

FEDERAL GOVERNMENT ASSISTANCE
TO
THE CANADIAN COMMUNICATIONS INDUSTRY

A handbook of Federal Government Assistance Programs
Applicable to Firms in the Communications Sector

Economic Development Division
Industry and Economic Development Branch
Technology and Industry Sector
Department of Communications

November 1984

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1. INTRODUCTION

Background

The federal government sponsors a wide range of programs in support of industrial and economic development. Recent statistics indicate that such assistance amounts to more than \$8 billion annually*.

An important objective of the Department of Communications (DOC) is to promote the development of Canadian telecommunications and informatics technology and products. To gain a better understanding of some of the tools available to achieve this goal, an assessment was made of the applicability of federal assistance programs and activities to the firms of the communications industries. The study was carried out by the Industry and Economic Development Branch of the Technology and Industry Sector during 1984.

Objective

This handbook was assembled from the material gathered in the course of the study. It is intended to provide DOC personnel with a comprehensive inventory of federal government assistance programs applicable to the communications industry. By promoting a greater awareness of these programs and their delivery mechanisms, the handbook should make it possible to

* Including grants, expenditures, contributions, loans, loan guarantees and insurance (see Fantham & Doherty, item 5 in bibliography).

provide more complete and effective advice to communications firms seeking federal support for industrial initiatives.

Scope

For purposes of the handbook, federal government industrial assistance programs and activities are defined as those by which the federal government provides direct help of one kind or another to Canadian firms. Their prime objective is to enhance the productivity and competitiveness of Canadian business undertakings. For many of these programs, another important objective is to stimulate the economy of depressed or underdeveloped regions of Canada.

The available assistance ranges from the broad financing of business inception and expansion to more focussed initiatives to stimulate research and development, job creation, skill development, and domestic and international marketing. It can be both financial and non-financial. Financial assistance can take the form of grants and contributions, loans, (forgivable or at favourable interest rates), loan guarantees, loan insurance or export insurance. Non-financial assistance includes the provision of statistical and technical information, financial and management counselling, support for trade missions abroad, sponsorship of trade fairs, and various other services for facilitating contacts between Canadian sellers and foreign buyers.

The handbook provides descriptions of most federal instruments which can assist the firms of the telecommunications and informatics industries. It leaves out, however, certain programs designed specifically to assist arts and culture undertakings in Canada. A similar study was made of these programs in 1984, the details of which are available from the Arts & Culture Sector of DOC.

The handbook does not discuss the broader instruments that set the framework within which Canadian businesses operate. These include the legal, regulatory, tariff and tax provisions which apply to all businesses operating in Canada.

Provincial government assistance programs and activities are also beyond the scope of this handbook. Their existence, however, needs to be taken into account when considering the full range of available industrial assistance.

Content and Format

The handbook contains three sections. Section 1 provides an introduction including the background, objectives, scope and format of the document, Section 2 describes the programs delivered by DOC and Section 3 describes the programs of other federal departments and agencies. For reference purposes, a list of publications pertaining to government assistance to industry is contained in the appendix.

The main information is contained in Sections 2 and 3 of the handbook. In total, 46 assistance programs and activities are identified - 15 sponsored by the Department of Communications (Section 2) and 31 sponsored by other federal departments and agencies (Section 3). Program lists are provided at the beginning of each section. DOC programs and activities are listed alphabetically by sector, branch and division. Non-DOC programs are listed alphabetically by sponsoring department or agency.

The information in Sections 2 and 3 is presented according to a standard format. For each identified program and activity, a descriptive summary is provided indicating, where applicable, the following information:

- objectives
- elements
- criteria for eligibility
- forms of available assistance
- budget
- statistics
- relevance to the communications industry
- comments
- contact(s) for follow-up

The sources of information consulted during the preparation of the handbook included management reports and all relevant published and unpublished documentation. The process also involved discussions with program managers and staff.

To assist users in identifying DOC programs and activities which may be appropriate to the needs of a particular firm, a table is included at the beginning of Section 2 (Table 2-I). It lists the available programs and presents summary information on their objectives, sectoral targets and funds. The information is broken out by sub-sector as follows:

- Telecommunications
- Broadcasting
- Space
- Informatics

To assist users in identifying the programs sponsored by other federal departments and agencies which may be appropriate to the needs of a particular firm, tables are also included at the beginning of Section 3. Table 3-I lists these programs by support function: these include start-up and expansion, research and development, general purpose financing, employment and training assistance, and domestic and international marketing. Table 3-II regroups the same programs by form of available assistance provided, both financial and non-financial. Table 3-III provides a cross-reference of programs by support function and form of available assistance. In addition, Table 3-IV outlines the program links between DOC and other federal departments and agencies.

Industrial assistance programs are often revised and amended. While every effort has been made to ensure that the information contained in this handbook is up-to-date, users are encouraged to contact program managers to confirm current terms and conditions and ascertain whether new programs have been introduced.

SECTION 2

PROGRAMS AND ACTIVITIES SPONSORED BY
THE DEPARTMENT OF COMMUNICATIONS

PROGRAM LIST BY SECTOR, BRANCH AND DIVISION

A. RESEARCH SECTOR (ADMR)

1. Research Policy and Planning (DGRP)
 - 1.1 Development of Space Sub-Systems and Components Program (DSSC)
 - 1.2 International Collaboration Assistance Fund for Research on New Information Technologies
 - 1.3 Coordination of DOC Involvement in Technical R&D Programs Sponsored by Other Departments

B. TECHNOLOGY AND INDUSTRY SECTOR (ADMTI)

Applications Programs (DGAP)

2. Office Communications Systems (DCS)
 - 2.1 Office Communications Systems Field Trials
3. Telidon Exploitation Program (DTL)
 - 3.1 Content Development Program (CDP)
 - 3.2 Industrial Applications
 - 3.3 Public Access Exhibition System (PAES)
 - 3.4 Support for the Interprovincial Association for Telidon and Telematics (IPATT)

Industry and Economic Development (DGIE)

4. David Florida Laboratory (DDFL)
 - 4.1 David Florida Laboratory Operations and Fee Waiver
5. Industrial Development (DDI)
 - 5.1 IBS
 - 5.2 Prime Contractor Development
 - 5.3 Coordination of DOC Involvement in Industrial Development Programs Sponsored by Other Departments
6. Marketing Support (DMS)

Technology and Policy Assessment (DGTPA)

7. Technology Assessment and Applications Planning (DTA)
 - 7.1 Satellite Communications Applications Planning

C. Policy Section (SADM)

8. Information Services (DGIS)
 - 8.1 Trade Exhibition Support

TABLE 2-I

SUMMARY OF DOC SPONSORED INDUSTRIAL ASSISTANCE PROGRAMS AND ACTIVITIES

PROGRAM	OBJECTIVE	TARGETTED SUB-SECTOR	FUNDS AVAILABLE \$'000 1984-85
1. <u>Research Policy and Planning</u> ⁽¹⁾			
1.1 Development of Space Sub-Systems and Components	to assist firms participating in development of communications satellite technology	Space	3,000
1.2 International Cooperation Assistance for Research on New Information Technologies	to help Canadian organizations participate in international cooperative research projects on new information technologies	All	1,000
2. <u>Office Communications Systems</u>			
2.1 Field Trials	to assist selected firms conducting office automation field trials in federal departments	Informatics	4,975
3. <u>Telidon Exploitation Program</u>			
3.1 Content Development Program (CDP)	to assist selected projects which develop and create Telidon content	Informatics	4,520
3.2 Industrial Applications	to assist selected projects to develop commercial and industrial Telidon applications and to support External Affairs' Telidon marketing efforts	Informatics	875
3.3 Public Access Exhibition System (PAES)	to assist firms to develop PAES for National Museums	Informatics	174.8

TABLE 2-I (Cont'd)

PROGRAM	OBJECTIVE	TARGETTED SUB-SECTOR	FUNDS AVAILABLE \$'000 1984-85
3. <u>Telidon Exploitation Program (Cont'd)</u> 3.4 Support for Interprovincial Association for Telidon and Telematics (IPATT)	to foster the use of Telidon in educational institutions	Informatics	333
<u>Industry and Economic Development</u>			
4. <u>David Florida Laboratory</u> 4.1 David Florida Laboratory Operations and Fee Waivers	to help the Canadian space industry by providing government-operated environmental testing and integration facilities for spacecraft	Space	2,100
5. <u>Industrial Development</u> ⁽¹⁾ 5.1 IBS 5.2 Prime Contractor Development	to assist firms in developing products with export market potential to make it possible for Spar Aerospace to conduct advanced R&D in satellite communications	Telecommu- nications Space Informatics Space	1,500 7,000
6. <u>Marketing Support</u>	to provide international marketing support for firms of the communications industry	All	(2)

TABLE 2-I (Cont'd)

PROGRAM	OBJECTIVE	TARGETTED SUB-SECTOR	FUNDS AVAILABLE \$'000 1984-85
7. <u>Technology and Policy Assessment</u> 7.1 Satellite Communications Applications Planning	to assist in the conduct of field trials or pilot projects in promising areas of satellite communications	Space	650
8. <u>Information Services</u> 8.1 Trade Exhibition Support	to provide information packages, and exhibitions and audio-visual support to DOC program managers for use in domestic and international marketing activities	All	(2)

- (1) In addition to the programs summarized in this table, DOC can be either a "client" of programs sponsored by other departments, or a provider of advice and project assessments for projects sponsored by such programs which deal with the communications industry or technologies. Examples of programs are Program for Industry/Laboratory Projects (NRC), Industrial Research Assistance Program (NRC), Unsolicited Proposals (DSS), and the Source Development Fund (DSS).

For industrial development projects in support of selected firms or sub-sectors of the communications industry, DOC inputs are coordinated by the Industrial Development Division (DDI) of the Industry and Economic Development Branch (DGIE).

When the projects are for technical R&D work, DOC's participation is through the Research Policy and Planning Branch (DGRP).

- (2) Information Services (DGIS) and Marketing Support (DMS) provide support to Canadian industry through the use of inhouse personnel and O&M resources. They do not administer programs which grant funds directly to firms.

A. RESEARCH SECTOR (ADMR)

1. RESEARCH POLICY AND PLANNING (DGRP)

1.1 PROGRAM: The Development of Space Sub-Systems and Components Program (DSSC) (formerly ICF).

OBJECTIVE: To promote a strong, indigenous and competitive Canadian space industry which will provide economic and social benefits to Canada.

PROGRAM DESCRIPTION: The program provides financial assistance to Canadian companies participating with the Department of Communications in the development of communications satellite systems technology. DSSC funds R&D contracts with Canadian industry for the design and development of sub-systems, components and processes for satellite communications systems, which are required in future Canadian satellites.

ELIGIBILITY: All manufacturing companies incorporated either provincially or federally in Canada, and engaged in activities based to a significant extent on space-related technology derived from the physical sciences and engineering, are eligible for consideration. Consulting firms, R&D institutions, engineering contractors or other Canadian enterprises which do not have direct control of production facilities, can also be considered.

Federally or provincially-owned corporations are ineligible for assistance, as are universities and other non-profit institutions receiving a significant portion of their operating budget from public funds.

AVAILABLE ASSISTANCE: Projects must be approved by DOC. Although a company may receive support for more than one project at any one time, DSSC funds are not transferable among projects.

The DSSC program supports projects proposed in-house by DOC staff, or from industry. The following conditions apply:

1. Projects proposed in-house in satisfaction of DOC requirements:
 - a) tenders will normally be called
 - b) deliverables will be required
 - c) in setting funding levels, allowance will be made for profit

2. Projects proposed by industry to fulfil a DOC requirement:
 - a) proposals will normally be processed through the DSS Unsolicited Proposal Program
 - b) proposals must be unique and/or companies must have a unique capability
 - c) deliverables will be required
 - d) allowance will normally be made to permit a profit

3. Projects proposed by companies in direct support of their commercial objectives:
 - a) cost-sharing by the company will be encouraged and will add to the credibility of its proposal
 - b) deliverables may be required
 - c) no allowance will be made for profit

BUDGET: The DSSC program began in 1975-76 at an annual funding level of \$2 M, to run for six years. It was later extended to 1983-84 and in 1984-85 became part of the departmental A-base at \$3 million per year.

About 20 to 25 projects are funded annually, for short, medium, and long term technology development in both the space and ground segments.

ADDITIONAL INFORMATION:

All designs, reports, properties, inventions, etc., resulting from the contracted work will normally belong to the Crown in accordance with DSS 1036 - General Conditions Clause on Research and Development.

For projects which are partially funded by the company, ownership of the property and rights to the data may be retained by the contractor. However, the Crown is to be granted a right to use or to sub-license to third parties in the event that the company does not commercialize the product.

COMMENT: It has been found in practice that the DSSC program and the Unsolicited Proposals Program sponsored by the Department of Supply and Services blend well together. The UP program funds the initial stages of R&D until such time as DSSC funding has been provided by the Department. In effect, the UP program augments the DSSC program by approximately 50%.

CONTACTS:

Dr. R.E. Barrington,
Acting Director General, Research Policy and Planning
Communications Research Centre
Department of Communications
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2280

J.F. Leblanc,
Manager, Industrial Program
Communications Research Centre
Department of Communications
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2325

1.2 PROGRAM: International Collaboration Assistance Fund
for Research on New Information Technologies

OBJECTIVE: To increase the knowledge of and strengthen the development of a competitive Canadian industry in new information technologies.

ELIGIBILITY: Public and private organizations working in the new information technologies field in Canada, which are majority Canadian-owned or have a majority of members who are Canadian citizens or landed immigrants in Canada, are eligible for assistance from the Fund.

Projects submitted to the Assistance Fund will be assessed in terms of:

- Canada's foreign policy objectives in international co-operation in science and technology;
- importance to Canada of the transfer of knowledge resulting from the proposed activity;
- probability that the transfer will lead to technological innovation; and
- effect on the competitiveness of Canadian companies working in the field of new information technologies

AVAILABLE ASSISTANCE: The Fund finances the hiring of resource people, travel and accommodation expenses, and the cost of purchasing or leasing goods and services to carry out international co-operative projects, including exchanges of information and scientists, and the launching of shared-cost research projects. Recipients are expected to contribute to the costs of international activities. The maximum contribution by the Government of Canada will not exceed \$200,000.

BUDGET: The program has an annual budget of \$1 million.

CONTACT:

J.J. Rousseau,
Director, Research Policy and Planning
Communications Research Centre
Department of Communications
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2012

1.3 PROGRAM: Coordination of DOC Involvement in Technical
R&D Programs Sponsored by Other Departments

OBJECTIVE: To facilitate DOC's participation in a number
of technical R&D programs funded and administered
by other departments and agencies.

PROGRAM ELEMENTS:

A. Program for Industry/Laboratory Projects (PILP)
DOC manages projects amounting to a total value
of three to four million dollars per year, under
this NRC administered program. The objective is
to assist Canadian companies to undertake
projects which take advantage of scientific and
engineering knowledge and resources existing
within government laboratories.

DGRP's role is:

- . To maintain an awareness of DOC's laboratory activities and potential technology transfer projects, and to facilitate collaboration between industry and DOC scientists.
- . To prepare technology transfer projects, including the initiation of invitations for proposals in the context of the PILP guidelines and extent of laboratory involvement, and submit project summary proposals to the PILP selection committee for approval.
- . To attend all monthly PILP selection committee meetings.
- . To negotiate contribution arrangements with the successful recipients.
- . To submit progress reports, completion analysis, and follow-up reports to the PILP selection committee.

B. Unsolicited Proposals (UP) Program This program, sponsored by DSS, supports the conduct of research and development in industry where the results can be commercialized.

For R&D projects, DGRP is responsible for the coordination of the internal distribution, review, and assessment of all UP's for the department; the preparation and submission of responses as required; and attendance at inter-departmental meetings. For projects calling for industrial development assistance, DGIE/DDI is responsible for ensuring that DOC's inputs are provided (see 5.3).

- C. Source Development Fund (SDF) This program, sponsored by DSS, promotes the development in Canada of products which would otherwise be imported to meet an identified federal government requirement. The SDF pays for developmental work of the product. The resulting technology is owned by the government and licensed to industry.

The role of DGRP is to coordinate the review of communications R&D proposals which seek support from the Source Development Fund. DGIE/DDI plays a similar role for communications industrial development proposals (see 5.3).

- D. Industrial Research Assistance Program (IRAP) This program provides funding support for salaries and fringe benefits paid to scientific and technical staff engaged in approved industrial research projects. Projects should have high technical merit and be supported by business plans promising commercial success. IRAP is a program of the National Research Council.

As the DOC representative, DGRP attends the monthly IRAP meetings at NRC and coordinates the internal review and assessment of proposals which relate to communications technology.

- E. Protection of Intellectual Property The objective of this program is to protect the Crown's ownership of intellectual property derived from work done in DOC laboratories or fully-funded contracts with industry. When intellectual property results from DOC sponsored technical R&D, DGRP acts as the focal point for dealings with other federal departments, agencies and the private sector concerning transfers of technology, trade marks, licensing, royalties and confidential disclosure agreements. DGRP also coordinates the transfer of the administration and control of specific technologies to Canadian Patents and Developments Limited (CPDL) for licensing to Canadian industry.

For more information on these programs, see section 3 of the handbook dealing with programs sponsored by federal departments and agencies other than DOC.

CONTACTS:

Dr. R.E. Barrington,
Acting Director General, Research Policy and Planning
Communications Research Centre
Department of Communications
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2280

J.F. Leblanc,
Manager, Industrial Program
Communications Research Centre
Department of Communications
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2325

B. TECHNOLOGY AND INDUSTRY SECTOR (ADMTI)

The Technology and Industry Sector (ADMTI) is responsible for formulating and implementing policies and programs to foster the development of new technologies and new information and communications services. It also develops, promulgates and manages programs to assist Canadian industry in the design, development, manufacture and marketing of these technologies and services.

The Sector consists of four directorates: Technology and Policy Assessment, Applications Programs, Industry and Economic Development, and the Government Telecommunications Agency (GTA). The GTA is responsible for the provision of telecommunications facilities and services within the government on a cost recovery basis from user departments. It does not administer industry support programs. The other directorates do administer programs designed to provide direct assistance to firms of Canada's communications and informatics industries. These programs are described in sections 2 to 7, following.

In addition, Sector staff maintain close working relationships with staff of the DOC regional offices in order to provide liaison between the Sector and the industry, provincial governments, and the regional offices of other federal departments. These contacts are useful in ensuring that the communications industry is extensively involved in regional economic development projects and agreements launched by federal departments and agencies, and in providing links between the Sector and the industry to enable firms to fully participate in development initiatives sponsored by DOC.

Branches and Divisions within the Technology and Industry Sector also maintain links with other federal departments to ensure that overall government goals are achieved efficiently. In the sections which follow, the formal links are noted where they form part of the process of the administration of industrial assistance programs. Other links, such as the input provided by the Industrial Development Division (DDI) into the negotiation of corporate development agreements, and other programs sponsored by DRIE are equally important in ensuring that in their dealings with firms of the communications sector, DRIE and other departments are knowledgeable about the nature of the firms and industry, and aware of the full implications of proposed actions.

A table (Table 3-IV) outlining program links between DOC and other federal departments and agencies is provided at the beginning of Section 3, dealing with programs sponsored by federal departments and agencies other than DOC.

APPLICATIONS PROGRAMS (DGAP)

2. OFFICE COMMUNICATIONS SYSTEMS PROGRAM (DGAP/DCS)

2.1 PROGRAM: Office Communications Systems Field Trials

OBJECTIVE: To support the creation of an indigenous, viable capability to supply integrated electronic office systems for markets at home and abroad through the provision of funding to conduct field trials of these new systems.

BACKGROUND:

Phase I: In 1980, Cabinet approved \$2.5 million to be spent to investigate office automation and to recommend how the government could foster office automation in Canada. From this work came a recommendation to conduct field trials.

Phase II: In 1982, Cabinet approved a further \$12 million for the conduct of office communications field trials and examination of the related impacts on the social, industrial, and human environments. This program is scheduled to end on 31 March, 1985.

Following OCS publicity concerning the planned field trials in the fall of 1981, several firms made presentations to an interdepartmental "users group" which had been established to keep the departments informed of office communications developments.

Interested departments obtained further details on the various proposals and, following agreement on the equipment and services to be provided, memorandums of understanding were signed by the OCS group and the host departments. These MOU's set out the objectives of the field trials and the obligations of host departments and vendors who were to conduct the field trials.

PROGRAM DESCRIPTION: Five field trials are being conducted in five government departments. The types of services provided vary depending on users' needs and the capabilities of equipment and systems providers.

The host departments and vendors are:

<u>HOST DEP'T</u>	<u>VENDOR</u>
1. Customs & Excise	Bell Northern Research
2. National Defense	Systemhouse Ltd.
3. Environment Canada	OCRA Communications Inc.
4. Energy, Mines & Resources	Officesmiths Inc.
5. Communications	Comterm Inc.

AVAILABLE ASSISTANCE: Funds allocated for the office communications field trials were assigned to host departments following the signing of memorandums of understanding with DOC. Vendors' contracts are with DSS: the host departments administer the trials and pay the vendors.

The OCS group in DOC is responsible for insuring that the program's main objective of developing Canada's industrial capability for supplying integrated electronic office systems is met through the use of Canadian contractors and sub-contractors wherever possible. Public awareness programs to familiarize potential office automation users with Canadian supply capabilities are regularly conducted. The Program office also administers the field trial impact assessments and related research projects in the office automation area.

BUDGET: Total funds to be spent on the field trials in 1983-84 and 1984-85 amount to \$9.95 million, as follows:

	<u>DOC</u> <u>Field Trial Cost</u>	
1. Customs and Excise (BNR)	\$3.0	M
2. National Defense (Systemhouse)	\$2.8	M
3. Environment Canada (OCRA)	\$3.0	M
4. E.M.&R. (Officesmiths)	.7	M
5. DOC (Comterm)	.45	M
	<hr/>	
	\$9.95	M

CONTACT:

Andre Dubois
Director, Office Communications Systems Program
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-0727

3. TELIDON EXPLOITATION PROGRAM (DGAP/DTL)

BACKGROUND: The principle objectives of DOC's Telidon program are:

1. to achieve recognition and domination of the Telidon standard as a national and international standard for the videotex industry; and,
2. to foster the development of an integrated and commercially viable Canadian videotex industry which will achieve economic benefits from both the use of the technology and the sale of videotex goods and services at home and abroad.

The first Cabinet decision on Telidon was taken in late 1978. That and subsequent funding approvals have totaled \$66.56 million, including the present Telidon Exploitation Program.

In mid 1982, Cabinet approved the Telidon Exploitation Program (TEP) to run for 2 years (1983-84 and 1984-85) at a total cost of \$23 million. Of this amount, \$17 million was allocated to DOC, with the remainder being spent by the Ministry of State for International Trade, and DSS (included in the Task Force on Service to the Public).

The objectives of the DOC portion of the Telidon Exploitation Program are:

1. to encourage industry and other organizations to develop content in the Telidon format;
2. to undertake engineering designed to support the development of new applications of Telidon technology; and
3. to assess the possible economic and social impacts of the technology on Canadian society.

3.1 PROGRAM: Content Development Program (CDP)

OBJECTIVE: To foster the development of Telidon-based products and services and commercial applications through contracts with the industry designed to increase the amount of content available through Telidon systems.

PROGRAM ELEMENTS: Under the Content Development Program, DOC contributes towards costs incurred by projects which develop and create Telidon content for viable applications. The purposes are:

- To increase the amount of useful content available in the Telidon format
- To increase the number of viable applications using Telidon technology
- To stimulate immediate investment and employment in the Telidon industry
- To stimulate sales of Canadian produced content and software for use with Telidon systems
- To foster acceptance of Telidon as the standard for image communications services in Canada
- To stimulate the development of videotex services in Canada which recognize social needs and cultural and regional realities

ELIGIBILITY: The following are eligible for assistance under the Content Development Program:

1. Companies incorporated in Canada, including foreign owned or controlled companies incorporated in Canada adhering to the Principles of International Business Conduct issued by the Government of Canada
2. Provincial Crown Corporations
3. Not for profit corporations and organizations
4. Incorporated educational institutions
5. Canadian citizens or landed immigrants in Canada
6. Partnerships or joint ventures of two or more of the above.

AVAILABLE ASSISTANCE: The CDP provides up to 30 percent of the eligible costs of each project, with a maximum contribution per project of \$500,000 and a minimum of \$15,000.

One hundred and fifty organizations from across Canada applied for funding under the program after the Minister called for proposals in August, 1983.

Twenty-seven were accepted, in areas ranging from the development of consumer and community information systems to health care advice and home management and entertainment.

All funds under this program are now committed.

BUDGET: Total funds available are \$4.52 million in 1984-85.

CONTACT:

R. Marsh,
Director, Telidon Program
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone (613) 996-2623

3.2 PROGRAM: Industrial Applications

OBJECTIVE: To foster the development of Telidon systems and applications for use by commercial and industrial enterprises, institutions, and others in Canada, and to provide support to the Telidon marketing secretariat in External Affairs.

PROGRAM ELEMENTS:

The major items under this program are:

	(\$'000)
1. Telidon Certification Program	260
- development of test procedures through a consulting contract and provision of facilities	
2. Support for the Telidon Marketing Secretariat at External Affairs	100
- travel	
- demonstration equipment	
- Telidon report	
3. Products/Systems Development	350
- integration of Telidon into business and home products (A proposal on this is presently being discussed with Electrohome)	
4. Captioning Development	150
- encoder and transcoder	

BUDGET: The total budget allocated to this item is \$3.229 million, including \$2 million for the CBC teletext project, \$337,000 of funding from the PILP program sponsored by the National Research Council, and \$17,000 from DOC's University Research Program. The remaining amount of \$875,000 is funded directly from the Telidon Exploitation Program (TEP).

PROGRAM STATUS: The choice of a consultant has not yet been made to conduct independent testing to determine whether videotex products meet the NAPLPS standard. The criteria will be independence from suppliers, and technical capability. DTL will review possible consultants and issue a request for proposals on either a competitive or sole source basis, as applicable.

International marketing activities are undertaken in support of External Affairs activities.

Electrohome is conducting a study, based on an unsolicited proposal, to develop a public access system which would be adaptable to a variety of uses.

CONTACT:

R. Marsh,
Director, Telidon Program
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-2623

3.3 PROGRAM: Public Access Exhibition System (PAES)

OBJECTIVE: To stimulate the Telidon industry by contracting out the specification and creation of unique Telidon applications software in the form of prototype PAES for the Museum of Man and the Museum of Science and Technology; to do a related need analysis for Expo '86.

BACKGROUND: A public access exhibition system would permit thousands of users per hour to use multi-level, multi-lingual databases to access information and applications of a diverse nature. The general public exhibition environment requires a large number of dispersed terminals, providing different information or applications.

PROGRAM ELEMENTS:

- contracts with the Canadian micro-electronics industry for the development of a needs analysis, specifications development, systems development and prototyping of this system
- demonstration of the quality and innovation of the Canadian informatics industry through widespread use within large expositions and other highly visible events
- production of a Telidon-based Public Access Exhibition System of sufficient generality which can be applied to other exhibition environments
- development of a Public Access Exhibition System using the Telidon technology to support and enhance applications where a large number of people will be accessing a large or complex body of information in public places

ELIGIBILITY: A call for proposals will be issued to industry. All interested and qualified firms will be able to apply.

AVAILABLE ASSISTANCE: Assistance is provided to help produce a Telidon-based prototype Public Access Exhibition system, to meet stated requirements.

BUDGET: Total program cost is estimated at \$174,800 as follows:

	<u>\$'000</u>
Museum needs analysis	30
Expo '86 needs analysis	10
System specifications	44.5
Prototype system	90.3
	<hr/>
	174.8

CONTACT:

R. Marsh,
Director, Telidon Program
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-2623

3.4 PROGRAM: Support of the Interprovincial Association for
Telidon and Telematics (IPATT)

OBJECTIVE: To foster the use of Telidon systems in
educational institutions.

PROGRAM ELEMENTS:

- administer a contract with IPATT to develop a
pilot network, with potential for expansion.
- facilitate meetings of IPATT to assist in the
coordination of Telidon efforts in educational
institutions.

ELIGIBILITY: This program is intended to support the work
of IPATT.

AVAILABLE ASSISTANCE: Support is in the form of direct
grants to IPATT to meet the stated objectives of
the program.

BUDGET:

- contract for network development	\$258,000
- assistance for regional meetings	75,000
	<hr/>
	\$333,000

CONTACT:

R. Marsh,
Director, Telidon Program
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-2623

INDUSTRY AND ECONOMIC DEVELOPMENT (DGIE)

4. DAVID FLORIDA LABORATORY (DGIE/DDFL)

4.1 PROGRAM: David Florida Laboratory Operations

OBJECTIVE: To support the development of the communications and space industries by providing environmental testing and integration facilities for satellites and other communications equipment.

PROGRAM ELEMENTS: The availability of environmental testing and integration facilities for space sub-systems, components, and complete satellites, at the David Florida Laboratory (DFL) permits Canadian firms to maintain control over the costs and schedule of the integration and test aspects of their work. The provision at a central location in Canada of small, medium and full spacecraft-sized facilities enables a "critical mass" of expert operators and up-to-date equipment to be maintained.

Treasury Board approved user fees, based on an assumed utilization of equipment, provide users with access to these facilities at costs comparable to those incurred by foreign competitors. Many prime contractors in the U.S.A., Europe and Japan use military or government subsidized facilities. DFL fees may be waived with Treasury Board approval as a means of further assistance, as was done for Brazilsat and the L-SAT Solar Array.

In addition, professional advice is available from the DFL staff, and the DFL provides engineers or technologists for short periods of time as consultants. If additional assistance is required, other consultants or test facilities will be recommended.

DFL also assists in marketing support by the provision of a mechanism allowing meaningful government-to-government dealings, by promoting Canadian companies through its consulting work, and by the presentation of papers at international conferences, raising the profile of Canada's capabilities in this field.

The DFL maintains its position in the front ranks of modern integration and testing facilities by promoting a technology development program relating to environmental testing. Current elements of this program are in the domain of infrared testing, mass and mechanical properties measurement and radio frequency testing.

ELIGIBILITY: The DFL is primarily made available to manufacturers of space and ground segment equipment in Canada's space industry.

Preference is given to aerospace and communications - related companies. Other industries' and government needs are satisfied as facilities are available.

The DFL facilities are available directly to users from outside Canada at the normal fee schedule plus a 200% Government of Canada overhead. If foreign manufacturers use a Canadian intermediary, only the normal fee schedule applies.

BUDGET: The DFL is operating in 1984-85 with 28 person years (9 indeterminate and 19 term), \$1,106 million for G&S, and \$624,000 for working capital. If full fees under the approved fee schedule were collected in 1984-85 for the support actually provided, revenues earned by DFL operations would amount to \$2.9 million. Actual revenues are estimated to be \$800,000, with the remainder of \$2.1 million accounted for by Treasury Board approved fee waivers for work on the L-SAT solar array, Brazilsat integration and testing, and the Skynet 4 project.

CONTACT:

Dr. R. Mamen,
Director, David Florida Laboratory
Communications Research Centre
P.O. Box 11490
Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 998-2383

5. INDUSTRIAL DEVELOPMENT (DGIE/DDI)

5.1 PROGRAM: IBS Program

OBJECTIVE: To assist Canadian industry in technology development projects to develop products with export market potential.

PROGRAM ELEMENTS: This program covers a portion of a company's non-recurring engineering costs.

ELIGIBILITY: Canadian companies engaged in space or terrestrial telecommunications, and related technology manufacturing. Domestic bids and projects which do not require development or modification engineering are not eligible for support.

BUDGET: For fiscal year 1984/85, the budget is \$1.5 million.

CONTACT:

D. Buchanan
Acting Director, Industrial Development Division
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-9401

5.2 PROGRAM: Prime Contractor Support

OBJECTIVE: To foster the establishment of a limited satellite contractor capability in Canada, to provide for domestic requirements and export opportunities.

BACKGROUND: With government support Spar Aerospace has made major strides towards becoming a viable satellite prime contractor. In 1979, the prime contract for Telesat Canada's ANIK-D satellite was awarded to Spar. More significantly, in 1982, Spar won a \$160 million contract in international competition, to provide a domestic satellite system to Brazil.

In addition to the program elements described below, the following DOC and other departments' operational programs also contribute to the ongoing development of Spar as Canada's prime contractor:

- Canadian Government contribution to the ESA Olympus Satellite (L-SAT) Program
- MSAT (DOC)
- SARSAT (DND)
- RADARSAT (EMR)
- ANIK D Canadian content provisions contributions to Telesat Canada (DOC)
- David Florida Laboratory (see Section 4.1)
- Development of Space Subsystems and Components (DSSC) program (see Section 1.1)

PROGRAM ELEMENTS: The Sub-System Development Program (SSDP) and the Accelerated Research and Development (ARAD) program, which were included in the 1981 and 1984 Space Plans, are being used as funding vehicles in 1984-85 for the Prime Contractor Development Program (PCDP).

This R&D program's objective is to provide advanced satellite subsystems for Telesat Canada's next generation of communications satellites. With DOC funding support, Spar will be able to provide the required hardware at a competitive price.

BUDGET: The Prime Contractor Development Program (PCDP) has a budget of \$7.0 million for 1984/85.

CONTACT:

D. Buchanan,
Acting Director, Industrial Development Division
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-9401

5.3 PROGRAM: Coordination of DOC Involvement in Industrial Development Programs Sponsored by Other Departments

OBJECTIVE: To facilitate DOC's participation in industrial development programs funded and administered by other departments and agencies.

PROGRAM ELEMENTS:

A. Unsolicited Proposals Program (UP)

This program, sponsored by DSS, supports projects based on unsolicited proposals from the private sector. The projects must support government objectives in science and technology and be based on a new and unique idea, or the proposer must have a unique capability to carry out the work.

DGIE/DDI is responsible for coordinating the distribution, review and assessment within DOC for UP's with industrial development aspects.

B. Source Development Fund (SDF)

This DSS program uses the procurement requirements of government departments to promote the development by Canadian industry of products required by government, which can also be sold to a broader market.

For proposals with industrial development implications for Canada's communications industry, DGIE/DDI coordinates DOC's inputs to DSS.

For more information on these programs, see section 3 of the handbook dealing with programs sponsored by federal departments and agencies other than DOC.

CONTACT:

D. Buchanan
Acting Director, Industrial Development Division
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-9401

6. Marketing Support (DMS)

6.1 ACTIVITY: International Marketing Support

OBJECTIVE: To support Canadian firms in marketing telecommunications goods and services in foreign markets.

ELIGIBILITY: Canadian firms in the telecommunications industry that are interested in pursuing foreign market opportunities.

PROGRAM ELEMENTS: In conjunction with other government departments, particularly External Affairs, DMS supports Canadian firms in their foreign marketing activities. Direct assistance is provided by experienced staff who are involved in the organization of and participation in technical missions and trade fairs abroad, in hosting incoming foreign missions, and in providing technical expertise to firms developing and pursuing strategies to exploit foreign market opportunities.

DMS does not administer funding programs.

AVAILABLE ASSISTANCE: A number of tools are used to assist firms in the various phases of the marketing process.

In the initial phase, DMS participates in gathering market intelligence and in identifying those Canadian firms with the potential to exploit the market opportunities.

In subsequent phases, DMS, jointly with External Affairs, CIDA and other federal and/or provincial agencies and Canadian industry, organizes technical seminars, demonstrations and exhibitions to showcase Canadian telecommunications industrial capabilities, technologies, products and services to incoming missions by foreign buyers and decision-makers.

DMS also participates in technical/marketing missions to foreign countries. DMS then works with Canadian firms and other organizations to develop and implement marketing strategies aimed at concluding major contracts for the supply of Canadian communications products and services, the formation of joint ventures with foreign firms and/or the transfer of technology to penetrate foreign markets.

In addition to the many specific marketing tools available, the presence of DOC in a government-to-government role increases the confidence of buyers that Canadian suppliers will be able to deliver as promised.

CONTACT:

R.G. McCullagh
Director, Marketing Support
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 995-3281

TECHNOLOGY AND POLICY ASSESSMENT (DGTPA)

7. TECHNOLOGY ASSESSMENT AND APPLICATIONS PLANNING (DTA)

7.1 PROGRAM: Satellite Communications Applications Development

OBJECTIVE: To develop innovative applications of satellite communications technology.

PROGRAM ELEMENTS: This program assists in the development and conduct of field trials of innovative satellite communications applications. Satellite transponder capacity, central station facilities, and technical assistance are provided to users and manufacturers to permit continuous field trials for a period of time sufficient to determine the operational and economic feasibility of various applications. The involvement of earth station manufacturers and commercial users are key elements. For example, projects underway include:

- field trials of stabilized platform earth stations on off-shore oil drilling rigs;
- field trials of single channel per carrier (SCPC) earth stations for government services in small centres;
- trade-off analysis of voice processing techniques preliminary to the development of a new family of low cost, highly transportable, voice and data earth stations;
- field trials of a new single channel per carrier earth station system in a satellite business system application;
- testing by manufacturers of earth station products under development;
- demonstration by manufacturers of earth station products to potential domestic and international customers; and
- planning for field trials of EHF satellite communications technology.

ELIGIBILITY: Project plans will be developed on the basis of solicited and unsolicited proposals from users.

BUDGET: \$650,000 in 1984/85, \$1.5 million in 1985/86, \$1.6 million in 1986/87, and \$1.7 million in 1987/88.

CONTACT:

J. Carson
Acting Director, Technology Assessment
and Applications Planning
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 996-9957

C. POLICY SECTOR (SADM)

8. Information Services (DGIS)

8.1 ACTIVITY: Trade Exhibition Support

OBJECTIVE: To support DOC program managers by providing information packages, exhibition booths, audio-visual presentations, and communications technologies for use in domestic and international marketing activities sponsored by DOC and other federal departments.

ELIGIBILITY: This support is available to firms of the communications industry participating in exhibitions, conferences, trade fairs, and similar activities sponsored by DOC or other federal departments.

AVAILABLE ASSISTANCE: The support provided by DGIS takes several forms, including:

1. Assistance in the preparation of exhibits for DOC and other departments' (notably External Affairs) displays at international trade fairs. For example, DGIS staff administered and operated the Videotex '84 display in Chicago for External Affairs and provided the media relations function. At Telecom '83 in Geneva, DGIS designed, assembled and staffed an exhibit, working in conjunction with the International Relations Branch of DOC and External Affairs.
2. The preparation of text and audio-visual material to be used at conferences. For the Unispace Vienna conference in 1982, DGIS produced the Canada in Space and Footprints from Space films for DOC's space sector, as well as an interactive videotape on Telidon.
3. Coordination of departmental publications of interest to the general public or to specific industry segments.
4. Provision of other information services designed to raise the level of awareness of Canadians with regard to the communications industry and DOC's mandate and role.

CONTACT:

Richard Beaudin
Director, Exhibitions and Audiovisual Services
Information Services Branch
Department of Communications
300 Slater Street
Ottawa, Ontario
K1A 0C8

Telephone: (613) 995-8185

SECTION 3

PROGRAMS SPONSORED BY FEDERAL
DEPARTMENTS AND AGENCIES OTHER
THAN DOC

PROGRAM LIST BY SPONSORING DEPARTMENT OR AGENCY

1. Canadian Employment and Immigration Commission (CEIC)
 - 1.1 National Industrial Training Program (NITP)
 - 1.2 Skills Growth Fund (SGF)
2. Canadian Commercial Corporation (CCC)
3. Canadian Industrial Renewal Board (CIRB)
 - 3.1 Business and Industrial Development Program (BID)
4. Canadian International Development Agency (CIDA)
 - 4.1 Industrial Cooperation Program (ICP)
5. Canadian Patents and Development Limited (CPDL)
6. Department of External Affairs (DEA)
 - 6.1 Catalytic Seed Fund (CSF)
 - 6.2 Commercial Economic Group (CEG)
 - 6.3 Cost Recoverable Technical Assistance Program (CRTA)
 - 6.4 Program for Export Market Development (PEMD)
 - 6.5 Promotional Projects Program (PPP)
 - 6.6 Regional Trade Offices (RTO)
7. Department of Regional Industrial Expansion (DRIE)
 - 7.1 Business Information Centres (BIC)
 - 7.2 Business Opportunities Sourcing System (BOSS)
 - 7.3 Credit Reinsurance Program (CRP)
 - 7.4 Defence Industry Productivity Program (DIPP)
 - 7.5 Farmers and Small Business Bond Program (FSBB)
 - 7.6 Industrial and Regional Development Program (IRDP)
 - 7.7 Interfirm Comparisons Program (IFCP)
 - 7.8 Small Business Loans Act (SBLA)
8. Export Development Corporation (EDC)
9. Federal Business Development Bank (FBDB)
10. National Research Council (NRC)
 - 10.1 Canada Institute for Scientific and Technical Information (CISTI)
 - 10.2 Industrial Research Assistance Program (IRAP)
 - 10.3 Program for Industry/Laboratory Products (PILP)

PROGRAM LIST BY SPONSORING DEPARTMENT OR AGENCY (CONT'D)

11. Natural Sciences and Engineering Research Council of Canada (NSERC)
 - 11.1 Strategic Grants Program (SGP)
 - 11.2 University/Industry Program (UIP)
12. Statistics Canada (Stats Can)
13. Supply and Services Canada (SSC)
 - 13.1 Contracting-Out Policy in Science and Technology (COPST)
 - 13.2 Research and Development Unsolicited Proposals Program (UP)
 - 13.3 Source Development Fund (SDF)

GENERAL PROGRAM INFORMATION

Some general points can be made about the range of federal government assistance programs sponsored by federal departments and agencies other than DOC. Available assistance is targetted primarily at small and medium-sized Canadian controlled companies. The majority of the programs are limited to enterprises involved in secondary manufacturing or processing operations, or to the service industries that support them. Few are available to wholesale or retail businesses, to primary resource industries or to service industries that do not support the manufacturing sector.

As indicated by a review of the programs listed, most federal government assistance programs are designed to accomplish specific program objectives. To be eligible for each particular program, applicants must fulfil certain established criteria. There are, however, three basic criteria that apply to a wider range of assistance programs. Applicants meeting one or more of these general guidelines are likely to find some form of federal government assistance available to them.

General Guidelines:

1. There must be a demonstrated need for assistance. Federal government assistance programs are designed as incentives, inducements or levers to encourage innovative projects that would not otherwise proceed unless such support is provided.

2. The project must be commercially and economically viable within reasonable bounds of risk. Firms applying for assistance must possess the technical, marketing, manufacturing, financial and management skills required to complete the project. The project or venture itself must be technically feasible with identified market potential.

3. The project and exploitation of the results must represent significant net economic and social benefits to Canada.

Desirable benefits include the potential for:

- increased employment
- increased exports
- replacement of imports
- improved productivity and cost efficiency
- economic stimulation of depressed regions
- innovative technical research and product or process development

TABLE 3-I

PROGRAM SUPPORT FUNCTIONS

PROGRAM	START-UP AND EXPANSION	RESEARCH AND DEVELOPMENT	GENERAL PURPOSE FINANCING	EMPLOYMENT AND TRAINING ASSISTANCE	MARKETING	
					DOM.	INT'L
1. CEIC 1.1 NITP 1.2 SGF				X X		
2. CCC						X
3. CIRB 3.1 BID	X	X	X	X	X	
4. CIDA 4.1 ICP		X		X		X
5. CPDL		X			X	X
6. DEA 6.1 CSF 6.2 CEG 6.3 CRTA 6.4 PEMD 6.5 PPP 6.6 RTO		X		X		X X X X X
7. DRIE 7.1 BIC 7.2 BOSS 7.3 CRP 7.4 DIPP 7.5 FSBB 7.6 IRDP 7.7 IFCP 7.8 SBLA	X X X X	 X X X	 X X X X X	 X	X X X	X X (PEMD)
8. EDC						X
9. FBDB	X		X	X		

TABLE 3-I.

PROGRAM SUPPORT FUNCTIONS (CONT'D)

PROGRAM	START-UP AND EXPANSION	RESEARCH AND DEVELOPMENT	GENERAL PURPOSE FINANCING	EMPLOYMENT AND TRAINING ASSISTANCE	MARKETING	
					DOM.	INT'L
10. NRC 10.1 CISTI 10.2 IRAP 10.3 PILP		X X X		X		
11. NSERC 11.1 SGP 11.2 UIP		X X		X		
12. STATS CAN	X	X			X	
13. SSC 13.1 COPST 13.2 UP 13.3 SDF		X X X			X X X	

TABLE 3-II

FORMS OF AVAILABLE ASSISTANCE

PROGRAM	FINANCIAL					NON-FINANCIAL
	GRANTS AND CONTRIBUTIONS	LOANS	LOAN GUARANTEES	SALARIES	OTHER	
1. CEIC 1.1 NITP 1.2 SGF	X X			X		
2. CCC					administrative costs	facilitates international trade agreements
3. CIRB 3.1 BID	X	X		X (consultants)	loan insurance	
4. CIDA 4.1 ICP	X					facilitates business collaborations between Canadian industries and developing nations
5. CPDL						assesses technical and commercial feasibility of inventions and facilitates commercial exploitation
6. DEA 6.1 CSF 6.2 GEG	X					identifies and organizes opportunities for international scientific and technical collaboration facilitates Canada's export trade and protects commercial interests in foreign countries

TABLE 3-II

FORMS OF AVAILABLE ASSISTANCE (CONT'D)

PROGRAM	FINANCIAL					NON-FINANCIAL
	GRANTS AND CONTRIBUTIONS	LOANS	LOAN GUARANTEES	SALARIES	OTHER	
6.3 CRTA				X (provides PY's on cost-recovery basis)		facilitates penetration of foreign markets by Canadian firms
6.4 PEMD	X					sponsors trade fairs, trade missions and trade visitors to enhance Canadian export markets
6.5 PPP						
6.6 RTO						
7. DRIE						provides information and guidance on federal government programs and services identifies Canadian suppliers for international and domestic markets
7.1 BIC						
7.2 BOSS						
7.3 CRP					loan insurance	
7.4 DIPP	X	X				
7.5 FSBB					tax initiative to reduce cost of borrowing	
7.6 IRDP	X	X	X	X (consultants)		
7.7 IFCP						
7.8 SBLA			X			

TABLE 3-II

FORMS OF AVAILABLE ASSISTANCE (CONT'D)

PROGRAM	FINANCIAL					NON-FINANCIAL
	GRANTS AND CONTRIBUTIONS	LOANS	LOAN GUARANTEES	SALARIES	OTHER	
8. EDC		X	X		insurance for export transactions	
9. FBDB		X	X		investment banking	financial planning and business management assistance
10. NRC 10.1 CISTI 10.2 IRAP 10.3 PILP	X			X	procurement contracts	provides scientific and technical information useful to business/industry operations provides advisory and technical information services provides access to government laboratory space
11. NSERC 11.1 SGP 11.2 UIP	X X			X (research chairs)	scholarships and fellowships	facilitates technology transfer
12. STATS CAN						provides statistical information and analysis, professional consultation service and seminars on subjects of special interest

TABLE 3-II

FORMS OF AVAILABLE ASSISTANCE (CONT'D)

PROGRAM	FINANCIAL					NON-FINANCIAL
	GRANTS AND CONTRIBUTIONS	LOANS	LOAN GUARANTEES	SALARIES	OTHER	
13. SSC						
13.1 COPST					procurement contracts	
13.2 UP	X				procurement contracts	
13.3 SDF	X				procurement contracts	

TABLE 3-III

PROGRAM
SUPPORT FUNCTIONS BY FORMS
OF AVAILABLE ASSISTANCE

AVAILABLE ASSISTANCE	SUPPORT FUNCTION	START-UP AND EXPANSION	RESEARCH AND DEVELOPMENT	GENERAL PURPOSE FINANCING	EMPLOYMENT AND TRAINING ASSISTANCE	MARKETING	
						DOM.	INT'L
FINANCIAL	GRANTS AND CONTRIBUTIONS	BID DIPP IRDP	BID PILP ICP SGP CSF UIP DIPP UP IRDP SDF	BID DIPP IRDP	NITP SGF BID ICP IRDP	BID DIPP IRDP	ICP PEMD DIPP
	LOANS	BID DIPP IRDP FBDB	DIPP IRDP	DIPP IRDP FBDB	IRDP	BID DIPP IRDP	DIPP EDC
	LOAN GUARANTEES	IRDP FBDB SBLA	IRDP	IRDP SBLA FBDB	IRDP	IRDP	EDC
	SALARIES	BID IRDP	BID IRDP IRAP UIP	BID IRDP	NITP UIP BID CRTA IRDP IRAP	IRDP BID	CRTA
	OTHER	BID	PILP UIP COPST UP SDF	BID CRP FSBB	UIP	BID COPST UP SDF	EDC CCC
NON-FINANCIAL	BIC STATS CAN FBDB	ICP SGP CPDL CSF IFCP CISTI IRAP PILP STATS CAN		FBDB STATS CAN	CPDL BOSS STATS CAN	CCC ICP CPDL CEG CRTA PPP RTO BOSS	

TABLE 3-IV (Cont'd)

Other Federal Programs

PROGRAM	DOC BRANCH/ DIVISION	SPONSORING DEPARTMENT OR AGENCY	DOC ROLE
Unsolicited Proposals (UP)	DGIE/DDI DGRP	DSS	Coordinate review and assessment of proposals in DOC.
Source Development Fund (SDF)	DGIE/DDI DGRP	DSS	Review and coordinate submission of proposals from DOC.
Industrial Research Assistance Program (IRAP)	DGRP	NRC	Coordinate DOC review and assessment of proposals re: communications technology
Program for Industry/ Laboratory Projects (PILP)	DGRP	NRC	Prepare technology transfer projects, submit proposals to PILP selection committee, and monitor progress.
DRIE Programs	DGIE/DDI DGRP	DRIE	Coordinate DOC review and assessment of proposals, and provide inputs to DRIE re: Corporate Development Agreements and other programs affecting the communica- tions industry.

TABLE 3-IV

DOC Program Links with Other Federal Departments/Agencies

DOC Sponsored Programs

PROGRAM	DOC SPONSORING BRANCH/ DIVISION	OTHER DEPART- MENT OR AGENCY INVOLVED	DOC ROLE
Office Communica- tions Systems Field Trials	DGAP/DCS	DSS Revenue Canada DND Environment Canada EM&R	Establish the field trial objectives, moni- tor progress and admin- ister impact assessments and related research.
Telidon Industrial Applications	DGAP/DTL	External Affairs	Provide support for Telidon Marketing Secretariat at External Affairs
Marketing Support	DGIE/DMS	External Affairs CIDA	Cooperate in marketing activities in foreign countries.
Trade Exhibition	DGIS	External Affairs	Assist in prepara- tion of exhibits for display at international trade fairs.

ACRONYM LIST

BIC Business Information Centres
BID Business and Industrial Development Program
BOSS Business Opportunities Sourcing System

CCC Canadian Commercial Corporation
CEG Commercial Economic Group
CEIC Canadian Employment and Immigration Commission
CIDA Canadian International Development Agency
CIRB Canadian Industrial Renewal Board
CISTI Canada Institute for Scientific and Technical Information

COPST Contracting-Out Policy in Science and Technology
CPDL Canadian Patents and Development Limited
CRP Credit Reinsurance Program
CRTA Cost Recoverable Technical Assistance Program
CSF Catalytic Seed Fund

DEA Department of External Affairs
DIPP Defence Industry Productivity Program
DRIE Department of Regional Industrial Expansion

EDC Export Development Corporation

FBDB Federal Business Development Bank
FSBB Farmers and Small Business Bond Program

ICP Industrial Cooperation Program
IFCP Interfirm Comparisons Program
IRAP Industrial Research Assistance Program
IRDP Industrial and Regional Development Program

NITP National Industrial Training Program
NRC National Research Council
NSERC Natural Sciences and Engineering Research Council of Canada

PEMD Program for Export Market Development
PILP Program for Industry/Laboratory Products
PPP Promotional Projects Program

RTO Regional Trade Offices

SBLA Small Business Loans Act
SDF Source Development Fund
SGF Skills Growth Fund
SGP Strategic Grants Program
SSC Supply and Services Canada
STATS CAN Statistics Canada

UIP University/Industry Program
UP Research and Development Unsolicited Proposals Program

1. CANADA EMPLOYMENT AND IMMIGRATION COMMISSION (CEIC)

1.1 PROGRAM: National Industrial Training Program (NITP)

OBJECTIVE: The National Industrial Training Program, established under the National Training Act, provides for priority treatment of employer training needs in occupations having middle to high level skill requirements and where potential shortages are identified as an impediment to national or regional economic and employment growth.

PROGRAM ELEMENTS: The program has two components, General Industrial Training (GIT) and Critical Trade Skills Training (CTST). The basic differences between the two are the skill levels involved, duration of training, and designation of occupations. For example, under GIT, federal financial support is available to employers for up to one year and under CTST, it is available for up to two years because the training required is more complex.

CTST covers the training of workers whose skills take from three to five years to develop and who are in critically short supply. GIT concentrates on training workers for other occupations in demand, retraining workers affected by new technology and industrial change, training the unemployed, training women in non-traditional occupations and training other adults with special needs.

ELIGIBILITY: Any Canadian employer or employer association whose training proposal conforms to the priorities established for the geographical area and whose operations are not financed primarily by public funds is eligible.

AVAILABLE ASSISTANCE: Three training expenditures can be reimbursed - course development costs, course operating costs and trainee wages. The schedule and extent of reimbursement is flexible and subject to negotiation. Employers are reimbursed for up to 100% of the direct cost of training and for a percentage of trainee wages.

<u>BUDGET:</u>	<u>1983/84 (Estimate)</u>	<u>1984/85 (Estimate)</u>
CTST:	67.9 million	80.2 million
GIT:	93.4 million	94.9 million
Total:	161.3 million	175.1 million

RELEVANCE TO COMMUNICATIONS INDUSTRY:

Communications-related expenditures for fiscal year 83/84:

CTST:	3.5 million
GIT:	3.2 million
TOTAL	<u>6.7 million</u>

For the fiscal year 1983/84, 759 contracts representing 2,026 trainee positions were established for training in communications-related occupations.

<u>CTST</u>	<u>CONTRACTS</u>	<u>TRAINEE POSITIONS</u>
Communications-related	287	564
CTST Total	5,987	13,598
<u>GIT</u>		
Communications-related	472	1,462
GIT Total	18,565	36,783
<u>COMBINED (CTST & GIT)</u>		
Communications-related	759	2,026
Combined Total	24,552	50,381

OCCUPATIONS OF NATIONAL IMPORTANCE: Occupations in which serious national or regional shortages of workers exist are designated as national occupations and provided special attention in federal program policy and funding. The list of designated occupations is established following research and consultations with the federal and provincial governments and business and labour organizations.

DESIGNATED OCCUPATIONS IN COMMUNICATIONS: The proposed list of occupations of national importance for 1984-85 covers 25 occupational groups and lists 53 occupational titles. The following communications-related occupations are included:

Draughtpersons
- Computer Assisted Design Applications to all
Draughting Specialties

Architectural and Engineering Technologists and Technicians

- Aerospace Engineering Technologist
- Electronic Engineering Technologist
- Electronics Engineering Technician
- Robotics Engineering Technician

Systems Analysts, Computer Programmers and Related Occupations

- Programmer, Application
- Numerical Control Tool Programmer
- Computer Graphics Specialist
- Computer Hardware Specialist
- Micro-Mini Computer Specialist
- Telecommunications Specialist Computers

Electronic and Related Equipment, Installing and Repairing Occupations

- Repairperson, Electronic Equipment (incorporates Robotics and Automated Processing Equipment Repair)

CONTACT:

R. Van Tongerloo
Director
Industrial Training Directorate
Employment and Immigration Canada
Place du Portage, Phase IV
Hull, Quebec
K1A 0J9

Telephone: (819) 994-2332

1.2 PROGRAM: Skills Growth Fund (SGF)

OBJECTIVE: The purpose of the SGF, established under the National Training Act, is to accelerate skill development and to help overcome serious skill shortages anticipated in designated national occupations. It will also permit people who are disadvantaged in the labour force to take training especially tailored to their needs.

ELIGIBILITY: Both public training institutions and private non-profit training organizations are eligible to submit proposals for funding.

Private non-profit training organizations may submit proposals to establish training institutions to meet the skill needs of:

- . industrial sectors or groups of employers
- . adults who need a specially adapted training approach and/or environment to acquire needed skills

Employers can take advantage of the fund by forming non-profit corporations with other employers to train workers for their common needs.

ASSISTANCE AVAILABLE: Capital funding to establish, expand and/or modernize training facilities is available for all approved projects up to a maximum of \$40,000 per trainee/place. Funding is also available, in certain cases, for initial operating and course development costs.

BUDGET: 1984/85 - \$140.6 million

RELEVANCE TO COMMUNICATIONS INDUSTRY:

Summary of Approved Projects
(November, 1982 - February, 1984)

	<u>Approved Projects</u>	<u>Training Places</u>	<u>Committed Funds</u>
Communications-related	108	9,730	\$ 88 million
SGF Total	245	19,493	\$165 million

CONTACT:

G. Latour
Acting Director
Program Development and Implementation
Training Branch
Employment and Immigration Canada
Place du Portage, Phase IV
Hull, Quebec
K1A 0J9

Telephone: (819) 994-2332

2. CANADIAN COMMERCIAL CORPORATION (CCC)

OBJECTIVE: The CCC is a crown corporation established to assist in the development of trade between Canada and other nations. CCC acts as prime contractor by establishing government to government contracts that tie together the requirements of foreign governments and international agencies with the supply capabilities of Canadian producers of goods and services.

ELIGIBILITY: Any Canadian supplier of goods and services can be identified for bid requests by registering on source lists maintained by the Department of Supply and Services.

AVAILABLE ASSISTANCE: CCC services include:

- . transmitting invitations to bid from foreign governments or international agencies to Canadian suppliers
- . evaluating the technical and financial feasibility of the product, service, or project package
- . reviewing the technical and financial capability of suppliers
- . analyzing risks
- . organizing single sourcing, by which a group of Canadian suppliers provides the entire range of products or services in a specific field
- . participating in negotiations
- . executing prime and back-to-back contracts
- . following through on all aspects of sales
- . facilitating contacts at senior government levels in Canada and abroad

CCC also serves as prime contractor in capital projects on a government to government basis, when this arrangement meets the needs of, and is requested by, foreign customers and interested Canadian firms.

In commercial and defence-related sales, the Corporation's services are provided free of charge, both to customers abroad and to Canadian suppliers. In capital projects, it is the Corporation's policy to recover administrative costs related to such sales. These costs, which are arranged with the Canadian firm or consortium of firms, vary with the complexity and duration of the contract. Generally, they amount to about 1% of the contract value.

VALUE OF ORDERS RECEIVED: CCC awarded 2,560 contracts to 340 Canadian suppliers, on behalf of 73 different foreign governmental and international agency customers in fiscal year 1982-83. These contracts resulted in a total sales volume of \$589 million.

RELEVANCE TO COMMUNICATIONS INDUSTRY: The contracts awarded by CCC in 1982-83 to suppliers of communications-related goods and services resulted in a sales volume of approximately \$293 million - \$194 million in electronics and data processing and \$99 million in aerospace products (includes non-communications related aircraft products and services).

CONTACT:

- . Enquiries about the Corporation may be directed to the Trade Commissioner at any Canadian Embassy or High Commission abroad.
- . For information on CCC sales of commercial or defence-related products and services:

Canadian Commercial Corporation
Export Supply Directorate
Ottawa, Ontario
K1A 0S6

Telephone: (819) 997-5714

- . For information on capital projects:

Canadian Commercial Corporation
Head Office
112 Kent Street, 17th Floor
Place de Ville, Tower "B"
Ottawa, Ontario
K1A 1E9

Telephone: (613) 996-0034

3. CANADIAN INDUSTRIAL RENEWAL BOARD (CIRB)

3.1 PROGRAM: Business and Industrial Development Program (BID)

OBJECTIVE: BID is aimed at promoting the strengthening and diversification of the economic base of designated special areas that depend heavily on textile, clothing and footwear industries.

ELIGIBILITY: Assistance under the program is available to all firms involved in manufacturing, processing or other commercial activity located in designated special areas or willing to establish in these areas.

Various criteria apply for each form of assistance, but, as a general rule:

- . the firm and the project must be viable
- . for grants, the project must represent a significant burden on the resources of the applicant or must not, in the opinion of the CIRB, be able to proceed without a contribution.

The government of Canada has designated 7 special areas. The boundaries of these areas include the following urban centres:

- . Trois-Rivieres, Cap-de-la-Madeleine, Grand-Mere and Shawinigan (Quebec);
- . Drummondville (Quebec);
- . Victoriaville, Princeville and Plessisville (Quebec);
- . Sherbrooke and Magog (Quebec);
- . Valleyfield (Quebec);
- . Cornwall (Ontario); and
- . Hawkesbury (Ontario).

All Special Areas designated by CIRB will continue to receive CIRB assistance until 1986. All manufacturing and processing firms located anywhere else in Canada can receive assistance under the Industrial Regional Development Program (IRDP).

AVAILABLE ASSISTANCE: The assistance available to eligible firms under CIRB's Business and Industrial Development Program can take the form of grants, direct loans or loan insurance. Assistance varies for firms located in special areas and for firms willing to establish in special areas.

Firms in Special Areas

Grants

- . To develop project proposals - Grants up to 75% of the cost of qualified consultants hired to develop innovation projects including restructuring, merger and acquisition proposals, as well as common services proposals for groups of firms.
- . To identify new products - Grants up to 75% of the cost of qualified consultants hired to identify new or improved products and to undertake related product and market testing.
- . For product development - Grants up to 75% of direct costs, for the development of new or improved products and processes incorporating an advance in technology and offering good prospects for profitable commercial exploitation. Rights to the technology are vested in the firm but the exploitation of the project must be undertaken in Canada.
- . For product design - Grants up to 75% of the cost of the design of new or improved products; these projects must relate to durable products that are mass-produced by industrial processes.
- . For productivity improvement - Grants up to 75% of the cost of consultants hired to conduct feasibility studies on productivity improvement measures which involve some risk to the applicant.
- . For restructuring and modernization projects - Grants up to 50% of the capital cost of a project required by a firm to adjust or to restructure its operations to improve its ability to produce internationally competitive Canadian goods and services or to adjust to changes in the market. These grants also apply to the modernization costs which are part of the firm's restructuring plan. This assistance, available for projects with capital costs exceeding \$50,000, can be made repayable.
- . For establishment of common services - Grants to partially offset the costs associated with the establishment, by two or more applicants, of common services such as purchasing, marketing, training, etc. These grants cover up to:
 - . \$20,000 for incorporation costs;
 - . 50%, 33 1/3% and 25% of general operating expenses in each of the first 3 years respectively, to a maximum of \$150,000; and

- . 25% of eligible costs for the acquisition, construction and conversion of equipment and buildings where such costs exceed \$50,000.

Direct Loans

- . For mergers and acquisitions - Loans up to \$1,500,000 can be provided to firms wishing to merge with or acquire a firm in order to contribute to the viability and development of a business activity in a special area. The rate of interest on such loans shall not exceed 3% of the rate charged by the government to Crown Corporations.

Loan Insurance

- . For mergers, acquisitions and restructuring projects - Loan insurance to facilitate the availability of funds on reasonable terms and conditions can be provided for 90% of a term loan from conventional lenders for a 1% annual fee.

Firms Willing to Establish in Special Areas

Grants

- . To develop proposals for new establishments - Grants up to 75% of the cost of qualified consultants hired by an applicant to develop a proposal concerning the establishment of a new manufacturing or processing or other eligible commercial activity in a special area.
- . For feasibility studies for mergers and acquisitions - Grants up to 75% of the cost of qualified consultants hired by an applicant in order to examine the feasibility and prepare a plan for such an applicant to merge with or acquire a firm in a special area and thereby contribute to the viability and development of that business.
- . For new establishments - Applicants can obtain up to 50% of the capital costs to establish a new manufacturing or processing or other eligible commercial facility in a special area. These grants, available for projects with capital costs exceeding \$100,000, can be made repayable.

Direct Loans and Loan Insurance

- . For mergers, acquisitions and restructuring projects - Assistance is available on the same terms and conditions as described above for firms located in the special areas.

BUDGET: 1982-86 - \$80.1 million

PROGRAM STATISTICS: As of May, 1984 CIRB has assisted under the BID program 216 projects for a total contribution of 44.5 million, representing investments totalling \$149.1 million. These investments include capital projects, cost of consultants studies, services and innovation costs.

Regarding capital projects only, CIRB has assisted 133 projects for total costs of \$141.1 million and contributions of \$39.4 million.

RELEVANCE TO COMMUNICATIONS INDUSTRY: As of May, 1984 only 1 communications-related project had received CIRB financial assistance. It was the project of Tie Telecommunications in the Sherbrooke region, representing an investment of \$11.3 million and creation of 350 jobs.

CONTACT:

J.J.J. Cardinal
Vice President
Business Industrial Development Program
Canadian Industrial Renewal Board
P.O. Box 1510
Station "B"
Montreal, Quebec
H3B 3L2

Telephone: (514) 283-3361

4. CANADIAN INTERNATIONAL DEVELOPMENT AGENCY (CIDA)

4.1 PROGRAM: Industrial Cooperation Program (ICP)

OBJECTIVE: The purpose of the Industrial Cooperation Program is to stimulate increased participation by the Canadian private sector in the industrial development and growth of developing countries through joint ventures and other forms of business collaborations which provide mutual benefits to Canada and the developing countries.

ELIGIBILITY: Canadian business and industry (defined as business people, proprietorships and limited companies subject to Canadian law) wishing to investigate industrial cooperation opportunities in developing countries are eligible. Preference is given to small and medium-sized companies.

ASSISTANCE AVAILABLE: For Canadian companies the Industrial Cooperation Program provides:

- . funding for travel, profitability and risk analyses, product/technology testing
- . funding for project preparation studies as a lead-in to large capital projects
- . funding for demonstration/test projects as a lead-in to technology transfer
- . leads and information on opportunities, and on local conditions and business practice
- . assistance in locating qualified Canadians to work abroad
- . specialized training of local employees
- . professional services to cope with special situations, such as complex tax or legal problems
- . investment missions to developing countries

For developing countries seeking Canadian private sector participation in their economic development, the Industrial Cooperation Program provides:

- . investment-seeking missions to Canada
- . information on Canadian technology and expertise
- . trade facilitation
- . business training in Canada and in home country
- . linkages between Canadian and local business and manufacturing organizations
- . public sector institution building in cooperation with Canadian counterpart institutions
- . technical assistance to businesses requiring short-term experts

- . assistance for the use of Canadian consultants or experts to assist in delineating industrial development priorities, promoting and managing exports, and providing direct, continuing expert advice to all segments of the economy, private and public

BUDGET: 1983/84 - \$23.5 million
1984/85 - \$25 million

RELEVANCE TO COMMUNICATIONS INDUSTRY: Approximately 70 of the 967 on-going projects assisted under the Industrial Cooperation Program are communications-related.

CONTACT:

E. Gauvreau
Director General
Industrial Cooperation Division
Canadian International Development Agency
200 Promenade du Portage
Hull, Quebec
K1A 0G4

Telephone: (819) 994-4348

5. CANADIAN PATENTS AND DEVELOPMENT LIMITED (CPDL)

OBJECTIVE: CPDL is a crown corporation established to facilitate the commercial exploitation of inventions and other technological advancements arising from research carried out by government departments, universities and public research institutions.

ELIGIBILITY: Businesses and individual entrepreneurs may obtain the rights to develop and commercially produce inventions and other technological advancements by way of licenses or other suitable arrangements.

ASSISTANCE AVAILABLE: CPDL maintains an inventory of technology available for commercial exploitation. The technology is brought to the attention of industry by means of trade shows, technical publications and an "Inventions Catalogue" published twice yearly.

The Corporation sponsors, in conjunction with the Department of Regional Industrial Expansion, the Inventor's Assistance Program at the Canadian Industrial Innovation Centre/Waterloo, Ontario and the Centre d'Innovation Industrielle in Montreal, Quebec. The program is designed to offer inventors an assessment of the technical and commercial feasibility of their inventions along with recommendations on the need for further development, markets, etc. This service is provided to inventors for a nominal flat fee. The inventor retains full rights to the invention.

RELEVANCE TO COMMUNICATIONS INDUSTRY:

- CPDL reviews and assesses DOC's technology for commercial success and patenting
- the administration and control of CRC's internal technology is transferred to CPDL, technology developed by directed contract, ie. external technology, is transferred only if specifically requested
- 15% of royalties returns to inventor, 85% stays with CPDL
- for 1983/84, 19 of a total of 224 submissions came from DOC, (other communications-related submissions come from University labs)

- of the approximately 197 firms currently holding licenses for CPDL Inventions, 15 are identified as directly involved in communications-related activities and 4 as indirectly involved.

CONTACT:

E. Rymek
Chief
Business Development
Canadian Patents and Development Limited
275 Slater Street
Ottawa, Ontario
K1A 0R3

Telephone: (613) 996-5736

6. DEPARTMENT OF EXTERNAL AFFAIRS (DEA)

6.1 PROGRAM: Catalytic Seed Fund (CSF)

OBJECTIVE: The CSF was established to stimulate international collaboration in science and technology. It is designed to assist Canadian scientists and engineers to develop and expand working contacts with technical experts in other countries. The fund:

- . emphasizes practical applications of research
- . encourages international collaboration in areas where Canada can improve its capabilities through such contacts
- . stresses the ultimate economic and social benefits of the research

ELIGIBILITY: Proposals may be initiated by individuals from provincial governments, universities or industrial organizations, as well as federal science-based departments or agencies. Non-federal government applicants must first arrange sponsorship of their proposals by a federal department or agency that has an interest in the proposed activity. The federal department or agency then submits the proposal to the CSF, on the applicant's behalf.

AVAILABLE ASSISTANCE: The CSF supports activities that can benefit from the quick infusion of funds to take advantage of opportunities for international collaboration where existing funding is insufficient. The Fund is not intended to provide the main means of support for projects but will defray some of the costs needed to:

- . identify and organize international collaboration
- . collect information on emerging technologies of interest to Canada
- . allow Canadian scientists to work in foreign laboratories or research establishments

The CSF supports activities such as:

- . meetings of experts in Canada to identify and plan international initiatives in specific sectors and with specific target countries
- . short-term exploratory missions and visits by individuals and small groups of experts to initiate international collaborative activities
- . missions by individual experts to collect information on emerging technological opportunities of interest to Canada

- . participation of Canadians in meetings with foreign science and technology missions in Canada
- . in exceptional situations, travel costs of foreign scientists
- . medium-term working visits of up to five months to allow Canadian scientists and technicians to work in foreign laboratories or research establishments to obtain "hands-on" experience

Applications to the CSF are reviewed by the Working Group on International Collaboration in Science and Technology, which consists of representatives from the National Research Council, the Department of External Affairs and the Ministry of State for Science and Technology.

A basic principle in evaluating proposals is the degree of commitment to the activity. Thus expenses are normally shared between the CSF and the participating organizations. Salaries and benefits of participating scientists continue to be paid by the scientist's employer. In the case of federally initiated activities, the CSF will provide support for both government and non-government participants.

BUDGET: Approximately \$300,000 per year.

RELEVANCE TO COMMUNICATIONS INDUSTRY: Since the program began in January, 1983, 10-12 of the approximately 120 projects funded through CSF were in communications-related fields. These projects represent a mix of DOC and industry personnel.

COMMENTS:

- the main objective of the CSF is to encourage international scientific and technical collaboration that will result in the transfer of foreign technology to Canada. Support is not usually provided for marketing ventures or attendance at formal conferences
- priorities for collaboration are with the industrialized Western Countries (U.S., Japan, Western Europe, etc.) but proposals for collaboration with the newly industrialized countries (Mexico, Brazil, etc.) will be considered if there is sufficient evidence that such collaboration will improve Canada's scientific and technical capabilities

- cooperation with Communist countries will also be considered if the proposed cooperation does not have defence implications

CONTACT:

Brian Cox
Secretary
Working Group on International
Collaboration in Science and
Technology
Science, Technology and Communications
Division
Department of External Affairs
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

Telephone: (613) 993-5193

6.2 PROGRAM: Commercial Economic Group (Trade Commissioner Service)

OBJECTIVE: The Department of External Affairs' commercial representatives abroad (Trade Commissioners) promote Canada's export trade and protect its commercial interests in foreign countries by providing a link between foreign buyers and Canadian exporters.

ELIGIBILITY: Canadian Exporters

AVAILABLE ASSISTANCE: Services to Canadian exporters include:

- . identification of export opportunities;
- . assessment of market competition;
- . introduction to prospective foreign business contacts and government officials;
- . screening and recommending of agents and outlets;
- . advice on terms of payment, claims assistance, and after sales service;
- . assistance with tariff problems or difficulties with foreign import restrictions, including advice on labelling and marketing regulations; and
- . market studies for publication.

The Commercial Economic Group has Trade Commissioners and/or Commercial Officers in approximately 70 countries.

CONTACT: DEA's commercial representatives abroad are listed in the Businessmen's Directory of Canadian Trade Representation Abroad.

Free copies are available from:

Domestic Information Program Division
Department of External Affairs
Lester B. Pearson Bldg.
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

Telephone: (613) 993-7064

6.3 PROGRAM: Cost Recoverable Technical Assistance Program
(CRTA)

OBJECTIVE: The purpose of CRTA is to improve Canada's performance in marketing Canadian goods and services (including capital projects) abroad and, in doing so, focus on maximizing Canada's private sector involvement.

CRTA involves the transfer of Canadian technology to developing countries. The program's two main objectives are:

- to increase penetration of foreign markets by Canadian firms
- to enable developing countries to improve certain sectors of their economies by using Canadian expertise

ELIGIBILITY: The CRTA program is designed to provide public sector expertise to foreign countries on a government to government basis, and to Canadian companies, particularly those involved in the export marketing of capital projects.

Potential foreign country clients are those with active development programs financed from their own resources. No firm guidelines are given for the types of technical assistance that can be made available, but assistance would generally be compatible with Canadian supply capabilities in order to maximize the possibility of developing exports of Canadian manufactured goods and services. Government experts will help Canadian companies bidding on projects abroad to improve the quality of their proposals and enhance their chances of success.

AVAILABLE ASSISTANCE: This is a cost recoverable program. The Canadian government is reimbursed for the costs it incurs either by the foreign government or the Canadian firm which contracts for the assistance. The Department of External Affairs maintains a central interest-bearing deposit fund into which recipient countries and firms pay agreed amounts, usually in advance.

"Action Agencies" are Canadian federal and provincial departments and quasi-governmental bodies that supply the expertise required by CRTA clients. At cost, they will monitor the contracting and execution of a project on behalf of a foreign government, help a Canadian firm to obtain a contract abroad and, under certain circumstances, train foreign officials or employees of foreign or Canadian firms in specific fields.

While government advice and assistance is available, all commercial contracts between Canadian firms and foreign countries are negotiated and signed by Canadian private sector organizations unless the client country requests a government to government contract.

RELEVANCE TO COMMUNICATIONS INDUSTRY: Of the 5 ongoing projects, 1 is communications-related (value: \$2.7 million, P.Y.: 6.25). Of the 2 pending projects, 1 is communications-related (value: \$100 million, P.Y.: 17).

COMMENTS:

- status of program currently in question
- expired March 31/84 but a submission to T.B. for approval of extension/renewal is in the works
- program functions with insufficient resources and is therefore not utilized to full potential - little promotion done, mainly reactive.
- on-going projects continue but no new initiatives are being undertaken until approval is given

CONTACT:

J.A.M. Lemay
Cost Recoverable Technical Assistance Unit
Pacific Trade Development Division
Pacific Bureau
Department of External Affairs
Lester B. Pearson Bldg.
125 Sussex Drive
K1A 0G2

Telephone: (613) 995-1281

6.4 PROGRAM: Program for Export Market Development (PEMD)

OBJECTIVE: PEMD helps to develop, increase, sustain and diversify the export of Canadian goods and services by sharing with the business community the financial risk of entering new foreign markets.

Such risks may result from the size and complexity of a large specific project venture, international competition, new and unfamiliar market conditions or the need for a consortium approach.

The program is not intended to support normal export business activities either in maintaining an existing market abroad or in winning new business in a market where the supplier is already well established.

PROGRAM ELEMENTS:

Section A: Specific Project Bidding

Section A shares the cost of bidding on specific projects anywhere outside Canada. The projects typically involve a formal bidding procedure in competition with foreign firms to obtain a contract for the provision of consulting services, engineering, construction and the supply of equipment and other Canadian goods and services.

Section B: Market Identification Trips

Section B helps companies to undertake market identification trips to potential markets to assess whether exporting to that market would be commercially viable or to make industrial co-operation arrangements.

Section C: Participation in Trade Fairs Abroad

Section C helps Canadian exporters to participate in trade fairs and industrial exhibitions outside Canada. Companies may participate in the same event up to three times. The events that PEMD support are generally of limited duration rather than on-going exhibitions.

Section D: Incoming Foreign Buyers

Section D helps Canadian companies to bring potential foreign buyers to Canada, or an approved location abroad. The foreign buyers must represent importers located abroad and must play a major role in influencing purchasing decisions or industrial co-operation agreements.

Section E: Export Consortia

Section E encourages Canadian manufacturers to make co-operative arrangements for the development of joint export sales by forming permanent export consortia. It is especially interested in encouraging consortia of small and medium-sized firms. Section E supports feasibility studies of proposed export consortia, as well as the formation and operation of new consortia in Canada for up to three years.

Section F: Sustained Export Market Development

Section F helps Canadian exporters to undertake a sustained marketing effort in a foreign market by establishing facilities on location. Under Phase I of Section F, support is provided for market studies and the preparation of a market penetration plan. Under Phase II, the implementation costs determined by the plan may be shared for up to three years.

Section S: Contributions to Non-Profit Organizations

Section S contributes funding to help cover costs incurred by non-profit organizations whose activities relate to the promotion or development of Canada's export trade. Eligible activities may include international conferences, export marketing studies or joining international organizations.

ELIGIBILITY: In general, PEMD assistance is available to incorporated Canadian businesses whose operations include the manufacture of the product or performance of the service for which the PEMD assistance is requested. Each PEMD section is open to certain categories of businesses or operations.

In addition to belonging to one of the eligible categories of businesses, all applicants must provide evidence of their ability to carry out the proposed project. Specifically, the applicant must meet the following requirements:

- be currently established and operating in Canada
- have sufficient operational experience to demonstrate ability or potential for competitive performance in foreign markets for the products or services concerned
- have satisfactory marketing and managerial capabilities
- possess the financial capacity to successfully complete the project

The project must meet the following eligibility criteria:

- . it must be unlikely to be undertaken without PEMD support.
- . it must have a reasonable probability of success.
- . it must provide substantial potential benefits to Canada.
- . it should be supportive of the federal government's industrial and international marketing strategies.

In general, when a province is financially involved in a project applicants are not eligible for PEMD support. For certain large and complex projects the eligible costs may be shared by PEMD, the applicant, the federal government and one or more provincial government.

Applicants requesting contributions of less than \$1,000 are not eligible.

AVAILABLE ASSISTANCE: The assistance provided under PEMD varies from section to section. Normally, the program provides up to 50 percent of the costs incurred by a company in its penetration of new markets. Contributions toward approved projects include sharing the costs of personnel, transportation and other special costs demonstrated as being necessary to the success of the project.

The amount of assistance provided is repayable if reportable sales are realized or a contract is obtained as a result of the project.

<u>BUDGET:</u>	1982-83	-	\$19.1 million
	1983-84	-	\$28.1 million
	1984-85	-	\$29.9 million

RELEVANCE TO COMMUNICATIONS INDUSTRY:

PEMD ACTIVITY ¹
COMMUNICATIONS INDUSTRY ²

<u>STANDARD INDUSTRIAL CLASSIFICATION (SIC)</u>	<u>NO. APPROVALS</u>	<u>\$ APPROVED</u>
3340-3399	636	4,532,408
4810-4839	19	194,259
7721-7722	167	1,079,727
Communications- related SUB-TOTAL	822	5,806,394
PEMD TOTAL	8,371	89,961,018

1. For projects with an effective date between April 1, 1982 through March 31, 1984.
2. SIC 3340-3399 (excluding 3370-3379)
4810-4839 and 7721-7722

COMMENTS:

- 80%-90% of approved communications-related projects were for PEMD sections B and C
- average processing time for PEMD application is 9 weeks according to PEMD staff
- experience indicates a much longer process (12-18 months)

CONTACT:

N.J. Della Valle
Director
Program for Export Market Development
Export Marketing Bureau
Department of External Affairs
Lester B. Pearson Bldg.
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

Telephone: (613) 994-1418

6.5 PROGRAM: Promotional Projects Program (PPP)

OBJECTIVE: PPP is the funding vehicle through which the government underwrites some of the cost to industry of participating in promotional events that are organized by the Department of External Affairs. These events are designed to increase the knowledge of foreign buyers about Canadian products and capabilities and to undertake export market intelligence gathering operations.

PROGRAM ELEMENTS: The program encompasses a wide variety of trade promotional techniques within three general categories: trade fairs abroad, trade missions and trade visitors.

Trade Fairs Abroad

PPP sponsors and organizes the participation of Canadian firms, trade organizations, and associations in trade fairs abroad. PPP co-ordinates the design, construction, erection and operation of the exhibits. The objective of the trade fair exhibit is to permit Canadian companies to expose products or services, at a nominal cost, to the governments, business communities and consumers in foreign markets.

Eligibility

To participate in a government-sponsored Canadian exhibit at an international trade fair, a firm must:

- . be currently established and operating in Canada
- . be willing to export
- . have the ability to compete in foreign markets for the products involved
- . have satisfactory financial and management strengths to enter and sustain the export market with its products
- . sign a participation agreement with the Department of External Affairs

Participants are selected on a first-come, first-served basis up to the limits of space available.

Available assistance: The program will provide participating firms with a complete exhibition service for which the company pays a participation fee.

Trade Missions

Each government-sponsored trade mission has a clearly-stated trade objective and members are selected to best attain that objective. Both outgoing and incoming missions may be sponsored.

In general, outgoing missions are organized to achieve trade objectives such as the promotion of Canadian equipment, products and services. However, in the case of senior level missions, they may be used to negotiate trading agreements or the reduction of trade barriers. Incoming missions usually serve as follow-ups to outgoing missions, or to improve contacts with potential foreign buyers.

Types of Missions

- Ministerial and High-Level Missions - Missions led by an Assistant Deputy Minister or higher, fit into this category. Usually these missions have a general trade objective covering several product sectors. They provide opportunities to meet with senior government trade officials and foreign industry as a means of developing Canada's export potential. These missions could also lead to the negotiation and implementation of reciprocal trade agreements with foreign countries.
- Commodity-Oriented Trade Missions - The overall aim of these missions is to develop a better understanding by Canadian industry of foreign market needs and to expose foreign buyers to Canadian expertise, services and equipment as a basis for export sales. To achieve these objectives, mission membership is specifically selected from the product sector of interest.
- Seminars - Some outgoing missions take the form of seminars in foreign countries to introduce specialized technology available from Canada. On these occasions, additional support may be given for the cost of meeting rooms and facilities, audio-visual and public address equipment, translation services, and printing and distributing of technical papers specific to the seminar.

. Economic and Industrial Co-operation Missions -

These outgoing and incoming missions usually result from the provisions for periodic exchanges included in reciprocal agreements with foreign governments. As such, they provide the mechanism and environment for co-operation in technology, industrial development and trade. They also provide a forum for resolving problems associated with these initiatives.

Eligibility: Nominations for membership in outgoing trade missions are normally made by the Department of Regional Industrial Expansion in consultation with the Trade Commissioner Service posts abroad, the Regional Offices and the Offices of Trade Development. Nominees are selected on the basis of:

- . suitability as a representative of a particular segment of the industry;
- . technical qualifications and contribution to the mission's objective;
- . representation of a Canadian-based company with a satisfactory performance record and an interest in exporting to the region concerned; and
- . regional distribution within Canada.

Incoming mission membership is normally suggested by the Trade Commissioner Service post in the area in consultation with the industry sector specialists.

Available assistance: The government initiates, plans and manages all trade missions it sponsors.

Trade Visitors

Under the trade visitors' activity, the government invites influential foreign businessmen (buyers) and government representatives (delegates) to examine Canadian goods and services and to inspect the industrial capability of Canadian firms. Visits may also be arranged to Canadian trade fairs or exhibitions where Canadian products are being displayed. As such, these projects are complementary to incoming missions and trade fairs.

Eligibility: The trade visitors' project is open to individuals from business and government from overseas. The main criteria for eligibility are the capability of the visitor to have an influence on buying Canadian goods and services, and to have an interest that can benefit more than one Canadian company

or region. The company or government agency the visitor represents should be capable of fulfilling any sales contracts into which it may enter. The program is not open to executives or employees of Canadian-owned subsidiary operations.

The companies visited should be active and produce goods or supply services that possess a high level of Canadian content. The firms should also be willing to export, be capable of competitive performance in the relevant market for the products concerned, and possess satisfactory financial and management strengths to enter and to sustain themselves in the export market.

Available assistance: The Department provides the following assistance to incoming trade visitors:

- . an appropriate field program and itinerary;
- . return economy air fare;
- . the cost of hotel accommodation, meals and local transportation;
- . hotel bookings in Canada; and
- . an officer to accompany incoming buyers while they are in Canada.

Expenses incurred by the visit are sometimes shared with companies, groups of companies and/or associations which stand to benefit directly from the visit.

BUDGET: 1982/83 - \$10.6 million
1983/84 - \$13.6 million

PROGRAM STATISTICS: In 1982-83 the PPP sponsored 124 trade fairs and information booths in 40 countries involving 950 companies; 70 outgoing trade missions and seminars taking 700 businessmen to 65 countries; and 159 incoming missions and visits bringing 1,200 foreign officials and businessmen to Canada. Export sales influenced by these activities are expected to exceed \$400 million at a cost of \$10.6 million.

CONTACT:

F.W. Myers
Director
Fairs and Missions Division
Export Marketing Bureau
Department of External Affairs
Lester B. Pearson Bldg.
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

Telephone: (613) 994-4733

6.6 PROGRAM: Regional Trade Offices (RTO)

OBJECTIVE: Trade development officers located in the regional offices of the Department of Regional Industrial Expansion are the first points of contact in Canada for new or established exporters seeking information on export market opportunities.

ELIGIBILITY: Canadian exporters.

AVAILABLE ASSISTANCE: Regional Trade Offices provide the following services to exporters:

- . Counsel exporters on how to approach export marketing including export pricing, financing, documentation, transportation, insurance, and relevant government assistance programs and services
- . Assist exporters in carrying out their export activities, including acquiring marketing information on tariff rates, financing, insurance, customs, etc., and liaising with trade posts and other federal export agencies
- . Provide an introduction for exporters to foreign buyers and others who can assist the firm's export trade efforts, directly and by referral
- . Provide exporters with earliest possible information on relevant market opportunities acquired from DEA and trade posts abroad, provincial governments, domestic and foreign publications, international banking agencies, and other organizations involved with export trade
- . Utilize the PEMD program to assist in determining the regional enterprises most in need of export trade counselling and take appropriate action with the firms to develop an effective, longer term marketing plan

The following trade promotion publications aimed at exporters or potential exporters are also provided free of charge:

- . A Guide for Canadian Exporters: a series of booklets with pertinent information useful in conducting a successful business trip to a specific country or area (gradually replacing the older series Markets for Canadian Exporters)

- Canada's Export Development Plans: in-depth studies on some of Canada's priority trading partners, with medium term perspective; includes a breakdown of industry sector opportunities and an overview of market conditions, trade relations, and trade development instruments (plans are available for Norway, Japan, Brazil, Korea, Mexico, Australia, Federal Republic of Germany, France, and Saudi Arabia)
- Market Studies of the U.S.A.: (17 individual studies available)
- So You Want to Export: information and tips on how a company can enter markets abroad
- Promotional Projects Program: a thorough look at the forms and funding methods of the department's export promotion activities
- Program for Export Market Development: a series of leaflets providing information about, and applications for, each section of this program
- Commodity books: trade directories, intended for distribution outside Canada, on various industry sectors, such as automotive, agricultural, aerospace, and urban transit
- Businessmen's Directory of Trade Representation Abroad
- CANADEXPORT: a biweekly newsletter with current export market information

CONTACTS:

British Columbia
 Director
 Trade and Tourism
 Department of Regional
 Industrial Expansion
 1055 Dunsmuir Street
 P.O. Box 49178
 Bentall Centre, Tower IV
 Vancouver, B.C.
 V7X 1L8

Alberta
 Trade, Tourism and Small
 Business
 Department of Regional
 Industrial Expansion
 The Cornerpoint Bldg., Suite 505
 10179-105 Street
 Edmonton, Alberta
 T5J 3S3

Telephone: (604) 661-2260

Telephone: (403) 420-2944

CONTACTS (CONT'D):

Saskatchewan

Director
Trade Promotion and
Community Relations
Department of Regional
Industrial Expansion
Bessborough Tower
Suite 814
601 Spadina Crescent East
Saskatoon, Sask.
S7K 3G8

Telephone: (306) 665-4343

Ontario

Director
Trade Development
Department of Regional
Industrial Expansion
1 First Canadian Place
Suite 4840
P.O. Box 98
Toronto, Ontario
M5X 1B1

Telephone: (416) 365-3760

Nova Scotia

Director
Trade and Tourism
Department of Regional
Industrial Expansion
Suite 1110
Duke Tower, Scotia Square
Halifax, Nova Scotia
B3J 1P3

Telephone: (902) 426-7540

New Brunswick

Director
Trade, Tourism &
Regional Operations
Department of Regional
Industrial Expansion
P.O. Box 578
590 Brunswick Street
Fredericton, N.B.
E3B 5A6

Telephone: (506) 452-3139

Manitoba

Director
Trade and Tourism
Department of Regional
Industrial Expansion
3 Lakeview Square - 4th Floor
185 Carlton Street
Winnipeg, Manitoba
R3C 2V2

Telephone: (204) 949-4099

Quebec

Director General
International Trade
Department of Regional
Industrial Expansion
Stock Exchange Tower
800 Victoria Square
P.O. Box 247
Montreal, Quebec
H4Z 1E8

Telephone: (514) 283-6779

Prince Edward Island

Director
Tourism and Export Trade
Department of Regional
Industrial Expansion
Confederation Court
134 Kent Street
P.O. Box 1115
Charlottetown, P.E.I.
C1A 7M8

Telephone: (902) 566-8551

Newfoundland

Director
Tourism and Trade Development
Department of Regional
Industrial Expansion
Parsons Bldg.
90 O'Leary Avenue
P.O. Box 8950
St John's, Newfoundland
A1B 3R9

Telephone: (709) 737-5511

CONTACTS (CONT'D):

Publications may be requested through:

Distribution, Trade Publications
Department of External Affairs
Lester B. Pearson Bldg.
125 Sussex Drive
Ottawa, Ontario
K1A 0G2

Telephone: (613) 995-6720

7. DEPARTMENT OF REGIONAL INDUSTRIAL EXPANSION (DRIE)

7.1 PROGRAM: Business Information Centres (BIC)

OBJECTIVE: Business Information Centres are the initial contact points within DRIE for businesspeople seeking general information and guidance on federal government programs and services.

ELIGIBILITY: Canadian business community.

AVAILABLE ASSISTANCE: The Business Information Centre is available to:

- . Discuss with businesspeople their particular requests and arrange appointments with appropriate federal government officials.
- . Give advice on industrial matters related to the operations of DRIE, and guidance on departments to contact concerning particular problems.
- . Follow-up on requests, to ascertain that businesspeople have received proper attention and service.
- . Develop and maintain an information bank on federal government activities affecting business.

CONTACT: Business Information Centres are located in 10 major cities across Canada. Contact can be made through the Business Centre in Ottawa or through the regional or local offices of DRIE:

Business Centre
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 995-5771

Newfoundland
P.O. Box 8950
Parsons Bldg.
90 O'Leary Ave.
St. John's, Newfoundland
A1B 3R9

Telephone: (709) 772-4884

Local Offices:
Corner Brook
Telephone: (709) 634-8202

Prince Edward Island
P.O. Box 1115
Confederation Court Mall
134 Kent Street, Suite 400
Charlottetown, P.E.I.
C1A 7M8

Telephone: (902) 566-7400

Local Office:
Summerside
Telephone: (902) 436-4846

Local Offices (Cont'd):

Goose Bay, Labrador
Telephone: (709) 896-2741

Nova Scotia
P.O. Box 940, Station M
1496 Lower Water Street
Halifax, Nova Scotia
B3J 2V9

Telephone: (902) 426-7910

Local Office:

Sydney
Telephone: (902) 539-1842

Quebec
C.P. 247
Tour de la Bourse
800, Place Victoria,
Piec 4328
Montreal, Quebec
H4Z 1E8

Telephone: (514) 283-8185

Local Offices:

Alma
Telephone: (418) 668-3084
Drummondville
Telephone: (819) 478-3333
Quebec
Telephone: (418) 694-4826
Rimouski
Telephone: (418) 722-3282
Sherbrooke
Telephone: (819) 565-4713
Trois-Rivieres
Telephone: (819) 374-5544
Val-d'Or
Telephone: (819) 825-5260

New Brunswick
P.O. Box 1210
Assumption Place
770 Main Street
Moncton, New Brunswick
E1C 8P9

Telephone: (506) 388-6400

Local Offices:

Bathurst
Telephone: (506) 548-8907
Cocagne
Telephone: (506) 576-6672
Fredericton
Telephone: (506) 452-3130

Ontario
P.O. Box 98
1 First Canadian Place
Suite 4840
Toronto, Ontario
M5X 1B1

Telephone: (416) 365-3737

Local Offices:

London
Telephone: (519) 679-5820
Sudbury
Telephone: (705) 365-0711
Thunder Bay
Telephone: (807) 345-1011

CONTACTS (CONT'D):

Manitoba

P.O. Box 981
400-3 Lakeview Square
185 Carlton Street
Winnipeg, Manitoba
R3C 2V2

Telephone: (204) 949-4090

Local Office:

Thompson
Telephone: (204) 778-4486

Alberta

Cornerpoint Bldg.
10179-105th Street
Suite 505
Edmonton, Alberta
T5J 3S3

Telephone: (403) 420-2944

Local Office:

Calgary
Telephone: (403) 231-4575

Northwest Territories

P.O. Box 6100
Precambrian Bldg.
Yellowknife, N.W.T.
X1A 1C0

Telephone: (403) 873-6225

Saskatchewan

814 Bessborough Tower
601 Spadina Crescent East
8th Floor
Saskatoon, Sask.
S7K 3G8

Telephone: (306) 665-4400

Local Offices:

Regina
Telephone: (306) 359-6108
Prince Albert
Telephone: (306) 763-7169

British Columbia

P.O. Box 49178
Bentall Tower 4
1101-1055 Dunsmuir Street
Vancouver, B.C.
V7X 1K8

Telephone: (604) 666-1434

Local Offices:

Victoria
Telephone: (604) 388-3144
Prince George
Telephone: (604) 562-4451

Yukon

Suite 301
108 Lambert Street
Whitehorse, Yukon
Y1A 1Z2

Telephone: (403) 668-4655

7.2 PROGRAM: Business Opportunities Sourcing System (BOSS)

OBJECTIVE: BOSS is an authoritative data base on Canadian companies, their products, and the markets they serve.

ELIGIBILITY: Canadian manufacturers and trading houses.

AVAILABLE ASSISTANCE: BOSS takes individual information from Canada's manufacturing and international trading companies and incorporates it into a system that quickly and efficiently identifies Canadian suppliers for international and domestic markets.

The information is distributed to each of Canada's international trade offices, DRIE regional offices, Business Information Centres, provincial departments of industry across Canada, and purchasing branches in private industry.

BOSS:

- . provides 16,000 product codes and 32,000 product descriptions on microfiche
- . contains a list of 14,000 Canadian manufacturers and trading houses
- . provides buyers seeking particular products with supplier names
- . allows suppliers to identify users of their products to find supply opportunities
- . can be used to locate representation for trade missions and trade fairs both in Canada and abroad
- . is updated every three months
- . requires no charge to have a firm listed
- . is available free to users unless the enquiry is large, whereupon a minimal charge is levied
- . is updated annually

BUDGET: \$350,000 per year.

PROGRAM STATISTICS: BOSS information is regularly distributed to approximately 350 points - 100 foreign posts, 20 regional offices and provincial governments, 150 purchasing departments of private industries, 70 Chambers of Commerce and approximately 10 miscellaneous federal departments and libraries. Requests for information requiring specific computer runs are also received and filled (approximately 1 per day).

CONTACT: BOSS questionnaires are available from DRIE
Regional Offices, Business Information Centres, and
provincial departments of industry.

For further information contact:

D.K. Ranger
Chief
Business Opportunities Sourcing System
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 993-6868

7.3 PROGRAM: Credit Reinsurance Program (CRP)

OBJECTIVE: CRP aims to promote the establishment, growth, and development of Canadian industry by facilitating the availability of adequate long-term financing at reasonable cost to the junior industrial sector.

The program is designed to increase the flow of savings from institutions such as the pension funds and other large pools of savings in Canada into small and medium-sized businesses. At present, these institutions provide only nominal financing to smaller companies which are viewed as risky and more costly investments than mortgages, prime contractor securities and government bonds. The main effect of the CRP is to make loans to these companies more attractive investment opportunities.

ELIGIBILITY: Companies in the industrial sector that have assets of \$1 million and a good 3 to 5 year operational record are eligible. Preference will be given to Canadian-controlled companies engaged in manufacturing, processing and trade and having less than \$25 million in assets.

AVAILABLE ASSISTANCE: The government acts as a reinsurance agent for a group of private credit insurance companies licensed by the Federal Superintendent of Insurers as "Credit Insurers". These, in turn, insure the loans issued through chartered banks, trust companies and other specialized business lenders against loan losses by junior businesses. The private insurers pay the first 30% of the loss if a company fails during the term of the loan, and the government pays 85% of the remaining loss.

The insurance of loans by these facilities is intended to eliminate risk of loss that may otherwise exist for a lender. It will also make these insured loans an eligible investment for many "regulated" pools of long-term savings. The intention of this federal initiative is to make a wide range of sources of long-term funds available for investment in such insured debt.

This program is intended to complement the activities of the Federal Business Development Bank, the Small Business Loans Act, and various provincial government programs, all designed to assist the financing of smaller companies. It will also complement the traditional short and medium-term lending facilities of the Canadian banking system.

COMMENTS: Although not officially terminated the CRP is not functioning as described and no money is currently being insured through the designated "credit insurers".

CONTACT:

D.A. Phillips
Program Officer
Program Development and Operations
Branch
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 996-2501

7.4 PROGRAM: Defence Industry Productivity Program (DIPP)

OBJECTIVE: DIPP operates in support of Canada's co-operative international defence development sharing agreements. The primary objective of the program is to enhance economic growth through the promotion of viable defence or defence-related exports. The secondary objectives are to provide a defence industrial base and to develop and maintain a defence technological capability.

ELIGIBILITY: Companies incorporated in Canada that demonstrate the intent to employ advanced technology to develop a defence-oriented capability or capacity directed to defence and civil export sales are eligible. Projects must be compatible with the structure, resources and potential of the company and consistent with DRIE Industry Sector Branch strategy. Projects must be substantially undertaken in Canada and the potential for an acceptable incremental return on the investment made by the company and government must be demonstrated.

AVAILABLE ASSISTANCE: Assistance is given in the form of contributions and repayable loans on a negotiated shared-cost basis. The target level of support under DIPP usually amounts to about one third of eligible costs. Higher contributions may be provided where it can be demonstrated that special circumstances or unusual risks justify an enhanced level of support.

Four types of assistance are available:

Research and Development Assistance: Contributions may be provided towards the cost of applied research and development of defence and defence-related products. Allowable costs include: engineering R&D; materials and components; construction, testing and evaluation of prototypes; and such special equipment as may be required to conduct these activities including computer aided design (CAD) equipment and systems.

Source Establishment Assistance: Contributions may be provided to share acceptable costs of establishing a Canadian company as a qualified supplier of defence or defence-related products.

Marketing Feasibility Study Assistance:

Contributions may be provided towards the cost of marketing feasibility studies to establish the specifications and characteristics of a product required to fill a market need and to determine market sector characteristics, including demand for the product and the resources and strategy required of the company to acquire a profitable market share.

Capital Assistance: Contributions may be provided to support the acquisition of advanced production equipment intended to upgrade manufacturing capability for defence and defence-related products. Acceptable types of equipment include: advanced machine tools and other machines and equipment which increase production rates, lower costs and/or increase quality levels; test and quality assurance equipment necessary for production of items to quality levels demanded by new defence technology; and data handling equipment for mechanization of inventory and production control functions, data collection, data analysis and engineering design computation.

BUDGET: 1983/84 - \$169.2 million
1984/85 - \$130.7 million

RELEVANCE TO COMMUNICATIONS INDUSTRY: Approximately 10% - 20% of the 1983/84 budget was allocated to firms in the communications sector.

CONTACTS:

Further information regarding project proposals or contributions under DIPP may be discussed with the following Program Managers of the Department of Regional Industrial Expansion, 235 Queen Street, Ottawa, Ontario, K1A 0H5.

Mr. D. Pidduck
Programs Manager
Automotive, Marine & Rail
Branch

Telephone: (613) 993-5553

Mr. P.E.J. Wilburn
Programs Manager
(Electronics)
Electronics and Aerospace
Branch

Telephone: (613) 995-6631

Mr. R.N. Samson
Programs Manager (Aerospace)
Electronics and Aerospace
Branch

Telephone: (613) 995-5707

Mr. D.W. Treble
Programs Manager
Machinery and Electrical
Equipment Branch

Telephone: (613) 992-0371

CONTACTS (CONT'D):

Mr. J. Heppell
Programs Manager
Consumer Goods, Services
and Resource Processing

Telephone: (613) 992-1048

7.5 PROGRAM: Farmers and Small Business Bond Program (FSBB)

OBJECTIVE: The FSBB Program is a tax initiative designed to reduce the cost of borrowing for qualifying small businesses, farmers and fishermen who are experiencing financial difficulty.

ELIGIBILITY: Farmers and Small Business Bonds may be issued by active firms experiencing financial difficulty.

Included are:

- . sole proprietors
- . partnerships
- . corporations eligible to claim a small business deduction and defined as small business corporations within the meaning of the Income Tax Act
- . cooperative corporations where all or substantially all of the assets are used in an active business carried on in Canada

Partnerships or individuals who are sole proprietors of an active business may be considered to be in financial difficulty if the following conditions are present:

- . the individual or partnership is in default or is expected to default on a debt held by a person with whom it deals at arm's length
- . the individual has no other personal resources outside his/her business that could reasonably be used; none of the partners could be reasonably expected to provide further financing
- . the individual or partnership is unable to obtain any further financing except through the issuance of an FSBB

A corporation may be considered to be in financial difficulty if the following conditions have been met:

- . it is in default or is expected to default on a debt held by a person with whom it deals at arm's length
- . the corporation has provided evidence from a financial institution that normally makes loans of the type required by the corporation, other than from the financial institution proposing the FSBB, that financing is not available from it
- . the beneficial shareholders and any associated corporations have each provided a written statement to the lender to the effect that they are unable to reasonably provide further financing to the corporation.

Revenue Canada, Taxation recognizes that these guidelines may not apply to all situations and that financial difficulty may be established by other means, provided that reasonable judgment is exercised by the lender in each case.

In order to qualify as a FSBB a small business debt obligation is required to be:

- a bill, note, mortgage, hypothec or similar obligation
- for an amount not less than \$10,000 and not greater than \$500,000
- for use in an active business as defined in the Income Tax Act
- issued after November 12, 1981 and before January 1, 1986
- issued for a term of not more than five years and not less than one year
- issued by the individual, partnership, or corporation and the funds used exclusively in Canada to pay debts in which the individual, partnership or corporation is in default, or could reasonably be expected to default because of inability to make payments

AVAILABLE ASSISTANCE: FSBB financing may be extended by banks, other financial institutions, any company or individual. Interest paid on an FSBB is treated as a dividend; therefore, banks and other financial institutions will not incur a tax liability on the interest received in respect of FSBB obligations.

Funds obtained through FSBB may be used for refinancing and working capital. More than one FSBB can be issued subject to certain rules that ensure that the issuer and certain related parties do not, in the aggregate, issue bonds in excess of \$500,000. The applicable interest rate is negotiable by the borrower and the lender.

PROGRAM STATISTICS: Since this program was introduced in 1981 there have been more than 2,600 loans worth more than \$500 million issued to businesses in financial trouble. Farmers accounted for over half of the total value of loans.

CONTACT: Information is available from Revenue Canada district taxation offices, or by phoning (collect) the Small Business Secretariat in Ottawa at (613) 995-9197.

7.6 PROGRAM: Industrial and Regional Development Program (IRDP)

OBJECTIVE: IRDP is the federal government's principal program to deliver direct assistance to private sector firms. The primary objective of the program is to promote industrial and regional development in Canada. IRDP is intended to stimulate investment to enhance the productivity and international competitiveness of Canadian industry.

ELIGIBILITY: Individuals, associations, partnerships, co-operatives, corporate bodies, non-profit organizations, municipalities and provincial governments are eligible for assistance under IRDP provided the project or activity is undertaken in Canada.

IRDP support is available in all regions of the country. In order that industrial development is promoted in a manner pertinent to regional needs, IRDP funds are provided on a graduated scale in the context of four "tiers". Projects in the regions of greatest need (Tier IV) will be eligible for maximum levels of IRDP support, while projects in the most developed areas (Tier I) receive a more modest "basic" level of support. All parts of the country, on the basis of census divisions, have been given a Tier I through Tier IV designation, depending on prevailing levels of employment, personal income and provincial fiscal capacity.

Eligibility of the applicant will be dependent on the type of project or activity applied for, and the tier region in which the applicant is located.

The following general program criteria will be used in assessing individual projects:

- Incrementality - No project may be supported unless it would likely not proceed, insofar as location, scope and timing are concerned, unless support is provided.
- Commercial and Economic Viability - The project and persons undertaking the project must be considered to be economically and commercially viable within reasonable bounds of risk.
- Significant Economic or Social Benefits to Canada - The project and exploitation of the results of the project must represent significant net economic or social benefit to Canada.

PROGRAM ELEMENTS: IRDP provides assistance for six major industry-related activities:

Industrial Development Climate

- Studies related to regional industrial development
- Establishment of non-profit centres conducting or supporting work related to industrial development
- Infrastructure related to regional industrial development
- Scholarships and development of courses in subject areas in which there is a deficiency
- Provision of specialized services or dissemination of scientific or technical information to benefit industrial development

Innovation

- Studies on technology transfer, market research, venture capital search and project feasibility
- Development of new, technically risky projects or processes
- Development of companies' technological capacities
- Development and demonstration of products and processes involving little technical risk
- Industrial design
- Research, development, demonstration or adaptation of pollution abatement technology

Establishment

- Studies of prospective business establishment projects
- Plant establishment

Modernization/Expansion

- Studies related to modernization or expansion projects
- Modernization or expansion of existing processes and services
- Industrial adaptation of microelectronics/electronics technology

Marketing

- Development of tourism markets
- Assistance to organizations promoting Canadian products
- Market research and strategy studies
- Program for Export Market Development (PEMD) (administered on behalf of the Department of External Affairs)

Restructuring

- Studies on restructuring projects
- Actual business restructuring

AVAILABLE ASSISTANCE: IRDP is flexible in its support mechanisms. Assistance can be provided in the form of grants, contributions, repayable contributions, participation loans and loan guarantees.

Financial support available under IRDP varies between 25% to 75% of total project costs depending on the tier group of the locality, the nature of the project, the need for support, the value for money and the government's economic objectives.

BUDGET:

1983/84: grants/contributions	\$443.295 million
loan guarantees	\$ 20. million
1984/85: grants/contributions	\$470.953 million
loan guarantees	\$ 20. million

RELEVANCE TO COMMUNICATIONS INDUSTRY: Since the program began in July, 1983 approximately 142 proposals relating to the Communications Industry have been received. Of these, 65 have been rejected, 25 accepted and as of June, 1984, 52 were still under consideration.

IRDP receives approximately 400 proposals a month with a total of 4,081 received as of May, 1984.

COMMENTS: IRDP replaces the following former programs:

- . Enterprise Development Program (EDP)
 - . Support for Technology Enhanced Productivity (STEP)
 - . Co-operative Overseas Market Development Program (COMDP)
 - . Institutional Assistance Program (IAP)
 - . Regional Development Incentives Act (RDIA)
 - . Montreal Special Area Program (MSAP)
 - . Magdalen Islands Special Area Program
- Average processing time from full disclosure to offer of assistance is 60 days
 - Period from application to establishing full disclosure can be excessive and usually requires direct departmental assistance

CONTACT:

S. Croteau
Manager
Program Policies
Program Development and Operations Branch
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 992-1390

7.7 PROGRAM: Interfirm Comparisons Program (IFCP)

OBJECTIVE: The primary objective of the Interfirm Comparisons Program is to promote the improvement of productivity and profitability of firms by comparing their performance with other firms in the same industry sector. The comparison highlights the main differences in the companies' individual results and identifies the areas which could be improved. Thus, the program provides each firm with a unique analytical tool which allows it to pinpoint its relative strengths and weaknesses. At the same time, it provides the Department of Regional Industrial Expansion with a source of information on the overall performance, needs and potential of a given industrial sector.

ELIGIBILITY: Due to the number of requests received and the limited resources available to implement the Interfirm Comparisons Program, selections are made on the basis of a number of criteria including:

- . whether sector identified offers major policy opportunities
- . whether sector offers high potential for productivity improvement
- . whether the industry associations or other representatives of the sector show a high degree of interest

Once the decision has been made to undertake a comparison in a specific industry sector, all firms identified as meeting the characteristics of this sector are invited to take part in the comparison. Participation is entirely voluntary.

AVAILABLE ASSISTANCE:

Initially, DRIE representatives, in cooperation with the management of participating firms, define the characteristics of the industry and establish a set of significant performance ratios.

Each participating firm is then visited by a representative of DRIE who collects the necessary financial and statistical data directly from the firms' officers. The data are compiled on a standardized basis in order to assure uniformity of treatment and full comparability.

Performance ratios are calculated for each firm and median results are determined for the entire group of participants, as well as for sub-groups of firms if it is found desirable to further refine the comparison in view of different characteristics

The overall results and those of each firm are analyzed and a separate confidential report is prepared for the management of each firm. After the participants have received their report, the Departmental representative visits each firm again and discusses the results with them.

In any industry sector analyzed, only the participating companies are provided with the results of the comparison. The individual company report prepared on the results of each participating firm is not shown to anyone but the management of the firm concerned. Overall industry results are used by the Department for policy formulation guidance. All company data collected are treated in absolute confidentiality and are used for interfirm comparison purposes only. No information on any individual company is provided to anyone without the written authorization of the management of these companies.

Company Reports contain:

- . A table of ratios showing the results of each participant and the median results of the group and sub-groups if applicable. No company is identified, each participant being represented by a code letter.
- . A general section dealing with concepts and definitions and describing the overall results of the group with emphasis on any striking features and correlations observed.
- . An analysis of the results of the company to which the report is sent. The strengths and weaknesses observed in the comparison with the competitors are emphasized and the relative significance of those differences is interpreted. Suggestions are made as to how the weaknesses observed could be corrected.

BUDGET: 1984/85 - \$350,000 (committed)
\$400,000 (on request from DOC for cultural industries)

PROGRAM STATISTICS: Coverage to date includes a total of sixty-one industry sectors with an overall participation of over 1,800 enterprises of all sizes. Sectors covered include various types of plastics processors, several segments of the clothing and footwear industry, manufacturers of chemical film and fabric, farm implements, wooden and upholstered furniture, windows and doors, electrical wire and cable, water pumps, etc.; also iron and steel foundries, steel fabricators, mechanical contractors, carpet distributors, die casters and computer service organizations.

COMMENTS:

- limited resources are usually committed through departmental initiatives
- willing to work cooperatively with other departments, eg. current negotiation with DOC to provide Interfirm Comparisons for cultural industries

CONTACT:

G. Rivest
Manager
Productivity Improvement Service
Market Development Branch
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 992-1722

7.8 PROGRAM: Small Business Loans Act (SBLA)

OBJECTIVE: The SBLA is designed to assist new or existing small businesses to obtain intermediate-term loans for a variety of capital improvement purposes. The legislation provides for flexible loan rates and low capital equity to qualifying businesses.

ELIGIBILITY: The SBLA loan guarantee is available to new and existing small business enterprises. For purposes of the Act, a small business is an enterprise whose annual gross revenues do not exceed \$1.5 million during the fiscal period in which the application is made. In the case of a new business, it is an enterprise whose estimated gross revenue in the first fiscal period, not less than 52 weeks, does not exceed \$1.5 million.

Loans can be made to small business enterprises in:

- . manufacturing
- . wholesale or retail trade
- . service businesses
- . construction
- . transportation
- . communications
- . real estate

Loans cannot be made:

- . to businesses engaged in finance or in a profession
- . to non-profit organizations
- . for working capital requirements
- . for repayment of existing debt

AVAILABLE ASSISTANCE: SBLA loans are available for:

- . the purchase of equipment, including the cost of installation of fixed equipment, and the renovation, improvement or modernization of existing equipment
- . the purchase or construction of new premises or the improvement or modernization of the existing premises in which the business is carried on

Loan applications under the Act are approved without unnecessary delays as SBLA-guaranteed loans are made directly between the borrower and eligible lender with no prior approval of the federal government necessary.

The maximum amount a small business may have outstanding under the Act at any one time may not exceed \$100,000. Subject to this maximum, loans can be used to finance up to:

- . 80 per cent of the cost, including installation of fixed or movable equipment
- . 90 per cent of the cost of the purchase or construction of new premises or the purchase of land, or the renovation or improvement of existing premises

The rate of interest on SBLA loans is set at one per cent over the prime lending rates of the chartered banks and fluctuates with changes in the prime lending rates for the duration of the loan.

The maximum period over which a loan can be repaid is not to exceed ten years. Installments on a loan must be paid at least annually, or more frequently at the discretion of the lender.

All SBLA loans must be secured. Security taken can be in the form of land or chattel mortgages or other security that the lender deems to be required. A borrower is also required to sign a note promising to repay the loan. Other terms and conditions are worked out between the lender and the borrower.

PROGRAM STATISTICS: In 1982 approximately \$444 million was lent to small firms under this act.

CONTACT:

H. Juelick
Manager
Small Business Loans Administration
Department of Regional Industrial Expansion
235 Queen Street
Ottawa, Ontario
K1A 0H5

Telephone: (613) 995-0497

Applications forms are available from all chartered banks and other designated lenders (eg. Credit Unions, trust companies).

8. EXPORT DEVELOPMENT CORPORATION (EDC)

OBJECTIVE: The Export Development Corporation (EDC) is a crown corporation that provides financial services to Canadian exporters and foreign buyers to facilitate and develop export trade. EDC services are provided to assist Canadian exporters, who are offering competitive products in terms of price, quality, delivery and service, to compete internationally.

ELIGIBILITY: EDC is sensitive to the needs of the smaller exporter. There is no minimum value of export business required to qualify for support. The corporation is prepared to tailor its facilities - within its legislative limits - to meet the specific needs of exporters with high potential for growth and competitiveness.

In facilitating and developing Canada's export trade, EDC considers that the optimization of the Canadian content of Canadian exports is one of its major objectives. It achieves this objective by setting Canadian content criteria that must be met in order for the exporter to qualify for the various services offered by EDC.

AVAILABLE ASSISTANCE: EDC services include Insurance, Guarantees, and Export Financing.

Insurance: Canadian firms can insure almost any kind of transaction involving the export of goods, services or technology against nonpayment by foreign buyers. EDC normally assumes 90% of the commercial and political risks.

The following insurances services are available:

- Global comprehensive insurance
- Global political insurance
- Selective political insurance
- Specific transaction insurance
- Loan pre-disbursement insurance
- Foreign investment insurance
- Performance security insurance
- Bid bond insurance
- Consortium insurance
- Surety bond insurance

Guarantees: The corporation issues guarantees to banks making export loans or issuing performance and bid securities. The following guarantee services are available:

- Specific transaction guarantees
- Performance security guarantees
- Bid security guarantees
- Loan guarantees

Export Financing: EDC provides export financing, at both fixed and floating rates of interest, to foreign buyers of Canadian capital goods, equipment, and services. Financing is available for export transactions that would normally warrant medium or long-term financing (EDC does not provide short-term trade financing as this is available from other financial institutions). Funds are disbursed directly by EDC to Canadian exporters on behalf of the borrower. EDC offers 6 types of financing services:

- Loans
- Multiple disbursement agreement loans
- Allocation under lines of credit
- Note purchase agreements
- Simplified note purchase
- Forfaiting

FINANCIAL ARRANGEMENTS FACILITATED BY EDC:

	<u>1983 (in thousands)</u>
Loans and related financing	969,018
Insurance & Guarantees	3,896,792
TOTAL	<u>4,865,810</u>

RELEVANCE TO COMMUNICATIONS INDUSTRY (1983): Financing for communications and electronic equipment exports accounted for approximately \$244.2 million or 25.2% of the total loans or related export financing provided by EDC.

Insurance and guarantees for the export of communications and electronic equipment accounted for approximately \$35.5 million or .9% of the total exports insured and guaranteed.

COMMENT:

- Assistance provided to the communications and electronic equipment sector was predominantly in the telecommunications field.

CONTACTS:

Head Office:

Export Development Corporation
110 O'Connor Street
Ottawa, Ontario
K1P 5T9

Telephone: (613) 237-2570

Western region

Assistant Vice-President
Western Region
Export Development Corp.
Suite 1030
One Bentall Centre
505 Burrard Street
Vancouver, B.C.
V7X 1M5

Telephone: (604) 688-8658

Quebec region

Assistant Vice-President
Quebec Region
Export Development Corp.
Suite 2724
800 Victoria Square
P.O. Box 124
Tour de la Bourse
Postal Station
Montreal, Quebec
H4Z 1C3

Telephone: (514) 878-1881

Ontario region

Assistant Vice-President
Ontario Region
Export Development Corp.
Suite 810
National Bank Building
P.O. Box 810
150 York Street
Toronto, Ontario
M5H 3S5

Telephone: (416) 364-0135

Atlantic region

Manager, Atlantic Region
Export Development Corp.
Suite 1401
Toronto-Dominion Bank Bldg.
1791 Barrington Street
Halifax, Nova Scotia
B3J 3L1

Telephone: (902) 429-0426

9. FEDERAL BUSINESS DEVELOPMENT BANK (FBDB)

OBJECTIVE: The FBDB is a Crown Corporation created to promote and assist the establishment of all types of business enterprises in Canada through the provision of financial and management services.

ELIGIBILITY: The FBDB pays particular attention to the needs of small and medium-sized businesses. The FBDB complements the services offered by financial institutions in the private sector by providing funds for worthwhile projects that would not be available elsewhere with reasonable terms and conditions.

AVAILABLE ASSISTANCE: The FBDB offers three principal services to Canada's business community: financial, investment banking and management.

Financial Services:

The Financial Services of the FBDB include term loans, loan guarantees, and a Financial Planning Program.

FBDB offers term loans to allow its customers to acquire fixed assets such as land, buildings, machinery, and equipment. These loans can be offered at floating rates or at rates fixed for periods of 1 to 5 years. Amortization can extend for longer periods depending on the nature of the financing, available security, repayment ability, etc.

Term loans can also be extended to customers to finance many other business proposals, including the purchase of an existing business. In some cases term loans can also be made to replenish or increase the working capital of a business when it has been depleted by recent capital expenditures. Working capital loans can also be granted to finance increasing sales.

FBDB attempts to structure the loan repayment terms according to the client's ability to repay.

The FBDB can also act as guarantor for a client in its dealings with a chartered bank or other financial institution. A small commission is charged for this service. The security required for a guarantee is usually the same as that required for a term loan.

The Financial Planning Program is a new FBDB program offering businesses three services to maximize their chances of getting assistance from lending institutions, investors, or government agencies. They are:

- Financial Matchmaking: A referral service whereby businesspeople with money to invest are matched with businesspeople seeking funds.
- Programmed Do-It-Yourself Kits: These kits provide all the forms, documentation, and explanations necessary to help a small business operator draw up the plans required for many of the important aspects of business. Five different kits are presently available: Arranging Financing, Forecasting and Cash Flow Budgeting, Analyzing Financial Statements, Evaluating the Purchase of a Small Business, and Credit and Collection Tips.
- Packaging of Financing Proposals: The Bank's Project Development Team places FBDB's experience in developing proposals for financing larger projects at the disposal of the client. The Team will undertake an analysis of the client's existing or proposed business and, in conjunction with the company and its advisors, will prepare a comprehensive report that will enable financial or governmental institutions to properly assess the client's application for funding. The Team will structure the financial proposal according to the specific needs of the business and will develop a package that may include a variety of financing vehicles such as short-term loans, long-term loans, equity financing, government grants, or a combination of these. After having drawn up the proposal, FBDB can also act as an intermediary on behalf of the client to present the proposal to other financial institutions for consideration.

Investment Banking:

The FBDB's Investment Banking services are intended for companies having high growth potential but little access to the capital market. The Bank's financial participation is intended to be temporary in nature, but can last for a period of time sufficient to provide a durable benefit to the company and a return for the Bank commensurate with the risk.

The FBDB's prime goal in this field is to increase the amount of risk capital available to promising small and medium-sized businesses in Canada by using its own capital, or preferably, by serving as a catalyst to attract more equity financing from private financial institutions.

When the FBDB invests its own funds in a company, its policy is generally to remain a minority shareholder and to divest itself of its holdings as soon as feasible for both the company and the Bank. This policy allows the Bank to continually rechannel its investment capital into other promising firms requiring equity.

Management Services:

The FBDB is an important source of business counselling, training and information for small and medium-sized businesses in Canada.

The following management services are available through the FBDB:

• CASE (Counselling Assistance to Small Enterprises):

Through this program more than 1,500 successful retired businesspeople assist firms in improving their methods of doing business. They provide counselling assistance in all areas of business management, including accounting, marketing, production, and personnel.

Any type of business at any stage of development is eligible for CASE counselling services as long as it has no more than 75 employees. Being a borrower from FBDB is not a prerequisite and counselling costs are moderate.

• Business Management Seminars: The FBDB seminar program consists of a variety of full-day and half-day seminars on topics such as bookkeeping, personnel, marketing, taxation, and finance. Twenty different business topics are presently covered by FBDB seminars.

• Joint Seminars: Joint Seminars are special adaptations of FBDB's regular half-day and full-day seminars. These adaptations are generally done for associations or special groups requiring seminars to meet the specific needs of their members.

- Management Clinics: A Management Clinic is a self-teaching program for business owners and those considering self-employment.

Topics include:

- How to Start and Manage a Small Business
 - Evaluating a Small Business
 - Financing a Small Business
 - Legal Structures of a Small Business
 - Insurance Needs of a Small Business
 - Basic Records for a Small Business
 - Credit and Collections for a Small Business
 - Merchandise Control for Retailers
 - Inventory Control for Manufacturers
- Owner/Manager Courses: These courses are designed and published by the FBDB especially for business-people interested in improving their management skills.
 - Minding Your Own Business (MYOB): This is a pocketbook series that presents, in a straight-forward, easy to read style, the important steps of running a successful retail, service or manufacturing business.
 - Small Business Information Service (SBIS): All branches of the Bank can provide businesspeople with a wide range of free information on the many available federal, provincial, and municipal assistance programs.
 - Publications: FBDB also publishes "Profits", a quarterly tabloid which includes a supplement entitled "Small Business News". This publication regularly features various FBDB services in addition to articles of current interest to the small and medium-sized business community.

PROGRAM STATISTICS (1983/84):

Loans authorized:

number	2,157
amount	\$ 321,172,000

Investments authorized:

number	21
amount	\$ 7,870,000

Number of loan customers at March 31, 1984	24,677
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Number of investment customers at March 31, 1984	64
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Amount outstanding or committed to loan customers at March 31, 1984	\$1,724,657,000
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Amount outstanding or committed to investment customers at March 31, 1984	\$ 42,558,000
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CASE (Counselling Assistance to Small
Enterprises):

enquiries received	21,784
assignments completed	13,497

Management training seminars:

number	1,452
participants	27,612

Small business information service:

referrals to assistance programs	71,898
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CONTACTS:

Head Office:

Federal Business Development Bank
901 Victoria Square
Montreal, Quebec

Telephone: (514) 283-5904

Mailing Address:

P.O. Box 6021
Montreal, Quebec
H3C 3C3

Regional Offices:

Atlantic

Federal Business Development
Bank
Suite 1400, Cogswell Tower
Scotia Square
Halifax, N.S.
B3J 3K1

Telephone (902) 426-7860

Ontario

Federal Business Development
Bank
250 University Avenue
Toronto, Ontario
M5H 3E5

Telephone: (416) 593-1144

British Columbia and Yukon

Federal Business Development
Bank
900 West Hastings Street
Vancouver, B.C.
V6C 1E7

Telephone: (604) 687-1300

Quebec

Federal Business Development
Bank
800 Victoria Square
Montreal, Quebec
H4Z 1C8

Telephone: (514) 283-3657

Prairie and Northern

Federal Business Development
Bank
161 Portage Avenue
Winnipeg, Manitoba
R3B 0Y4

Telephone: (204) 943-8581

10. NATIONAL RESEARCH COUNCIL (NRC)

10.1 PROGRAM: Canada Institute for Scientific and Technical Information (CISTI)

OBJECTIVE: CISTI provides a general library service acquiring and storing a wide range of scientific and technical information for use by Canadian researchers, technologists, and managers in industry, university and government.

In addition to providing national scientific and technical information services, CISTI maintains an innovative approach to information dissemination and provides national leadership in the development of new scientific and technical information systems and services.

ELIGIBILITY: Information is made available to businesses of all sizes for free or at a nominal cost.

AVAILABLE ASSISTANCE: CISTI can provide reports tailored to the needs of specific firms through on-line access to its own computers and copies of the material in its library. Advisors are also available to examine business/industry operations.

Services include:

- . literature search - providing factual and bibliographic information
- . lending and photocopying
- . Canadian Selective Dissemination of Information (CAN/SDI), a computerized national current awareness service for all major disciplines
- . Canadian On-Line Enquiry (CAN/OLE), a national on-line system for searching large data bases and ordering items at the terminal
- . union list of scientific and technical serials held in Canadian libraries
- . Health Sciences Resource Centre
- . Information Exchange Centre for federally supported research in Canadian universities
- . Canadian index of scientific and technical translations
- . scientific numeric databases
- . publication of a variety of indexes, directories, reports, etc.
- . National Science Film Library

CONTACT:

Canada Institute for Scientific
and Technical Information
National Research Council of Canada
Ottawa, Ontario
K1A 0S2

Telephone: (613) 993-1600

10.2 PROGRAM: Industrial Research Assistance Program (IRAP)

OBJECTIVE: IRAP is a multi-element program designed to increase the calibre and scope of Canadian industrial research and development (R&D) through the use of the latest available scientific, technical and R&D management resources of the federal government and other research organizations.

ELIGIBILITY: All companies incorporated either provincially or federally in Canada and engaged in activities based on technology derived from physical and life sciences and engineering are eligible for consideration. The program is generally oriented towards small and medium-sized manufacturing firms.

AVAILABLE ASSISTANCE: IRAP contributions apply toward the payment of salaries and certain employee benefits of scientists, engineers, technologists and technicians in approved positions on approved projects.

Research projects will normally last two to three years. All title and rights to the research results are retained by the company subject to the "conditions of participation" which are set forth for each program element.

PROGRAM ELEMENTS:

Field Advisory Service (IRAP-C)

The Field Advisory Service of IRAP has officers stationed in 25 locations across Canada. They provide information and guidance on industrial engineering methods and techniques to increase company effectiveness and productivity.

Experienced industrial engineers from the field offices will visit companies on request to advise them on the collection of relevant facts and data, the analysis of this data and on possible corrective actions. They will also help companies gain access to additional assistance provided through NRC and other government departments. The Industrial Technology Advisors have access to the consulting and the university communities and can make technologies from other countries available. The service is provided free of charge.

Technical Information Service (IRAP-F)

The Technical Information Service provides scientific and technical information, advice and assistance to Canadian industry. These services are particularly helpful to companies with limited technical facilities and staff, or those requiring rapid access to specialized technological information. Through IRAP-F, the latest scientific and technological knowledge is applied to solve technological problems, improve production operations, develop new products or processes and reduce costs. These services are confidential and are available free of charge.

Contributions to Firms Employing Undergraduates (IRAP-H)

IRAP-H provides assistance to small and medium-sized companies in the solution of short-term scientific, engineering and technological problems. Assistance is provided through support of university or technical college students hired to work under the guidance and supervision of IRAP Industrial Technology Advisors.

Assistance is available to cover costs of student salaries and relocation expenses.

IRAP-H serves to encourage and support new company undertakings, and to provide students with practical industrial work experience. This assistance is expected to lead to higher company productivity through increased application of science and technology.

Companies should be incorporated and have no more than 200 employees. IRAP-H is particularly suitable for those companies with limited engineering or technical resources.

Contributions to Laboratory Investigations (IRAP-L)

IRAP-L assists small and medium-sized companies to solve short-term engineering and technological problems, improve production operations, and expand or enhance their effective technology base through the use of specialized external laboratory staff and facilities.

Financial assistance is available for a portion of the costs arising from the use of specialized services and equipment available in research institutes, laboratories, universities, consulting firms, and from resource people. Total project costs cannot exceed \$6,000 for eligibility under IRAP-L. The company is reimbursed an amount equal to 75% of the authorized total cost of the contract.

By contributing to the costs of contracting out specialized technical tasks and studies, companies are able to consider and effectively pursue a broader range of projects than their existing technical base might permit.

To be eligible companies must be incorporated and have no more than 200 employees.

Contributions to Small Projects (IRAP-M)

IRAP-M was established to encourage small companies to carry out research and development projects which, although of potential importance to them, would not be carried out without technical and financial assistance. It provides financial assistance toward the salary costs of technical personnel working on specific scientific or technical projects, particularly those likely to lead to the development of new or improved products and processes. The maximum level of assistance for a project is \$30,000.

Assistance is available for company employees with appropriate qualifications and experience and for the use of research staff at external research organizations. Through support of projects of technical merit, IRAP-M serves to demonstrate the value of R&D to company growth and development and, where appropriate, to encourage the establishment or expansion of a company R&D team.

To be eligible companies must be incorporated and have no more than 200 employees.

Contributions to Large Projects (IRAP-P)

The IRAP-P element provides financial assistance to Canadian industry through support of longer-term applied industrial research projects of high technical merit. Assistance is provided through support of salaries of company scientific and technical staff working on an approved project. Support is also available for technical consultants and for sub-contracting a portion of the research activities to qualified organizations.

Projects should be scientifically feasible, technically and commercially realistic for the company and be supported by good business plans showing prospects for a high return. To be eligible, companies must be incorporated in Canada, profit-motivated, and financially sound.

BUDGET: 1983/84 - \$48 million
1984/85 - \$48 million

RELEVANCE TO COMMUNICATIONS INDUSTRY:

- communications-related proposals are predominantly under IRAP-P (contributions to large projects)
- for 1984/85 IRAP-P has a budget of 26 million with 187 active projects
- communications-related projects account for approximately 20 of the approved projects and \$2.5 million of the committed funds
- approximately half of the communications-related projects are coordinated through DOC

COMMENTS:

- a software specialist has been hired recently to assess proposals involving software development, therefore, greater opportunity for applications to software industry foreseen
- good for companies concerned with projects requiring limited equipment layout or costs other than salaries, eg. product improvement
- target application processing timeframe is 60-90 days from formal application to decision by committee - actual is currently about 140 days
- anticipate return to target timeframe within 6 months as a result of decentralization of committee decision making
- IRAP identified as a positive and effective program by the Wright Task Force on Federal Programs and Policies for Technology Development

CONTACT:

J.H. Braams
General Manager
Industrial Research Assistance Program
Industry Development Office
National Research Council
Building M-55
Montreal Road
Ottawa, Ontario
K1A 0R6

Telephone: (613) 993-2012

10.3 PROGRAM: Program for Industry/Laboratory Projects (PILP)

OBJECTIVE: PILP is designed to assist Canadian companies to undertake projects that take advantage of technology in the form of scientific and engineering knowledge and resources existing within government laboratories.

ELIGIBILITY: Canadian-based companies with the appropriate financial, managerial, technical, manufacturing and marketing capabilities can participate in this program.

Proposals from industry are evaluated using the following criteria:

- level of involvement of federal government laboratories
- economic and social benefit to Canada
- good potential market
- qualified company management
- enhancement of company R&D capability
- level of company commitment
- level of technical and commercial risk
- coincidence with national priorities
- advancement of scientific knowledge
- contribution to regional development

The PILP contribution arrangements are basically cooperative agreements between the company and the federal government whereby the company agrees to:

- carry out a research and development program that includes progress checkpoints or milestones
- maintain good technical and financial control and report to the government's project manager
- make a reasonable effort to commercialize the results in such a way as to maximize the benefit to Canada
- contribute financially to the project and seek a license for federal background technology
- supply sufficient qualified staff and facilities to the project to complete the work on schedule

ASSISTANCE AVAILABLE: PILP supports approved projects from the conceptual stage through to prototype or pilot-plant development within the company in order to provide a clear indication of whether the technology can result in a commercially viable product or service. The program helps by identifying science and technology of potential use to the

company, by assuring the cooperation of the relevant government laboratory(ies), and by providing funds. Laboratory and financial support are provided for work in industry that is designed to allow better identification of an eventual product, process or service, advance its development, and expose related economic factors including its likely social and commercial acceptability.

Funding of a project is normally effected through a contribution arrangement with the company, although in certain circumstances a procurement contract will be used. In a contribution arrangement licenses will be arranged to allow the company the use of the government's background technology. Any new intellectual property developed by the company during the PILP project will be the property of the company. Under procurement contracts, the Crown will continue to own all intellectual property, and will endeavour to arrange appropriate licenses to the participating company. Companies are normally expected to absorb a substantial percentage of the costs of contribution-based projects.

In order to provide access to government laboratories located across the country, PILP is prepared to make a financial contribution toward travel costs incurred by industry in their visits to such facilities. Such visits would be for the discussion of specific inventions or technical know-how developed in these government laboratories that represent a commercial opportunity for the industry.

BUDGET: 1983/84 - \$20.6 million
1984/85 - \$19.6 million (estimate)

RELEVANCE TO COMMUNICATIONS INDUSTRY:

- DOC coordinates PILP for communications-related technology originating in DOC laboratories.
- as of May 1984 approximately 30 projects of a total of 680 involved DOC laboratory technology and "know how".
- DOC expenditures accounted for \$921,000 of the \$20.6 million budget in 1983/84 and \$1.6 million of the \$19.6 million budget in 1984/85.

COMMENTS:

- originally established to facilitate straight technology transfer from Government Laboratories to industry, PILP will now respond to industry proposals requesting assistance with R&D requirements.
- found to be better return when companies approach with idea.
- provides broader coverage than other NRC programs (eg. IRAP) - will assist with a portion of all costs - labor, overhead, administration, travel costs, equipment, etc.
- company retains ownership of technology, therefore, attractive to industry.
- relatively fast application process (2-3 months) in comparison to others.
- appropriate for software if project meets criteria, i.e. provides proprietary edge, apparent return on investment, commercial viability.
- of the 30 projects currently with DOC the majority are telecommunications related, a few are informatics, no software projects are evident.

CO-OP TECH

- a new program CO-OP TECH was introduced in 1984 and will be a fully integrated element of PILP when the new material on the program is published.
- the CO-OP TECH Program replaces the Incubator Program.

Objective: The intent of the CO-OP TECH Program is to help Canadian firms realize their technical objectives by means of cooperative activity. A firm may locate a technical team temporarily in a laboratory of one of a number of departments or agencies of the Federal Government which have agreed to contribute space, support facilities and technical expertise to such cooperative activity.

Eligibility: To be eligible for the CO-OP TECH Program a firm must be federally or provincially incorporated and based in Canada.

Qualifying projects should show reasonable promise of assisting firms to achieve substantial benefits from sales and/or utilization of an end product which the CO-OP TECH activity helps to realize. In order to make effective cooperative use of Federal Government laboratory resources, the project should be relevant to ongoing or proposed activity in the laboratory in which the cooperative work is to take place. In addition this kind of arrangement will only be available when it can be shown that more indirect associations with the government laboratory involved would not be likely to allow the firm to achieve its objectives.

The firm will be expected to exploit the technology resulting from a CO-OP TECH project for the economic benefit of Canada.

Available assistance: THE CO-OP TECH program offers firms a single point of entry into the laboratories of the following departments and agencies of the Federal Government:

- . Agriculture Canada
- . Department of Communications
- . Energy, Mines and Resources Canada
- . Environment Canada
- . Fisheries and Oceans
- . National Research Council Canada
- . Public Works Canada
- . Transport Canada

Each of the above departments retains the freedom to entertain separate cooperative arrangements with firms outside the framework of PILP in general and CO-OP TECH in particular.

The PILP office will provide liaison between the firm and the laboratory involved and assist to:

- . Identify CO-OP TECH opportunities
- . Define terms and conditions of the agreement between the firm and the laboratory
- . Manage activities during project execution to ensure that project objectives and schedules are met and that any cost implications of the project are adequately understood and controlled

- . Support the firm in any follow-on activities where government or other agencies might be helpful

The maximum period for a team from a firm to be located in a government laboratory is three years.

Comments:

It is expected that CO-OP TECH projects will frequently lead to the generation of valuable intellectual property - some of it in the form of patentable inventions. Patents arising from inventions made during a project by the employee(s) of a firm will be the property of the employee(s) or assignee(s) as required by applicable terms of employment.

All rights to the copyright in material developed during a project shall be vested in the manner provided for in the Copyright Act and any-employee-employer agreement of the firm. All rights to industrial design developed during a project shall be vested in accordance with the provision of the Industrial Design Act. All rights to know-how and trade secrets generated by the firm during a project shall be vested in the firm.

The exploitation of any of the foregoing rights shall be the responsibility of the firm and may be accomplished in any legal manner. However, the Government of Canada shall have, for experimental and non-commercial purposes and without payment of compensation, the unrestricted use of the industrial and intellectual property and the know-how and trade secrets generated.

CONTACTS:

Dr. J.R. Vose
General Manager
Program for Industry/Laboratory Projects
Industry Development Office
National Research Council
Building M-55
Montreal Road
Ottawa, Ontario
K1A 0R6

Telephone: (613) 993-1790

DOC Contact:

J.F. LeBlanc
Manager
Industrial R&D Programs
Communications Research Centre
Department of Communications
3701 Carling Avenue
P.O. Box 11490, Station H
Ottawa, Ontario
K2H 8S2

Telephone: (613) 596-9375

11. NATURAL SCIENCES AND ENGINEERING RESEARCH COUNCIL OF CANADA (NSERC)

11.1 PROGRAM: Strategic Grants Program

OBJECTIVE: The program of Strategic Grants provides support for the initiation or the acceleration of research projects in certain identified areas of national concern. The program contributes to the training of research manpower and encourages the transfer of technology to the user sector.

Areas in which support can be obtained are:

- . biotechnology
- . communications and computers
- . energy
- . environmental toxicology
- . food/agriculture
- . industrial materials and processes
- . oceans
- . open (researchers are invited to submit proposals for research in areas other than those identified)

ELIGIBILITY: Selection panels composed of recognized scientists and engineers from the university, industry and government sectors rate proposals using the following criteria:

- . scientific merit of the proposed research
- . excellence of the applicants
- . relevance of the proposed research to the field

Research implications in terms of personnel training, technology transfer and possible commercial opportunities for Canada are also considered.

In many areas of communications, rapid technological advances require the cross-fertilization and interaction of researchers from a number of disciplines. For this reason, group research programs of a collaborative multidisciplinary nature are encouraged. Evidence that the group is a cohesive and well-integrated unit and that it is properly constituted for the requirements of the proposed research program must be given.

AVAILABLE ASSISTANCE: The Strategic Grants Program provides direct funding to approved research projects. To facilitate technology transfer to the user sector NSERC publishes summaries of current research projects funded through the program.

BUDGET: 1983/84 - 28.1 million

FIELD DESCRIPTION - COMMUNICATIONS AND COMPUTERS:

The major fields of study include:

- . microelectronics
- . components and devices
- . terminals and communications interface
- . networks
- . transmissions
- . systems

Two major research thrusts have been identified:

- research in those rapidly changing areas of communications and computers in which significant technological breakthroughs may be expected. Some examples include software engineering, networks (both voice and data), and interactive television (videotex). Such fields are often high risk.
- research proposals that build on established Canadian successes in terms of research expertise and on the ability of the user sector to utilize the research results. Such activities are often quite amenable to direct links with industry or other potential users.

The following have been recognized as appropriate areas of special interest, insofar as they apply to Communications and Computers.

- . Microelectronics/VLSI
- . Digital communications techniques
- . Optical communications technology
- . Satellite communications technology
- . Mobile communications
- . Computer-communications networks and distributed processing
- . Effective spectrum utilization
- . Teleconferencing
- . Teleinformatics
- . CAD/CAM
- . Robotics

PROGRAM STATISTICS: 154 strategic grant research projects were completed in fiscal year 1983/84. Of these 24 were in the area of communications and computers.

In fiscal year 1983/84 there were 48 new and continuing research projects in the field of communications and computers. These projects represent grants totalling \$3.475 million.

CONTACT:

I.T. Ferguson
Associate Director
Strategic Grants
Natural Sciences and
Engineering Research Council
200 Kent Street
Ottawa, Ontario
K1A 1H5

Telephone: (613) 593-6729

11.2 PROGRAM: University-Industry Program

OBJECTIVE: The University-Industry Program represents a major expansion of NSERC's initiatives at the university-industry interface. The program is aimed at promoting university-industry cooperation for research and technology development.

PROGRAM ELEMENTS: The program includes four major components:

A. Scholarships and Fellowships:

- . Industrial Research Fellowships: Industrial Research Fellowships provide doctoral graduates with an opportunity to gain industrial R&D experience. NSERC will provide industry with an annual salary contribution to a maximum of \$25,900 for periods of up to three years.

The objectives of the fellowships are:

- to encourage highly qualified scientists and engineers to seek careers with industrial organizations in Canada
- to promote the transfer of technology from the universities to industry
- to assist Canadian companies, particularly the smaller ones, to develop an improved capability in research, development and/or innovation
- to provide an opportunity for potential university faculty members to gain meaningful research and development experience in an industrial environment

BUDGET (1984/85): \$3.2 million

- . Industrial Postgraduate Scholarships: The objectives of the Industrial Postgraduate Scholarships are:
 - to encourage holders of a bachelor's or master's degree with two years of industrial work experience to enter into a program of graduate studies and research with industrial sponsorship
 - to enhance the research, development and innovation capability of Canadian industry in those fields of the natural sciences and engineering it wishes to pursue

- to develop a stronger industry/university interface
- to increase the commitment of Canadian industry to R&D and to research training in Canadian universities

NSERC will contribute (on a cost-shared basis) up to \$11,600 towards the salaries of successful candidates.

BUDGET (1984/85): \$317,000

- Undergraduate Research Awards: The Undergraduate Research Awards are intended to stimulate interest in research by providing undergraduate students with practical experience in an industrial laboratory. NSERC will contribute up to \$750 a month towards the salary of successful candidates.

BUDGET (1984/85): \$3.12 million

B. Cooperative Research and Development

The general objectives of the co-operative research and development activities are to:

- strengthen and expand the size and scope of co-operative research directed at identified industrial opportunities or problems (expansion of the former PRAI Grant program)
- encourage the establishment of co-operative facilities and the purchase of equipment to be used jointly by the university and industrial sectors
- establish industrial research chairs at universities to achieve the critical size of expertise essential for a major scientific or technological research endeavour in collaboration with industry
- increase support to university-industry exchanges of personnel

The program involves four elements:

- Co-operative R&D Projects: NSERC will provide grants to universities to conduct a wide range of R&D projects in collaboration with industry. Flexibility and shared responsibility are key features. Projects can range from short-term endeavours to commercialize an advance made in a University laboratory to longer-term research in a technology of direct interest to a specific company.
- University-Industry Exchanges - NSERC Visiting Fellowships: NSERC will provide a salary supplement to a university faculty person who spends time in an industry laboratory, or, conversely, to an established industry researcher on leave as a visiting researcher in a Canadian university. Salary support can last up to two years.
- NSERC Research Chairs: Industrial Research Chairs fund initiatives in scientific and technological fields where special opportunities and needs exist. This activity initially provides infrastructure, equipment and operating support, in addition to a component of the salary of a distinguished researcher. Emphasis is on the development and transfer of new knowledge from the university to industry, and on the training of highly qualified manpower in fields of importance to industry. A reasonable level of industry participation in terms of a monetary, equipment or personnel commitment is a prerequisite for consideration of NSERC funding.
- Shared Equipment and Facilities: the shared equipment and facilities activity is intended to:
 - increase cooperation and communication between the university-industry sectors; and
 - enhance the industrial orientation of university research and manpower training.

NSERC funds complement an industrial contribution towards the initial acquisition of advanced equipment that will be used by researchers in industry and in universities. This activity also provides for the upgrading of existing university research equipment. It is expected that access to the equipment will be determined by negotiation and an arrangement agreed upon that is satisfactory to both the university and the industrial partner.

C. University-Industry Links

NSERC supports various activities aimed at strengthening the links between universities and industry.

- Workshops and Seminars: University-Industry workshops and seminars are intended to stimulate exchanges of ideas and experience between university researchers and industry.

NSERC will provide support towards the organization of workshops and seminars involving participants from both the university and industrial sectors. Workshops can be on general themes such as new advances in technology, methods and equipment, or they can involve a group of faculty and students undertaking an in-depth analysis of a particular R&D problem faced by a company. Co-sponsored university-industry exhibits at high-technology, science or export fairs will also be assisted.

- University-Industry Affiliations: The objective of university-industry affiliations is to increase communications between the two sectors by providing financial assistance to universities for the establishment of mechanisms whereby research and development services can be provided to affiliated companies in return for a reasonable membership fee.

NSERC funds will permit universities to open liaison offices, provide space on campus for an affiliated company, circulate information bulletins, provide access to computer banks and provide other relevant services.

It is expected that an affiliateship will eventually be self-supporting as companies take out memberships, and income from fees for the provision of services increases. NSERC funding will be phased out over an agreed upon period of time.

BUDGET: In January, 1984 \$16.5 million dollars was allocated for the expansion of university-industry R&D programs. The funding is to be spread over three years as follows:

\$2.6 million in 1983/84
\$5.9 million in 1984/85
\$8.0 million in 1985/86 and thereafter

This funding will cover both the Cooperative Research and Development element and the University-Industry Links element of the University-Industry Program.

D. Canadian Microelectronics Corporation

In January, 1984 NSERC obtained \$19.5 million over five years from the federal government for the establishment of a university computerized network for the design and testing of very large scale integrated circuits.

The management of this network is the responsibility of the Canadian Microelectronics Corporation, a non-profit corporation funded by NSERC.

The network will include close to forty micro-chip design and testing stations in Canadian universities. Designs will be verified by a coordination centre located at Queen's University, which will forward the projects to Northern Telecom for fabrication.

Approval is pending for Phase II of the Canadian Microelectronics Corporation which involves the development of two central advanced research facilities for work in materials and process aspects of microelectronics technologies.

ELIGIBILITY: To qualify for most activities under the university-industry program a participating company must be:

- . incorporated federally or provincially
- . profit-motivated (state-owned corporations that operate on a cost-recovery or profit basis are also eligible)
- . financially sound
- . actively engaged in science or engineering technology or planning to develop a research facility
- . able to market any product or process developed for the benefit of the Canadian economy
- . prepared to make reasonable contributions and commitments to shared-cost ventures

COMMENTS:

- NSERC's University-Industry program complements the industrial research assistance programs of the National Research Council which help industry to solve R&D problems or to use the technological developments of government laboratories and universities

- computing and information science is a designated field of research supported through NSERC awards (includes software development)
- the University-Industry program is identified as being an especially effective program by the Wright Task Force and the one most widely praised in the course of their research. Reasons given were:
 - . high level of industry participation
 - . decisions based on peer review
 - . minimum bureaucratic complexity

CONTACTS:

P.W. Latour
Assistant Director
University-Industry Program
Natural Sciences and Engineering
Research Council
200 Kent Street
Ottawa, Ontario
K1A 1H5

Telephone: (613) 593-6789

Further information on scholarships and fellowships is available through:

J.H. Danis
Acting Director
Research Manpower
Natural Sciences and Engineering
Research Council
200 Kent Street
Ottawa, Ontario
K1A 1H5

Telephone: (613) 995-6424

12. STATISTICS CANADA

OBJECTIVE: Statistics Canada, Canada's central statistical agency, provides a wide variety of data and analysis that can be of assistance in making many business decisions.

ELIGIBILITY: Governments at every level, as well as business, labour, academic institutions, professional associations, the international statistical community and the general public use Statistics Canada data to understand social and economic trends in Canada.

AVAILABLE ASSISTANCE: Statistics range in scope from national aggregates to small area data covering a few blocks of a single municipality. Topics include manufacturing and primary industries; aspects of Canada's labour force; productivity; prices; demographic profiles; and external and internal trade.

Data are published weekly, monthly, quarterly or annually in formats to suit both large and small businesses. They include publications, microfiche, microfilm, and computer tape.

The Statistics Canada Catalogue provides a complete listing of the titles available. In addition, Statistics Canada's electronic data bank, CANSIM, provides access to more than 420,000 time series and a cross-classified bank of socio-economic information in machine-readable form.

Custom tabulations, screened to prevent disclosure of confidential information, can be provided to fill special needs. A directory listing Statistics Canada's extensive range of unpublished statistics, Sources of Unpublished Data, 1983, is available.

Statistics Canada Advisory Services staff in centres across Canada offer the following services:

- Inquiry Service: Answers requests for statistical data by telephone, letter and from visitors; provides a collection of all Statistics Canada's recent publications as well as certain historical ones for public reference; offers tabulations of certain unpublished data and other selected government statistical publications for public reference; provides visitors with study areas.

- . Professional Consultation Services: Assists both experienced and inexperienced users with data problems; advises on arranging direct access to CANSIM and other machine-readable systems; provides feedback to Statistics Canada on the statistical needs and problems of users.
- . Data Distribution and Promotion Service: Takes orders for all Statistics Canada publications and related material such as census maps and microfiche; retrieves data directly from CANSIM; provides public copying facilities for printed materials and microfiche; arranges displays to promote the use of statistical data.
- . Education Service: Provides booklets on finding and using statistics and distributes copies of the Statistics Canada Catalogue of publications; holds workshops and seminars for users on subjects of special interest; visits educational institutions to speak on statistical subjects; arranges local training courses on statistical subjects, such as basic questionnaire design, and sampling techniques.
- . Data Collection Service: Arranges for the design, management and implementation of surveys for governments, institutions and private agencies; advises on all aspects of information gathering.

CONTACTS: Statistics Canada has nine regional offices and a Central Inquiries Service in Ottawa:

OTTAWA

Lobby,
R.H. Coats Building
Ottawa, Ontario
K1A 0T6

Telephone: (613) 992-4734

HALIFAX

3rd Floor
Sir John Thompson Building
1256 Barrington Street
Halifax, Nova Scotia
B3J 1Y6

Telephone: (902) 426-5331

ST. JOHN'S

3rd Floor
Viking Bldg.
Crosbie Road,
St. John's, Newfoundland
A1B 3P2

Telephone: (709) 772-4073

STURGEON FALLS

225 Holditch St.
Sturgeon Falls, Ontario
P0H 2G0

Telephone: (705) 753-4888

MONTREAL

Suite 412
Place Guy Favreau
200 Dorchester Blvd., W.
Montreal, Quebec.
H2Z 1X4

Telephone: (514) 283-5725

WINNIPEG

6th Floor
General Post Office Bldg.
266 Graham Avenue
Winnipeg, Manitoba
R3C 0K4

Telephone: (204) 949-4020

TORONTO

10th Floor
Arthur Meighen Building
25 St. Clair Avenue East
Toronto, Ontario
M4T 1M4

Telephone: (416) 966-6586

EDMONTON

2nd Floor
Hys Centre
11010-101 Street
Edmonton, Alberta
T5H 4C5

Telephone: (403) 420-3027

REGINA

5th Floor
530 Midtown Centre
Regina, Saskatchewan
S4P 2B6

Telephone: (306) 359-5405

VANCOUVER

Main Floor
1145 Robson Street
Vancouver, British Columbia
V6E 3W8

Telephone: (604) 666-3691

Toll-free access is provided in all provinces and territories for users who reside outside the local dialing area of any of the regional reference centres.

Newfoundland and Labrador
Zenith 0-7037

Nova Scotia, New Brunswick
and Prince Edward Island
1-800-565-7192

Quebec
1-800-361-2831

Ontario
1-800-268-1151

Manitoba
1-800-282-8006

Saskatchewan
1(112) 800-667-3524

Alberta
1-800-222-6400

British Columbia (South
and Central)
112-800-663-1551

Yukon and Northern B.C. (area
served by NorthwEstel Inc.)
Zenith 0-8913

Northwest Territories (area
served by NorthwEstel Inc.)
Zenith 2-2015

13. SUPPLY AND SERVICES CANADA (SSC)

13.1 PROGRAM: Contracting-Out Policy in Science and Technology (COPST)

OBJECTIVE: The Federal Government recognizes that science and technology are vital to the physical and social structure of Canada. Since the government has many science and technology requirements to meet in support of departmental missions, its policy of contracting-out these requirements reflects its belief that it is in the national interest to encourage the fullest possible participation of Canadian industry in meeting these needs. The government has therefore provided that its mission-oriented science and technology requirements be contracted out to the private sector, and especially to Canadian industry. The intent is to stimulate industrial innovation and to provide additional benefits to the Canadian economy.

Although the contracting-out policy is primarily a procurement policy, it is intended to promote the development of a Canadian R&D capability.

ELIGIBILITY: All Canadian industries are eligible. Canadian industry means all commercial enterprises resident and operating in Canada and incorporated, registered, or recognized as such under federal or provincial legislation. This also includes industrial research institutes jointly operated by groups of such commercial enterprises.

In contracting-out the government's scientific and technology (S&T) requirements, the following factors will be taken into account:

- . the attainment of not only the specified S&T requirement, but also other government objectives such as regional dispersion of contracts, which furthers the government's goals with respect to regional economic expansion.
- . the creation of an industrial capability in Canada to perform future S&T requirements and reinforce the government's industrial, regional and science strategies. This may entail a limitation of sourcing within the competitive sourcing procedures in order to encourage regional or industrial development, and there may be cases where contracts will be directed to specific centres of excellence.

AVAILABLE ASSISTANCE: The Science Centre of the Department of Supply and Services has established the following services to facilitate the implementation of the policy of contracting-out the government's S&T requirements:

- The Bulletin: This monthly publication provides up-to-date information on science and technology requirements to be contracted-out, contracts awarded, case histories, statistical analyses of contracting activities and other information of interest to industry. It is circulated widely in the private sector and within the government.
- The Science Procurement Information Network (SPIN): This system catalogues information concerning the scientific and technical capabilities of private organizations and individuals. It will generate source lists for customer departments classified by specialties, to assist in planning for their S&T requirements. Any private sector enterprise may have information regarding its capabilities included in the network.
- Advisory Services: The Science Centre maintains an active advisory service to assist both industry and government departments in obtaining the best possible results from the contracting-out policy and to ensure a consistent standard of contract management.

The Department of Supply and Services will ensure that proprietary rights with regard to intellectual and industrial properties, technical information, designs and prototypes become vested in the Crown.

BUDGET: It is expected that \$275 million of government science requirements will be contracted out in 1983/84 and for 1984/85 it is anticipated that this will increase to \$300 million.

RELEVANCE TO COMMUNICATIONS INDUSTRY:

1982/83	195 contracts were negotiated for DOC S&T requirements reflecting \$38.9 million in committed funds.
1983/84	168 contracts were negotiated for DOC S&T requirements reflecting \$33.3 million in committed funds.

CONTACT:

K.A. Downs
Director
Corporate Relations Branch
Supply Administration
Supply and Services Canada
14A1 Place du Portage, Phase III
Hull, Quebec
K1A 0S5

Telephone: (819) 997-7116
997-2686

13.2 PROGRAM: Research and Development Unsolicited Proposals Program (UP)

OBJECTIVE: As an adjunct to the Contracting-out Policy the Unsolicited Proposals Program was established in 1974 to permit the government to respond promptly and consistently to sound and unique unsolicited proposals from the private sector in support of government science and technology missions. The aims of the program are to encourage industry to contribute to the accomplishment of government goals and to increase government's appreciation of Canadian industry R&D capabilities.

ELIGIBILITY: The program is open to Canadian industry.

In order to be accepted in principle, an unsolicited proposal must meet the following criteria which are evaluated by an interdepartmental committee chaired by the Science Centre:

- Sponsorship: the proposal must be sponsored by a department. To sponsor a proposal, a department must consider the proposal to directly support its departmental mission and to have sufficient priority that the department is prepared to make the necessary budgetary provision for directly generated follow-on costs. The sponsoring department must also designate a scientific officer who will be responsible for monitoring the technical progress of the work.
- Scientific Merit and Technical Feasibility: the proposal must be judged to have scientific merit and to be technically feasible.
- Uniqueness: the proposal must be judged to be unique by the Science Centre, to justify waiving the normal competitive procurement process. Uniqueness can mean either that the proposal offers a new and unique idea or that the proposer has a unique capability or capacity for carrying out the proposed work.

AVAILABLE ASSISTANCE: If a proposal meets the criteria and if satisfactory government funding can be arranged, a contract will be negotiated with the proposer by the Science Centre on behalf of the sponsoring department.

In those instances where an unsolicited proposal is accepted but the sponsoring department does not have sufficient funds in its current budget to finance the proposed work, the department can request the use of the Unsolicited Proposals Fund. The Fund, which is administered by the Science Centre, can be used to fund the initial stages of the work until such time as the department can obtain its own funds through the normal budgetary process.

BUDGET: 1983/84 - \$15 million
1984/85 - \$25 million (est.)

RELEVANCE TO COMMUNICATIONS INDUSTRY: In 1983/84, 682 proposals were submitted to the Unsolicited Proposals Program. Of these, 60 were communications-related. 220 proposals were accepted and contracts negotiated amounted to \$33.5 million in allocated funds (cost-shared between DSS and sponsoring departments). 18 of the communications-related proposals were accepted and contracts negotiated reflected \$5.3 million in allocated funds. DOC contributed \$2.8 million and DSS \$2.5 million.

CONTACT: N. Bhumgara
Director General
Science Centre
Supply and Services Canada
Place du Portage, Phase III
11 Laurier Street
Hull, Quebec
(Mailing Address)
Ottawa, Ontario
K1A 0S5

Telephone: (819) 997-6369

13.3 PROGRAM: Source Development Fund (SDF)

OBJECTIVE: The purpose of the SDF is to assist in harnessing the procurement programs of federal government departments and agencies to promote industrial, regional and technological development in Canada. SDF helps develop a "source" as a supplier for government when a broader market exists in which Canada could derive significant economic benefit from the investment.

ELIGIBILITY: Any Canadian-based manufacturer can apply to the SDF. Proposals must meet the following conditions:

- . there must be a current or firmly identified future requirement by a federal government department or agency;
- . there must be a significant and lasting industrial benefit to Canada; and
- . the fund can pay only incremental costs on contracts led by the Department of Supply and Services (DSS) or another authorized contracting authority on behalf of federal departments.

AVAILABLE ASSISTANCE: SDF assistance is not provided directly to suppliers but is made available through contracts let by SSC or another contracting authority on behalf of user departments. There is no percentage or upper limit value for allocation of funds. Each case will be considered according to its contribution to Canada's economic base.

Three areas of assistance are available:

Product Innovation

The SDF can assist user departments in acquiring innovative technology for test and evaluation purposes where there is a firmly identified downstream requirement. Preferred opportunities are those which, in addition to lasting industrial benefits, offer substantial operational efficiencies or product cost savings equal to or greater than the SDF investment.

"Front End" Development Cost

Where the federal government has sponsored the development or acquired the design of a product to meet its operational needs, the SDF can be used to underwrite certain costs associated with producing a final product. The SDF can also assume other front-end costs related to the building, testing and evaluation of prototypes; engineering, technical and manufacturing studies leading to deliverable specifications; and qualification and certification activity. Preferred cases will be those that offer significant technological advantage to Canada and hold prospects of substantial future sales and exports.

Increased Canadian Content

The SDF can pay certain incremental costs related to increasing the level of Canadian content in federal purchases. Canadian content can be encouraged in ways other than paying a per unit premium. The SDF can assist prime contractors in identifying and preparing Canadian sub-contractors in response to significant future federal requirements. In addition, the SDF can support the creation of a domestic source for components or materials which represent a significant cost element of an end product used by government departments. Proposals to use the SDF in support of increased Canadian content should involve a significant net economic benefit to Canada in terms of expanded investment and employment.

BUDGET: \$10 million per year

RELEVANCE TO COMMUNICATIONS INDUSTRY: Since the program began in 1981/82, 33 projects have been approved. Six of these projects were in communications-related fields reflecting approximately \$2 million in committed funds.

COMMENTS:

- a program evaluation is currently underway to ascertain whether or not the program should be continued, expanded, reduced, or terminated
- the time frame for application processing varies widely (from 5 days to over 12 months) depending on quality of application, willingness of departmental sponsor, etc.
- one of the projects approved through the SDF involved software development

CONTACT: F. Farnworth
Acting Manager
Canadian Business Opportunities Group
Supply and Services Canada
Place du Portage, Phase III
11 Laurier Street
Hull, Quebec
(Mailing Address)
Ottawa, Ontario
K1A 0S5
Telephone: (819) 994-3791

APPENDIX

REFERENCE LIST OF PUBLICATIONS

1. ABC, 1984: Assistance to Business in Canada (3rd edition)
Federal Business Development Bank
2. Government Financial Assistance Programs in Canada (3rd edition)
by J. Peter Johnson of Price Waterhouse, Published by
Butterworths, Toronto (1984).
3. The Government of Canada's Support for Technology Development,
1984, Ministry of State, Science and Technology Canada,
Published by Supply and Services Canada
4. Handbook of Grants and Subsidies of the Federal and Provincial
Governments by STM, Research and Publications, Montreal
(continually updated)
5. Industrial Assistance Programs in Canada, 1984
(8th edition) by Richard J. Fantham and Philip H. Doherty of
Ernst & Whinney, Published by CCH Canadian Limited.

