information, evaluate the use of electronic sources and develop partnerships with information systems staff in the parent organization.

5.3   Federal government initiatives

In order to reduce the deficit, the federal government is looking at ways to reduce the cost of some services by encouraging departments located on the same site to share services for mailrooms, libraries, etc. A voluntary program called Locally Shared Support Services (LSSS) sponsored by the Treasury Board is at different stages of implementation in federal departments. Negotiations are under way for the sharing of library services in the Journal Tower Building (at 300 Slater) and the Portage library is participating in the Place du Portage initiative.

The National Library of Canada has the ambitious plan of providing full text electronic access to federal government information with Phase 3 of its AMICUS project, due for implementation in 1996. AMICUS is the National Library's new integrated system that will replace DOBIS in the Spring of 1994. The National Library, through the Council of Federal Libraries has focused on the concept of the "virtual library" as its broad vision for the future of federal government libraries and information services. Committees such as the Systems and Networks Committee and the Sci-tech Committee are identifying means to permit the technical infrastructure of the virtual library and to allow increased sharing of electronic sources and databases. Industry Canada librarians are active in these committees and are moving towards the virtual library.

The federal library community is interested in the proposed path for Industry Canada Library Information Services which champions the cause of the virtual library. In this vein, some of the current initiatives taken by individual departmental libraries include linking to a departmental full text management network, creating value-added products through electronic means, posting library catalogues on Internet, and using electronic document dissemination to deliver information to remote users.

5.4   Review of best practices

The Sub-committee identified the best practices in terms of different products and services for libraries engaged in the delivery of electronic information. All these best practices are based on means to satisfy client expectations for electronic information delivery. The selected libraries are developing their activities in selected niches to gain a distinctive advantage in the competitive world of electronic information delivery.

5.4.1   Electronic document delivery

Through electronic document delivery, users can access remote information at their desk. The Canadian Institute for Scientific and Technical Information (CISTI) with its unique collection and 190 employees has focused on document dissemination. CISTI's role in the future virtual library environment will be as a supplier of scientific and technical information. Its strategy is based on the management of its collections as a strategic asset, and on how to maximize the use of this information resource. Electronic document delivery through imaging technology is a key component of CISTI's action plan. Same considerations are also given to copyright management.

5.4.2   Customized information products

In an electronic environment, libraries can offer information products that users can manipulate to produce desired reports without having to re-key the information. The Bank of Montreal library, for example, is developing customized information products designed to meet corporate needs. The employees have remote access to these services from their workstations.

It should be noted that Industry Canada libraries and resource centres are also developing customized information products (alerting services, lists of upcoming conferences, etc.).

5.4.3   User interfaces

There is a need for efficient user interfaces to be developed and enhanced. OCLC (On-line Computer Library Centre), the world's largest bibliographic service, made a marked move into the competitive scene of database searching with FirstSearch, a service praised for the quality of its interface designed for the ever-growing clientele of end-users. The interface guides the clients in the selection of appropriate sources of information and provides a uniform

databases.

5.4.4   Electronic publishing/ copyright management

Users and libraries in particular will have to address the complex issues of copyright as more documents are available electronically for dissemination. The British Library is a good example in this area. The library has been involved in several interesting partnership projects. One of them consists of an agreement to develop a royalty payment mechanism against the right to scan, index, store and distribute journals in electronic format. The British Library obtained the rights for 50 journals and intends to continue to develop more alliances with publishers who see this initiative as an opportunity to compensate for the loss of revenues that resulted from cancelled subscriptions in libraries facing severe budget cuts.

All documents received from the delivery service of the British Library are copyright cleared, and the charges for copyrights are included in the client's invoice.

5.4.5 Integration of library and corporate information

The trend of the "one stop shopping" approach leads towards the integration of both library and corporate information to provide users with access to the global corporate environment. The Microsoft Corporation Information Services, for example, gives company employees access to information produced internally or externally in one single menu. Both the library holdings in all formats and the company's archives are available to employees worldwide through a single system.

5.5   Leading the path

Departmental Library Information Services should focus on user satisfaction in the context of the virtual library. Through innovative use of technology and subject specialization, library professionals will manage information as a resource made available throughout Industry Canada for decision making, program delivery and policy formulation.

Industry Canada libraries and resource centres plan on enhancing user focused services while making use of evolving communications technology and emerging information highways. Library professionals fully recognize their role as information managers and as facilitators and producers of value-added services.

6.0   TOWARDS THE VIRTUAL LIBRARY

6.1   Organizational Considerations

This model depicts the structure whereby Industry Canada libraries can implement one of the key components of the vision which is the provision of quality services to our clients. It reflects the importance of the interconnected relationships of our Departmental information resources in order to provide a cohesive and rationalized approach to the management of these resources. The model can be used in the various library locations. It takes into consideration the special status of CIPO, CRC and CITI libraries.
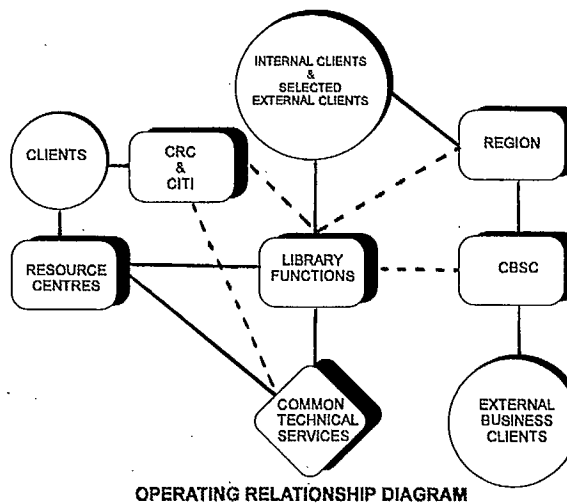

OPERATING RELATIONSHIP DIAGRAM

Figure 8

Service to Clients:

Through this model libraries can:

- continue to maintain our current close relationship with our clients by ensuring that the core collections and reference services are maintained in close proximity to our clients;

- strengthen our links with our regional clients by enhancing information services to them;

- enhance the Department's services to business by providing information services to the Canadian Business Community through the CBSC's.

Connectivity:

Through this model libraries can:

- provide services in the most cost-effective manner by centralizing those library services which facilitate access to information, and library administration (i.e. acquisition of information material, cataloguing and indexing, automated operations, and resource administration).

- develop an integrated approach to information management by standardizing information access and information technologies (i.e. common user interfaces, communication and cataloguing standards and standardized operational systems).

- forge links and partnerships with resource centres to offer centralized services. Such links may also facilitate future reorganization of information services.

Organizational Reporting Structure of Industry Canada Library:

The focus of library information services until now has been primarily internal. However, the Department's new role of providing a comprehensive service to business will effect a corresponding expansion of the library's mandate. Given the fact that the library is currently viewed by its clients as a mission-critical information program, the new mandate should only serve to reinforce this view. It is recommended therefore that the library programs report within the operational rather than the administrative structure of the Department. The library programs should also report at a level high enough to ensure that they have appropriate support and access to mission critical information.

6.2 Personnel Considerations:

The client survey validated the view that the Library's most valued asset is its staff. In order to retain their value as expert knowledge workers, it is paramount that staff continue to grow with the evolution of the organization. As we move towards the concept of a virtual library and address our expanded services role, some changes will be required if we are to succeed in such a knowledge-based and technological environment. Competencies required will include:

- a high level of technological skill to manage a variety of technologically-sophisticated interfaces;

- excellent communication skills to effectively market information services, train end-users, negotiate licence and copyright agreements with the publishing industry, and coordinate policies and procedures with other links in the information networks;

- more in-depth subject specialization;

- flexibility and openness to change;

- management planning in a more sophisticated and complex environment.

The founding libraries currently function with minimum personnel resources. At the same

time, they are moving towards a virtual library concept. It is clear that for some time to come they will be dealing with large collections, space considerations and a requirement to navigate and manage in both the print and electronic world simultaneously.

In order to succeed with the Library information services new vision, it is imperative that an investment in human resources be maintained. It is also paramount that appropriate skills exist in pertinent positions. In some cases, substantial training will be required.

6.3 Financial Considerations

There are a number of costing issues associated with the reorganization of the founding libraries and the move toward the electronic library. Where possible, a general range of costs is estimated; however, further study is required for more precise identification.

6.3.1 Costs Associated with the Virtual Library

Costs associated with the move toward a virtual or electronic library are high in terms of acquiring both electronic products and the technical infrastructure required for delivery. Costs for networking licences, copyright agreements, and training further add to these costs.

The Department's current expenditure of approximately $200K for CD-ROM databases will rise substantially as network licenses will be required to support the broadened client base. Some cost savings through cancellation of print and duplicate copies will help offset these costs, but it is anticipated that approximately $350K will be required in the short term to maintain access to the current titles. In the medium term, additional funding will be required to expand the CD-ROM collection with new titles.

6.3.2 Costs Associated with a Common Library System

A single library system would involve the integrated automation of all of the library's operations. Such automation would permit a rational method of managing the systems, cataloguing and acquisitions functions of the library and would also permit collection rationalization and sharing among the libraries and resource centres.

A single integrated system would also ensure the library's compliance with the department's commitment to realize the potential of technology in information access and delivery. The system would permit equal and standard access to all Industry Canada collections from the client's desktop (one stop shopping), provide remote access capabilities to the collections in

order to provide service to the regions and CBSC's, and ensure that the general public has access to the department's publications, regardless of format.

A business case is required to provide a detailed cost benefit analysis for the implementation of a common library system. However, in other departments with a similar vision, costs of approximately $1.0M are typical.

7.0   RECOMMENDATIONS

To define the Vision, it is recommended that:

1.0   the Department adopts the vision for Library Information Services developed in this document, in order for them to move towards becoming information brokers, in support of the Department's mission.

2.0   the Department adopts a Policy Statement which clearly establishes that information is a Corporate Asset and that Library Information Services play a key role in the process of ensuring access to an integrated inventory encompassing the corporate memory and the various sources of information and business intelligence.

3.0   libraries and resource centres be recognized as a critical element of the departmental information infrastructure and that their support to external clients, especially through their involvement in the provision and the development of value-added information services for internal clients be recognized.

4.0   a mechanism be established to ensure close coordination of activities related to departmental information management for libraries and resource centres, corporate information, CBSCs and strategic information.

5.0   a mechanism be established to inform libraries and resource centres of the changing priorities of the Department in a timely fashion in order for them to develop value-added information products that meet the new orientation of the organization.

To develop or enhance services, it is recommended that:

6.0   libraries and resource centres enhance regional outreach strategies to provide electronic access to the full scope of library services for Industry Canada employees in the regions.

7.0   negotiations with Canadian Business Service Centres (CBSC) be undertaken to evaluate the feasibility of providing them with business information and to agree upon a mechanism for information accessibility and delivery.

8.0 libraries sharing a location with other federal departments or agencies engage in discussions to evaluate feasibility and the benefits of shared library services. The model proposed should be based on collection content, client proximity, as well as location.

9.0 the Department rapidly adopts the *virtual library* concept with the view to providing electronic information access and delivery to all clients, regardless of their physical location through connectivity to the Corporate Information System and to the wide area network.

To get things done, it is recommended that:

10.0 Library Information Services be considered as a program delivery and not as administrative overhead, and be subject to a 9% instead of a 25% cut.

11.0 recent decisions already taken that affect the provision of library and resource centre services across the Department be reconsidered in the light of the new vision.

12.0 library services be upgraded by:

12.1 Adopting a centralized catalogue of public information holdings, while keeping functional responsibility for physical access to the collection close to the internal clients in their different locations.

12.2 Ensuring that the libraries and resource centres move towards a closer integration by adopting the same automated system. The estimated cost for this integrated system is $1M.

12.3 Migrating all public information, including information available in the resource centres into a common information holdings catalogue.

12.4 Making Special Operating Agencies (SOA) responsible for achieving connectivity to the centralized Library Information Services system.

12.5 Eliminating all unnecessary duplication of information holdings, whether electronic or paper, within the libraries and individual sectors.

12.6 Establishing departmental standards of service.

12.7   Adapting the current organizational structure to the vision.

13.0   each sector enters into a separate MOU with the Library Information Services with a view of meeting client needs across the department.

14.0   consideration should be given to bringing together the management of information resources under one responsibility centre.

15.0   a Senior Manager be appointed:

- to develop an action plan based on the recommendations, to be approved by IMC;
- to establish a time table which position Industry Canada in a leadership role;
- to implement the action plan; and
- to report periodically to the Information Management Committee (IMC).

16.0   a training program for both library staff and the clients be implemented, given the nature of the *virtual library* concept and the issue of navigating through evolving complex information systems.

.17.0   in addition to the financial resources required for the integrated library system, $250K earmarked by IMC be released to support the proposed action plan.

18.0   the decision taken by the IMC with respect to this report be communicated to all Industry Canada employees.

8.0   PROPOSED ACTION PLAN

Should the vision and recommendations from this study be accepted, it is proposed that a committee be established to coordinate the efforts of the Department in four activity areas. It is also proposed that the committee reports to an ADM who would provide liaison with the Information Management Committee (IMC). This Committee would be responsible for executing the recommendations from the library study, by:

- defining the terms of reference of each Activity Area and establishing priorities in support of Departmental Business Priorities and Objectives;

- developing a detailed action plan with established time frames and priorities;

- designating centres of expertise within the libraries to pilot particular projects, the results of which would be shared with other library areas.

It is proposed that four major Activity Areas be addressed by the committee:

1) <u>Business Development</u> focuses on the library's strategic business planning issues.

2) <u>Information Management</u> focuses on the operational services of the Library.

3) <u>Information Technology</u> focuses on the access to and delivery of information.

4) <u>Deployment</u> focuses on the implementation initiatives required to effect the recommendations of projects carried out by the Committee throughout the department.

ROAD MAP

ACTIVITY AREAS	SHORT TERM 1994-1995	MEDIUM TERM 1997-1998
Service Development	Address the issue of the library as a program activity rather than an operational activity. Formulate a policy which establishes the role, mandate and levels of service of the Library Information Services. Address the issue of centralization of some library services and evolving service points Address the current resource allocation for library services and between libraries. Address the issues surrounding the evolution towards a "virtual library" concept. Develop regional outreach services. Ensure the Resource Centres are able to provide appropriate department wide access to their public information. Identify potential LSSS initiatives for library services. Identify the mechanisms for end-user training. Negotiate with CBSC's to determine the levels and types of services to be provided.	Identify opportunities for partnerships with other external information service providers to broaden the service offering of Library Information Services. Ensure that the technological and operational infrastructure exists to support the proposed services to external clients. Develop a marketing strategy for service to clients.
Information Technology	Ensure that all IC employees have access to the CIS. Undertake a study to select a centralized library system with a view to developing a common library catalogue for public information. Ensure there is department wide connectivity for libraries, resource centres and the regions.	Ensure that the technological infrastructure evolves to support the common system.

Information Management	Develop an integrated approach to information management. Establish a mandate to aggressively pursue electronic products where appropriate and cost effective. Develop a consultation process to identify and review client needs for products and services. Identify the improvements suggested in the Client Needs Report.	
Implementation	Communicate to clients ongoing developments with respect to the library's reorganization. Implement the centralization of the common library services. Consult with clients to identify and review their requirement for electronic information products. Establish mechanisms to ensure that Library Information Services acquire all necessary corporate information. Implement communications and cataloguing standards and standardized operational procedures. Negotiate MOU's with the sectors. Administer agreements with LSSS initiatives. Establish the mechanisms for end-user training on electronic information products. Address technical issues which support connectivity among departmental information providers. Enact the recommendation to eliminate all unnecessary duplication in the departmental collection and its corresponding cataloguing records.	Begin implementation of the common library system. Implement services and sources which enhance the evolving electronic library. Implement the technological infrastructure to facilitate access to electronic library services. Establish the required services, products and delivery mechanisms for external clients through the CBSC's. Develop value-added products and services for library clients. Negotiate licence agreements for networked electronic information products and copyright licences for electronic products. Implement common user interfaces. Initiate a training program for clients in the use of the new system.

9.0   CONCLUSIONS

The Industry Canada Libraries and Resource Centres are well aware of the challenges facing the department, the Federal Government and Canadian Business. The recommendations in this report are presented as a pro-active strategy - a strategy that looks to the future with anticipation tempered by reality. The current heightened awareness of the value of information sets the stage for this strategy. The opportunities and benefits afforded by the Internet and the advent of the electronic highway demands an aggressive and far reaching initiative.

With this heightened awareness and the advances in information technology come elevated expectations. Current events such as the cutbacks to programs will increase, not decrease the demands placed on the Libraries. As resources become scarcer, branches will naturally look to transfer workload onto the support organizations available to them - such as the Libraries. As well, they will rely more on using existing information rather than invest in the gathering or development of new information. This will also increase the demands on the Libraries. The recommendations of this report anticipate these eventualities and provide a low risk course of action with excellent potential for success.

To meet these challenges the Libraries are ready to take an even more active role in the achievement of the strategic objectives of the department. In this vision the services and support provided by the Libraries are seen to play a critical role in the efficient and responsive delivery of service to business by the department.

Industry Canada has major assets in both its infrastructure and its people. It has a major role to play in providing strategic and timely information to all its internal and external clients. In restructuring its information complex, the Department should make a quantum jump and use its already well trained information professionals - the librarians - as the building blocks towards achieving this objective. The recommendations contained in this report will ensure that the department makes optimum use of its present resources and makes strategic investments in the future.