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The Honourable Herb Gray
Minister of Industry, Trade and Commerce
and
Regional Economic Expansion

The Honourable Charles Lapointe
Minister of State for Small Business and Tourism

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Editorially Speaking.....

"And summer's lease hath all too short a date....." (Shakespeare, Sonnet 18)

It seemed practical to combine the issues of July and August, from both production and readership points of view, but as the events and announcements of the past few weeks unfolded, so did the number of our pages grow. Welcome to a fatter-than-usual Canada Commerce.

While we hardly qualify for the "light summer reading" so beloved by reviewers of paperbacks, we are pleased to offer members of the business community some facts, figures and information on a variety of topics which you will find useful in the work environment. So, even if you are packing bags for a well-deserved break, find room for this issue among the sci-fi or the entertaining pursuits of M. Poirot!

Long before thoughts of summer came to tantalize winter-weary Canadians, work had begun on the creation of a new federal department to promote industrial development in all regions of Canada. The basic structure of the new department, drawing upon the sectoral strength of IT&C and the regional expertise of DREE, has now been drawn up and its proposal accepted by Treasury Board.

It remains for the necessary legislation to be approved by Parliament.

Meanwhile, good reading for all seasons.....

A.H.

If enthusiasm and dedication are the keystones to success, there is no doubt that Roger Blais will make a success of the . . .

Industrial Innovation Centre (Montreal)

Recently Canada Commerce's Bob McDonell interviewed Dr. Blais, Director of the Centre, at his labs and office at the École Polytechnique, University of Montreal.

Commerce: The innovation centre is relatively new in Canada. How does it differ from the more numerous research and development centres which have proliferated in recent years?
Dr. Blais: While the innovation centres may carry out a limited amount of research and development for clients, the basic premise of the Centre is to bring together a wide range of skills to commercialize new technological ideas.

In effect, we bring together all the technical and business skills required to assess and develop new ideas, or inventions. You may compare us to brokers in the fact that we act as a catalyst in much the same manner that a broker does.

In addition to aiding inventors, entrepreneurs and technology-based companies, we are also trying to create for professors and students in engineering, science and other disciplines a milieu in which they can acquire both the experience and skills required to participate in technological innovation.

Commerce: This latter aim would seem to be as important as the first.
Blais: In the long term, it will probably be more important since industrial innovation in Canada is an economic imperative. As competition grows more intense in our interdependent world, Canadians must grow more innovative if we are to survive as an industrial nation. In other words, innovation provides the leverage needed to take on the competition in international markets.

Therefore, it is necessary to develop the entrepreneural spirit in our future industrialists.

But, in the meantime, we must provide the funds and develop the framework that will encourage Canadians to be innovative. Thus while most of the Centre's staff, including myself, are involved in special innovation courses, most of our time and efforts are directed at assisting small firms and individuals develop their ideas and inventions into saleable products able to compete in the open marketplace.

Dr. Roger Blais

While the federal government, through the Department of Industry, Trade and Commerce/ Regional Economic Expansion, has provided $3.5 million over the next five-year period, we are expected to make the Centre self-sufficient after approximately eight years.

Commerce: Given the small and limited budget, this must be a difficult task.
Blais: Yes it is a big challenge, but also very exciting and rewarding. While we are never sure of the chances of success of any single project, I am sure that we have gathered together a team that will succeed in meeting its objectives. At the same time we are in an excellent position to evaluate all the factors that enter into the innovation process. This, in turn, will allow us to develop a series of guidelines for better management of the process, evaluation of new products and exploitation of their commercial applications.

Commerce: How does an individual or company make use of your facilities?
Blais: The inventor establishes contact with the invention analyst at the Centre and submits a complete description of his invention together with patent documents, if any. The inventor is also asked to complete a questionnaire supplied by the Centre.

The Centre uses external evaluators who examine the documents on a confidential and anonymous basis, analyzing the information according to a series of precise criteria. The Centre then sends the inventor a composite evaluation in which each factor is weighed according to its merits. This report also includes the evaluators' comments and an overall interpretation by the invention analyst.

Finally, a computer printout lists the strengths and weaknesses of the invention as well as a quantitative estimate of the chances of commercial success. Using this computerized system, it is pos-

sible to evaluate several hundred inventions each year, while providing each inventor with a personalized service. The essential objective is to assist the inventor in recognizing the merits and deficiencies of his or her invention. This way the chances of success are increased, while illusions are dispelled which could later lead to personal financial burdens or other worries.

Commerce: What happens after this initial evaluation?

Blais: The inventor is then completely free to pursue commercial development of the invention on his own, with third party assistance or with further assistance from the Centre. To enhance the services offered to Quebec inventors, for example, our Centre has concluded an agreement with the Centre de recherche industrielle du Quebec (CRIQ) whereby the two organizations agree to combine their respective resources and expertise in invention evaluation. However, each organization maintains its freedom of action and can conclude agreements with inventor entrepreneurs that are in the respective interests of each.

If the inventor decides to seek our assistance, we will:

- define a research and development program for the new product or process;
- assist in the preparation of proposals for government research grants or contracts;
- undertake market studies;
- prepare business plans and market strategies;
- prepare both technical documents and advertising material;
- present the product or process at national and international trade fairs;
- identify potential investors;
- launch a pre-production run to establish the best and most practical manufacturing system and to establish the costs of the various operations;
- assist in the preparation and negotiation of licenses and other business agreements.

In short, we can supply the entrepreneur with a complete range of services needed to commercialize his brainchild, or any services which cannot be undertaken by the entrepreneur due to lack of time or resources.

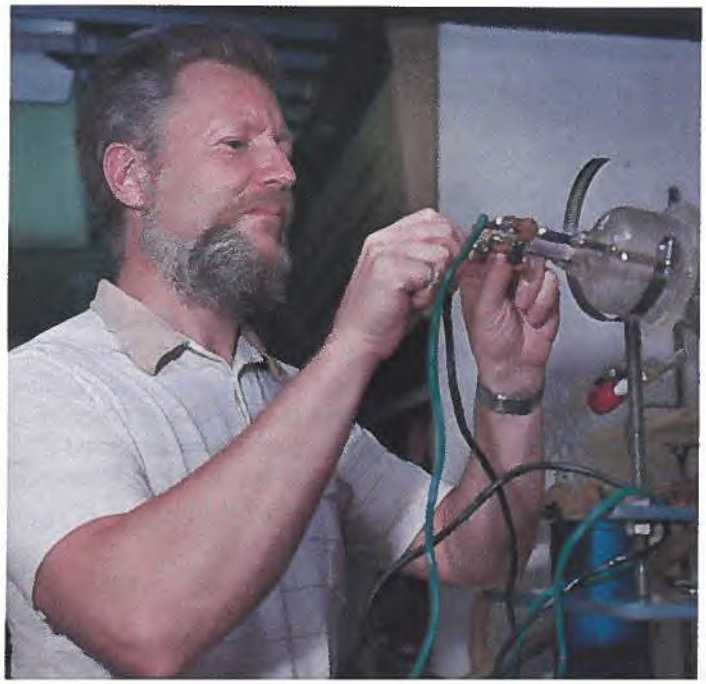
Commerce: Could you give our readers some examples of the innovations sponsored by the Centre?

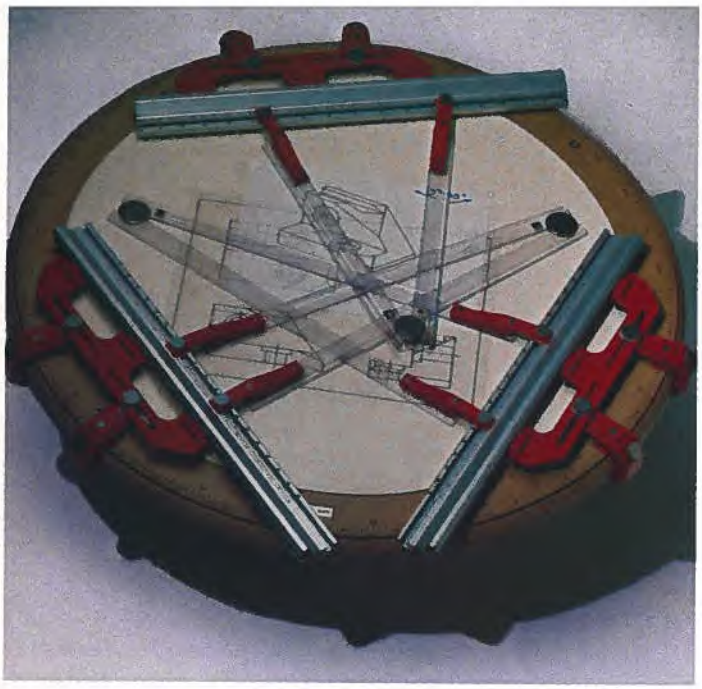
Blais: There are a number of innovations in which we have had a hand and are very proud. For example, there is the Agricola Pump which promises to be a great boon in developing countries. Field tests carried out in Africa show that it responds well to the needs of villagers. Composed entirely of strong plastic materials, it is inexpensive, light, has a high hydraulic efficiency and is easy to install and maintain. Polyenergie Inc. carries out its fabrication and international marketing.

At the other end of the technology scale there is Polyplasma Inc., which has been established to promote the research and development of a patented process developed by Drs. M. R. Wertheimer and H. P. Schriber here at École Polytechnique. Using a large volume microwave plasma generator, substrate surfaces can be coated or otherwise modified on an industrial scale. This new patented technology opens up numerous applications in corrosion and wear protection, dielectric layers for microelectronic applications and the deposition of amorphous silicon for photovoltaic cells. Development work is being further advanced here at the university.

A real winner has been Polyceram Inc. which produces ceramic tubes and crucibles using a patented Polyceram slip-casting process also developed here. The result is high purity and very low porosity in beta-alumina and other composites which are difficult to remove from traditional solid molds. In addition, Polyceram fabricates solid electrolyte probes, sensors and electrode assemblies for measuring impurities in molten metals. Sales of the company, in which the Centre has a minority interest, are expected to increase from last year's total of $25,000 to monthly and possibly weekly sales of this amount.

Dr. M.R. Wertheimer adjusts the Microwave plasma generator to test its capabilities.





The Axo-Graph drafting table.

Jacques Vincent, venture analyst, shows the various steps in the production of Polyceramic vessels . . .

To illustrate another facet of our operation, we have taken over the manufacture and sales of the Axo-Graph Drafting Table. The table was originally created by an Ottawa-based company which failed to develop the market. By entering into manufacturing agreements and fully utilizing our trade connections, it is expected that between 500 and 1,000 units will be sold this year.

Another development of which we are very proud is a high resolution amplifier which was conceived and developed by a group of electrical engineering students here at the university. Investigations have shown that the unit is better than any amplifier on the market today and so the students have assembled a number of units themselves which are receiving rave notices at international shows. Concert **3000** as the unit is called, operates at 3000 watts, four times the volume of competitive units on the market.

Commerce: Who can use your services?
Blais: While we are naturally very interested in developing the entrepreneural spirit in Quebec, the Centre is anxious to assist any Canadian company or to find innovative ideas anywhere in the world which can be the basis of new industry in Canada. And our clients can be the individual inventor or company, large or small, needing assistance.

Commerce: How do prospective clients contact you?
Blais: They may contact us by mail, phone or telex:

Industrial Innovation Centre (Montreal)
University of Montreal Campus
P.O. Box 6079, Station A
Montreal, Quebec
H3C 3A7
Phone: (514) 344-4647
Telex: Bibpolytech 05-24146

Although Canada is forging ahead on many fronts in its search for viable alternate energy, oil and gas remain the backbone of the country's energy supply. In this article, his fifth in the series on energy, Commerce's Bob McDonell examines ...

Hydrocarbons

The Major Supplier of Canada's Energy

Amid all the controversy over Canada's energy policies, it is often easy to overlook some basic facts about Canada's enviable position in the energy field.

• Canada is a net exporter of energy

Canada has been a net exporter of energy since 1969. Revenues from exports of natural gas, electricity and other energy forms have far exceeded our payments for imported oil. The overall balance improved by $73 million in 1981, despite an $803 million increase in the cost of net oil imports.

• Canada's energy conservation programs are working

While total energy demand grew by 1.4 per cent in 1980, it fell 2.1 per cent in 1981. This occurred in spite of the fact that the Canadian economy grew faster in 1981 than in 1980. While about one-third of this decline may reflect climatic trends, most is attributable to the highly successful industrial conservation program (see Dollars and Sense of Energy Conservation, Canada Commerce, March 1981)*; the Home Insulation Program (more than 1.2 million Canadians have participated) and the increase in automotive efficiency.

• Canada's dependence on imported oil is diminishing

At the 1979 Economic Summit meeting, projections of Canada's oil imports for 1985 were set at 600,000 barrels. It is now projected that less than half that amount will be imported. Central to achieving this goal is a massive oil substitution plan for the non-transportation sectors of the economy — commercial, industrial and residential — to convert to natural gas and electricity. In the words of the International Oil Agency, "So far, only a few countries have developed specific policies to promote fuel switching. Canada, with the 'off-oil conversion program' of October 1980, is the only OECD country to have adopted a comprehensive substitution policy covering all appropriate end use sectors through oil reduction targets and financial assistance."

There is little doubt that the seven per cent decline in crude oil demand in Canada in 1981 was in large measure due to the oil substitution and conservation programs. While the demand for gasoline and diesel oil dropped 1,481,928 cubic metres, the demand for stove oil and light and heavy fuel oil dropped by 9,365,938 cubic metres in 1981 over 1980. A further decline in crude oil use can be looked for when the present federal-provincial programs for propane and compressed natural gas substitution in the heavy transportation field gain momentum.

• The government's program of Canadianization of the oil industry is working

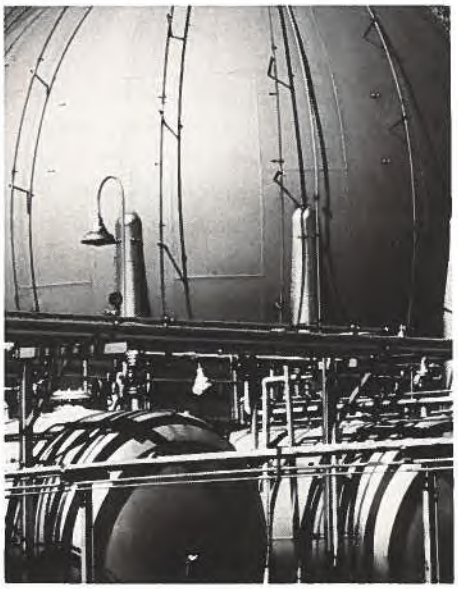
Since October 1980, Canadian control has increased from 22.3 per cent to 33.1 per cent and Canadian ownership from 28 to 34.7 per cent.

***The co-operative, voluntary, government-industry program to promote energy efficiency.**

While 1.6 per cent of these increases were accounted for by Petro Canada, by far the larger gains were made by private Canadian firms.

- **Canada is a leader in alternate energy research and development**

As outlined in the preceding articles in this energy series, Canada is a leader in the development of the peaceful uses of nuclear energy, hydrogen electrolysis, biomass and solar energy.



- **Canada's potential energy supply is among the most abundant in the free world**

When one considers the vast pools of oil trapped in the tar sands; the major finds in the Arctic islands and off the coasts; the vast deposits of coal and known reserves of natural gas; the tidal power, hydro and nuclear electrical possibilities — to say nothing of biomass and other alternatives — one can see that it is probably the very abundance of energy choices in Canada that make the short, medium and long-term options so difficult.

One fact stands out in future energy production— the new energy will be more expensive. In particular, the costs of financing the multi-million dollar projects are plagued by the uncertainties of current high interest rates, the downturn in the world's economy, the short-term glut of oil and natural gas on world markets and the possibility of severe disruptions of the market if present hostilities in the mid-East escalate into a full-fledged war between major producers.

Over the next few years Canada must marshall its resources carefully to ensure that it obtains maximum long-term benefits in the energy field.

In this vein, the federal government has concluded flexible agreements with the major producing provinces of Alberta and Saskatchewan and with British Columbia and Nova Scotia, two of the three remaining provinces with great potential in the production of hydrocarbons. These agreements provide a firm basis for planning to reach the objectives of energy security, opportunity and fairness.

At the same time, the federal government has put in place the machinery designed to ensure that Canadian firms and work force receive such fair opportunity to share in the benefits of these huge projects.

While world conditions have at least delayed many of the mega projects which, it was hoped, would provide a powerful boost to the Canadian economy — i.e. the new tar-sands projects, the Alaska pipeline, off-shore oil and gas development and major coal development — the Office of Industrial and Regional Benefits remains committed to its original mandate (see Major Projects Spell Major Opportunities, Canada Commerce, January '82).

An indication of the wide range and scope of projects in the energy field alone is the fact that this spring some 41 Canadian projects valued at more than $30 billion were in the construction, advanced planning or design stage.

Given the broad range of options open to Canadians it is small wonder then that the present cacophony exists as the numerous interest groups try to compete for attention not only for Canadian support but for a share in the huge world energy market which will develop when the world economy returns to a better balance.

In the concluding article in this series, Canada Commerce will examine the Industrial Energy Research and Development (IERD) program.

For Canadian Giftware, Jewelry and Related Consumer Products,

Texas is the Target

and the Dallas Market Center is the Way to Hit It!

by Graham Rush, Vice-Consul and Assistant Trade Commissioner, Canadian Consulate General, Dallas

For Canadian giftware, jewelry and related consumer product manufacturers there has never been a better time to look at the attractions of the Texas market. Impressive ongoing economic and population growth, spectacular expansion of retail outlets, convenient accessibility to Canada and unsurpassed wholesale merchandising facilities all go together to present the Lone Star State as an area of export opportunity in the 1980s.

There are more than 22,000 manufacturers and importers displaying products from all over the world in at least 3,000 permanent and 1,600 temporary showrooms in the Center's six buildings.

And the key to sales success in the southwestern giftware and jewelry market is in Dallas — the six-building, 670,000 m^2 (7.2 million sq. ft.) Dallas Market Center, one of the most impressive, functional and beautiful wholesale merchandising marts in the world.

Long before the gridiron triumphs of the Dallas Cowboys, the construction of one of the world's great airports or the shenanigans of J.R. Ewing out at Southfork Ranch, Dallas was quietly but steadily acquiring the facilities and reputation of a major distribution centre for consumer goods. It is one of the United States' most prosperous cities, fifth in population and second in growth with below average unemployment and living costs. At present, Big D is one of the five major distribution areas of the United States — Dallas dominates the Southwest; New York is the leading centre for the Northeast; Atlanta, the Southeast; Chicago, the Midwest; and San Francisco and Los Angeles share the western portion of the U.S.

Any statistical profile of the Dallas Market Center cannot help but impress a manufacturer looking for a sales outlet to this regional market. There are more than 22,000 manufacturers and importers displaying products from all over the world in at least 3,000 permanent and 1,600 temporary showrooms in the Center's six buildings: the World Trade Center, the Apparel Mart, the Homefurnishings Mart, the Trade Mart, the Decorative Center and Market Hall. At least 30 "markets" a year, along with daily business in the permanent showrooms annually attract more than 500,000 retail buyers.

In 1982, the Market Center has introduced a slightly altered timetable, in effect splitting the all-important fall show into two events, with jewelry the first week and giftware the following week.

A second element that should prove attractive to Canadian firms is the growing international element in the Dallas giftware and jewelry shows. Recent editions of these events have included a growing number of foreign manufacturers, including government-sponsored national exhibits, as the dynamism of the Dallas shows and the gateway they offer to the vibrant Sunbelt market become evident.

Giftware and jewelry are two of the Center's star attractions, and two current developments in these areas should make them even more so to Canadian manufacturers. First, the two main events in the giftware and jewelry calendar at the Market Center — the Fall and Spring Gift and Jewelry shows — are enjoying such an impressive level of exhibitor and buyer activity that they are to some extent outgrowing their regional character and taking on a national flavour. No matter how one looks at the figures for number of exhibitors and attending buyers, these annual shows in Dallas are giving their counterpart events in New York a run for the money.

Market Center management is naturally delighted with this growing international attention. Foreign exhibitors are encouraged to participate and this is reflected in the growing number of services being offered to the offshore gift or jewelry manufacturer by the Center to ensure profitable participation. This growing foreign presence is helping to raise local and regional buyer awareness in a part of the United States that has been less directly exposed than other areas to imported gift and jewelry items.

In addition to the main gift and jewelry shows each year, the Market Center stages a comprehensive line-up of related but more specialized events. They include the twice-yearly toy show, servicing the country's largest regional toy market; the annual Christmas Gift Show in July, with the 1982 edition including national exhibits from Belgium, Britain and France; the international Tabletop Market, an early November event featuring china, crystal, silver, linen and related accessories; the Fall Bath, Bed and Linen Show, featuring a wide range of home fashion textile items; a Cosmetics and Fragrance Market; two houseware markets each year; and the list goes on.

The upper floors, open only to professional buyers, house permanent and temporary showrooms for home furnishings, gifts, accessories, leisure goods, toys, consumer electronics, hobbies, crafts, gourmet items, housewares and floor coverings.

All the foregoing information emphasizes two important facts for the interested Canadian gift, jewelry or consumer product manufacturer. First, there is a vibrant market in Texas offering opportunities for Canadian suppliers with competitive products. Secondly, there exists in Dallas the ideal marketing mechanism by which to take advantage of these export opportunities.

The question to be answered now is: How can the Canadian manufacturer actually make best use of the Dallas Market Center facilities to ensure an effective approach to the Southwest market?

There are three points to remember:

1. Do your basic export homework first. Price lists should be in U.S. dollars, preferably on a landed Dallas basis, which includes cost plus duty, brokerage, freight and insurance. As an alternative, especially if the Canadian supplier is already selling to other American regional markets, prices quoted on an f.o.b. U.S. port of entry or warehouse basis are acceptable. One sure way to discourage possible interest in a Canadian product line on the part of a Southwest wholesaler, dis-

tributor or agent is to offer f.o.b. Canada prices in Canadian dollars. Remember, for geographical, economic and historical reasons the Southwest has probably been less exposed to Canadian products than any other regional market in the U.S. True, there is no doubt that Canadian manufacturing skills, quality control and product design in general enjoy a very positive reputation. However, the relative lack of day-to-day exposure to cross-border commerce enjoyed by their American counterparts on both coasts and in the north means that the Southwestern middleman feels much more comfortable with landed U.S. dollar prices in ascertaining a Canadian product line's competitiveness.

Other information, in addition to prices, should include brief details on present export activity (especially in other parts of the U.S.), promotional aids, production capability, package design, principal competitors, etc.

2. There are two ways to work through the Market Center in tackling the Texas market. First, by identifying and **appointing a manufacturers' agent or representative with a permanent showroom at the Market Center** who already handles complementary product lines and calls on the desired customers. Marketing through a manufacturers' agent is a promising arrangement, for the latter's knowledge of regional product preferences and peculiarities is backed by ongoing contact with distributors and retail buyers in a regional market still characterized by an informal, handshake business style. Trade commissioners and commercial officers in the Canadian Consulate General's Commercial Section will be pleased to help identify manufacturers' agents who may be interested in possible representation of your product in the Southwest. Not surprisingly, appointment of an agent can be a time consuming process of elimination. But it can hardly be called a wasteful exercise, since feedback from different agents in effect provides a de facto market survey for the product concerned. The survey can then be followed up by appropriate changes, if necessary, in price structure, delivery arrangements or package design to facilitate a more competitive product.

When a suitable rep has been appointed, his permanent showroom at the Market Center ensures year-round product exposure to retailers both during the important "market weeks" as well as during the periods between these events, when retail buyers may appear for less hectic buying sessions.

The second formula for the Canadian jewelry, giftware or consumer product manufacturer to consider in working through the Market Center is **to lease space as an exhibitor at the appropriate Market Center trade show** (often referred to simply as a "market" or "market week"). To effectively exploit this approach whether the goal is to appoint regional distributors, agents or sell directly to retail accounts, it is important for the Canadian manufacturer to consider repeat appearances in the same event. A single appearance does not suggest long term commitment to the regional market, an important factor in earning product acceptance in a part of the U.S., as mentioned earlier, that lacks traditional familiarity with Canadian products.

3. Further information on the calendar of shows at the Market Center, including details on exhibit costs, hotel accommodation, pre-show publicity, etc., is only a telephone call away at the Commercial Section of the Canadian Consulate in Dallas or at the Market Center itself. Either office stands ready to help you take advantage of wholesale merchandising facilities second to none anywhere in the world. If you write the Market Center, be sure to include a brief description of your company, its products and copies of your product literature.

For further information, contact:
Dallas Market Center
2100 Stemmons Freeway
Dallas, Texas 75207
Tel: (214) 655-6100
or
Commercial Section
Canadian Consulate General
2001 Bryan Tower, Suite 1600
Dallas, Texas 75201
Tel: (214) 742-8031

It is important for the Canadian manufacturer to consider repeat appearances in the same event.

Prairie Trade with U.S. Southwest Profitable

Trade between the three Prairie Provinces and the U.S. has been racking up positive balances worth billions of dollars in the past few years when Canada in total has been experiencing negative trade balances with that country, according to Neil Currie, until very recently Consul and Trade Commissioner with the Canadian Consulate General in Dallas, Texas.

Furthermore, the Prairie exports at least to the booming U.S. Southwest are of fully manufactured and technical products as well as of partially manufactured goods and raw materials.

These surprising facts came to light as the Dallas Consulate General analyzed trade statistics in preparation for an address to a "Doing Business in the U.S." seminar in Regina, May 6, 1982. The seminar was sponsored by the Saskatchewan Department of Industry and Commerce and by the federal Department of Industry, Trade and Commerce/Regional Economic Expansion.

Tractors and other agricultural equipment, together totalling $43.3 million, were among the leading exports from the Prairies to the Southwest in 1981, most of the equipment Prairie-inspired and Prairie-designed as well as Prairie-manufactured.

The waving wheat fields still stand and the billions of dollars worth of agricultural products still flow to the four corners of the world but the old image of the West is changing to reflect the innovative and entrepreneural spirit that is more and more making its presence felt in foreign markets.

Prairie exports to the Southwest of such technical products as motor vehicle parts, industrial machinery and aircraft parts equalled or exceeded exports of such items as organic chemicals, radioactive ores and concentrates and iron and steel.

The positive balance of trade between the Prairies and the U.S. grew from $2.9 billion in 1979 to $4.7 billion in 1980 and $5.6 billion in 1981. While natural gas and crude petroleum accounted for $6.3 billion of the $11.2 billion which the Prairies exported to the U.S. in 1981, there were substantial sales of agricultural equipment and farm tractors, industrial machinery and drilling, excavating and mining machinery as well as fully manufactured and semi-finished goods. In the same year, Canada as a whole had a negative balance of trade with the U.S. of $431 million.

Prairie exports to the Southwest, the territory served by the Consulate General in Dallas, increased from $227 million in 1980 to $657 million in 1981. Exports of tractors and other agricultural machinery from the Prairies to the Southwest increased by 45 per cent from 1979 to 1980, reaching $39.9 million, and increased again in 1981 to $46.5 million.

The inventiveness and entrepreneurship of the Prairies has been evident for some years to personnel of the Consulate General in Dallas while working with the 3i Agricultural Equipment Show in Kansas. Prairie manufacturers have dominated the Canadian participation in that show since the federal Department of Industry, Trade and Commerce first began participating in it 11 years ago. Of the 18 manufacturers who participated in the 3i Show in April of this year, all but one were from the Prairies and several other Prairie manufacturers were represented elsewhere in the show through their U.S. distributors.

Remarked the Dallas representative at the seminar in Regina, "It sometimes seems as though every second farmer has an arc welder in his workshop and he spends those long winters inventing better ways of doing things." A remarkable number have taken those better ideas and created successful manufacturing and exporting companies with them.

"Office of the Future" Field Testing to Support High Tech Industries

Despite the fact that office workers today constitute 50 to 55 per cent of the Canadian labour force and that this figure is expected to grow considerably in the near future, capital investment per office worker is low and office productivity is declining.

Much of today's office work is paper-based (wasteful and inefficient) and this is part of the problem. However, with the dramatic advances in electronics and computer technologies, the change to the much more efficient electronics-based office is fast approaching — the "Office of the Future".

To take full advantage of this electronic evolution, the federal Departments of Communications and Industry, Trade and Commerce/Regional Economic Expansion, have allocated $12 million in the 1982–1985 fiscal period to support field testing within the public service of Canadian "Office of the Future" technology.

The money will be spent under the Office Communications Systems (OCS) Program established in 1980 to help Canadian companies develop the industrial capacity to supply the growing national and international markets for integrated electronic office products and services.

Under the program a series of large field trials will be conducted within federal departments involving hundreds of public servants at all levels from clerks and secretaries to senior executives and members of Cabinet.

The trials will allow Canadian companies to perfect new equipment and services in a working environment and demonstrate proven products to buyers. If successful, the trial systems could evolve into full-scale operating systems with more than 2,000 terminals in each participating department.

Jointly administered by the two departments, the program is in response to the growing trade deficit in the Canadian office equipment and service sector. At the time the program was created, imports of office equipment were increasing at 43 per cent per year and constituted 96 per cent of all Canadian purchases in 1979–80.

It is estimated that by 1990, the Canadian market for integrated office automation systems (including electronic voice and data switching equipment, multifunctional workstations; word, data, voice and graphics-processing equipment; communications and copier equipment) will reach between $15 and $20 billion. The international market will be 20 to 25 times this size. If Canadian industry captured 40 per cent of the domestic market and five per cent of the international market, this would represent revenue of $21 billion and 140,000 jobs.

Four major field trials are planned in the current phase of the OCS program. Most of these have been proposed by groups of companies that have agreed to combine their expertise in different aspects of office technology. Bell Northern Research (BNR) has proposed to act as lead company for the Bell group in conducting a field trial in the Department of National Revenue–Customs and Excise. Another proposal would see Systemhouse Ltd. as the lead company in a field trial involving the Department of National Defence. Discussions are still underway with these companies, as well as with companies that will be involved in the two remaining trials in locations yet to be designated.

BNR, with participation from Northern Telecom and Bell Canada, is planning to experiment with a totally integrated office system which would test functions such as text messaging, file handling, text processing, tele-conferencing, decision support tools, and public data base access. The trial would use the Datapac packet switching telephone network, the iNET intelligent gateway, the Telidon Vista videotex system, the Envoy 100 public message service, the SL-1 switching system, and the Displayphone executive workstation, all developed and marketed by the Bell organization.

The BNR field trial within Customs and Excise will be conducted in three phases. Phase I will last up to 12 months and involve a study of the needs of executive, management and clerical workers in the department, and the design of a pilot system. The pilot trial would begin in Phase II and might consist of as many as 100 workstations at several locations across Canada. The third phase would begin if the pilot trial were a success. This would be the operational phase, with as many as 2,000 terminals installed in Customs and Excise offices across Canada. The first two stages of the field trial may cost more than $3 million, while the operational phase could cost about $15 million.

Systemhouse Ltd., a Canadian software and systems company with branches in a number of other countries, proposes to serve as primary contractor in the Department of National Defence trial. Systemhouse has proposed the development of new software to integrate office workstations with local access networks, data processing facilities and private and public communications systems. Systemhouse has proposed that the system be created with equipment, software and consulting services from a number of leading Canadian suppliers, including AES Data Ltd., Mitel, Canstar, Norpak, and others. This project would also cost about $3 million in the trial phases.

The field trials will also allow the government to measure the effectiveness of new technologies in improving the quality and efficiency of its services to the public. The trials will be implemented by participating departments in consultation with affected workers and their unions.

In announcing the program, the Hon. Francis Fox, Minister of Communications, said "With the rapid pace of change in office technology, it is equally important that this program address a number of contentious social and economic issues." To this end, the social and behavioral impacts sub-committee of the Canadian Videotex Consultative Committee (CVCC) will be reorganized as a national committee with a mandate to study the implications of information technology in the human context.

Dr. Anne Cameron of the University of New Brunswick will continue to chair the social impacts sub-committee in its expanded role. An interdepartmental working group has also been established within government to support the activities of the national human context committee.

"We must find out more about the impact of new office systems on working conditions, employment patterns, productivity, worker health, and individual privacy," Mr. Fox said. "In particular, we must examine the implications of new office systems as they affect employment opportunities for women, as women remain concentrated in occupations that will be greatly affected by the electronic office." The program will examine alternative methods of implementing the technology and methods of training and retraining office workers to ensure that the potential benefits of the electronic office are achieved and are equitably distributed. The OCS program staff will develop guidelines for the implementation and evaluation of the field trials in consultation with Status of Women Canada and the Women's Bureau of Labour Canada.

The Hon. Herb Gray, Minister of Industry, Trade and Commerce/Regional Economic Expansion, noted that the success of the Office Communications Systems program depends upon the close co-operation of his department through the provision of industrial development support related to the program.

"The financial support already extended by my department in the amount of $13 million to such companies as Mitel and AES to assist in the development of new high technology office communications systems has done much to enhance this co-operative effort," he said.

"The program adds a very important dimension to industrial development in that it provides a trial marketplace that should lead to better product planning and improved concepts by firms. It also provides encouragement to firms to co-operate in meeting market opportunities," Mr. Gray said.

Often called the Office of the Future program, the OCS program deals with the rapidly merging technologies of microelectronics, high-speed communications, and information management systems that are transforming the modern office. In the Office of the Future, intelligent, multifunctional workstations linked by telephone, coaxial cable, or optical fibre networks will provide access to voice, video, data, and graphics services. Each workstation will allow the office worker to perform a wide range of tasks, including word processing; tele-conferencing; storage, retrieval and sorting of information in local and remote data bases; electronic messaging and mail box services; and the processing and programming of data, text, voice, and video materials.

For more information
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Videotex and the Retailer

Even the least technology-minded of us (we'd rather line-up for 45 minutes than use that new-fangled machine at the bank) at least have a nodding acquaintance with such terms as teletext and videotex. We've surely heard of the Canadian Telidon system and its success in face of stiff competition from other systems developed in France and Britain. But all of us — policy makers and retailers, communications carriers and providers of information, systems operators and manufacturers — and the ultimate consumer — have a stake in the fact that .....

Teleshopping is Coming to Town!

by Anna Hibberd

It may be a new term to most of us, but TELESHOPPING, using videotex technology, will apparently loom large in our not-so-distant future. The extent of its effect and the exciting possibilities of its development are well drawn in the recently completed study — The New Videotex Technology and Its Impact on Retailers in Canada — by researchers Stephen B. Ash, School of Business Administration, University of Western Ontario, and John A. Quelch, who is now also associated with the Graduate School of Business Administration, Harvard University.

These gentlemen have also authored an executive summary of the study's final report which is both lively and informative. To quote from their introduction:

Teletext and videotex technologies represent a major telecommunications innovation because they have the potential to impact on many facets of **both** business and household environments. Electronic mail, for example, may change the way businesses correspond, to say nothing of reducing paper costs and increasing communications speed. On a personal level, the availability of electronic funds (EFT) could radically change banking practices. In the future, bank customers may pay bills, transfer money and perform other banking functions using a handheld keypad connected to their living room television sets. And, on a macroeconomic level, the successful implementation of this new technology could strengthen Canada's balance of payments through international sales of complete videotex systems, hardware and/or information.

A videotex service might also be used for teleshopping. Retailers — or manufacturers — might use videotex as a vehicle for advertising products, for providing product or store-related information, and/or for taking purchase orders. The potential impact on the Canadian economy could be substantial should videotex teleshopping become popular. Since the retailing sector accounts for almost one-half of Canada's gross national expenditures, only a modest percentage shift from traditional retailing to teleshopping would be needed to cause a major impact on the nation's economic structure.

While the principal objective of their study was to assess the potential impact of videotex teleshopping on the retail sector, the researchers found it necessary to examine also the perspectives of the other two key players in the distribution channel — the consumer and the manufacturer. Will consumers be interested in teleshopping? Will manufacturers be interested in promoting their products in this manner? In addition, what are the major public policy issues involved?

The search for answers included field interviews with a cross-section of interested government officials, retail executives, leaders of retail trade associations and some manufacturers. There were also focus group studies carried out in London, Ontario, which included a demonstration of the shopping service using the Telidon system.

Basically, what elements would be important for consumer acceptance and retailer involvement in teleshopping? These factors had to be identified and assessed. As outlined in the executive summary they were found to be such things as, in the case of the consumer, cost of hardware, ease of locating information, comparative prices of products and perception of system integrity; in the case of the retailer, market size, manpower and financial requirements, ability to substitute electronic for paper catalogues and ability to install an effective delivery or pick-up system for shop-at-home application.

While detailed discussion of the research results appear in the final report prepared by Messrs Ash and Quelch, they do include in their summary some of the more interesting findings. **A profile of the teleshopping-prone consumer emerges, for example:**

A younger female who is part of a two-career household and has heavy demands on her time. She is affluent, has above-average education, takes risks, seeks information, uses direct mail and is "technology fluent."

The ideal product for teleshopping is also described. According to the researchers this should be:

A strong brand with identifiable model numbers and a few, standard sizes. It should not need special customization and have little need of pre-purchase service. Sensual experience should not be important to customer's evaluation, nor should photographics/moving

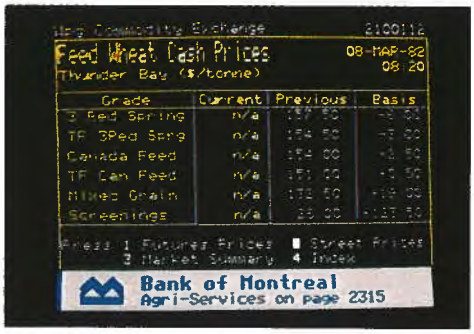
picture demonstration. It should be a familiar item where tradition of direct marketing is already established. The ideal product should also have low bulk-to-value, medium-to-low level of complexity and a limited number of attributes important to consumer decision-making. It should be a non-perishable, typically not subject to price negotiation at point-of-sale and typically not needed on an emergency basis (drugs, for example). And it should be a planned purchase type product.

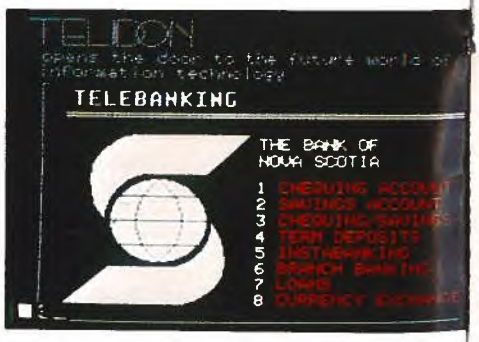
Now as far as this writer is concerned that list of attributes rules out practically everything on the shelf or in the bin. Most things just have to be sniffed or prodded or bought on the spur of the moment or haggled over. The researchers need not despair however, since the writer hardly conforms to the consumer profile either.

Keys to Success

Having identified the "ideal" product and the most likely consumer, researchers Ash and Quelch go on to identify a set of factors which they believe to be central to the commercial success of teleshopping in Canada. Although they claim that this list is not exhaustive, it appears to cover the conditions or elements which would be important to the development of electronic retailing in most comprehensive fashion. Again, we quote directly from the summary:

- To ensure successful household penetration, other attractive videotex services must be offered concurrently with teleshopping.
- An in-home videotex system, including the teleshopping service, must provide good **entertainment** value, since this is the primary motivation for purchasing this apparatus.
- Increased levels of adoption in the household segment may be achieved through imaginative use of **hybrid carrier technology** and effective **coupling** of new media forms — for example, design of a component system which capitalizes on the advantages of videotex and videodisc simultaneously.
- **Reputation** of the information provider is crucial and will be highly correlated with the frequency of page access by subscribers.
- Effective (and economical) **delivery** procedures are vital.
- **High quality page formats** providing enhanced sensory perception (i.e. "good graphics") will be central to the viability of the shop-at-home teleservice. Higher initial outlays to build these images are likely to be justifiable given the expected longer term pay off.
- Good merchandise information **content** is essential. Videotex content must demonstrate a unique advantage (or "add value") over existing competitive media forms.
- Careful selection of the **product assortment** designated for distribution through electronic means.





- Enhanced consumer **choice** through linking of data bases, i.e. evolution of gateway (network) systems.
- **Low-priced terminals** to induce adoption.
- **Payment scheme** that doesn't penalize information-seeking or browsing activity.
- One hundred per cent system **reliability**; the software is vitally important and must work properly or public confidence in the system will not be present.
- **Fast information retrieval** (i.e. efficient indexing) and transaction completion are essential. If information retrieval is too slow, or purchase too difficult to validate, the consumer will make other arrangements.
- **Currency of information,** especially price up-dating.
- Aggressive advertising and public relations promotion, perhaps on a shared basis.
- Development of a **comprehensive merchandising program** spanning all operational activities impacted by the teleshopping service.

Looking to the Future

While the researchers' task was to examine the impact of teleshopping on retail operations in Canada, the results of the study have enabled them to make tentative projections about developments in videotex technology itself. They anticipate, for example, that some 15 to 20 per cent of Canadian households will be equipped with videotex terminal equipment by 1990! But before this, they predict that in-store videotex providing a shopping information service will have led the way to actual shopping transactions using the in-home equipment. Initially, all this will be happening in high density population urban areas where the economics of delivery will pose fewer problems.

A few further glimpses into the Ash and Quelch educated crystal ball reveal probable consolidation in product sizes and a reduction in variety of merchandise, with manufacturers moving gradually into direct distribution for some items; substantial improvements in existing warehouse and depot technology to increase efficiency and significant changes in the distribution of retail overhead costs.

It is also predicted that fewer retail stores will exist in the future with those remaining integrating their in-store and non-store merchandising programs. There will be a growing need for revision of employee hiring and training programs directed to the planning and implementation of electronic merchandising.

In addition to a number of public policy recommendations contained in the study's Final Report, the researchers have come up with some ideas in the summary which they feel might lead to increased understanding of the opportunities and problems associated with teleshopping. They recommend, among other things, continued and increased government subsidization of terminals and field trials in support of teleshopping research; the formation of a joint industry/government task force with a mandate to investigate simultaneously the home banking and teleshopping services available through videotex; the design and staging of industry seminars or boardroom conferences and increased retailer involvement in the field trials of cable companies given their importance as a carrier of teleshopping information and in light of the recent CRTC licensing decision for Pay-TV in Canada.

It's a fascinating subject with implications that reach far beyond the retailing segment of the business world. Those most vulnerable to the advent of teleshopping (catalogue operators, mass merchandisers, direct mail organisations, perhaps?) will be keeping a close watch on videotex shopping developments, as will manufacturers and wholesalers.

As for consumers — the entire teleshopping concept opens up a whole new time-saving, efficient world. But if you will excuse this particular one, she's off to line up at the bank again!

Note: By the time this article appears in print, copies of the Final Report, "The New Videotex Technology and Its Impact on Retailers in Canada," should be available as well as copies of the Executive Summary. Both may be obtained by writing to the address given below or by calling (613) 593-7881.

Program Manager
Technological Innovation Studies Program
Technology Branch
Department of Industry, Trade and Commerce/Regional Economic Expansion
235 Queen Street
Ottawa, Ontario K1A 0H5

Technological Innovation Studies Program

While there can be few who doubt the need to establish industrial innovation centres such as that described in the lead article, government/business co-operation with the academic community is not limited to aiding the funding of such enterprises. Commanding less attention but perhaps equally useful are the on-going programs which work steadily to encourage academic interest in areas of vital importance to Canadian industry. The Videotex article which appears on these pages is a result of one of several such programs administered by the Technology Branch of IT&C/REE.

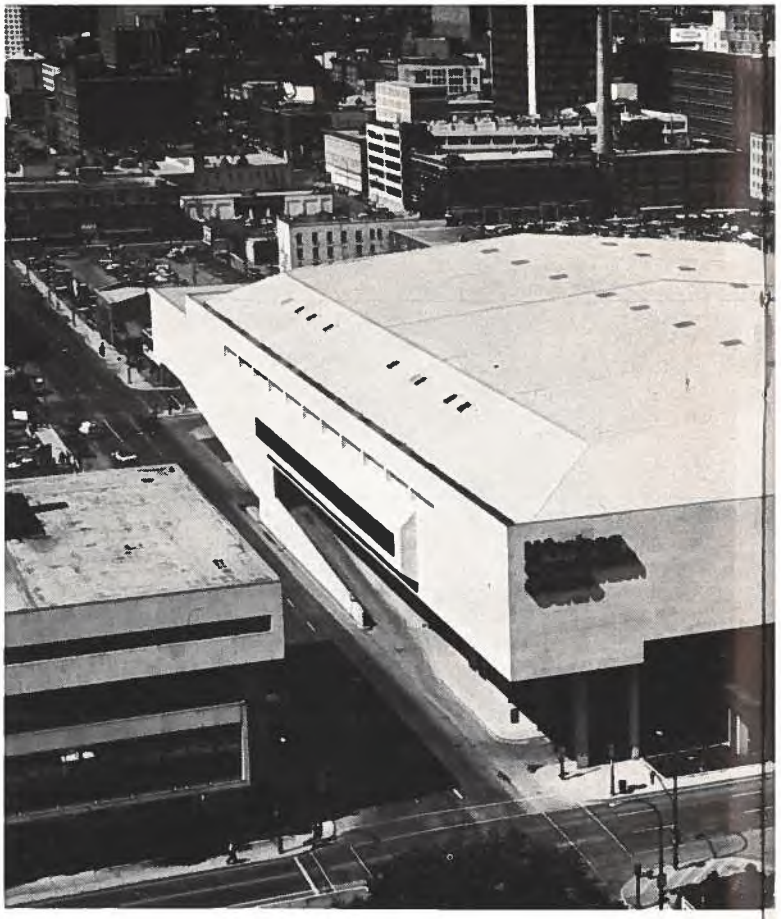
The Technological Innovation Studies Program is open to university faculty from Canadian business schools and to researchers in non-profit research/innovation oriented institutions. It provides grants in aid of research in the area of technological innovation and its management. Once a year, the Technology Branch sends out a list of research topics which reflects the current information needs of the department. **Further information about this program may be obtained from: Program Manager, Technological Innovation Studies Program, Technology Branch, Department of Industry, Trade and Commerce/Regional Economic Expansion,** 235 Queen Street, Ottawa, Ontario K1A 0H5. Tel: (613) 593-7881.

When Canadian institutions need equipment, furniture or supplies, chances are that they import them. This is a problem that has been brought increasingly to the attention of governments at all levels and, as described in this article, a step has been taken to try and alleviate the situation through ...

The Institutional Market Program — An Awareness of Potentials

by John Hughson

Question: Why do Canadian institutions, such as schools, jails, airports and government offices at all levels, import much of their necessary equipment, furniture and supplies?
Answer: Because purchasers have been largely unaware of potential and competitive Canadian sources, and manufacturers equally unaware of the potential domestic market.
Solution: Bring purchasers and manufacturers together under a program of awareness of the institutional needs, the Canadian source potential and how best to bring the two together.



Basically, this is the aim of the recently established Institutional Market Program, jointly sponsored by provincial, territorial and federal governments, each of which is contributing to the cost of the program and lending the support of their development agencies.

Among the objectives are: to open the doors more for Canadian manufacturers; make institutional purchasers more aware of the importance of buying Canadian; emphasize the size of the market potential; and provide a catalogue of potential suppliers for purchasing agents.

The program has a two-fold strategy. It will first increase awareness among purchasers and manufacturers of the problem and then identify market opportunities for manufacturers and Canadian sources for purchasers. It has been described as dealing with the "economic realities of both demand and supply with a program to inspire just a little extra effort on the part of both the purchaser and supplier."

The goal in 1982 is for a 10 per cent reduction in the amount of imported goods purchased by the institutions. It has been estimated that this could result in an extra $150 million for Canadian manufacturing.

The program consists of three elements.

The first is an awareness campaign aimed at making institutional purchasers appreciate the impact of their day-to-day decisions on the health of the Canadian economy.

This summer, each province, territorial and federal government is having its economic development agencies meet with institutional purchasing agents in its jurisdiction to explain the program and encourage co-operation in finding Canadian sources for products whose prices and quality are competitive with imports.

While the first element of the program is designed to encourage institutional buyers to look for Canadian sources for the products they need, the other two elements will help find those sources.

In the second element, Canadian manufacturers will be contacted and offered help in selling to the institutional market. They will also be given the opportunity of having their products listed in a catalogue that will be distributed to more than 15,000 institutional purchasers in Canada.

The "Made in Canada" catalogue will present the purchaser with a single document with which to discover Canadian products. It will also give him the opportunity to combine products from various Canadian manufacturers to meet his co-ordinated needs.

As one program official put it, "The objective is to make the job of sourcing in Canada as simple and efficient as possible on a continuing basis."

The final element of the program is a "reverse trade show" scheduled for the Winnipeg Convention Centre, October 12 and 13, 1982. At the show, purchasing

agents from all governments involved will display products they are now importing but for which they would like to develop Canadian sources.

The show itself has been described as a "rare opportunity for Canadian manufacturers to develop important new markets for their products and to learn about products they could be manufacturing."

At the same time, opportunities for joint ventures and licensing agreements will also be presented in the hope that new technologies can be brought to Canada.

Seminars will be held in conjunction with the show to provide manufacturers with some insight into the future of the institutional market and to assist them with the technical and financial requirements of entering this market.

Market studies have indicated six broad categories of goods in which there has been a high degree of import penetration and these are the categories the Institutional Market Program is aiming at. They include:

- Fixtures and Appliances — imports account for 71 per cent of products in this category.
- Laboratory and Scientific Equipment — imports account for 70 per cent.
- Institutional Furniture — imports account for 58 per cent.
- Sporting and Gymnasium Equipment — imports account for 59 per cent.
- Non-Print Educational Supplies — imports account for 50 per cent.
- Audio-Visual Equipment and Supplies — imports account for 80 per cent.

The problem of institutions filling their needs by imports is one that has not been fully addressed before the advent of the Institutional Market Program.

The situation has been complicated by the fact that most governments operate their purchasing systems independently from the others, as do the individual institutions. There has been no consultation or co-ordination of institutional purchasing.

In addition, Canadian manufacturing is dominated by small and medium-sized companies, few with the resources capable of coping with the complex maze of institutional buying.

A further complicating factor is that the institutional purchaser — no matter how well motivated he may be — is often so constrained by tight administrative budgets that he has little time or resources to develop Canadian sources.

The Institutional Market Program is designed to help cope with such problems by making information readily available and by bringing those concerned face to face with the possibilities of buying Canadian.

The whole concept was tested successfully in 1981 in the health care industry with the result that a new awareness of Canadian sources was developed, new markets opened and, to cap it all, new jobs created.

The health care program contained virtually all the elements of the Institutional Market Program — hospital purchasing agents were informed of competitive Canadian suppliers and manufacturers of products needed; a "reverse trade fair" was held; and a catalogue of Canadian suppliers prepared.

The show itself was described as a "smash hit", opening up new vistas for manufacturers and purchasers alike. Participants were enthusiastic and it was reported that Ontario's Ministry of Health alone signed 48 new Canadian suppliers.

Again as in the institutional program, federal, provincial and territorial governments co-operated fully in the endeavour and government officials believe that concerted effort by Canadian purchasers and manufacturers can result in a significant reduction in the current trade deficit in health care products.

Similar hopes have been expressed for the Institutional Market Program and the "reverse trade fair" in Winnipeg and officials are confident of success.

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Well-known among the business community for its long-term lending and venture capital activities, the Federal Business Development Bank ends its three-part series on "Going into Business for Yourself". Here the FBDB examines the elements involved in . . . . . .

Financing a Small Business

Financing for small business, whether in the form of borrowed dollars (debt financing) or in the form of ownership dollars (equity financing) is available from many sources, not the least important of which is the small business itself.

The manager of an ongoing business who is efficient and is constantly keeping an eye towards the future will have been putting aside a share of profits upon which he can draw, as required, for new financing. Such a manager will also be closely and critically analysing business operations to determine where else more capital can be generated.

Is inventory too large for the times? Cut it back. Are there too many and too large accounts receivable? Collect them. Is the business obtaining the most advantageous terms from suppliers? Does the business own assets that can be employed more usefully if converted to cash?

In almost every business, ways can be found to generate additional funds if the owners look carefully enough. But what about outside sources of financing? These are many and varied. They are not always, however, as readily accessible as may be wished.

Suppliers can be a source of financing by way of trade credit. With a 60-day trade credit, a business can buy inventory without an immediate cash outlay. He pays for it, instead, from the proceeds of its sale. In effect, the business is using the supplier's money without paying interest.

A supplier might also make inventory available on consignment. The business pays for each item in inventory as it is sold, thereby conserving working capital, but often under conditions imposed by the supplier and not necessarily advantageous to the business.

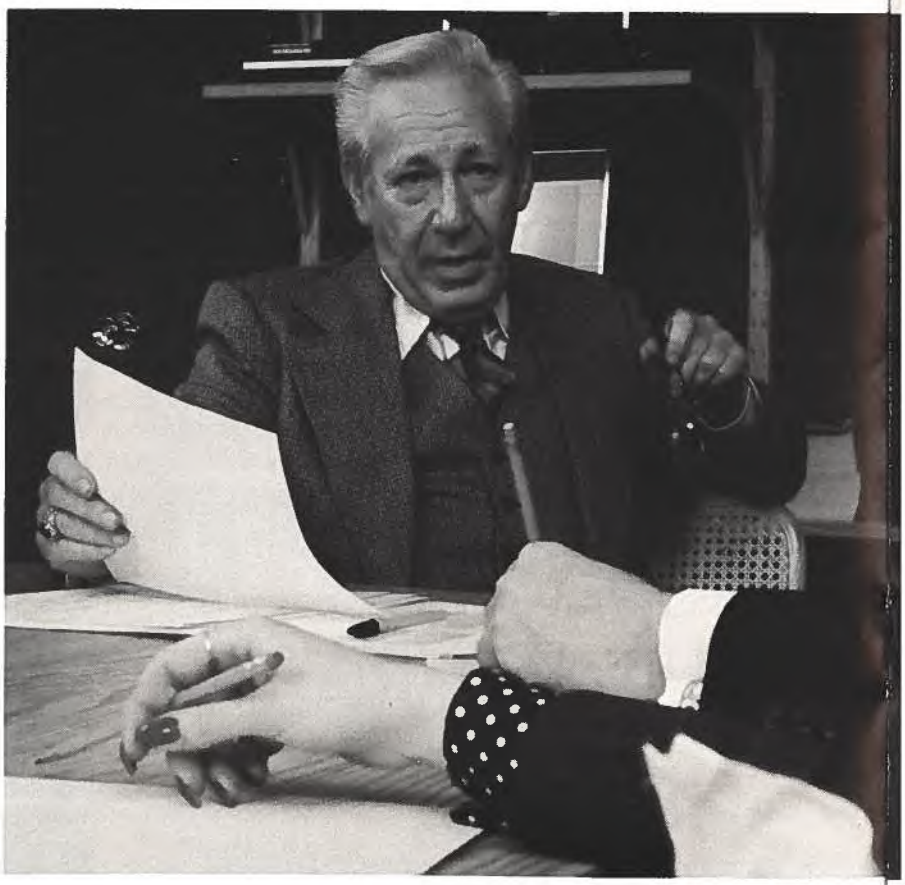
Another way of conserving funds for other uses is to obtain equipment, vehicles and other physical assets on an installment purchase plan. The total final cost may be higher but the immediate cash requirement is lower.

An alternative to the installment purchase plan is the conditional sales contract. Under the former, the business obtains possession and title to the asset. Under the latter, the business obtains possession but not title until the final payment is made.

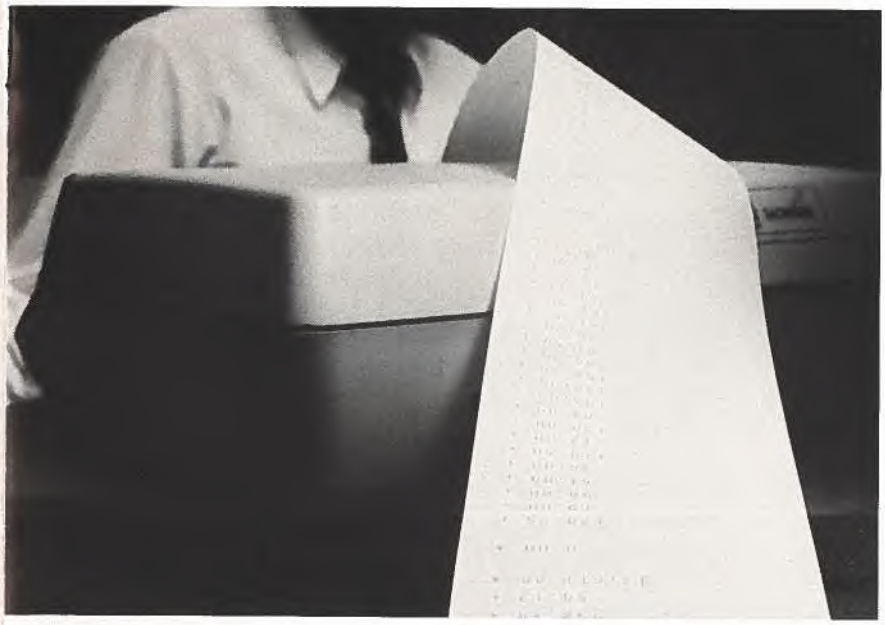
A business can obtain quick cash from the sale of its accounts receivable to a factoring company which will then assume the costs and risks of collection. The price paid for accounts receivable will be discounted according to the amount and age of the receivables and, most of all, according to the credit rating of those owing payment.

The factoring company will also charge interest for the period between the time of obtaining the money and the maturity date of the receivables. Factoring, while it provides quick cash, is generally a more expensive way of raising money than other forms of financing.

An alternative to purchasing an asset is to lease it. In this way, a business can obtain the use of a needed piece of equipment without having to purchase it although arrangements can usually be made to purchase the equipment, if wanted, at the end of the lease period.



Finance companies offer much the same types of debt financing that the banks do although interest rates and other terms will often differ. In most instances their financing will be contingent upon the security available.



Chartered banks are a prime source of financing by way of operating (demand) and term loans. These take various forms.

The line of credit (operating credit) is an agreement between the business and the bank under which the bank grants loans on request within specified limits. These loans are most often drawn when the business has seasonal or fluctuating needs for funds. They are usually secured and based on the ongoing performance of the business.

Assignment of accounts receivable differs from factoring in that the business retains control over the accounts. Instead of selling them, the business assigns them to a bank as security for a short-term loan. Assignment of accounts receivable is often a rotating security for a line of credit.

Another form of bank financing is by way of the chattel mortgage loan. This is a short or medium-term loan secured by the movable assets of its owners. The amount of the loan is subject to the lenders' evaluation of the current liquidation value of the assets.

A floating charge debenture loan, again for short, medium-term or long-term use, is a loan secured by a general claim on the total assets of the business. The bank may impose certain conditions and controls on the business in granting the loan, to ensure that the equity of the business does not fall below the level thought necessary to secure the loan.

Finally, a bank can offer a floor plan as a means of financing. Flooring (or floor plan financing) is offered where "big ticket" merchandise such as automobiles and appliances are sold. The bank pays the cost price of the merchandise and retains ownership. The retailer has possession and sells the units. The retailer signs a note in this type of financing and pays an interest charge until the merchandise is sold.

Finance companies offer much the same types of debt financing that the banks do although interest rates and other terms will often differ. In most instances their financing will be contingent upon the security available.

As was noted in the beginning, the business itself can be made a source of equity financing. Another source is the growing number of venture capital companies including venture capital divisions of banks. The insurance and mortgage companies may also prove a source of equity financing for small business although more apt to be interested in medium and large ones.

Venture capital investors generally look for a substantial position in a business and expect the value of their investment to appreciate significantly within five years.

Should you be interested in finding out more about going into business for yourself, the **Federal Business Development Bank** offers a self-instructional program, **"Financing a small business"**, which may be of interest. Known as a Management Clinic, it consists of a 20-minute audio-visual presentation and accompanying workbook. This Management Clinic is available, at a nominal charge, at any FBDB branch office across Canada.

Trade Fair Roundup

Atlantic Fisheries can Rebound, Fish Canada '82 Indicates

by W.F. (Bill) MacNeil
IT&C/REE, Halifax

Although 1981 could not be called a banner year for East Coast fisheries because of jurisdictional disputes, fish quota restrictions, increased operational costs and sagging markets, the recent **Fish Canada '82** exhibition in Halifax shows there is positive room for optimism.

Among the region's industrial bases, the fishery sector appears to have the potential for large-scale, long-term growth. And, if the response of the more than 13,000 visitors to the exhibition is any indication, it has the strength and resiliency to rebound from a slump.

With more than 3,700 m^2 (40,000 sq. ft.) of booth space on Halifax's historic waterfront, the 250 exhibitors from practically every corner of the globe displayed state-of-the-art safety equipment, fishing and vessel gear, navigational aids and communication systems.

For Canadian companies **Fish Canada '82** served the three-fold purpose of providing a forum to exchange trade news, exposure to off-shore technology, opportunities to explore joint-venture arrangements and increase sales.

The simultaneous scheduling in Halifax of the Fisheries Council of Canada's meeting was an added bonus for participants. While attending this gathering, the Hon. Romeo LeBlanc, Minister of Fisheries and Oceans, officially opened **Fish Canada '82**.

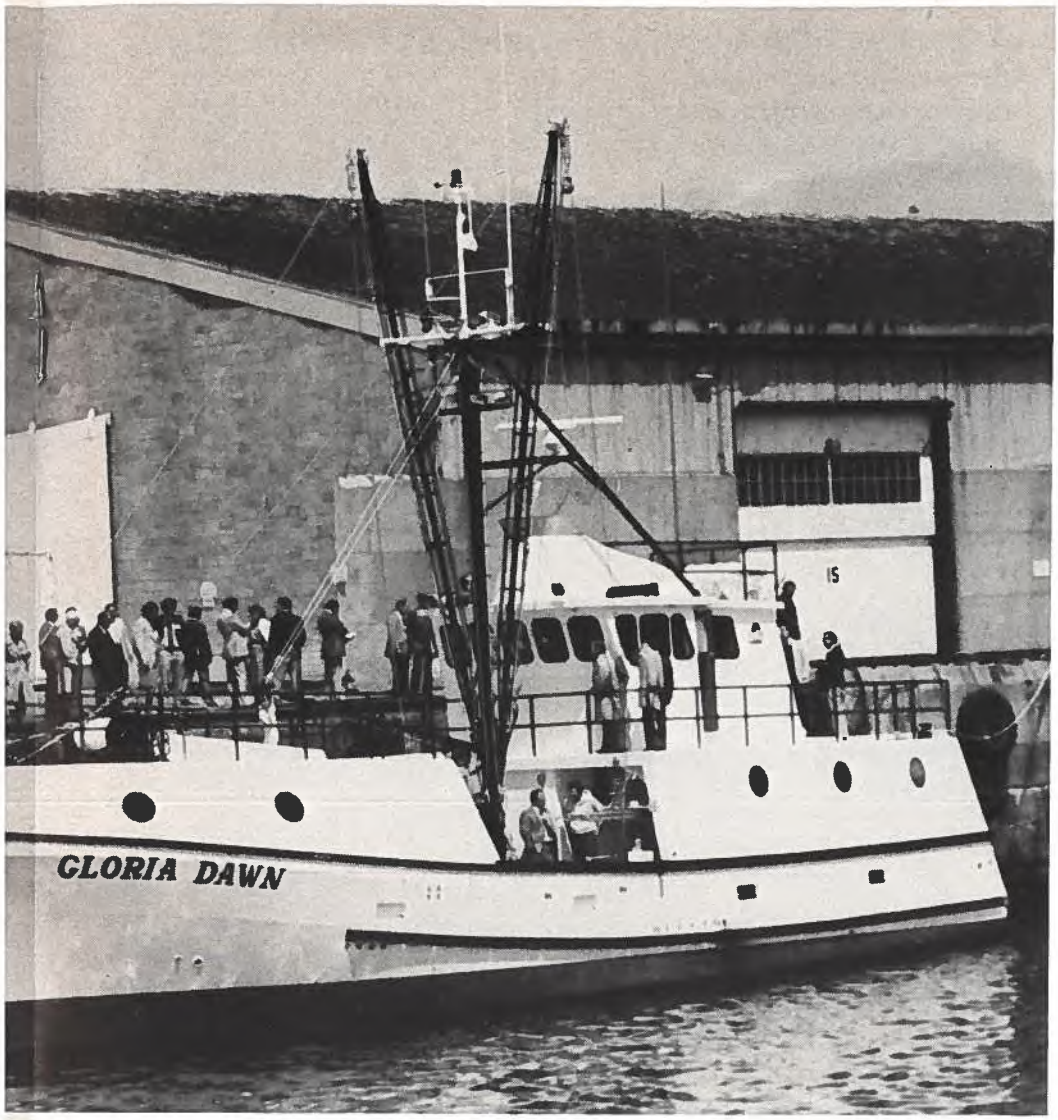
This year's exhibition was spawned a year earlier in Yarmouth, Nova Scotia. Because of the enthusiastic response to the Atlantic Fisheries Trade Fair, organizers Denman Exhibitions Limited quickly perceived the need to stage a separate, distinct Canadian show with an international flavour. Invitations were sent to would-be exhibitors and the response was prompt and favourable.

The East Coast fishing fleet is made up of more than 34,000 boats and employs approximately 61,000 fishermen or 8 per cent of the total workforce. In Nova Scotia alone manufacturing shipments contributed $400 million to the provincial coffers in 1980.

Department of Industry, Trade and Commerce/Regional Economic Expansion booth at Fish Canada '82 which attracted more than 1,000 visitors.

From the beginning the Department of Industry, Trade and Commerce/Regional Economic Expansion was keen on profiling its many programs supporting manufacturers/processors and encouraging foreign investors to seek out business opportunities for local entrepreneurs. With Atlantic Canada depending on foreign suppliers for 70 per cent of its on-shore fishing equipment, licensing and joint-venture agreements had to be encouraged.

On the second day of the exhibition the Council of Maritime Premiers convened a panel discussion



Pier 33, National Harbours Container Pier, Halifax, the site of Fish Canada '82. Visitors examine one of a number of vessels that arrived for the exhibition.

A visitor to the IT&C/REE booth at Fish Canada '82, in discussion with Clyde Beals, Ocean Industries Development Officer (centre), and receptionist Heather Smith.

entitled "Business Opportunities in Atlantic Canada". The Department was represented by Deputy Director Dale Blair, from the Halifax Regional Office.

As **Fish Canada '82** was the first promotional event since the announcement in January of the federal government's reorganization plan, the Directors General of the IT&C/REE Regional Offices decided that a single booth was essential to the public perception of the planned melding of the two departments.

The IT&C/REE booth consisted of a colourful montage focusing on the fishing projects supported under the Department's programs. Spotted throughout the exhibit were key phrases on ocean industries, industrial development, trade promotion, information services and shipbuilding support. Central to the exhibit was a globe of the world with Atlantic Canada readily identifiable. Program officers manning the exhibit were assigned the task of filling in program specifics. The effort attracted more than 1,000 visitors to the exhibit.

For the 34 companies from Newfoundland and Labrador, **Fish Canada '82** was loaded with technology. By participating under the provincial banner the exhibitors strengthened their credibility immensely, said Phillip Smith from the Promotions Group.

As a first-time exhibitor in an international showcase, Colwell Enterprises Ltd. viewed its participation as highly successful. Keith Colwell, President of the company, used the opportunity to gauge market conditions for his innovative products and, particularly, his fully automated long line system currently being developed with assistance from the Nova Scotia Region Enterprise Development Board.

A nation totally dedicated to the fishing industry, Iceland was certainly not an unexpected exhibitor at **Fish Canada '82**. As Björn Birgisson said, "With 75 per cent of our exports consisting of fish products we can little afford not to be here." Among the varied equipment displayed by the seven Icelandic firms was a highly advanced fish head splitter.

John Currie, Internav Limited, Cape Breton, was firm in his conviction that his company would benefit from participation in **Fish Canada '82**. On the edge of major breakthroughs in the most up to date navigational systems, Mr. Currie viewed the exhibit as an integral part of his marketing strategy.

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Travelling through the province of Quebec, Canada Commerce contributing editor André Fortier has come across some remarkable success stories concerning companies which have taken the plunge into the export market. Here we have two such examples...

Trans-Audio — A Company on the Move

For the first time in its history, the **International Audio Review** has rated a turntable "the best in the world". The recipient of this award is a Canadian-made turntable, the "Oracle", designed and manufactured by Trans-Audio, a young company in Sherbrooke (Québec) which received assistance from the EDP program of Industry, Trade and Commerce/Regional Economic Expansion to create this top-notch product.

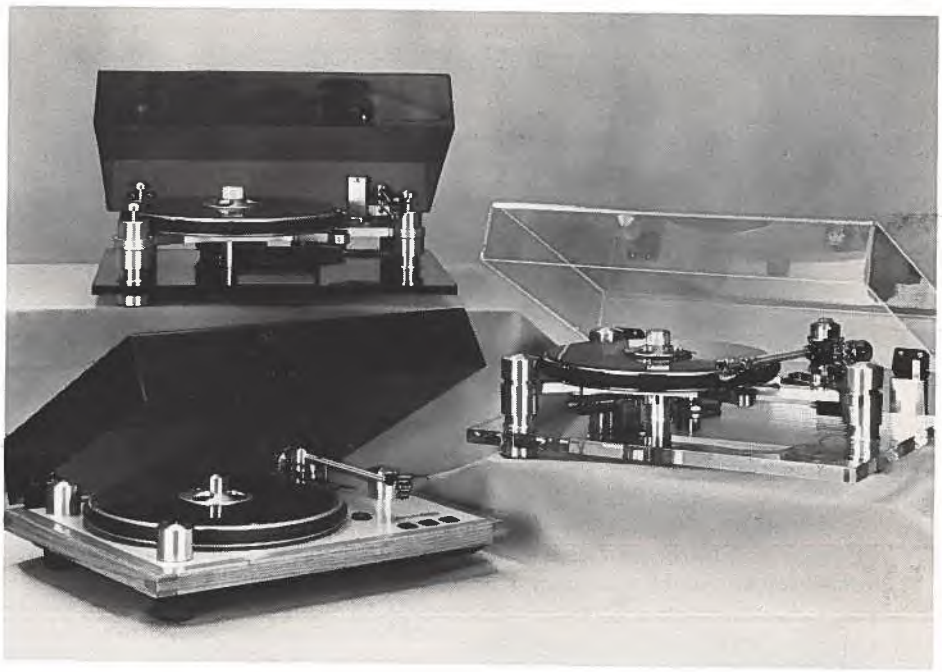
Although it has been on the market for only slightly more than two years, the "Oracle" is now sold in approximately 25 countries, mainly in the United States, but also in more than 14 European countries and all across Asia, particularly in Japan.

Until now, the turntable market has been generally dominated by "traditional" specialists such as the English and the Germans. This young Canadian firm has therefore made an important breakthrough in an exclusive market.

Trans-Audio's "Oracle" turntable has earned a number of other enviable distinctions, including first prize for design at the Salon International de Milan (1981), "Special Recognition Award" by the American magazine **AudioVideo** (September 1981), honourable mention at the Design and Engineering Exhibition in Chicago, covers of prestigious audio magazines in Canada, the United States, Germany and Britain and the "Design Canada" award of excellence (1982).

This Sherbrooke firm has a current annual turnover in the order of $1 million figure and produces approximately 2,000 "Oracle" turntables a year. The $1 million figure is perhaps not very high in itself, but the fact that the company is very young must be taken into account; it has been operating for only three years.

Until now, the turntable market has been generally dominated by "traditional" specialists such as the English and the Germans.



Also, far from resting on their laurels, Trans-Audio's directors are preparing to launch two new turntable models this summer and fall which will enable them to reach a more diversified clientele.

The "Alexandria", a popular low-cost model, will be launched next fall. This turntable will be built with moulded parts, thereby reducing its production cost. The "Studio" model will be a luxury turntable model, which, as mentioned above, should be available to music-lovers in a few weeks. The "Studio" will be completely hand-made, with individually-crafted parts and more advanced electronic controls.

These two turntables will be different in design from the original "Oracle" table, and there is every reason to believe that they will be part of the all-new high-quality tradition that helped Trans-Audio penetrate the competitive and sophisticated markets.

Trans-Audio is ranked among the best Canadian exporters of high technology products. This small company from the Eastern Townships exports approximately 70 per cent of its products.

According to a company spokesman, the high-technology needs of Trans-Audio have led certain regional companies to adapt. This has had a considerable impact on Sherbrooke and has produced new skills which could eventually be applied to various fields.

One can hardly discuss Trans-Audio and its "Oracle" miracle without mentioning its president and founder, Marcel Riendeau. Neither a technician nor an engineer, Riendeau's educational background was in philosophy. As the Trans-Audio staff likes to say, he is a philosopher with a passion for music and perfection who one day decided to develop a turntable that met his needs to the full. Apparently, the only way he could find such a turntable was to build his own.

Is he as satisfied as Trans-Audio clients around the world? We have reason to believe he is.

Chambly export firm lands $20 million Algerian contract

Algeria has just awarded Remtec Inc. of Chambly, Québec, a $20 million contract for the provision of aircraft fuel tenders, tank trucks and trailers.

Remtec may be regarded as a leading Canadian specialist in the manufacture of aircraft fuel tenders, tank trucks, street flushers, trailers and related products, chiefly because of its unrivalled technology. Its international reputation is such that exports represent 85 per cent of its $20 million annual sales figure.

Remtec's strong international market position is illustrated by another recent contract for the modernization of 90 aircraft fuel tenders, awarded to the firm by the Port Authority of New York and New Jersey. Through the years, Remtec has supplied equipment to the National Iranian Oil Company, Exxon in the United States, Venezuela, Baghdad International Airport in Iraq, the United Nations for Chad and Mali, and New York City.

Remtec's sales follow-up is probably one of the reasons for its competitive edge on the international market. For instance, one of the terms of the $20 million Algerian contract — financed by the Export Development Corporation (EDC) — was that the firm would train fuel tender operators; 38 Algerians subsequently spent two months in Chambly to familiarize themselves with the equipment before it was delivered.

On the Canadian market, Remtec's ability to specialize has earned it contracts with Ontario Hydro, Hydro-Québec, Canadair, Texaco, Shell and the James Bay Corporation. Most recently, the firm was awarded another $20 million contract for the delivery of a fleet of aircraft fuel tenders to the Armed Forces.

The line of aircraft fuel tenders manufactured by Remtec is a good illustration of the firm's ability to specialize. These tenders, equipped to deliver fuel for ultramodern turbo jets in accordance with the strictest international standards, may be chassis-mounted tanks, tank trailers or a combination of both. Remtec also manufactures "Hydrant" fuel tenders for airports with pressurized underground systems. The firm can manufacture both fuel tenders which pump 5,000 litres of fuel per minute and smaller units which pump no more than 500 litres per minute.

In addition to this line of fuel tenders, Remtec markets freight trucks, street flushers and a wide range of trailers and tank trucks, some with a capacity of more than 85 tons. Finally, Remtec manufactures tank trucks equipped with a special tunnel maintenance device.

It should also be added that the size, capacity, pumping equipment and various other features of Remtec's fuel tenders, trailers and tank trucks can be tailored to the exact specifications of its clients and different markets.

In business for more than 30 years, with modern facilities in Chambly's industrial park, Remtec is another example of a medium-sized business capable of exporting the products of its technology to markets where no competitive nation-wide firm exists as well as highly competitive markets such as that of the United States.

While its management has not hesitated to seek assistance on several occasions from the Program for Export Market Development of the federal government, it should be pointed out that the firm is also actively on the lookout for good opportunities to market its products. When it comes to exports, the people at Remtec are experts.

Zimbabwe is a microcosm of a Western industrialized country with a sophisticated infrastructure but in need of modernizing its factories. In this article, specially prepared for Canada Commerce, the author, who has recently travelled in southern Africa, describes what is being done to revitalize this nation and what opportunities exist for Canadian businessmen and manufacturers.

Zimbabwe — Closing a Trade Gap

by Scott Hatfield
Editor of the Canadian Business REVIEW of the Conference Board of Canada

International recognition of the new country of Zimbabwe under Prime Minister Robert Mugabe in April 1980 ended a long, bitter struggle for power and opened doors once again to the international trading community. Those doors had been virtually shut soon after former Prime Minister Ian Smith unilaterally declared independence from Britain on November 11, 1965, creating a trade gap between Canada and what was then Rhodesia.

The country is self-sufficient in food. . . . . But 15 years of isolation from the international trading community has caused demand for new capital and equipment.

But Canadian exports to Zimbabwe have shot up to $6.7 million in 1981 from $593,000 in 1980 and $130,000 in 1979, helping close a gap created during the civil war from 1973 to 1980 on top of 15 years of trade sanctions.

Zimbabwe is now in the third year of readjusting its economy and restructuring its entire social fabric. It is going through a transformation. The year 1982 has been so labelled — the year of transformation.

In the past two-and-a-half years, Prime Minister Mugabe has been trying to encourage economic growth while promoting his socialist political philosophy. To achieve his long-term goal of a socialist state, he has tripled government spending on social programs, increased black incomes and put a ceiling on white incomes. These acts have further increased expectations of the 7.6 million blacks of Zimbabwe and probably raised doubts about the future among the remaining white population, who possess most of the technical and managerial expertise in the country. The white population has shrunk from a high of 270,000 in the mid-1970s to 170,000 today.

Pent-up domestic consumer demand and spending by the government on social programs, largely with foreign aid money, are beginning to take their toll. Inflation is now running at 17 per cent, up from 15 per cent in 1981 and 8 per cent in 1980. The economic forecast for 1983 sees little easing of inflationary pressures. The economy has also been aggravated by the world recession, with a reduced demand for the country's main exports, half of which are minerals such as gold, ferrochrome, copper and asbestos.

Even though inflation is rising rapidly, the economy is basically sound and well diversified, with 25 per cent of GNP in manufacturing. The country is self-sufficient in food, exporting its surplus to neighbouring African countries. But 15 years of isolation from the international trading community has caused demand for new capital and equipment.

Exports and Imports

The $6.7 million exported to Zimbabwe in 1981 consisted mainly of machinery and transportation equipment such as road graders, scrapers, road scarifiers, stone drillers, agricultural machinery and parts. Manufactured exports included tents, tarpaulins, rape oil and mustard oil, fertilizers, drugs and pharmaceutical chemicals for dispensing.

Statistics Canada and the Central Statistical Office in Harare (formerly Salisbury) agree Canada imported more than $2 million in 1981, considerable growth from the $60,000 imported in 1980. Imports consist mainly of high carbon ferrochrome, copper anodes and tea in bulk.

The future market for Canadian products has been described as good by Canadian Minister for International Trade Ed Lumley. According to Lumley, "There is a need to replace plant and equipment in Zimbabwe that became worn and obsolete during the period of sanctions and which, at present, due to the strong domestic demand, are under stress."

The Canadian government will help companies interested in developing trade relations with Zimbabwe. They will provide facilities and support services to Canadian businessmen interested in Zimbabwe, assisting them in identifying markets and market potential, providing them with contacts within the country and with information about doing business there, through Canada's Bureaus and Trade Commissioner Services. Once viable markets have been identified, there are support programs available, such as the Program for Export Market Development (PEMD). The Canadian government has also sponsored several incoming missions from Zimbabwean businessmen and officials interested

in acquiring mining and telecommunications equipment, as well as equipment for the power and railway sectors.

Because the country's foreign currency reserves are low, strict exchange controls are in effect and approval is required for all foreign currency transactions. Generally businessmen deal with their banks, who then carry out transactions with the Reserve Bank of Zimbabwe.

Investment and Aid

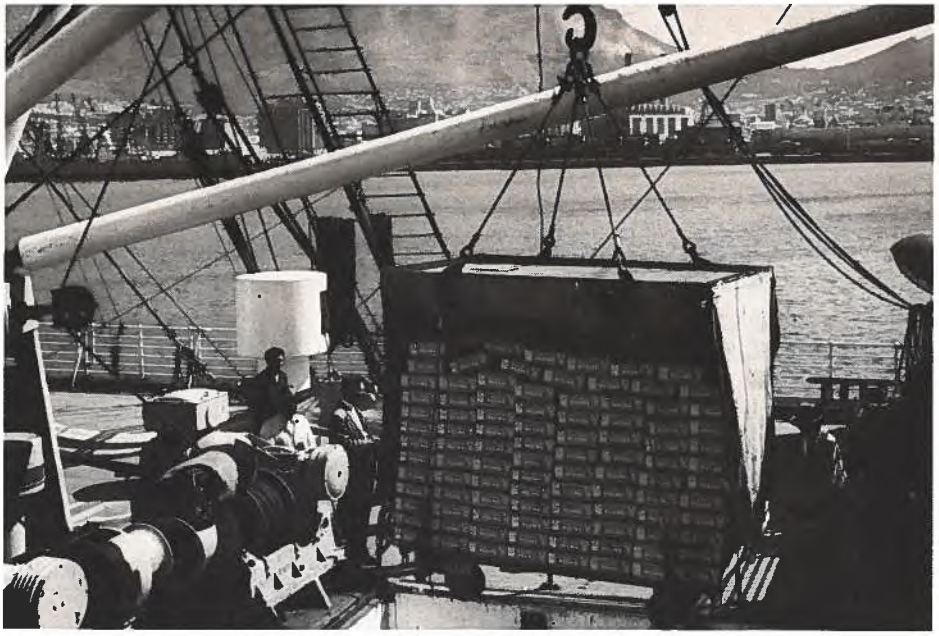
Although social programs will take precedence in Zimbabwe's spending plans, heavy investment is also planned in transportation, energy development, communications and mineral exploration.[1] The Export Development Corporation administers a $15 million line of credit currently available for a variety of equipment and services such as road graders, water pumps and agricultural equipment. Canada recently supplied 60 new diesel locomotives to the country.

In addition, capital project opportunities are available through the Canadian International Development Agency (CIDA), particularly in the energy sector. It is anticipated there will be future spending in rural development and human resource training.

It is evident the welcome mat is out to investors. A seven-country European tour by Mugabe and five of his top ministers in May 1982 was not to "beg for money but to explain our position (to investors)." Among the concerns of investors in mining is the planned government marketing agency.

Any potential investor is well advised to study in detail the local requirements that must be met. One should also investigate the aid programs in force and how investments might dovetail with them.

The Africa Desk of the Industrial Co-operation Division of CIDA assists Canadian companies interested in joint ventures and licensing arrangements in Zimbabwe. It will, for example, pay up to $10,000 toward a pre-feasibility study. This includes air fare, initial assessments and the return air fare of the prospective partner to Canada. When the joint venture becomes a positive prospect, the program will entertain costs up to $100,000, including 50 per cent of the costs of outside consultants to set up and incorporate the business.



Canada exported $6.7 million to Zimbabwe in 1981.

To qualify, certain questions must be satisfactorily answered, such as:

- What developmental impact would the venture have in the country?
- What jobs might it create in Canada and would there be a transfer of technology to benefit Canada and Zimbabwe?
- What is the capability of the Canadian company, such as financial soundness and expertise in the field?

At the Zimbabwe Conference on Reconstruction and Development (ZIMCORD) in March 1981, attended by Western industrialized countries including Canada, $2 billion in aid pledges were made. The Canadian government pledged $60 million ($10 million a year for six years) for the 1981/82–1985/86 period to help rebuild the economy. For 1982/83 the sectoral spending will be as follows: 20 per cent on railroad development; 25 per cent on transportation; 15 per cent on mining; 18 per cent on education and technical assistance; and 22 per cent on miscellaneous projects. Canada's commitment is channeled through CIDA, which has Canadian-content provisions to encourage expansion of Canadian business.

Zimbabwe's Future

Zimbabwe's population of more than 7.6 million — half under the age of 15 — is about 97 per cent black. Two broad tribal linguistic groups compose the majority — the Shona are 70 per cent of the population; and the Ndebele about 20 per cent. Several minor tribal groups make up the remaining 10 per cent. The Asian and racially mixed population is estimated at 35,000. Although the white population has decreased from a peak of 270,000 to 170,000, the total Zimbabwean population is increasing rapidly at 3.2 per cent a year, mostly in the rural areas.

Most black Africans still live in tribal areas, where they carry out subsistence farming, but many have moved into cash crops, producing tea, groundnuts and sugar cane as individual farmers. Land tenure has long been a contentious issue. Since 1930 the holding of land was divided into social categories by the Land Apportionment Act. This was replaced by the Land Tenure Act in 1970 in an effort to achieve racial parity in areas available to each race.

[1] **Canadian Investment Opportunities in Zimbabwe** (Winnipeg: Johnson, Lowe and Associates Ltd., January 1981), a report sponsored by the Canadian International Development Agency. Available from CIDA in Ottawa.

Amendments to this act in 1977 opened up the white farming areas to African ownership for the first time. Under black rule further reforms are underway to provide land ownership to Africans, and thousands of black families have been resettled since independence.

A large migration of young men to the cities is taking place, encouraged by the increasing differences in standard of living between blacks in the urban economy and the majority in the traditional rural sector. This migration has increased the size of Harare to a population of close to 700,000; Bulawayo, the second largest city, has a population of 400,000. Together these two cities contain nearly one seventh of the country's population.

For urban blacks there have been positive results. The shortages of white workers, especially during the civil war, spurred African advancement. In 1970 there were 7.2 black workers for each non-black worker; by 1976 the ratio had increased to 7.7. Even so, the administrative and managerial aspects of the economy remain primarily in the hands of skilled whites. While whites comprise only 11.5 per cent of the total work force, they dominate the entrepreneurial areas. The blacks, on the other hand, employed mostly in agriculture and domestic services, have traditional low-paying positions.

A 67 per cent wage hike in agricultural and domestic wages earlier in 1982, combined with a wage freeze on incomes higher than $24,000, will narrow the gap between black and white incomes, but it could also dampen employment growth. It has already contributed to inflationary pressures, and it could also add impetus to the emigration of skilled workers and managers, a process that saw 20,000 whites leave the country in 1981. As white immigration has decreased and emigration increased, the shortage of skilled workers has become even more acute.

A fact of life hard to accept by the Zimbabwe government is the increasing dependence upon South Africa. It is the largest market for Zimbabwe's exports — 18.5 per cent in 1980, up from 9 per cent in 1965 — while imports from South Africa were 32 per cent in 1980, up from 23 per cent in 1965. South Africa is also a transportation link for most of Zimbabwe's imported oil and other imports and exports must pass through South Africa as well. Zimbabwe has been pushing hard to renegotiate the preferential trade agreement between the two countries that expired in March 1982 reimposing a 30 per cent tariff on many goods imported by South Africa from Zimbabwe.

Looking at the picture in total, there are reasons for optimism. There are people who have reason to stay. One such person is Tom DesChartes, Chairman of the Tobacco Merchants Association. Born in France, the 45-year-old DesChartes came to Rhodesia as a young boy of 14. He says, "It is our duty to make the system work." His optimism reflects the new vitality among the 14,000 flue-cured tobacco farmers who anticipate a 10 per cent growth per year in production. DesChartes sees his future in Zimbabwe and is determined to make the country work.

White-owned farms produce 92 per cent of agricultural products marketed and employ more than one-third of the black labour force. But agriculture represents only 12 per cent of Gross Domestic Product (GDP), about the same percentage as government, hotels and tourism and

Background information

Official name:
Republic of ZIMBABWE

Independence day:
April 18, 1980

Capital:
Harare

Area:
390,580 km^2
(150,804 sq. mi.)

Population: 7,620,000 (1981); (3.2% annual growth); 55% of population is under age 15

Ethnic distribution: 96.2% black; 3.3% white; 0.3% racially mixed; 0.2% Asian

Languages: Official language, English; French being introduced as compulsory second language in schools; Shona is spoken by 70% of blacks; Ndebele is spoken by 20% of blacks

Religions:
Traditional; Christian

Ruling government: Non-aligned state with multi-party constitution and coalition cabinet but with declared goal of forming a one-party socialist system in time. In Parliament, 80 black seats and 20 white seats.

Prime Minister:
Robert Mugabe

President:
Canaan Banana

Minister of Economic Development and Planning:
Bernard Chidzero

Important cities:

Harare (Salisbury):	686,000
Bulawayo:	400,000
Gwelo:	78,000
Umtali:	74,000
Que Que:	62,000
	(1981)

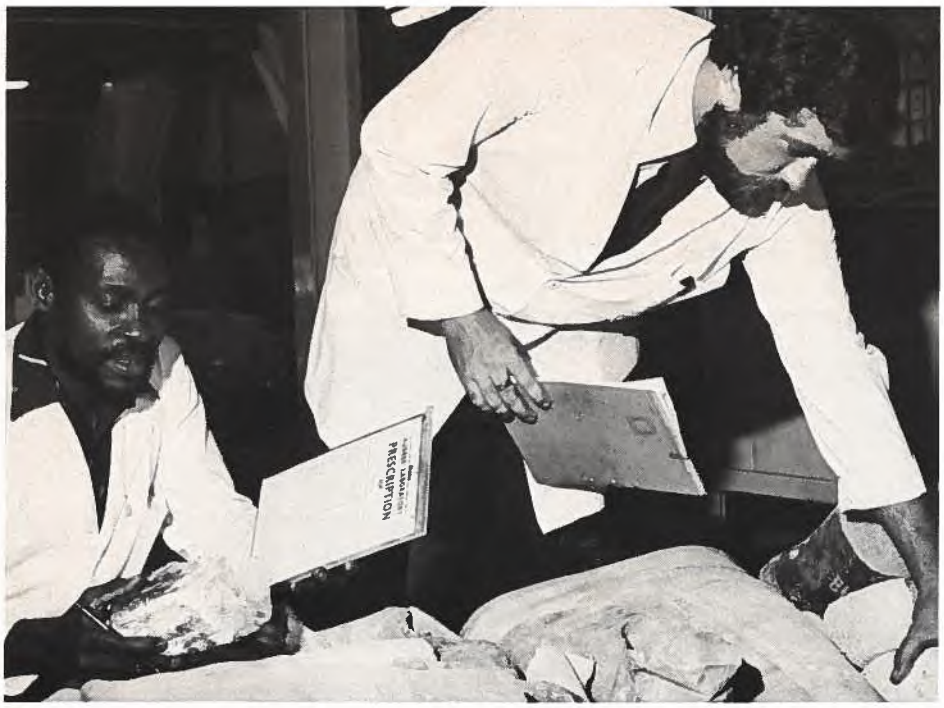
Literacy:
60%

Monetary system:
1 Zimbabwean dollar = $1.6593 (Cdn.) (April 1982)

Gross National Product:
$5.7 billion (Cdn.) (1981); 25% of GNP in manufacturing

International trade:
Principal exports are gold, ferrochrome, copper, nickel, asbestos, flue-cured tobacco, beef, cotton, coal, maize and sugar.

Principal imports are fuels, chemicals including fertilizers and insecticides, machinery, transport vehicles and spare parts, some beverages and food stuff, and oils and fat.



Supervisory positions are being filled by blacks as they learn management skills.

slightly behind education and health services at 16 per cent of GDP. Mining, transportation and communications each make up about 8 per cent of GDP, with a financial and insurance institutional framework representing 5 per cent of national output. With the construction industry and utility services at about 3 per cent each, the total picture of the economy, when 25 per cent of GDP in manufacturing is considered, represents a microcosm of any diversified Western industrialized country.

Even though the Gross National Product (GNP) of $5.7 billion is small by Western standards, Zimbabwe sits in the centre of a potential regional market of 60 million people in surrounding black nations. With this market potential and a young, fast-growing population that will require schools, hospitals and consumer goods, there will be a demand for Canada's machinery and equipment to update and retool factories depleted during international isolation.

The country has a newly found national spirit, is rich in agriculture and raw materials, and boasts a diversified manufacturing sector and sound institutional infrastructure. Zimbabwe offers many advantages to the Canadian exporter and investor. But even though the welcome mat is out, Canada is not the only country competing for expanded trading opportunities. The competition is tough, and only the aggressive who act quickly will gain the benefits.

This article was specially written for Canada Commerce from a six-article special report on doing business in Africa that appears in the summer edition of the Canadian Business REVIEW. The 24-page report features an account of Canada's strategy in African markets and also country stories on trade, investment and joint venture opportunities in — Francophone Africa, Algeria, Nigeria, Zimbabwe. A reprint of the full report is available for $4.00 from the Canadian Business REVIEW, 25 McArthur Road, Ottawa, Ontario K1L 6R3.

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Trade with Canada: ($millions)	1979	1980	1981
Canadian exports	0.13	0.60	6.7
Canadian imports	n.a.	0.06	2.0

(n.a. — not available)

Economists' Corner

Business Investment Trend in the Seventies and Prospective For the Early Eighties

Business investment in new plant and equipment excluding residential construction is an important component of the gross national expenditure (GNE). The rate of growth, relative size and content of business investment provide a useful indication of the economy's ability to meet market demand. Whether the economy reaches its output potential or meets its market demand depends upon various factors of which the stock of physical capital is an important one.

The stock of plant and equipment at a given time is the accumulation of past business spending on plant and equipment. However, this stock cannot maintain its full production capability over time because of plant and equipment wear and tear. Some equipment becomes obsolete, making it useless for further production. Thus, to achieve and maintain economic growth, business must invest in new plant and equipment, otherwise the productive capability of the economy would decline.

Business investment is also very volatile and subject to the economic conditions of the period under consideration. Thus, the final decision made by individual industries of the relative size and content of their investment reflects the views management holds on prospective market demand in relation to present productive capacity.

The Department of Industry, Trade and Commerce (IT&C), realizing the importance of such information, in the early 1960s initiated the **Survey of Capital Investment Intentions and Outlays** of large firms operating in Canada. The purpose of the survey is to gather information from large companies on their investment plans for new plant and equipment, both qualitative and quantitative, in order to have timely business investment information and a better understanding of the factors influencing business investment behaviour.

Company participation in the Survey of Capital Investment Intentions and Outlays of large firms is voluntary. When the survey was initiated 150 firms participated; by 1978 the panel of firms had doubled.

This paper will focus on business investment trends in the seventies and factors affecting business investment behaviour in the early eighties based on the IT&C survey results.

Company participation in the Survey of Capital Investment Intentions and Outlays of large firms is voluntary. When the survey was initiated 150 firms participated; by 1978 the panel of firms had doubled to about 300. The aggregate actual investment reported by the surveyed firms on average has represented about half of real business capital formation excluding residential construction as reported in the National Accounts. As indicated in Table 1, the "year-to-year" percentage changes reported by the IT&C Survey panel generally move in the same direction as overall real business capital formation, although the magnitude differs.

Due to the voluntary nature of the survey, the number of firms responding varies from year to year. Thus, the investment levels based on a variable panel of firms (i.e. 171 firms participated in 1971 while 287 firms responded in 1980) may not produce a consistent time series. In view of this a panel of "matched" firms (that is, those who responded consistently to all the surveys from 1971 to 1982) was selected for the analysis of investment trends in the seventies. The following analysis is based on 170 firms.

Investment Trends in the Seventies

In 1973, Canada experienced a significant upsurge of business capital spending: the 170 firms responding to the IT&C Survey showed an 11.3 per cent increase in real investment in 1973 over the previous year. The National Accounts also reflected this increase; overall business investment advanced by 15.0 per cent in the same year. For the next two years, 1974 and 1975, business spending on new plant and equipment continued to grow but at more moderate rates (i.e. 6.4 per cent in 1974 and 9.8 per cent in 1975, according to the IT&C panel, and 7.7 per cent and 7.8 per cent overall). The cumulative real increase over the three-year period 1973–75 amounted to 30.0 per cent for the IT&C panel, 33.5 per cent overall. During the same period GNE showed an accumulated real growth of only 12.7 per cent, less than half of the real increase for business capital spending.

The exceptional strength in business investment was in response to the worldwide economic boom of the previous two years and to a number of fiscal measures introduced by the federal government in the spring of 1973. These fiscal measures included a two-year capital cost allowance on machinery and equipment and a reduced rate on corporate income tax. During this three-year period the rate of capacity utilization of Canadian industry peaked at 96.6 per cent in 1973. But by 1975, due to the effects of the worldwide recession, Canadian industry was operating at only 85.4 per cent capacity — considerably below the operating levels of the earlier seventies.

Due to this excess capacity and other economic factors — including higher interest rates (the Chartered Bank's prime rate to business was about 10 per cent between 1974 and 1976 compared to only 6 per cent in 1972) and an increase in world oil prices — the next three years witnessed a slowing in Canadian business investment. The accumulated real increase reported by the IT&C Survey firms was 6.1 per cent as compared to an 11.7 per cent advance in GNE itself, the converse of the 1973–1975 experience.

However, by 1979 — following a second world oil price shock, exceptional growth in corporate profits and the appearance of new technology — the environment was once again conducive for more business capital spending. The demand for smaller cars due to higher oil prices forced Canadian auto manufacturers to re-tool. Other industries had to modernize plant or invest in new plant to accommodate energy efficiency. For the next three years, 1979–1981, the 170 firms in the IT&C Survey panel reported an accumulated advance in business investment of 30.0 per cent in real terms. In contrast GNE indicated an accumulated real increase of only 6.1 per cent. Business investment was the major source of strength in the Canadian economy during this three-year period as was the case during the 1973–1975 period.

Throughout the seventies energy-related investment grew steadily and was a source of strength. Based on the IT&C Survey results, the average annual rate of growth in investment by energy-related companies for the period 1971 to 1981 was 8.0 per cent. In comparison, manufacturing companies' investment indicated a 7.9 per cent rate of growth during the same period. In the energy-related sector, foreign-owned companies indicated a 10.5 per cent annual average for this period (1971–1981) compared to only 7.4 per cent for domestic owned companies. In the manufacturing sector, the situation was reversed. Foreign-owned companies' investment in new plant and equipment advanced by an average of 7.2 per cent in real terms as compared to 8.9 per cent by domestic-owned manufacturing firms (see Table 2).

TABLE 1 SELECTED ECONOMIC INDICATORS

YEAR	Capacity Utilization Rate[1] (%)	Business Capital Formation[2] (1971 $ millions)	IT&C Bus. Cap. Expenditure[3] (1971 $ millions)	Year-to-Year Change Bus. Cap. Formation (%)	Year-to-Year Change IT&C Bus. Cap. Exp. (%)
1971	90.9	12,230	6,461	—	—
1972	92.2	12,751	6,261	4.3	-3.1
1973	96.6	14,667	6,965	15.0	11.3
1974	94.8	15,802	7,414	7.7	6.4
1975	85.4	17,031	8,144	7.8	9.8
1976	86.6	16,973	7,873	-0.3	-3.3
1977	85.2	17,161	8,346	1.1	6.0
1978	85.0	17,543	8,644	2.2	3.6
1979	86.5	19,655	9,644	12.1	11.6
1980	82.3	21,351	10,184	8.6	5.6
1981	80.6	22,827	11,264	6.9	10.6
1982	n.a.	n.a.	11,443	n.a.	1.6

Note: (1) IT&C Rate of Capacity Utilization (Wharton School Method) from Fourth Quarter 1981 Report.
(2) Statistics Canada, National Accounts, Business Gross Capital Formations. Actual data for 1971 to 1979 and preliminary data for 1980 and 1981.
(3) Department of Industry, Trade and Commerce (IT&C) bi-annual Survey of Business Investment Intentions of large firms. Actual data for 1971 to 1980. Preliminary for 1981 and intentions for 1982. Based on 170 firms.

Factors Affecting Business Investment in the Early Eighties

Although a slight improvement in capacity utilization was observed in 1979, it was short lived. The rate dropped from 86.5 per cent in 1979 to 82.3 per cent in 1980 and then further to 80.6 per cent in 1981.

This excess production capacity in the economy coupled with high interest rates (more than 19 per cent in 1981), weak consumer demand, high labour costs, high inflation and falling world oil prices, led businesses to re-think their investment plans.

The results of the April 1982 IT&C Survey suggest that business investment on new plant and equipment will slow down from its buoyant spending rate of the past three years. The investment plans of Canada's largest firms have softened considerably in the past six months. Plans for 1981 and 1982 reported by these 300 firms in October 1981 were substantially revised in April 1982: the 1981 investment plans were reduced by about 5 per cent and the revisions were across all industries.

The largest changes were made by oil and gas pipelines and commercial and financial companies. The revised investment plans for 1982 were more severe in manufacturing than in non-manufacturing (–18.3 per cent vs –6.2 per cent). The main reasons given by companies for these changes in plans were weak domestic markets, low rates of return, high financing costs, government regulations and poor economic conditions in Canada. Many investment plans were deferred to future years and some existing plans had to be reduced in scale or abandoned.

The historical results of the IT&C Survey provide considerable insight into the business investment pattern of the seventies. The timeliness and the qualitative responses it provides lead to a better understanding of the investment behaviour of the various industries. If history repeats itself, business investment on new plant and equipment over the next three years (1982–84) will remain weak but exuberant growth in spending should occur once again by 1985.

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TABLE 2 CAPITAL INVESTMENT OF SELECTED LARGE FIRMS – 1971-1982

	ALL INDUSTRIES			MANUFACTURING			ENERGY RELATED INDUSTRIES		
YEAR (1971 $ millions)	Domestic	Foreign	Total	Domestic	Foreign	Total	Domestic	Foreign	Total
1971	4577.9	1882.9	6460.8	712.8	639.3	1352.1	2043.0	660.6	2703.6
1972	4557.2	1703.5	6260.7	644.9	591.7	1236.6	2121.4	676.2	2797.6
1973	5171.2	1793.9	6965.1	754.7	653.4	1408.1	2460.9	717.9	3178.8
1974	5517.5	1896.4	7413.9	979.2	747.2	1726.4	2494.7	803.8	3298.5
1975	6324.6	1819.4	8144.0	995.6	704.1	1699.7	3172.4	780.8	3953.2
1976	6014.8	1858.5	7873.3	813.7	644.9	1458.6	3220.6	874.7	4095.3
1977	6168.8	2176.8	8345.6	787.6	773.1	1560.7	3524.3	1035.8	4560.1
1978	6382.7	2261.3	8644.0	751.1	759.8	1510.9	3859.3	1186.6	5045.9
1979	6966.0	2678.1	9644.1	961.4	888.4	1849.8	4052.7	1469.3	5522.0
1980	6894.6	3289.1	10183.7	1236.9	1155.8	2392.7	3525.5	1756.6	5282.1
1981	7845.8	3418.6	11264.4	1370.9	1295.1	2666.0	4005.1	1740.6	5745.7
1982	8039.8	3402.8	11442.6	1068.7	967.2	2035.9	4417.5	2068.6	6486.1
(Year-to-Year Percentage Changes)									
72/71	–4.5	–9.5	–3.1	–9.5	–7.4	–8.5	3.8	2.4	3.5
73/72	13.5	5.3	11.3	17.0	10.4	13.9	16.0	6.0	13.6
74/73	6.7	5.7	6.4	29.7	14.4	22.6	1.4	12.0	3.8
75/74	14.6	–4.1	9.8	1.7	–5.7	–1.5	27.2	–2.9	19.8
76/75	–4.9	2.2	–3.3	–9.1	–8.4	–14.1	1.5	12.0	3.6
77/76	2.5	17.1	6.0	–3.2	12.0	7.0	9.4	18.4	11.3
78/77	3.5	3.8	3.6	–4.6	–1.7	–3.2	9.5	14.6	10.7
79/78	9.1	18.4	11.6	27.9	16.9	22.4	5.0	23.8	9.4
80/79	–1.0	22.8	5.6	28.7	30.0	29.3	–13.0	19.6	–4.3
81/80	13.8	3.9	10.6	10.8	12.0	11.4	13.6	–1.1	8.8
82/81	2.5	–0.4	1.6	–2.2	–2.5	–2.4	10.3	18.8	12.9

Source: Department of Industry, Trade and Commerce (IT&C) bi-annual Survey of Business Investment Intentions of Large Firms.
Note: Actual data 1971 to 1980, preliminary for 1981 and intentions for 1982.

Promotional Projects Program 1982/83

The following list covers the confirmed and proposed 1982/83 promotional projects for the European, Pacific, Asian, African and Middle Eastern areas as well as the United States, Latin America and the Caribbean. Since some of these events are subject to change, subsequent CANADA COMMERCE editions will carry updated lists so that those planning to attend can adjust their schedules.

PROMOTIONAL PROJECTS PROGRAM 1982/83
EUROPEAN AREA (613) 996-5555

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47503	Offshore North Sea '82 — Conference and Exhibition Stavanger, Norway	Aug. 24-27, 1982	M.P. Pearce
82/47547	UN Space — Outer Space Conference and Exhibition Vienna, Austria	Aug. 9-12, 1982	L.V. Ford
82/47550	25th Brno International Engineering Fair Brno, Czechoslovakia (Information Booth)	Sept. 15-22, 1982	L.V. Ford
82/47534	ISPO' 82 (Autumn) 17th International Sports Equipment Exhibition Munich, West Germany	Sept. 9-12, 1982	M. Pearce
82/47515	AUTOMECHANIKA '82 — International Trade Fair for Motor Car Workshop and Service Station Equipment, Automobile Parts and Accessories Frankfurt, West Germany	Sept. 14-19, 1982	J. Harman
82/47549	"Canadian Energy" Information Booth at the International Trade Fair of Thessaloniki, Greece	Sept. 12-26, 1982	M.P. Pearce
82/47529	Zagreb International Autumn Fair Zagreb, Yugoslavia	Sept. 14-22, 1982	H. Schroeter
82/47530	SICOB — 33rd International Data Processing, Remote Processing, Communication and Office Organization Trade Fair Paris, France	Sept. 21 - Oct. 1, 1982	L. Sarda
82/47532	34th Frankfurt International Book Fair Frankfurt, West Germany	Oct. 6-11, 1982	L.V. Ford
82/47544	Bucharest International Trade Fair Bucharest, Romania (Information Booth)	Oct. 7-14, 1982	M. Pearce
82/47551	SAIE — International Exhibition of Building Industrialization Bologna, Italy (Information Booth)	Oct. 16-24, 1982	J. Harman
82/47528	INTERSTOFF '82 — International Trade Fair for Clothing Textiles Frankfurt, West Germany	May 4-7, 1982 Nov. 2-5, 1982	L. Sarda
82/47531	ELECTRONICA '82 — 10th International Trade Fair for Components and Assemblies in Electronics Munich, West Germany	Nov. 9-13, 1982	L. Sarda

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47533	SIAL '82 — International Food Products Exhibition Paris, France	Nov. 15–20, 1982	H. Schroeter
82/47518	HEIMTEXTIL '83 — International Trade Fairs for Home Textiles Frankfurt, West Germany	Jan. 13–17, 1983	M. Pearce
82/47556	Batibouw '83 — International Building and Decorating Show Brussels, Belgium (Information Booth)	Feb. 4–13, 1983	J. Harman
82/47537	International Spring Fair 1983 Birmingham, England	Feb. 6–10, 1983	J. Harman
82/47535	ISPO '83 (Spring) — 18th International Sports Equipment Exhibition Munich, West Germany	Feb. 24–27, 1983	L.V. Ford
82/47538	Domotecnica '83 — International Fair for Household Appliances, Fitting and Components Cologne, West Germany	Feb. 9–12, 1983	L. Sarda
82/47536	Frankfurt Music Fair Frankfurt, West Germany	Feb. 5–9, 1983	M. Pearce
82/47557	International Food Exhibition London, England	Feb. 28 – Mar. 4, 1983	M. Pearce
82/47540	SIMA '83 — 54th International Exhibition of Farm Machinery Paris, France	Mar. 7–14, 1983	L.V. Ford
82/47541	SIA — International Agricultural Show Paris, France	Mar. 7–14, 1983	L.V. Ford

TRADE MISSIONS

Project No.	Event	Date	Project Manager
82/48522	Seed Potato Mission from Hungary	Aug. 9–16, 1982	L. Sarda
82/48528	Pulp and Paper Equipment Mission from the German Democratic Republic	Sept. 10–17, 1982	J. Harman
82/48517	Coal Mission to Scandinavia	Sept. 13–29, 1982	H. Schroeter
82/48526	Canola Mission to Hungary, Norway and West Germany	Sept. 6–17, 1982	L. Sarda
82/48518	Timber Frame Mission from West Germany	Oct. 4–16, 1982	L. Sarda
82/48520	Hardwood and Dimension Stock Mission to West Germany, France and Italy	Oct. 3–16, 1982	H. Schroeter

PACIFIC, ASIAN, AFRICAN AND MIDDLE EASTERN AREA (613) 993-6301

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47607	AG QUIP — Agricultural Equipment Trade Fair Gunnedah, N.S.W., Australia	Aug. 17–19, 1982	G. Richens
82/47615	Floor Covering Show at International Exhibition Hall Osaka, Japan	Oct. 4–5, 1982	D. Ladouceur

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47612	Baghdad International Trade Fair Baghdad, Iraq	Nov. 1–15, 1982	
82/47604	In-Store Food and Beverage Promotions in Japan	All year	D. Ladouceur
82/47608	Canada Trade Centre Shows Tokyo, Japan	All year	D. Ladouceur
82/47617	Ocean Industries Show at CTC Tokyo, Japan	Nov. 1–5, 1982	D. Ladouceur
82/47618	High Technology Show at CTC Tokyo, Japan	Nov. 9–12, 1982	D. Ladouceur
82/47616	Sporting Goods and Sportwear Show at CTC Tokyo, Japan	Jan. 11–13, 1983	D. Ladouceur

TRADE MISSIONS

Project No.	Event	Date	Project Manager
82/48661	Jewellery and Silverware Products Mission from Australia and New Zealand	Aug. 1–6, 1982	T. Gervais
82/48609	Technical Seminars — Agricultural Machinery, Australia	Aug. 31, 1982 Sept. 11, 1982	G. Richens
82/48620	Livestock and Forage Methods and Material Mission to China	Aug. 21, 1982 Sept. 11, 1982	G. Richens
82/48602	Forage Seed Mission from Japan	Sept. 6–17, 1982	B. Brusenbauch
82/48647	Fish Products Mission to Nigeria and Egypt	Sept. 13–20, 1982	T. Gervais
82/48630	Primary Wood Products Mission to China	Sept. 6–17, 1982	B. Brusenbauch
82/48652	Ocean Industries Mission from Japan	Sept. 11–25, 1982	B. Brusenbauch
82/48635	Gas and Oil Processing and Services Mission to Saudi Arabia	Sept. 4–18, 1982	G. Richens
82/48601	Fish Wholesalers Mission from Australia and New Zealand	Sept. 12 – Oct. 1, 1982	B. Brusenbauch
82/46510	Ministerial Mission to Papua, New Guinea and Australia	Oct. 1982	G. Debanné
82/48643	Canola Oil Mission to Israel and Egypt	Oct. 18–26, 1982	T. Gervais
82/48625	Canola Oil Mission to China	Oct. 1–15, 1982	B. Brusenbauch
82/48651	Railway Seminars in Algeria	Oct. 4–7, 1982	B. Brusenbauch
82/48605	Instrumentation and Process Control Mission to Austech 1, Australia	Oct. 24 – Nov. 5, 1982	B. Brusenbauch
82/48619	Computers and Micro Electronics Equipment Mission to Australia	Nov. 22 – Dec. 3, 1982	B. Brusenbauch
82/48626	Canola Oil Mission to India and Pakistan	Jan. 8–28, 1983	G. Richens
82/48611	Packaging and Printing Machinery Mission to Australia and New Zealand	Feb. 7–18, 1983	G. Richens
82/48654	Sawmill and Forest Harvesting Equipment Mission to Australia	Feb. 14–25, 1983	G. Richens
82/48633	Offshore Oil and Gas Equipment Mission to South-East Asia	Feb. 14–25, 1983	G. Richens
82/48508	Buyers Mission from Australia to the Canadian Hardware Show — Toronto	Feb. 20–27, 1983	T. Gervais

UNITED STATES AREA
(613) 993-5467

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47710	Empire Farm Days, Agricultural Equipment Show Hartford, New York, U.S.A.	Aug. 10–12, 1982	M. Samson
82/47511	Impact '82 International Woodworking and Furniture Supply Fair Louisville, Kentucky, U.S.A.	Sept. 11–14, 1982	T.E. Matthews
82/47705	Farm Progress Show, Agricultural Equipment Wolcott, Indiana, U.S.A.	Sept. 28–30, 1982	K. Munro
82/47523	IMTEC '82 — International Marine Trade Fair Chicago, Illinois, U.S.A.	Sept. 30 – Oct. 3, 1982	T.E. Matthews
82/47707	High Technology Market Place (Defence Industry) Philadelphia, Penn., U.S.A.	October 5–7, 1982	J. Butcher
82/47521	National Fish Expo '82 Boston, Mass., U.S.A.	October 1982	T. Matthews
82/47703	Water Pollution Equipment Fair St. Louis, Missouri, U.S.A.	Oct. 3–8, 1982	L. Clarke
82/47712	APAA — Auto Parts and Accessories Association Show Chicago, Illinois, U.S.A.	Oct. 19–21, 1982	K. Munro
82/47718	AFCEA — Armed Forces Communications and Electronics Association Exposition San Francisco, California, U.S.A.	Jan. 4–6, 1983	L. Clarke
82/47713	America East '83 — Building Materials Show Boston, Mass., U.S.A.	Jan. 7–9, 1983	M. Samson
82/47714	National Housewares Show Chicago, Illinois, U.S.A.	Jan. 16–20, 1983	K. Munro
82/47711	Solo Business Furniture Show Boston, Mass., U.S.A.	February 1983	M. Samson
82/47715	Snow Show Las Vegas, Nevada, U.S.A.	March 1983	J. Butcher
82/47716	ASIA — Automotive Service Industry Association Show Chicago, Illinois, U.S.A.	March 15–17, 1983	K. Munro

TRADE MISSIONS

Project No.	Event	Date	Project Manager
82/48706	Computer Mission to San Francisco, U.S.A.	October 1982	L. Clarke
82/48708	Annual Lumber Industry Meeting (Seminar) Boston, Mass., U.S.A.	Oct. 13, 1982	L. Clarke
82/48703	Malting Barley Mission from the United States	November 1982	L. Clarke
82/48707	Lumber Seminar Philadelphia, Penn. U.S.A.	Nov. 1982	L. Clarke
82/48709	Health Care Products Mission to Philadelphia, Penn, U.S.A.	February 1983	J. Butcher

LATIN AMERICA AND CARIBBEAN AREA
(613) 996-5357

TRADE FAIRS AND INFORMATION BOOTHS

Project No.	Event	Date	Project Manager
82/47807	International Animal Fair of Rio Grande Do Sul Porto Alegre, Brazil	August 1982	
82/47809	Solo Carpet Show Santiago, Chile	Aug. 17–20, 1982	P. Schutte
82/47805	EXPOMOTRIX '82, International Exhibition of the Automotive Industries Caracas, Venezuela	September 1982	R. Wighton
82/47803	Expomedica '82, International Exhibition of Medical Equipment and Instruments Caracas, Venezuela	Sept. 29 – Oct. 2, 1982	R. Wighton
82/47810	Pan American Public Works Exposition Bogota, Columbia	Nov. 9–12, 1982	R. Wighton
82/47804	Technoforest — International Sawmill and Forest Harvesting Exhibition Lima, Peru	Nov. 19–28, 1982	P. Schutte
82/47802	Canadian Textile Solo Show Chile	March 1983	P. Schutte
82/47811	Aqua Expo '83 — International Water Technology Exposition and Conference Acapulco, Mexico	Mar. 1–4, 1983	P. Schutte

TRADE MISSIONS

Project No.	Event	Date	Project Manager
82/48812	Seed Potato Mission from Panama	August 1982	E. Kelso
82/48816	Salt Fish Mission to Trinidad and Brazil	Sept. 4–16, 1982	P. Schutte
82/48505	Airport Vehicles Mission to Latin America	September 1982	P. Schutte
82/48809	Alternative Energy (Mini-Hydro) Mission and Seminar in Mexico	September 1982	P. Schutte
82/48801	Electrical Power Seminars and Mission to Ecuador, Peru and Chile	September 1982	M. Leigh
82/48802	Computer Technology Mission to Mexico	October 1982	P. Schutte
82/48805	Pork Mission to Mexico, Venezuela, Colombia and Argentina	October 1982	P. Schutte
82/48813	Feed Mission from Mexico	October 1982	M. Leigh
82/48506	Railway Mission to Venezuela, Colombia and Peru	November 1982	P. Schutte
82/48808	Ocean Industry (Oil & Gas Developments) Mission to Brazil	January 1983	P. Schutte
82/48510	Mission to Canadian Hardware Show from Barbados, Trinidad, Cuba, Mexico, Venezuela and Argentina	February 1983	P. Schutte

Multilateral Project Opportunities

The following list of multilateral project opportunities has been prepared to inform Canadian companies of the projects being considered or already approved for financing by the international financing institutions such as the World Bank, the Asian Development Bank and the Inter-American Development Bank.

In order to capitalize on these export opportunities, experience has shown that getting in on the ground floor by advance marketing activities or use of local agents increases the probability of success. Smaller companies may wish to consider participating as sub-suppliers or as part of a consortium bidding on equipment packages.

PLEASE NOTE that further information is available on approved projects only and may be obtained from the contacts listed for each country. These officers are prepared to assist companies in formulating their bids, and to suggest the appropriate contacts for companies interested in obtaining insurance, bonds and performance guarantees which are often required as part of tender specifications.

In addition, Canadian Trade Commissioners abroad are ready to assist you in pursuing business, such as arranging meetings with personnel at the executing agencies. Also, liaison officers in Washington and Manila are prepared to undertake enquiries on your behalf. However, we recommend that you initially contact the officer listed for each country.

Due to a reorganization in the department, certain names and telephone numbers are subject to change. Sorry for any inconvenience this may cause.

The Canadian Commercial Corporation, through the Export Supply Centre, can assist suppliers with bids on Canadian equipment packages for multilateral projects when required by the private sector. For further information, please call Bob Burwash (819) 997-5715.

PROJECTS UNDER CONSIDERATION

AFRICA
(613) 995-8188

EGYPT
Contact: *Ed Gorn*
DFC VII (Construction Industry)
World Bank (IBRD) — to be determined

Education IV
World Bank (IBRD) — to be determined

Gas Development V
World Bank (IBRD) — to be determined

Tourah Cement II
World Bank (IBRD) — to be determined

IVORY COAST
Contact: *J. Desjardins*
Rubber Development IV
World Bank (IBRD) — to be determined

KENYA
Contact: *D. Wynne*
Energy II (Refinery)
World Bank (IBRD) — to be determined

MALAWI
Contact: *D. Wynne*
Lilongwe Water Supply Engineering
World Bank (IDA) — $3.5 M

NIGERIA
Contact: *P. McLachlan*
Lagos solid waste management and drain rehabilitation project
World Bank (IBRD) — $80.0 M

Sokoto State Roads Project
World Bank (IBRD) — $85.0 M

SENEGAL
Contact: *J. Desjardins*
Eastern Senegal Rural Development
World Bank (IDA) — $13.0 M

ZAIRE
Contact: *R. Bélanger*
Railways II
World Bank (IDA) — $35.0 M (approximately)

ASIA
(613) 992-0356

BANGLADESH
Contact: *N. Barber*
District Town Sanitary Drainage
Consultants will be recruited by the Bank.
Asian Development Bank (ASDB) — T.A.

Refinery Engineering and Technical Assistance
World Bank (IDA) — $18.0 M (approximately)

Second Integrated Rural Development
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $55.0 M (approximately)

Technical Assistance V
World Bank (IDA) — $30.0 M (approximately)

BURMA
Contact: *N. Barber*
Rangoon-Prome Road Improvement
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $20.0 M (approximately)

INDIA
Contact: *M. Vandenhoff*
Bombay Urban Development
World Bank (IDA) — $100.0 M

Narmada Gujarat I
World Bank (IDA) — $200.0 M

KOREA, REPUBLIC OF
Contact: *A. Pacher*
Nightsoil treatment
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

NEPAL
Contact: *M. Vandenhoff*
Fifth Power
Consultants will be required.
Asian Development Bank (ASDB) — $10.0 M (approximately)

Petroleum Exploration Promotion
World Bank (IDA) — $9.2 M

PAKISTAN
Contact: *N. Barber*
BundKushdil Khan Reservoir
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Industrial Energy Audits and Conservation Program
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Left Bank Outfall Drain
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Petroleum Exploration
World Bank (IBRD) — $10.0 M

Pipri II Thermal Generation (Supplementary)
Previously engaged consultants expected to continue.
Asian Development Bank (ASDB) — to be determined

Refinery Conversion
World Bank (IBRD) — $50.0 M

Refinery Engineering
World Bank (IBRD) — $5.0 M

Sui Gas Purification and Compression
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $20.0 M (approximately)

SRI LANKA
Contact: *N. Barber*
Third Rural Development Project
World Bank (IDA) — $35.0 M

SOUTH EAST ASIA (613) 996-8661

INDONESIA
Contact: *J. Brenchley*
Central Java Pulp and Paper
World Bank (IBRD) — $5.0 M

Education XIII
World Bank (IBRD) — $120.0 M

Geothermal Development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

LAO PEOPLE'S DEMOCRATIC REPUBLIC
Contact: *C. Latour*
Agricultural credit
World Bank (IDA) — $3.0 M

Industrial Rehabilitation
World Bank (IDA) — to be determined

Laos Electrification
World Bank (IDA) — $20.0 M

MALAYSIA
Contact: *P.A. Rolland*
Perlis Integrated Agricultural Development
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $25.0 M (approximately)

Second Vocational Education
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $30.0 M (approximately)

PHILIPPINES
Contact: *J. MacLeod*
Agricultural Processing/Marketing
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — to be determined

Development Bank of the Philippines Agricultural Credit
World Bank (IBRD) — $150.0 M

Industrial Finance II
World Bank (IBRD) — $200.0 M

Private Sector Coal Development (Technical Assistance loan)
Consultants will be recruited by the executing agency.
Asian Development Bank (ASDB) — $1.4 M

Private Sector Coal Development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Structural Adjustment II
World Bank (IBRD) — $250.0 M

Urban V
World Bank (IBRD) — $120.0 M

THAILAND
Contact: *T. Greenberg*
Agricultural Support Services
World Bank (IBRD) — $50.0 M

Cooperative Development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Fertilizer/Petrochemicals
World Bank (IBRD) — $120.0 M

Industrial Finance Corporation of Thailand (Sixth Loan)
No consultants required.
Asian Development Bank (ASDB) — $60.0 M

Land Development
World Bank (IBRD) — $85.0 M

Natural gas transmission and distribution
Consultants will be required.
Asian Development Bank (ASDB) — to be determined

Regional Cities I
World Bank (IBRD) — $70.0 M

Second Structural Adjustment Loan
World Bank (IBRD) — $225.0 M

JAPAN AND SOUTH PACIFIC (613) 995-7752

PAPUA NEW GUINEA
Contact: *R.J. Rutherford*
Cape Rodney Smallholder Agricultural Development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Rice Development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

SOLOMON ISLANDS
Contact: *R.J. Rutherford*
Agricultural research, extension and support facilities
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $2.0 M

Guadalcanal Road-East (Rural Road)
No decision made whether consultants will be required.
Asian Development Bank (ASDB) — $1.5 M

Livestock development
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

Rural Development Centres
Consultants will be required.
Asian Development Bank (ASDB) — T.A.

MIDDLE EAST (613) 593-4362

YEMEN ARAB REPUBLIC
Contact: *P. Furesz*
Education V
World Bank (IDA) — to be determined

Inter Montane Agricultural Development
World Bank (IDA) — to be determined

SOUTH AMERICA (613) 996-5546

BRAZIL
Contact: *Ms. M.L. Lambert*
State of Minas Gerais — integral development for intermediate cities
Inter-American Development Bank (IDB) — $60.0 M
Total project cost: $170.0 M

CIBRAZEM — grain storage facilities
Inter-American Development Bank (IDB) — $40.0 M

EMBRAPA — construction of irrigation system
Inter-American Development Bank (IDB) — $50.0 M

Companhia Estadual de Energia Electrica — expansion of electrical service
Inter-American Development Bank (IDB) — $35.0 M

COLOMBIA
Contact: *F.J.N. Spoke*
Baranquilla Water Facilities expansion
World Bank (IBRD) — $37.0 M
Total project cost: $86.3 M

ISA — Canafisto hydro power
World Bank (IBRD) — $150.0 M

ECUADOR
Contact: *Ms. C. Hartman*
CEPE — Petroleum I
World Bank (IBRD) — $35.7 M
Total project cost: $113.0 M

PERU
Contact: *Ms. C. Hartman*
CENTROMIN — Mining II — Expansion of polymetallic mines
World Bank (IBRD) — $50.0 M

Ministry of Health — First Health Project
World Bank — $20.0 M

URUGUAY
Contact: *J.G. Carson*
UTE — Power VI (Thermal)
World Bank (IBRD) — $20.0 M

CONAPROLE — dairy products facilities
Inter-American Development Bank (IDB) — $40.0 M

CARIBBEAN AND CENTRAL AMERICA (613) 992-0384

BARBADOS
Contact: *Ms. J. Snyder*
Ministry of Finance — technical assistance
World Bank (IBRD) — $2.7 M

Ministry of Industry and Trade — pilot wind power project
Inter-American Development Bank (IDB) — $1.5 M

DOMINICA
Contact: *Ms. J. Snyder*
MSWT — emergency roads
World Bank (IBRD) — $5.0 M

DOMINICAN REPUBLIC
Contact: *M. Belanger*
INVI — Sites and Services I
World Bank (IBRD) — $25.4 M
Total project cost: $41.0 M

Instituto Tecnologico de Santo Domingo — technical institute
Inter-American Development Bank (IDB) — $5.4 M

EL SALVADOR
Contact: *F.R. Harris*
CEPA — Ports I
World Bank (IBRD) — $30.0 M

Ministry of Planning — water supply and sewerage engineering
World Bank (IBRD) — $7.0 M.

GUATEMALA
Contact: *F.R. Harris*
Ministry of Education — Education III
World Bank (IBRD) — $20.0 M

HAITI
Contact: *Ms. J. Snyder*
Republic of Haiti — construction of irrigation and drainage system
Inter-American Development Bank (IDB) — $18.0 M

PANAMA
Contact: *F.R. Harris*
IDAAN — Water Supply and Sewerage II
World Bank (IBRD) — $21.0 M

PROJECTS APPROVED

AFRICA (613) 995-8188

BURUNDI
Contact: *R. Bélanger*
Assist local construction industry
World Bank — $5.2 M

DJIBOUTI
Contact: *R. Bélanger*
Technical assistance
World Bank (IDA) — $3.0 M

GUINEA
Contact: *J. Desjardins*
Revitalizing industry
World Bank (IDA) — $19.0 M

IVORY COAST
Contact: *J. Desjardins*
Improve water supply services
World Bank — $43.0 M

KENYA
Contact: *D. Wynne*
Cotton processing and marketing
World Bank (IDA) — $22.0 M

LIBERIA
Contact: *P. McLachlan*
Monrovia Urban Development
World Bank (IDA) — $10.0 M

MAURITANIA
Contact: *J. Desjardins*
Highway project
World Bank (IDA) — $4.0 M

MOROCCO
Contact: *L. Fortin*
Study oil shale technology
World Bank (IBRD) — $20.0 M

NIGER
Contact: *J. Desjardins*
Second Forestry
World Bank (IDA) — $10.1 M

SOMALIA
Contact: *P. McLachlan*
Second Water Supply
World Bank (IDA) — $15.0 M

SUDAN
Contact: *J. Arsenault*
Improve port facilities
World Bank (IDA) — $25.0 M

TANZANIA
Contact: *D. Wynne*
Sao Hill Forestry — Phase II
World Bank (IDA) — $12.0 M

TUNISIA
Contact: *L. Fortin*
Development Bank
World Bank (IBRD) — $30.5 M

Undertake water supply project
World Bank — $30.5 M

UGANDA
Contact: *D. Wynne*
Study phosphate mining potential
World Bank (IDA) — $4.0 M

UPPER VOLTA
Contact: *J. Desjardins*
Expand telecommunications facilities
World Bank (IDA) — $17.0 M

Third Rural Development Fund
World Bank (IDA) — $23.8 M

ZAIRE
Contact: *R. Bélanger*
Agricultural Technical Assistance
World Bank (IDA) — $5.0 M

Shaba Power System Rehabilitation
World Bank (IDA) — $19.0 M

ASIA
(613) 992-0356

INDIA
Contact: *M. Vandenhoff*
Agricultural Extension
World Bank (IDA) — $6.0 M

Refineries Rationalization
World Bank (IBRD) — $200.0 M

KOREA
Contact: *A. Pacher*
Agricultural Wholesale Marketing
World Bank (IBRD) — $50.0 M

Developing Industrial Technology
World Bank (IBRD) — $50.0 M

PAKISTAN, ISLAMIC REPUBLIC OF
Contact: *N. Barber*
Fourth Telecommunications
World Bank (IBRD) — $40.0 M

Improve irrigation and agricultural production
World Bank (IDA) — $14.0 M

SOUTH EAST ASIA
(613) 996-8661

INDONESIA
Contact: *J. Brenchley*
National fertilizer distribution
World Bank (IBRD) — $66.0 M

Nucleus Estates and Smallholders VI
World Bank (IBRD) — $68.1 M

Seventeenth Irrigation (East Java Province)
World Bank (IBRD) — $70.0 M

Sixteenth Irrigation
World Bank (IBRD) — $37.0 M

PHILIPPINES
Contact: *J. MacLeod*
Textile Restructuring Program
World Bank (IBRD) — $600.0 M

JAPAN AND SOUTH PACIFIC
(613) 995-7752

PAPUA NEW GUINEA
Contact: *R.J. Rutherford*
Enga Provincial Development
World Bank (IBRD) — $6.0 M
World Bank (IDA) — $2.0 M

MIDDLE EAST
(613) 593-4362

CYPRUS
Contact: *B. Budny*
Road Rehabilitation
World Bank — $12.2 M

SYRIAN ARAB REPUBLIC
Contact: *B. Budny*
Southern Regional Agricultural Development
World Bank (IBRD) — $22.0 M

YEMEN, PEOPLE'S DEMOCRATIC REPUBLIC OF
Contact: *G.J. Shannon*
Third Education
World Bank (IDA) — $6.0 M

Meet The Press — The Hon. Herb Gray, left, Canadian minister responsible for regional industrial development, and his Swedish counterpart, Mr. Neil Asling, brief the press following a day-and-a-half of closed-door sessions. They were co-hosts of the recent Stockholm meeting of regional development ministers from member countries of the Organization for Economic Co-operation and Development (OECD). The sessions afforded the 19 national representatives, 15 of them of ministerial rank, the opportunity to have a frank exchange of views on current regional issues, both at the conference table and on a one-to-one basis.

One subject was the growth of protectionism. The meeting also addressed the wide differences of opinion on regional development ranging from the free market economies to those that are highly structured. Traditional regional problems have recently been complicated by massive sectoral disruption — for example the North American auto industry has been hard hit by worldwide recession and increased international competition. On the Canadian front, Mr. Gray explained that more than half a billion dollars would be spent in the next three to four years through the federal Industry and Labour Adjustment Program (ILAP) and the Canadian Industrial Renewal Board (CIRB) to meet the problems of regionally concentrated sectoral decline.

Both ministers expressed the hope that a similar meeting could be held in two years time.

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