

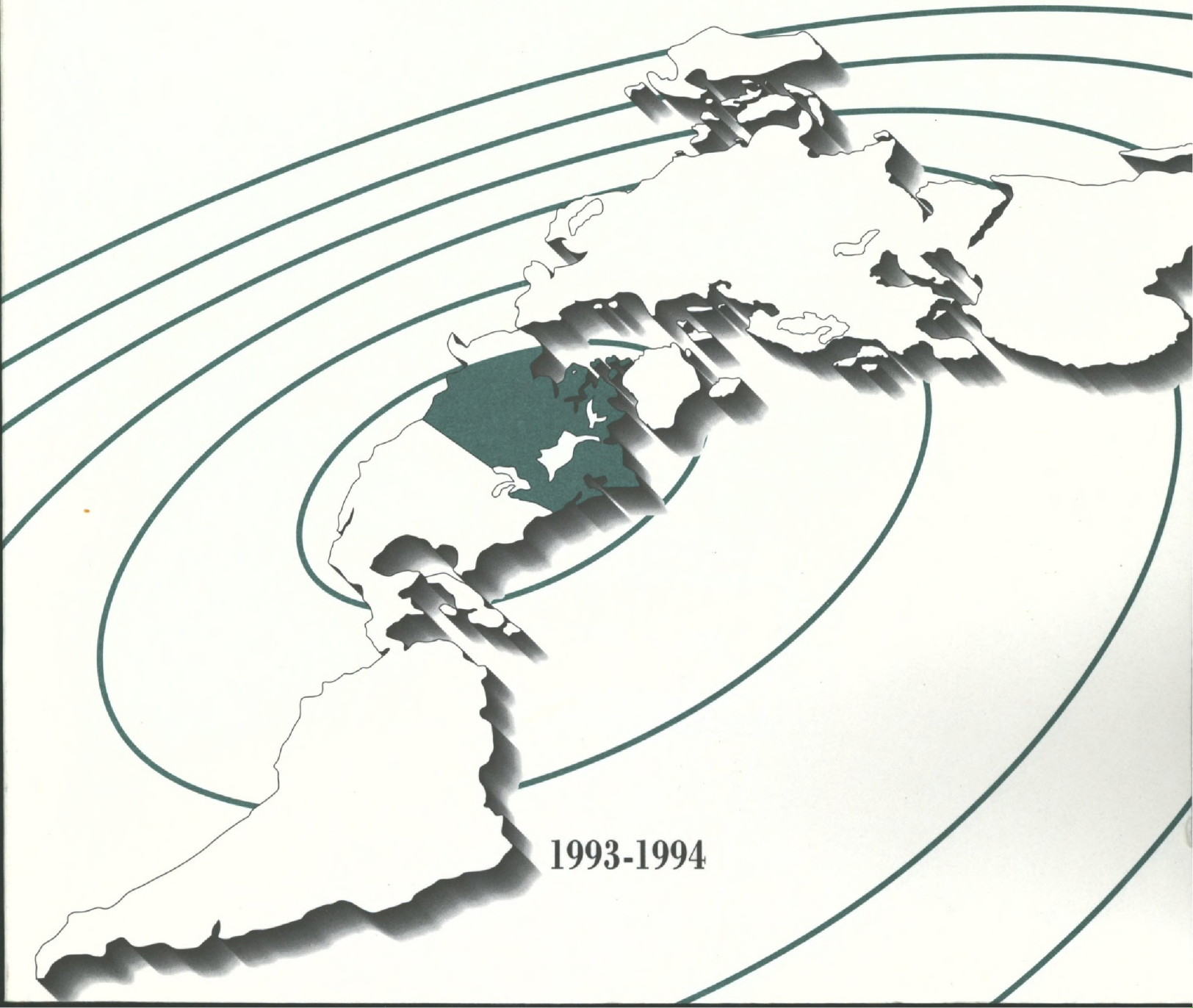
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INTERNATIONAL

TRADE

BUSINESS PLAN

AN INTEGRATED PLAN FOR TRADE,
INVESTMENT AND TECHNOLOGY PROMOTION
AND DEVELOPMENT



1993-1994

INTERNATIONAL

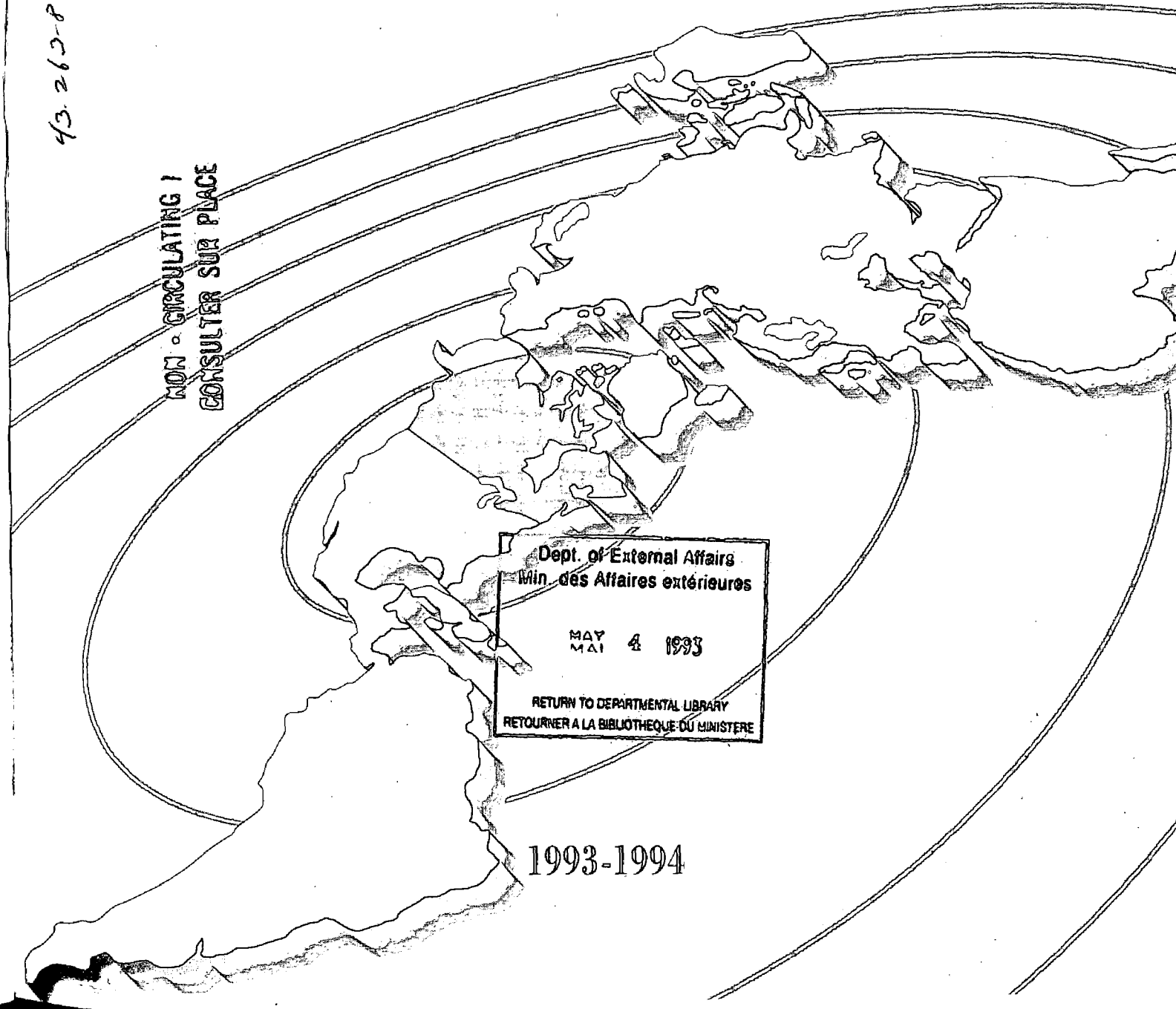
TRADE

BUSINESS PLAN

AN INTEGRATED PLAN FOR TRADE,
INVESTMENT AND TECHNOLOGY PROMOTION
AND DEVELOPMENT

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TABLE OF CONTENTS

MINISTER'S MESSAGE	1
PREFACE	2
GLOSSARY	3
STRATEGIC OVERVIEW	4
SECTOR STRATEGIES AND ACTIVITIES	12
Advanced Manufacturing Technologies	12
Aeronautics	17
Agri-food Sector	23
Arts and Cultural Industries	33
Automotive Industries	40
Biotechnologies	47
Chemicals, Petrochemicals and Pharmaceuticals	52
Commercial Services	56
Consumer Products	61
Defence Products	69
Defence Electronics	69
Marine and Land Defence	72
Electrical Equipment	78
Environmental Industries	82
Fish and Seafood Products	90
Forest Industries	96
Industrial Materials and Construction Products	103
Information Technologies	111
Medical and Health Care Products	121
Oil and Gas Field Equipment	127
Resource Equipment and Technologies	132
Space	136
Tourism	140
Urban Transit and Rail	146
Multisectoral Activities	150
Appendix 1 Federal Government Participants	152
Appendix 2 Sector Strategy Participants	153

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MINISTER'S MESSAGE



I am pleased to present the 1993-1994 *International Trade Business Plan*.

Over the past year, we have had many opportunities to consult with the private sector on how the Government can best support your interests. The Prosperity Initiative consultations held at all levels of society, the private sector reaction to last year's *International Trade Business Plan* and meetings with both private sector advisory groups and industry associations have all delivered a clear message. Government must be more open, more efficient, more responsive to needs and better co-ordinated.

The *International Trade Business Plan* is one of our responses to these concerns. This year, we have widened the scope to include all federal departments and agencies involved in supporting the international business development efforts of the private sector. The *Plan* presents an overview of the entire government's international trade, technology and investment goals, along with strategies for key sectors of importance to Canada — sectors that are presently the source of our wealth and sectors that represent the wave of the future. These strategies have been developed in consultation with the private sector. The *Plan* also provides information on the international business development activities that the Government will be undertaking in the next fiscal year and the key contacts if a company should want to participate in any of these activities. In addition, by publishing all the planned government activities in one list for each sector, the *International Trade Business Plan* has achieved better co-ordination and has eliminated duplication, so that the best use is made of your tax dollars.

While this year's *Plan* is a good step toward meeting the concerns raised by the private sector, it could be more strategic. To help us ensure that the *Plan's* goals and activities accurately reflect market realities and the priorities of the private sector, your contribution is essential. I invite you to review the strategies, activities and the Strategic Overview, and provide us with your comments and suggestions. Your participation will help us ensure that the *International Trade Business Plan* is a vehicle that helps government and industry work together to meet the challenges and opportunities of the global marketplace.

A handwritten signature in cursive script that reads "Michael Wilson".

Michael Wilson
Chair, Economic and Trade Planning Committee
Minister of Industry, Science and Technology
and Minister for International Trade

PREFACE

The *International Trade Business Plan* (ITBP) sets out the federal government's international trade, investment and technology acquisition strategies and activities. It is a one-stop, hands-on guide for Canadian firms looking to take part in international activities planned by all participating departments for the 1993-1994 fiscal year.

This is an interactive document. We will alter our planned program based on your interest, but we can do this only if we hear from you. We welcome your comments regarding the strategic priorities represented in these listings, as well as the individual events listed. Most important are your suggestions on how this plan could be made more useful to you.

HOW TO USE THE PLAN

- Identify the activity or activities in which you would like to participate from the list in your industry sector.
- Contact the government department or industry association at the phone number provided if you are interested in participating in that activity.
- If you just want more detailed information on a particular activity before making a decision, call INFOEXPORT at 1-800-267-8376.
- We will eliminate activities that don't generate sufficient interest, so don't depend on an activity taking place if you fail to let us know of your interest in it.

Some industry sectors lend themselves better than others to trade promotional activities. Government-led activities in the metals and minerals and chemicals sectors, for example, concentrate on resolving market access, market information and trade flow issues with foreign governments and other major world players. The ITBP has listed such activities when they include substantial direct private sector participation, such as in commodities' study groups. Companies interested in participating can obtain more information by calling the contact number listed beside the activity.

Acknowledgements

The valuable comments and contributions received from the private sector are hereby gratefully acknowledged. Particular thanks are due to those members of the International Trade Advisory Committee (ITAC), the Sectoral Advisory Groups on International Trade (SAGITs), and the three major horizontal business associations (Canadian Exporters Association, the Canadian Manufacturers Association, Canadian Chamber of Commerce) whose input aptly demonstrates their knowledge and interest in this endeavor. Members of many other vertical and sectoral associations also provided important contributions either directly or indirectly through their ongoing contact and exchanges with government officials.

GLOSSARY

ACOA	Atlantic Canada Opportunities Agency
ADISQ	Association québécoise de l'industrie du disque, du spectacle et de la vidéo
AECB	Association for the Export of Canadian Books
AGCAN	Agriculture Canada
BCWS	B.C. Wood Specialties Group
CBEF	Canadian Beef Exporters Federation
CCC	Canola Council of Canada
CDA	Canadian Dehydrators Association
CIRPA	Canadian Independent Record Producers Association
CLEA	Canadian Livestock Exporters Association
CPI	Canada Pork International
DND	Department of National Defence
DOC	Department of Communications
EAITC	External Affairs and International Trade Canada
EMRC	Energy, Mines and Resources Canada
ENVCAN	Environment Canada
INVCAN	Investment Canada
ISTC	Industry, Science and Technology Canada
MEDT	Ministry of Economic Development and Trade (Government of Ontario)
POCAN	Potatoes Canada
PSBA	Purebred Swine Breeders Association
WBANA	Wild Blueberries Association of North America
WED	Western Economic Diversification

STRATEGIC OVERVIEW

Canada's prosperity depends on the global marketplace. The United States, the new and emerging markets in the Asia-Pacific region and the Middle East, the markets in transformation in Latin America, and the mature and evolving markets of Western and Eastern Europe all offer varied trade, technology and investment opportunities for Canadian business.

The federal government is committed to helping companies meet the challenges and opportunities created by changes in world markets. The *International Trade Business Plan* (ITBP) outlines how the government will work with Canadian business to this end.

The ITBP is based on extensive consultations with the private sector and within government. This ensures that federal international business development strategies and activities are co-ordinated, focused and of real use to business.

Canada's overall international business development objective is to create jobs in Canada by:

- capturing a larger share of global markets;
- expanding Canada's presence in the American market through the Canada-United States Free Trade Agreement (FTA);
- exploiting opportunities to be created by the North American Free Trade Agreement (NAFTA);
- opening access to new markets through the General Agreement on Tariffs and Trade (GATT) Multilateral Trade Negotiations;
- doubling, within three years, the number of firms exporting;
- attracting investment and technology to Canada;
- assisting companies to become more internationally competitive; and
- diversifying Canada's export composition to include more value-added goods and services.

To meet these objectives Canada faces several key tasks:

- improving market intelligence;
- improving the international environment for Canadian companies;
- improving the domestic environment for Canadian companies;
- making government support better co-ordinated and more targeted;

- strengthening the government-business partnership in international business development; and
- helping Canadian companies improve their international marketing capabilities.

I Improve Market Information and Market Intelligence

Canadian companies want more market information for their strategic planning. The swift delivery of well-analysed market intelligence on specific opportunities can also be critical in helping them to win contracts.

Action

- Work closely with the Canadian business community to determine their specific market intelligence and market information needs in trade, investment and technology.
- Concentrate the activities of Canadian trade, technology and investment representatives abroad on gathering focused, sector-specific information and delivering this information to clients early enough to be useful to them.
- Acquire market intelligence pro-actively through officers with linguistic capabilities, and cultural and sectoral understanding, in key positions abroad.
- Increase the capabilities of officers to help identify and acquire technologies of interest to Canadian firms.
- Encourage more industry associations to relay market information and market intelligence to their members.

II Improve the International Environment for Canadian Companies

Enhance Market Access

Market liberalization has been a central objective of Canadian trade policy since 1945. Canada is active in multilateral organizations, such as the GATT Multilateral Trade Negotiations, and has actively promoted our bilateral trade interests through the Canada-United States Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA). The Government will continue to work to ensure that Canadian companies receive fair treatment, which enables them to obtain maximum benefits from new international trade arrangements.

International trade policy will now focus more on the foreign and domestic policies that are outside the framework of such agreements but have an impact on access to foreign markets and on promotion of investment into Canada. This includes such issues as product standards (e.g. health and safety, phytosanitary), competition policies and regulatory frameworks, investment and taxation regulations, as well as foreign programs and policies that resist imports.

Action

- Work toward a successful completion of the Uruguay Round.
- Defend Canada's interests under the FTA.
- Explore options for accession to NAFTA by other regional trading partners.
- Work to achieve international harmonization of standards and regulatory regimes.
- Negotiate foreign investment protection and double taxation agreements to enhance the environment for international business.

Improve Export and Project Financing Opportunities

The private sector has stressed the need for competitive export financing and enhanced services from the Export Development Corporation (EDC). Some argue that Canada could make more effective use of commercial opportunities in projects funded by development banks and other international financial institutions (IFI's). It is important that Canadian companies do not miss opportunities for projects in which they have important competitive advantages.

Action

- Redefine the mandate of the EDC so that it can offer new types of insurance and financing arrangements, which will make it more responsive to the needs of the business community.
- Examine ways to enhance support for commercial export financing, with particular focus on non-G7 (Group of seven leading industrialized countries) markets.
- Focus the use of Canadian trust funds in IFI's to support projects that have potential commercial benefits for Canada.
- Increase the information available to companies about IFI procurement cycles, financing opportunities and tenders, so that more Canadian companies are able to become involved, at an early stage, in preparing to bid on IFI projects.
- Strengthen the connections between industry and the government's IFI liaison officers and contacts.
- Increase Canada's contacts with the subregional institutions, such as the Andean Development Bank, to increase procurement opportunities for Canadian firms.

III Improve the Domestic Environment

Increase Business Investment in Canada

Action

- Target foreign multinational corporations to promote investment opportunities in Canada.
- Work with Canadian Chief Executive Officers of multinationals to promote the retention and expansion of Canadian subsidiaries.
- Work with site selection firms to ensure that Canada has an appropriate profile.
- Promote Canadian high technology investment opportunities in world markets.

Enhance Canada's Technological Capability

Action

- Improve the delivery of science and technology and related intelligence to the research and development (R&D) communities in industry, federal and provincial governments, and universities.
- Focus the gathering and delivery of foreign technology intelligence on best practice technology: major R&D advances in critical technologies and policy developments that could have an impact on Canada's attractiveness for R&D-oriented alliances or investment.
- Identify opportunities for Canadian technology firms to raise capital.

Promote Improved Product and Service Quality

Because of increasing consumer attention to value, quality has become an even more critical factor in the international competitiveness of Canada's manufacturing and service industries. Canada's international competitiveness can be enhanced by moving more toward performance-based standards, such as the International Standard Organization (ISO) 9000 series. The National Quality Initiative will support and facilitate the development of best practices. It will also ensure that Canadians have access to the wide range of knowledge and experience needed to development total quality organizations.

Action

- Promote awareness of the need to adopt total quality principles, performance-based standards and the ISO 9000 series as a basis for increasing domestic and international competitiveness.
- Encourage Canadian industries to obtain ISO 9000 certification and promote international recognition of Canadian ISO 9000 registrations.

- Ensure that market information and market intelligence contains clear information on quality and standards requirements, and encourage Canadian companies to meet those standards.
- Work with private sector associations and institutions to develop an integrated quality approach to enhancing Canadian competitiveness.

IV Make Government Support More Co-ordinated and Targeted

Increase Co-ordination

The ITBP co-ordinates the international market strategies and activities of the federal government. However, co-ordination on market development issues between the federal government and provincial/territorial governments is also crucial. To this end, the two levels of government have been working together on four key issues: co-ordination of international market development, sourcing, export education and overseas representation. The goals of this improved co-ordination are:

- to provide more efficient delivery of trade, technology and investment programs, while maximizing savings of financial resources and tax dollars;
- to involve provincial and territorial governments in formulating Canada's international market development strategies;
- to develop clearer definitions of the roles of each level of government; and
- to involve the provincial/territorial governments in a more regular, consistent and modernized sourcing system.

Target Market Development Support

Federal trade policy has put a great deal of emphasis on increasing access to the North American market through the FTA and the NAFTA. The United States continues to be the priority market for federal international business development activities. Its business potential is critical for the majority of new exporters and for specialized high-technology and services companies in need of strategic alliances. The Government's focus for this market will be on exporter education, new exporters, niche market activities, leading-edge technology and the promotion of strategic alliances through company matching and profiling.

Our future also lies further south, in Latin America. By the year 2000, Latin America and the Caribbean region is expected to be a market of 600 million people with purchasing power of U.S.\$1 trillion. The NAFTA will help position Canada to take fuller advantage of the Mexican market. Programs under Access North America, along with an expanded Canadian presence in Mexico, are aimed at introducing the widest number of Canadian small and medium-sized enterprises to the business climate of Mexico, targeting in particular the automotive parts, oil and gas, agri-food, environment and services sectors. Market reforms and economic liberalization in South America have also resulted in rapidly expanding market opportunities for Canadian business and will open the markets for new technologies and suppliers.

With the world's fastest growing economies, the Asia-Pacific region offers significant opportunities for Canadian companies, particularly in the information technologies, transportation, agri-food, energy and environment sectors. The swift pace of change in these countries, combined with language and cultural barriers, high market entry costs and, in some cases, complex bureaucracies require a long-term strategy and commitment. Changes in the Japanese market, particularly increasing demand for value-added imports and stagnating demand for imports of resource products, have led to the Government's Action Plan for Japan, which is aimed at encouraging Canadian industry to adapt to these new market conditions. Canadian representatives abroad, through their local knowledge, contacts and government status, can help Canadian companies meet the challenges of these markets.

The increasingly integrated Europe has meant the lowering of some barriers for Canadian companies, while new ones for the region as a whole are raised. This makes joint ventures and alliances more important as strategies to deal with trade barriers. Government efforts will focus on making new exporters aware of the strategic importance of a creative approach to the market and on helping them implement the most appropriate export strategy. Markets of priority for the region include advanced technology and information technology, defence products and space systems, value-added agri-food and fish products, environment, aerospace and transportation.

With a highly literate, educated population of 400 million and a rich resource base, Central and Eastern Europe and the former Soviet Union stand as an incremental market of immense long-term potential. Particular Canadian business opportunities are in energy, telecommunications, mining, forestry, agri-food and services. Market development in this region is an expensive proposition. To meet the particular financial, political and marketing challenges, the Government's priority is to help Canadian companies establish successful business linkages with local partners.

Although, at present, commodities dominate Canada's exports to the Middle East and North Africa, there are growing markets for manufactured goods and services, and for technology transfers and joint ventures. Rapid population growth, economic liberalization and infrastructure development in many North African countries offer new opportunities and challenges to Canadian companies. Sectors of particular importance are energy (primarily oil and gas), defence, transportation and telecommunication equipment, agri-food, and oil and gas and financial services. Government support includes stressing the importance of industrial co-operation, joint ventures and technology transfers.

Action

Federal business development resources and personnel deployment will stress:

- the development of novice and niche-market activities in the United States;
- the use of Access North America to help Canadian companies take advantage of new opportunities arising out of the NAFTA;
- the new market opportunities created by market reform programs in Latin America;
- the expansion of sales of goods and services to the booming markets of Asia-Pacific;

- assistance to Canadian companies to expand in the high-end value-added sector of the Japanese market through the Action Plan for Japan;
- strategic investment and technology linkages in Europe and key Asian markets;
- direct assistance, including support of feasibility studies and venture-specific training programs provided under Renaissance Eastern Europe, to help Canadian companies establish connections with local partners in Central and Eastern Europe and the former Soviet Union; and
- the use of technology transfers and joint ventures to capitalize on the emerging opportunities in the Middle East and North Africa.

V Strengthen Government-Business Partnership

Business, labour and government must all be fully engaged to build stronger trading relationships, to adopt new technologies and to encourage two-way investment.

Action

- Work closely with private sector advisory groups and industry associations on strategic planning to ensure that trade development resources are being targeted to meet the needs of Canadian business.
- Work with industry associations to develop their delivery of export education and market intelligence.
- Increase assignments of federal officials to private sector associations to strengthen linkages between the private sector and the Government's market development network.
- Promote the interchange of industry specialists to the public sector to improve the delivery of market intelligence, the identification of technology and investment opportunities, and the overall delivery of programs abroad.

VI Help Companies Improve International Marketing Capabilities

Strengthen Market Preparation and Education

Some companies, particularly those new to international business, require more training in principles and techniques of international marketing. Federal, provincial and municipal governments have important roles to play in helping Canadian companies become more prepared to pursue international business opportunities. Co-ordination at all levels is essential.

Action

- Increase the role of private sector associations in developing and delivering market preparation workshops and seminars. The new Forum for International Trade Training (FITT) program, operated by the Canadian Chamber of Commerce and supported by the federal government, is an initial project to accomplish this.

- Build a strong base of export-ready companies through education programs targeted at novice exporters and small and medium-sized enterprises.
- In co-operation with the provincial governments, clarify the division of responsibility in the delivery of export education programs.

Increase Support for Strategic Alliances

Strategic alliances are a key component of international business development, particularly for the high-technology sectors. Some Canadian firms have found strategic alliances to be an excellent way to penetrate and position themselves in foreign markets, while gaining access to valuable management and marketing expertise, complementary technologies and processes, and growth capital. The Government offers a number of programs that help companies pursue strategic alliances.

Action

- Through the government's investment prospecting program, assist business, particularly small and medium-sized enterprises, to find investment partners that help them gain access to foreign markets, technology and capital.
- Continue to deliver strategic partnering programs through posts abroad, targeting the American, European and Asia-Pacific markets.
- Build on this partnering success in the high-technology sector to expand alliance arrangements into other priority sectors.

SECTOR STRATEGIES AND ACTIVITIES

Advanced Manufacturing Technologies

A International Environment

Advanced manufacturing technologies (AMT) are computer-controlled or microelectronics-based machines, such as industrial robots, computer-controlled (CNC) machine tools and computer-aided engineering (CAE) software, which are used in the design, manufacture and production control of discrete products, such as automobiles, electronics or aircraft.

In 1990, worldwide investment in AMT products, services and systems was \$57 billion. It is estimated to be increasing at a compound annual growth rate of 13 per cent and, by the year 2000, is forecast to be \$202 billion. North America currently represents 53 per cent of the world market. However, if Asian and European investment continues to grow at its current rate, their share will increase to 52 per cent by 2000.

Japan and Germany are major exporters of AMT products. Japan is a leader in producing machining centres, industrial robots and flexible manufacturing systems, while Germany has established a lead in precision machining technologies and has built a strong export machine tool industry. Companies using and supplying AMT in these two countries have developed a lead over their competitors, through greater collaboration due to their ability to rapidly develop and apply new technologies. The United States dominates the factory systems integration market, primarily due to its strengths in computer software and hardware development.

Internationally, the use of advanced technologies in designing and manufacturing products has become a necessary basis for competitiveness. By combining AMT with new production methods, (e.g. Just-in-Time production, concurrent engineering and Total Quality Management), manufacturing firms are reducing costs associated with defects and inventory, improving productivity and responding more quickly to changes in customer needs.

Leading edge manufacturers throughout the world are now using the lean manufacturing paradigm, and the focus is on developing the systems, equipment and the organizational tools to perfect the next paradigm, called "Agile Manufacturing" in the United States. Europe, Japan and the United States have major government-led initiatives to integrate AMT capabilities. Following a Japanese proposal in 1990, Australia, Canada, Europe, Japan and the United States are co-operating in a joint technology development program, the Intelligent Manufacturing Systems (IMS) Program, which is to develop the factory of the 21st century. The Program, now in the feasibility stage, aims to develop international standards for the next generation of industrial technologies, while sharing the costs and risks. IMS represents a unique opportunity for Canadian manufacturers to participate in next generation technology developments.

B Domestic Position

Canadian advanced manufacturing technologies companies include systems integrators, producers of machine tools, automated manufacturing systems, plastic processing machines and manufacturing software developers. In 1990, there were approximately 250 such producers in Canada, and shipments were about \$1.4 billion. Exports were \$840 million, or about 60 per cent of output, and imports were \$1.4 billion. The sector employed some 17,000 persons.

The major markets for Canadian products and services are those countries with a modern manufacturing base. These markets include the United States, Japan, Western Europe, Latin America (primarily Mexico), Taiwan, Korea, Malaysia, Hong Kong and Thailand. The Japanese and German markets, the second and third largest, remain difficult to penetrate because of the preference by users in those countries for domestically manufactured products. Canadian firms have had more success in the United States, Mexico, Britain, France and Italy.

Canadian manufacturers of AMT products are generally much smaller than their competitors in other countries. The largest Canadian firms report annual sales of between \$200 and \$300 million. Competitor firms such as Allen-Bradley, Mitsubishi and Siemens have sales many times greater and have established international marketing channels.

Successful, fast growing Canadian firms have invested in developing proprietary technologies and have pursued niche-marketing strategies. Conversely, Canadian firms that conduct little or no R&D and which serve only the domestic market are in many cases in decline.

C Strategic Direction

International marketing and technological enhancement are critical capabilities for companies operating in this sector. Niche marketing and ongoing investment in research and development are priorities. In terms of product areas, integration technologies, advanced robotics and specialized machine tools are promising market segments. Canadian companies seeking to develop leading-edge technologies in several advanced areas are participating in IMS pilot projects now under way.

Canadian companies recognize the importance of developing the highly skilled machine designers, operators and programmers needed to produce internationally successful AMT products and systems. The ongoing training of Canadian workers will result in a stronger AMT skills base for Canadian companies and is critical to the successful growth of the AMT producer sector in Canada and to the manufacturing sector generally.

In order to pursue international opportunities, the following approaches are advocated in the geographic markets indicated:

North America

- The U.S. market and enhanced entry to the Mexican market represent significant sales opportunities for Canadian suppliers over the next five years.
- To develop market and technology links with U.S. AMT companies, Canadian participation in Autofact, the International Manufacturing Technology Show (IMTS), and Fabtech will be encouraged. These American trade shows provide large audiences and national coverage, which can serve Canadian companies in developing technology partnerships and broader U.S. market penetration.
- Exhibiting at planned horizontal Canadian machinery and equipment shows in Mexico will assist Canadian firms to implement marketing plans for that country. There is the need to update current market studies and create new sector-specific market analysis reports for plastic processors, where Canada has a significant technology lead, and to disseminate such information to Canadian firms.

Europe

- Canadian AMT producers will be encouraged to form partnerships and consortia with their European counterparts, in order to complement and upgrade the technological development being undertaken by Canadian firms. This will be encouraged through attendance at trade shows and by missions to Italy and Germany.

Asia

- Firms with strong, niche-based capabilities are now enjoying some success in these markets and will be encouraged to seek out new markets, through the AMT Sector Initiative.

International

- Firms and research organizations that participate in IMS pilot projects will build strategic connections with Japanese, United States, European and Australian firms, technology centres and universities. The experience gained will provide stimulus to ongoing technology transfer opportunities, expected to result from the introduction of a full-scale IMS Program.

Advanced Manufacturing Technologies

Activity	Date	Location	Dept.	Contact
United States				
Manufacturing equipment; national stand: Puerto Rican Manufacturing Association Industrial Show	Apr 1993	Puerto Rico	EAITC	613-944-6134
Plastic injection molding; mission from New York City to Toronto	May 1993	Toronto	EAITC	613-994-7486
Fastener machinery and products; national stand: National Industrial Fastener Show	May 1993	Columbus	EAITC	613-944-9475
Plastic injection molding; mission from Cleveland to Windsor	Jun 1993	Windsor	EAITC	613-994-7486
Precision machinery and equipment; information booth: OEM Design and Engineering Show	Jun 1993	Cleveland	EAITC	613-944-9475
Mold Expo '93 Trade Show	Sep 1993	Detroit	ISTC	416-973-5176
Printing equipment and services; national stand: GraphExpo '93	Oct 1993	Chicago	EAITC	613-944-9479
Metal fabricating industry; national stand: Fabtech '93	Oct 1993	Chicago	EAITC	613-944-9475
			ISTC	613-954-3243
Plastics, injection moulder; mission to Material handling equipment; national stand: North America Material Handling Show	Mar 1994	Buffalo	EAITC	613-994-7486
	Apr 1994	Detroit	EAITC	613-944-9475
Plastics; national stand: National Plastics Show	Jul 1994	Chicago	EAITC	613-994-7486
Machine tool; national stand: International Machine Tool Show	Sep 1994	Chicago	EAITC	613-944-9475
Western Europe and European Community				
Incoming mission; Italian Machine Tools, Robots and Automation Association (UCIMU)	May 1993	Ontario	ISTC	416-973-5170
Mould Makers Technology Exchange Initiative	Jun 1993	France, Ontario	ISTC	416-973-5176
Robotics and automated manufacturing; mission to Austria	Oct 1993	Austria	EAITC	613-995-9766
Outgoing mission; Canadian-Based AMT Hardware Manufacturers	Oct 1993	Milan	ISTC	416-973-5170
Interplas International Trade Show	Nov 1993	Birmingham	ISTC	613-954-3264
Asia Pacific South				
Packaging materials management; information booth: Matpack '93	Sep 1993	Melbourne	EAITC	613-995-7652
Industrial machinery; solo show: Catalogue Show	Feb 1994	Pakistan	EAITC	613-992-0952
Africa and the Middle East				
Packaging machinery (Pal Ex '93); mission from Saudi Arabia to Toronto	Oct 1993	Toronto	EAITC	613-944-5984
Equipment and technology; information booth: Saudi Plastics '93	Dec 1993	Riyadh	EAITC	613-944-5984
Latin America and the Caribbean				
Plastics machinery; information booth: Brasilplast '93	May 1993	Sao Paulo	EAITC	613-996-6921
Packaging and labelling machinery; national stand: Expo Pack '93	May 1993	Mexico City	EAITC	613-996-6921
Furniture manufacturing supplies; national stand: Techno Mueble '93	Jun 1993	Guadalajara	EAITC	613-996-6921
Packaging and labelling machinery; information booth: Fispal '93	Jun 1993	Sao Paulo	EAITC	613-996-5549

Activity	Date	Location	Dept.	Contact
Industrial equipment and services; solo show: Canada Expo '94	Jan 1994	Monterrey	EAITC	613-996-5358
Plastics machinery; national stand: Plastimagen '94	Feb 1994	Mexico City	EAITC	613-996-6921
High technology, oil and gas, manufacturing machinery; solo trade show: Canada Expo '94	Mar 1994	Mexico City	EAITC	613-996-5358
Central/Eastern Europe and the Commonwealth of Independent States				
Engineering; national stand: Brno International Engineering Fair	Sep 1993	Brno	EAITC	613-996-7107
Industrial machinery; national stand: Plovdiv International Engineering Fair	Sep 1993	Plovdiv	EAITC	613-996-7107
Industrial machinery; national stand: TIB '93	Oct 1993	Bucharest	EAITC	613-996-7107

Aeronautics

A International Environment

In 1991, total American aerospace and defence manufacturing output was \$131 billion. Since the U.S. output is generally considered to be somewhat greater than that of the rest of the Western world's combined, it is likely that total Western output was about \$250 billion. (The output in the former Communist bloc is unknown, but was, in any case, self-contained.)

Canadian output in 1991 was approximately \$9.4 billion, about 3.8 per cent of the Western world total. Of this amount, about 80 per cent was commercial output. Since the output of the rest of the Western world was only about 35 per cent commercial, Canada produced close to 8.6 per cent of the Western world's commercial aerospace output.

The sector utilizes very advanced technologies and, therefore, requires significant levels of employee training. The constant drive to increase the operating efficiencies of aircraft demands high levels of research and development and generates a steady stream of new, high-technology products. The technology spinoff is broad, making this among the most strategically important of industries.

The major exporters of finished aircraft are the United States and West European countries, but significant portions of these aircraft are manufactured in other countries. High capital acquisition costs for modern aircraft have led purchasers to demand that a share of production be carried out in their countries. The substantial development costs of new aircraft have forced the major manufacturers to look for risk-sharing partners, further contributing to the internationalization of the industry.

Shrinking defence budgets and worldwide economic conditions have affected the industry severely. Production rates are being trimmed by all manufacturers, and they are attempting to compensate by bringing back into their own plants much of the work they previously subcontracted. They are also trying to consolidate their purchases among a smaller number of suppliers with whom they plan to develop longer-term, more strategic relationships.

The major area of growth in demand over the next several years is projected to be the Pacific Rim countries. British Aerospace, for example, predicts that defence spending in the Asia-Pacific region will overtake that of Western Europe and equal approximately two-thirds of U.S. spending by 2010. Many of these countries are also expected to use their large reserves of capital to push the development of their own industries.

In terms of growth in supply, the former Warsaw Pact countries may be strong challengers for market share if they are able to develop the marketing skills to complement their technological capabilities and low labour costs.

In addition to manufacturing, there is also a very large service industry associated with aeronautics. The repair and overhaul (R and O) segment is concerned with keeping the airframes, engines, avionics equipment, etc. flying and does considerable business in converting older aircraft into new configurations, such as from passenger to cargo service. There are also the industry segments that plan and provide all the infrastructure needed to keep the airlines flying; e.g. airports, air traffic control systems, navigation aids, weather services, communications, training systems, etc.

In many respects, the aeronautics service industry is in better shape than its manufacturing counterpart. Budget constraints and economic conditions are placing more emphasis on keeping older aircraft flying longer. New environmental regulations and the availability of more fuel efficient engines are providing repair and overhaul opportunities. There are very large airport developments under way, along with their expanded infrastructure elements, particularly in Pacific Rim and former Eastern Bloc countries. As well, the reduced availability of military trained pilots around the world will create opportunities for more business in the training segment.

B Domestic Position

Canada's aeronautics industry exports about 75 per cent of its approximately \$10 billion annual sales and directly employs some 60,000 people. We have one major airframe manufacturer (Bombardier), one major engine manufacturer (Pratt and Whitney Canada), the major world supplier of flight simulators (Canadian-controlled CAE Electronics) and a substantial infrastructure of smaller companies that make products ranging from small components to major subassemblies. There is also a very strong service segment.

Bombardier, though small compared to Boeing or Airbus, is a large Canadian-owned player in regional transport and general aviation. Since acquiring de Havilland, Bombardier offers a range of turboprop and jet-powered regional transports. Although the regional market at present suffers from a surplus of capacity, the RJ aircraft appears to have good prospects. The company is under pressure to produce a 70-passenger version of the RJ and has announced the Global Express, a transpacific business jet.

With the acquisition of Learjet, the company also offers a family of business aircraft, including the Challenger. The water bomber specialty aircraft has a steady market demand. Bombardier also has a large service component with contracts for repair and overhaul of the Canadian CF-18's and training of pilots for the Department of National Defence.

Bombardier is integrating the operations of its subsidiaries. It is painting its RJ aircraft and re-engineering CL215's in the de Havilland plant and plans to manufacture the wings for the new Learjet Model 45 there. Significant portions of its aircraft are built at Shorts in Northern Ireland, an operation owned by Bombardier.

Pratt and Whitney Canada has a 30 per cent market share in the small engine sector (used by regional transports, general aviation, military utility/trainers and helicopters) and is well positioned to realize its goal of expanding that share to 40 per cent in the coming decade.

There are several other foreign-owned subsidiaries, such as Bell Helicopter (which manufactures all of Bell's civil helicopters), Dowty and Menasco (aircraft undercarriage), Boeing (composite structures) and Allied Signal (avionics, engine controls, etc). These companies tend to operate under different mandates from their parent corporations and must be able to justify their continued existence to their parent operations.

There is a trend among these larger companies to reduce the number of small operations with which they deal, either by bringing more of the work in-house, or by upgrading the capabilities of a few of their better suppliers.

The next tier in manufacturing consists of smaller operations, mostly Canadian-owned, specializing in niche markets. As well, there are machine shops producing components. Fleet Aerospace, for example, is one of the largest of these companies and has the capability to manufacture large assemblies. There are also several Canadian firms that have had international success in airport design and construction, air traffic control, specialized training systems and other service segments.

In addition, Canada has a specialized sector of companies that produces light aircraft, mostly for the private flyer market. Some of these firms design and manufacture complete aircraft or aircraft kits. Others specialize in engines or floats. Since product liability costs in the United States drove Piper and Cessna from the market, a large backlog of demand for aircraft of this type has built up. With the coming of new certification standards for these aircraft, as well as the possibility of revisions to the liability laws in the United States, this market segment could enter a phase of rapid growth.

In today's cyclical economic environment, companies with service specialties, such as those having repair and overhaul capabilities for specific aircraft or engines (Héroux with undercarriage for several military aircraft) or those with special process capabilities, operate reasonably stable businesses.

C Strategic Direction

Canadian companies will maintain or increase their market share by:

Designing and producing aircraft, aircraft engines, avionics and aircraft subassemblies and components that meet world demands for high quality and low life-cycle costs. In order to facilitate this, government and industry will work together to:

- accelerate research and development spending on both product and process technology;
- improve corporate performance through systematic education and training in Total Quality Management; and
- improve long-term planning by strengthening the existing ISTC-AIAC (Aerospace Industries Association of Canada) Memorandum of Understanding.

Ensuring that Canadian firms participate in appropriate international joint projects where leading-edge technology is being developed.

- Industry will define its requirements for government-supplied targeted intelligence on new developments. By funding programs such as the Program for Export Market Development (PEMD), Pacific 2000 and Renaissance Eastern Europe, government will help industry to expand its presence overseas.
- Investigate the feasibility of an industry-government-sponsored office in the Pacific Rim to assist companies in developing long-term relationships with Asian companies.
- Expand contacts with East European companies through participation in seminars sponsored by the Organization for Economic Co-operation and Development (OECD) and the European Bank for Reconstruction and Development (EBRD) on restructuring the aeronautics industry in Eastern Europe and through missions where opportunities warrant.
- Participate in major trade fairs such as Airshow Canada, Paris, Farnborough, Asia Aerospace and the National Business Aircraft Association (NBAA).
- Use the Defence Industry Productivity Program (DIPP) program to access development funds necessary to ensure that industry can participate in large risk-sharing programs.

Expanding their market share of the growing third party Repair and Overhaul market and other service areas by:

- investigating the feasibility of a "Team Canada" marketing strategy for specific projects, including offering a package of niche capabilities to meet the total requirement;
- understanding better the market opportunities in the U.S. sunbelt, where two-thirds of the world's R&O capability is located; and
- investigating joint venture opportunities in the Asia-Pacific region, which is set to become a major battleground for the handful of global companies that are capable of providing a "complete" airframe-support package to the world's major airlines.

Developing more capabilities in our airframe and engine component and subassembly companies to meet the demanding standards of the large aircraft manufacturers. This will be accomplished by:

- developing in-house expertise in design, manufacturing and testing of subassemblies;
- understanding better the global aftermarket trade in parts and components (\$7 billion per annum) and revitalizing Canadian interest in this global market through missions to U.S. and European primes; and

- developing awareness of business opportunities and required qualifications by working with government to organize regional training seminars and obtaining consultant support in such areas as International Standard Organization (ISO), TQM, bidding and contracting processes.

Maintaining our share of the U.S. defence aeronautics market by:

- using the Canada-U.S. Defence Development/Defence Production Sharing Arrangements to maintain and improve access to technical drawings, build-to-print opportunities and source approval of the U.S. Department of Defence (DoD) logistics centres;
- continuing to use government-provided market intelligence and marketing support from Canadian Consulates and Trade Offices in the United States; and
- participating in "marketplace" events, such as Subcon, where U.S. primes and U.S. DoD logistics agencies meet Canadian companies.

Increasing our share of the growing private light aircraft market. One way to do this will be to capitalize on the certification services that Transport Canada will soon provide for light aircraft.

Developing focused and effective promotional activities in support of all industry subsegments by:

- providing input and participating in the development of subsectoral market opportunity papers and the *International Trade Business Plan*, which will guide Trade Commissioners at Embassies and Consulates and in federal departments in their gathering of market information and intelligence and in their organization of promotional events; and
- assisting government to provide the most effective information-gathering and promotional program for industry.

Aeronautics

Activity	Date	Location	Dept.	Contact
United States				
Materials and process engineering; national stand: SAMPE '93	May 1993	Los Angeles	EAITC	613-944-9481
Boeing; mission from Seattle to	Jun 1993	Eastern Canada	EAITC	613-944-9481
Repair and overhaul; mission to	Jul 1993	Atlanta, Dallas	EAITC	613-944-9481
Aerospace related products; national stand: National Business Aircraft Association	Sep 1993	Atlanta	EAITC	613-944-9481
Boeing; mission from Seattle to	Oct 1993	British Columbia, Alberta	EAITC	613-944-9481
Aerospace firms; investment mission to	Oct 1993	St. Louis	EAITC	613-993-7348
Simulation training devices; information booth: Simulation and Training Devices Fair	Nov 1993	Orlando	EAITC	613-944-9481
Helicopter and helicopter technology; national stand: Helicopter America International	Feb 1994	Las Vegas	EAITC	613-944-9481
Western Europe and European Community				
Airport equipment and services; mission to	May 1993	Norway	EAITC	613-995-4730
Defence and aerospace; mission to	May 1993	Bonn	EAITC	613-996-3774
Airplanes and aerospace technology; national stand: Paris Air Show '93	Jun 1993	Paris	EAITC	613-996-3607
Defence electronics; land, sea and air, police, security and civil aviation; information booth: International Defence Industry and Civil Aviation Fair	Sep 1993	Ankara	EAITC	613-996-5263
Helicopter technology; information booth: Helitech	Sep 1993	Surrey	EAITC	613-995-6565
AirCrafts parts; mission to	Nov 1993	Italy	EAITC	613-995-9766
Japan				
Aerospace Industry Association of Canada; mission to	Oct 1993	Korea, Tokyo	EAITC	613-995-8596
Aeronautics; mission from Japan to	TBD* 1993	Canada	EAITC	613-995-8596
East Asia				
Transport system and services; information booth: Taipei Aerospace Technology Exhibition	Aug 1993	Taiwan	EAITC	613-996-7582
Aerospace; mission to	Oct 1993	Korea, Tokyo	EAITC	613-995-8596
Aeronautic industry products; information booth and seminar: China Aviation	Oct 1993	Peking	EAITC	613-996-6987
Asia Pacific South				
Airport development; mission from India to	Sep 1993	Canada	EAITC	613-992-0952
Aerospace and defence; information booth: Asian Aerospace '94	Feb 1994	Singapore	EAITC	613-996-5824
Latin America and the Caribbean				
Aerospace equipment and service; national stand: Fidae '93	Mar 1994	Santiago	EAITC	613-996-5358
Multiple Markets				
Air Show Canada; incoming buyers to	Aug 1993	Abbotsford	EAITC	613-996-4153

* TBD - to be determined

Agri-food Sector

A International Environment

The value of world agri-food trade has been expanding steadily, rising from US\$209 billion in 1985 to US\$325 billion in 1990. Any movement toward a more liberalized trading environment as a result of the Multilateral Trade Negotiations (MTN) will only add to the sector's prominence in the global economy. The major exporting countries in 1990 were the United States (US\$45 billion), France (US\$33 billion), the Netherlands (US\$31 billion), Germany (\$20 billion), and the United Kingdom (US\$13 billion). Canada's exports of \$11 billion accounted for 3.5 per cent of 1990 world trade in agri-food products.

A key element in the international environment is the dominance of the United States and the European Economic Community (EEC), whose policies can have an enormous impact on Canada's market efforts. The export subsidy war between the two has put severe pressure on primary agriculture in Canada, particularly grains and oilseeds, and has led to world over-production and depressed prices for many commodities.

The major established and emerging world markets for agri-food products are Japan, United States, Western Europe, Mexico, South Korea and the Association of Southeast Asian Nations (ASEAN) countries. Canada's major existing agri-food market for processed products is the United States.

A growing world population is increasing the demand for such primary products as grains. Major existing markets for Canada are the Pacific Rim (particularly Japan and China), Brazil, Chile, Argentina, Russia, Iran and Saudi Arabia. While the United States is a major buyer of certain Canadian primary products, in terms of business and market development, the private sector increasingly considers Canada and the United States as part of the same market. The most important emerging markets for primary products are Korea, Taiwan, the ASEAN nations, the former Soviet Union and the Gulf States. Western Europe is an established and sizeable market and offers some niche-trade development opportunities, but most activities are of a market-maintenance nature.

The largest, fastest growing and most profitable part of the global agri-food market consists of value-added products, especially meat, beverages, bakery goods and dairy products, which are expected to drive world agri-food exports upwards in the coming decade. The United States will continue to represent Canada's largest market, and major opportunities also exist in the mature Western Europe market. Japan has one of the world's highest per capita expenditures on food, and agri-food imports are growing at about 17 per cent annually. Mexican imports of processed foods have grown from \$120 million to \$500 million in four years, making it a market of major opportunity for Canada. Over the next decade, the growing middle classes of the Asia-Pacific region will also provide substantial opportunities for Canadian value-added products.

The following trends are altering the nature of the global agri-food market:

- Increasing demand for convenient, high quality products for the consumer and restaurant markets. While a strong demand for traditional products, such as seafood, will continue, consumer demand for convenience, quality and safety in the products they buy (microwaveable products for the United States, lean beef for Japan and organic products for Europe) will be of growing importance. The aging of the North American and European population will also increase the demand for products that are healthier and available in smaller portions and single servings.
- Increased demand in North America, Japan and Europe for products that meet nutritional needs and food safety concerns. Demand is growing for products that have been delivered swiftly from the producer to the consumer with as little packaging and processing as possible: low calorie, low cholesterol, chemical-free products. The same markets show increasing demand for products, which are "environmentally friendly" in their growing, production and packaging processes.

B Domestic Position

The agri-food sector is fundamental to Canada's socio-economic fabric and supports employment and ways of life in all regions of the country. Food processing employs nearly one million Canadians, either directly or indirectly in distribution, retail and food services, and accounts for over \$2 billion in new investment annually. Primary agriculture employs some 450,000 people. Total farm cash receipts for 1992 are forecast to be \$22.8 billion with operating expenses of \$16.2 billion while food processing accounts for over \$43 billion in factory shipments. The industry is more export-dependent than that of the United States; in 1990, exports amounted to \$296 per capita compared with \$177 per capita for the United States.

Canada enjoys an international reputation and image as a reliable supplier of quality products. The quality, diversity and uniqueness of our primary and processed products, coupled with strict phytosanitary/health regulations controlling their production and movement, are key strengths of Canada's agri-food sector. Producers, backed by a world class production and transportation infrastructure, have a reputation for efficiency and reliability in production levels and delivery. Canada is also one of the few regions of the world left with both available land and ample water, which adds to the sector's long-term growth potential.

Even with the many competitive strengths that Canada enjoys, there are a number of challenges facing the sector. These include:

- a need to add value to our basic primary products;
- a lack of adequate supply capability for many products;
- a low level of industry participation and follow-up in foreign markets; and
- a need to increase the exposure of many smaller firms (which make up most of the sector) to innovative techniques and strategies for market.

The development of trading blocks and protectionist policies has made it more difficult for Canada to develop and maintain markets in a number of regions. Faced with low commodity prices, Canadian producers have been forced to seek out other market opportunities, which, in some cases, has led to increased product diversification. At the same time, lower tariffs and the gradual elimination of trade barriers with the United States have made the domestic industry face stronger competition from imports and have led to a decline in the industry's domestic market share. The value of food imports has increased substantially since 1988, while the value of exports has held relatively steady, all of this leading to a substantial reduction of what had been a \$1 billion trade surplus in processed foods.

Although some elements of the agri-food sector, particularly the supply-managed industries, have concerns about trade liberalization, a resolution of subsidies and market access issues through the current round of the Multilateral Trade Negotiations (MTN) and the implementation of the North American Free Trade Agreement (NAFTA) will have a positive impact on Canadian agri-food exports.

The relatively low value of the majority of primary agriculture products necessitates efficient and cost-effective shipping and handling. This means that large firms, often multinationals, tend to dominate international markets because they are the only ones able to amass sufficient quantities of a commodity. However, only a few multinationals are based in Canada. The exception to this is the grains and oilseeds sector, in which multinationals are active participants in the export of Canadian commodities. In general, however, the marketing capability (distribution, supply, etc.) of multinationals in Canada, is significant and should be utilized more fully by small and medium-sized enterprises. As well, multinationals should be encouraged to develop more world product mandates for Canadian subsidiaries.

C Strategic Direction

The overall goal of the international strategy is to double the export participation rate and increase Canada's share of the global market of agri-food products to five per cent by the end of the decade. The following are components of the strategy for achieving that goal.

Put specific emphasis on value-added products:

- Continue to actively pursue the United States as Canada's main market, particularly for companies new to international trade.
- Take advantage of the opportunities created by the NAFTA.
- Target the Pacific Rim (especially Japan, Korea, Taiwan and Singapore) and Western Europe as the key niche markets with growth potential for Canadian products.
- The Japanese consumer market represents a significant opportunity for exports of Canadian value-added products, such as lean pork and beef, and in the hotel, restaurant and institutions (HRI) markets.

- Look for opportunities to combine Japan's purchasing power, sources of technology and investment funds and their shortage of manpower to upgrade Canadian agri-food products to the final retail form.
- The changing market regime of the European Community (EC) and the creation of a unified set of regulations will reduce the administrative burden for Canadian exporters, but the EC will still require careful monitoring of any new non-tariff barriers that might arise.
- Investment and strategic alliances will be key mechanisms for dealing with these barriers. Exports to Western Europe could also be increased by focusing on key "image" products and niche areas of demand; e.g. maple sugar, honey, wild rice, organically grown products, berries, processed sweet corn, horse meat, bison meat, goose meat and convenience foods.

Continue strong market development and market access support for primary products exporters in existing markets, particularly Japan, China, Brazil, Colombia, Mexico, Russia, Iran and Saudi Arabia.

Focus development activities on the following key emerging markets for primary products: Korea, Taiwan, Mexico, the former Soviet Union, the Gulf States and ASEAN.

- Emphasis will also be placed on building substantial niche markets in livestock genetics, seed potatoes, feed and pulses in the Pacific Rim, Western Europe and emerging markets in Latin America and the Middle East.
- While the countries of the former Soviet Union outside of Russia also offer prospects for expanded grain sales, this is subject to credit availability and payment capabilities.

Put priority on resolving market access issues in a timely fashion.

- Once access is obtained, our trading rights must be aggressively pursued and maintained. The most important problem to be addressed is the issue of EC support to their primary product industries.
- Closely monitor phytosanitary and animal health standards to ensure early identification of any changes that could affect market access and to enable a swift response on the part of the Canadian government.
- Special teams of agricultural market access experts will ensure swift response to specific market-access problems as they arise.

Enhance the rapid delivery of market intelligence to the private sector.

- There is a great deal of market intelligence available and being gathered by various sources. To ensure delivery of intelligence on global business opportunities in the most useful form, industry associations will be used to identify the type and level of information required.

- Strengthen the agri-food background and training for trade officers responsible for the agri-food sector to further improve the analysis and delivery of market intelligence.
- Encourage industry associations to serve as channels for market information, and promote direct electronic dissemination of information.

Help the Canadian agri-food industry become more internationally competitive by:

- supporting private sector-led initiatives such as the Forum for International Trade Training (FITT) to deliver effective joint education programs geared to helping agri-food firms become export-ready. (Specialized seminars and workshops could focus on meeting such requirements as packaging, distribution systems and consumer tastes and trends, and on strategic approaches, such as the use of joint ventures and strategic alliances.);
- making use of market intelligence to encourage producers and companies to specialize or tailor their products/production to meet foreign market requirements; and
- encouraging small and medium-sized enterprises to strengthen their international presence by forming international marketing networks and by developing supplier relationships with multinational enterprises.

Consult with Canadian-based multinationals in order to identify how they can obtain more product mandates and how their marketing capabilities could be more fully utilized by small and medium-sized enterprises.

Increase government-business co-operation in planning and implementing market-development activities.

- Meaningful and effective co-ordination of government and private sector plans can be enhanced by ensuring that market-development strategies of industry associations, as fostered through the Agri-food Industry Market Strategies (AIMS) process, are the basis of further planning.
- In addition to using industry associations in the delivery of market intelligence, ties between associations and government can be strengthened by assigning government trade officers to associations through interchange and other arrangements.

Strengthen foreign awareness of Canadian capabilities and ties with Canadian industry.

- Training, education and technical exchanges, along with incoming and outgoing missions, will be aimed at delivering the widest, most cost-effective exposure to Canadian capabilities in the agri-food industries.
- International programs, such as those offered by the Canadian International Grains Institute and the proposed International Red Meat Institute, will be supported, with an aim to extending such programs to other components of the agri-food sector.

Encourage product specialization and market diversification.

Assist companies and their associations to develop focused strategies that are in line with the supply capabilities of the company or sector and reflect the requirements of the target market.

- Further support of market development activities, on a shared-cost basis, will be delivered through the revised Program for Export Market Development-Agri-food program.

Substantially increase Canada's trade representation abroad in the agri-food sector.

- Additional trade officers dedicated to market development in agri-food will be assigned to Canadian missions in key foreign markets.

Streamline government support of the agri-food sector.

- Use the AIMS process to increase co-operation and reduce duplication between federal departments, and make more use of the Federal-Provincial Market Development Council to increase federal-provincial co-operation.

Encourage companies in the agri-food sector to become more integrated with the upstream and downstream components of their industry.

Agri-food Sector

Activity	Date	Location	Dept.	Contact
United States				
Hotel, restaurant, supermarket and institutional equipment and services; national stand: Northeast Foodservice and Logging Expo	Apr 1993	Boston	EAITC	613-944-9483
Food products and beverages; national stand: 21st Food and Trade Exposition	Apr 1993	Puerto Rico	EAITC	613-944-6134
Hotel, restaurant, supermarket and institutional equipment and services; national stand: National Restaurant Association Show	May 1993	Chicago	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Summer Fancy Food Show	Jun 1993	New York City	EAITC	613-944-9483
Specialty Foods Initiative (NEXUS)	Jul 1993	United States	ISTC	416-973-5184
Agricultural equipment and services; national stand: Empire Farm Days	Aug 1993	Seneca Falls	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: National Food Distributors Show	Aug 1993	San Diego	EAITC	613-944-9483
Hotel, restaurant, supermarket and institutional equipment and services; national stand: Florida Restaurant Association Show	Aug 1993	Orlando	EAITC	613-944-9483
Agricultural equipment and services; national stand: Husker Harvest Days	Sep 1993	Grand Island (Nebraska)	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Natural Food Products Expo East	Sep 1993	Baltimore	EAITC	613-944-9483
Packaging equipment; national stand: Westpack '93	Sep 1993	Anaheim	EAITC	613-944-6134
Semiprocessed and processed food and beverage; national stand: National Prepared Frozen Food Festival	Oct 1993	East Rutherford	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Ohio Grocers' Association Show	Oct 1993	Columbus	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Private Label Show	Nov 1993	Chicago	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Prepay Summer Fancy Food Show '94	Nov 1993	New York City	EAITC	613-944-9483
Semiprocessed and processed food and beverage; matchmaking forum	Nov 1993	Des Moines	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: National Food Brokers' Association Show	Dec 1993	Chicago	EAITC	613-944-9483
Agricultural equipment and services; buyers from United States to: Canadian International Farm Equipment Show	Jan 1994	Toronto	EAITC	613-944-9483
Agricultural equipment and services; national stand: National Farm Machinery Show	Feb 1994	Louisville (Kentucky)	EAITC	613-944-6134
Semiprocessed and processed food and beverage; national stand: Winter Fancy Food Show	Mar 1994	San Francisco	EAITC	613-944-9483
Semiprocessed and processed food and beverage; national stand: Natural Food Products Expo West	Mar 1994	Anaheim	EAITC	613-944-9483
Western Europe and European Community				
Food products and beverages; information booth: International Food and Drink Exhibition	Apr 1993	London	EAITC	613-995-6438
Slaughter Technologies (Red Meat)	Apr 1993	Europe	ISTC	416-973-5184
Technology Mission (White Meat Sector)	May 1993	Europe	ISTC	416-973-5184
Seed potatoes; buyers from Italy to	Jul 1993	New Brunswick, Prince Edward Island	EAITC	613-995-9766

Activity	Date	Location	Dept.	Contact
Agri-food; Investment seminar: Technoconserve Food Processing Fair	Oct 1993	Parma (Italy)	INVCAN	613-996-7865
Food products and beverages; national stand: Anuga '93	Oct 1993	Cologne	EAITC	613-943-0893
Food basic ingredients; information booth: Food Ingredients Europe	Oct 1993	Paris	EAITC	613-992-7001
Technology Adaptation Mission for the Canadian Pork Industry	Oct 1993	Netherlands, Cologne	ISTC	613-954-2922
Semen; buyers from Denmark to	Nov 1993	Ontario, Saskatchewan, Alberta	EAITC	613-995-4730
Food products; information booth: Igeho Food Show	Nov 1993	Basel	EAITC	613-996-2147
Italie Food Expo	Nov 1993	Milan	ISTC	613-954-2927
Agricultural equipment; information booth: Agrotica	Feb 1994	Thessaloniki	EAITC	613-992-7001
Food products and beverages; information booth: Food and Drink Expo '94	Mar 1994	Birmingham	EAITC	613-996-1530
Food products and beverages; information booth: Alimentaria International Food Fair	Mar 1994	Barcelona	EAITC	613-996-6359
Food products and beverages; national stand: SIAL '94	Oct 1994	Paris	EAITC	613-996-2363
Food equipment industry; investment roundtable	TBD* 1993	London, Paris, Milan	INVCAN	613-995-7941
Canadian food; solo in-store promotion	ONG* 1993	United Kingdom	EAITC	613-995-6565
Japan				
Food products and beverages; information booth: Utage '93 Gourmet Fair	Apr 1993	Osaka	EAITC	613-995-8619
Pork Promotional	Apr 1993	Japan	CPI	613-236-9239
Food gift items; solo show	May 1993	Tokyo	EAITC	613-995-8619
Lobster and white wine; solo show	Sep 1993	Osaka	EAITC	613-995-1677
Food products and beverages; information booth: Foodex '94	Mar 1994	Makuhari	EAITC	613-995-8619
Canadian food; solo show	Mar 1994	Osaka	EAITC	613-995-8619
Canadian and Japanese company product demos; solo show	TBD 1993	Tokyo	EAITC	613-995-8619
Incoming Beef Study Tour	TBD 1993	Japan	CBEF	403-274-0005
Agriculture, food and beverages; three missions from Japan to	TBD 1993	Canada	EAITC	613-995-8619
Beef promotions	ONG 1993	Japan	CBEF	403-274-0005
East Asia				
Dairy farm management; seminar	Apr 1993	Taiwan	CLEA EAITC	519-754-4924 613-996-7582
Food products; information booth: Hofex '93	May 1993	Hong Kong	EAITC	613-995-6962
Food products and food equipment; information booth: International Fine Food and Food Equipment Show	Jun 1993	Taiwan	EAITC	613-996-7582
Food products; information booth: Taichung International Food Show	Jun 1993	Taiwan	EAITC	613-996-7582
Farm equipment; buyers from China to	Jun 1993	Saskatchewan, Manitoba	EAITC	613-996-6987
Agri-food; strategic alliances investment mission to	Jun 1993	Korea, Taiwan, Japan	INVCAN	613-992-5204
Food; in-store promotion	Aug 1993	Taiwan	EAITC	613-996-7582
Food products; solo show	Mar 1994	Korea	EAITC	613-943-0897

* TBD - to be determined

* ONG - ongoing

Activity	Date	Location	Dept.	Contact
Food processing, conservation and agriculture machinery and equipment; information booth: Agro China '94	Apr 1994	China	EAITC	613-996-6987 613-992-7882
Dehydrated Alfalfa Products - feeding trial and seminar	TBD 1993	Taiwan	CDA	403-450-0169
Exploratory mission	TBD 1993	Korea	CBEF	403-274-0005
Incoming mission of Korean industry and government officials	TBD 1993	Korea	CDA	403-450-0169
Mission to promote Canadian wild blueberries	TBD 1993	Korea	WBANA	506-472-2517
Food; in-store promotion	ONG 1993	Hong Kong	EAITC	613-995-6962
Seoul Food Participation and workshops	ONG 1993	Korea	CBEF	403-274-0005
Seminars and workshops for commercial, procurement and end-user groups	ONG 1993	Korea	CDA	403-450-0169
Implement a field service program	ONG 1993	Korea	CDA	403-450-0169
Canola promotions, seminars and workshops	ONG 1993	Korea	CCC	204-944-9494
Swine genetics; mission with seminars and workshops	ONG 1993	Korea	PSBA	613-731-5531
Asia Pacific South				
Processed food; mission from Malaysia to	Apr 1993	Canada	EAITC	613-996-5824
Processed food; promotion: Canada Food Week	Apr 1993	Singapore	EAITC	613-996-5824
Bakers and flour; mission from New Zealand to	Apr 1993	Canada	EAITC	613-996-7662
Dairy cattle; buyers from Thailand to	May 1993	Canada	EAITC	613-992-0959
Processed food; buyers from Indonesia to	Jun 1993	Canada	EAITC	613-995-7659
Agricultural resources; information booth: National Agricultural Field Days	Jun 1993	New Zealand	EAITC	613-996-7662
Processed food; buyers from Thailand to	Jun 1993	Canada	EAITC	613-992-0959
Oilseeds and grains; buyers from Bangladesh to	Aug 1993	Canada	EAITC	613-996-7256
Agricultural equipment; national stand: Agquip '93	Aug 1993	Gunnedah (Australia)	EAITC	613-995-7662
Processed food; mission from Philippines to	Sep 1993	Canada	EAITC	613-995-7659
White bean; buyers from New Zealand to	Sep 1993	Canada	EAITC	613-996-7662
Food sector; solo show	Oct 1993	Melbourne, Sydney	EAITC	613-996-7662
Canola oil; seminar	Nov 1993	Pakistan	EAITC	613-996-7256
Agriculture equipment; information booth: Canterbury Agricultural and Pastoral Show	Nov 1993	Christchurch	EAITC	613-996-7552
Baking; seminar: for Philippino bakers	Jan 1994	Philippines	EAITC	613-995-7659
Animal genetics; national stand: Royal Melbourne Show	Apr 1994	Melbourne	EAITC	613-995-7662
Mission to identify regulatory issues and prospective partners through Enterprise Malaisie	TBD 1993	Malaysia	CBEF	403-274-0005
Mission to identify and assess potential partners and to attend trade show	TBD 1993	Singapore	CBEF	403-274-0005
Africa and the Middle East				
Agri-food and agriculture equipment and services; information booth: Saudi Agriculture '93	Oct 1993	Riyadh	EAITC	613-944-5984 613-992-7882
Dryland farming; information booth, seminar and mission to: Saudi Agriculture '93	Oct 1993	Saudi Arabia, Iran	EAITC	613-944-7029
Counselling, machinery, insemination, food, cattle; mission to	Nov 1993	Morocco, Algeria	EAITC	613-944-0396
Agricultural and natural resources; information booth: International Fair and Conference of Agricultural and Natural Resources Development	Jan 1994	Tehran	EAITC	613-944-7029
Incoming mission on potato seed	TBD 1993	Lebanon, Egypt, Syria	POCAN	506-453-0788

Activity	Date	Location	Dept.	Contact
Workshops, seminars and trade show on Canadian Alfalfa	TBD 1993	Middle East	CDA	403-450-0169
Latin America and the Caribbean				
Swine mission to Central America	Apr 1993	Central America	AGCAN	613-993-6671
Livestock; information booth and seminar: Conferencia Ganadero '93	May 1993	Acapulco	EAITC	613-995-8804
Memorandum of Understanding (MOU) Ministerial Mission	May 1993	Colombia	AGCAN	613-993-6671
Processed foods and beverages; mission to	Jun 1993	Mexico City, Guadalajara	WED	204-983-0181
Processed food group	Jun 1993	Brazil	AGCAN	613-993-6671
Livestock and agri industry; national stand: Agro Expo '93	Jul 1993	Bogota	EAITC	613-996-2268
Livestock genetic; information booth: Expoiner '93	Aug 1993	Puerto Alegre	EAITC	613-996-6921
CIGAL, National Dairy Congress seminars	Aug 1993	Mexico	AGCAN	613-993-6671
Food processing; national stand: Expo Alimentos '93	Sep 1993	Monterrey	EAITC	613-995-8804
CONAPOR, National Swine Congress seminars	Oct 1993	Mexico	AGCAN	613-993-6671
Swine, genetic materials and services; information booth: National Swine Congress '93	Nov 1993	Acapulco	EAITC	613-995-8804
Food consumer products; national stand: Antad '94	Mar 1994	Guadalajara	EAITC	613-996-3558
Livestock genetic material; mission to	Mar 1994	Panama, Costa Rica, El Salvador	EAITC	613-995-0460
Agri-food; strategic partnering (investment)	TBD 1993	Mexico	INVCAN	613-995-0759
Central/Eastern Europe and the Commonwealth of Independent States				
Agricultural equipment; mission to: Agrotech Ukraine '93	Apr 1993	Kiev	EAITC WED	613-996-6652 306-975-5854
Exploratory mission to assess market potential for seed potatoes	Apr 1993	Russia, Belarus, Kazukhstan	POCAN	506-453-0788
Agriculture and food processing; mission to	May 1993	Budapest	EAITC	613-996-1530
Food processing equipment; solo show	May 1993	Bucharest	EAITC	613-996-7107
Agriculture and food consumer products; national stand: Novi Sad Fair	May 1993	Belgrade	EAITC	613-992-7001
Agriculture; information booth: Agricultural Exhibition	Aug 1993	Prague	EAITC	613-996-2147
Packaging machinery; mission to	Sep 1993	Brno	EAITC	613-996-7107
Food and food processing; information booth: Polagra '93	Sep 1993	Warsaw	EAITC	613-996-7107
Packaging and food processing; mission to: Budatranspack	Oct 1993	Budapest	EAITC	613-996-7107
Food processing equipment; national stand: Mjasomolprodemash '93	Nov 1993	Kiev	EAITC	613-996-6652
Incoming mission of growers and buyers of seed potatoes	TBD 1993	Hungary, Czech Republic, Slovak Republic	POCAN	506-453-0788
Incoming missions to trial sites to demonstrate benefits of higher-class seed	ONG 1993	Hungary	POCAN	506-453-0788
Multiple Markets				
Agricultural equipment and services; buyers from United States and others to: Western Canada Farm Progress Show	Jun 1993	Regina	EAITC	613-992-7882
Royal Agricultural Fair; buyers from Korea and Mexico to	Nov 1993	Toronto	EAITC AGCAN	613-943-0897 613-993-6671
Getting Ready to Go Global sector campaign: Broad range of international activities to be undertaken in food and beverage products	TBD 1993	Various	EAITC ISTC	613-995-1775 613-954-3087

Arts and Cultural Industries

A International Environment

Arts and culture industries make an important contribution to the overall competitiveness of many individual national economies earning approximately \$200 billion worldwide and \$6 billion in Canada last year (1991-1992). These earnings are anticipated to grow at the rate of 10 to 15 per cent annually.

This is a dynamic sector in which opportunities for success are notably enhanced where there is a willingness to embrace and adopt the wide range of available new technologies.

The globalization of the sector has increased the level of competition and the rewards for success. The demand side of the industry is characterized by an acknowledged degree of homogenized cultural preferences, mostly for U.S.-style products. The entrepreneurs from Japan, France, Italy, Germany and Australia have successfully positioned themselves in the global market to take advantage of this trend. The supply side of the market is undergoing a rationalization, characterized by a rise to prominence of a number of large, vertically integrated, global corporations. Consortia, joint ventures and co-productions are emerging as the alternative sources of production and distribution to these global, integrated corporations.

B Domestic Position

One of the biggest challenges faced by the arts and cultural industries in Canada is its distribution structure and the relatively small size of the Canadian market. The global market is becoming important to the Canadian firms in this sector with improvements in production technology and the increase in production costs. Canadian firms are meeting with success in such global niche markets as docudramas and children's programming and literature, and have been making inroads in film and dramatic series.

In order to balance the effects of the market size and distribution, Canada has been reluctant to permit increased foreign investment in the cultural industries. These industries have been purposefully left out of negotiations such as the General Agreement on Tariffs and Trade (GATT) and the North American Free Trade Agreement (NAFTA) to prevent the cultural standardization of content and the complete foreign control of distribution.

The Arts

The development and growth of major performing arts organizations in theatre, opera, music and dance during the past 30 years is an important indicator of cultural achievement in Canada. The arts sector employs highly trained workers with professional levels of education. This workforce also serves as a talent pool for the cultural industries, which include broadcast, film, book publishing and sound recording.

For the past several decades, there has been steady growth in arts organizations, size of the arts labour force and box-office revenues. However, in recent years, performing arts live-audience attendance numbers have declined, although box-office revenues have not suffered to the same extent because of ticket price increases. The recession and increasing costs of production and marketing have led to deficits of approximately \$27 million in 1991 for the performing arts.

The arts sector in Canada has undertaken major operational restructuring and seeks long-term growth through more effective marketing. Despite financial difficulties, Canada has a vibrant domestic arts industry, which is complemented by the relative success that large and small arts organizations have had touring abroad and attracting foreign tourist dollars. Strengths include the high quality of the talent and expertise, and an extensive infrastructure of presenting facilities across the country. Dissemination of arts programming by electronic media (conventional television as well as new technologies such as video-disc or HDTV) is another potential strength that has yet to be totally realized.

A comprehensive arts audience (consumer) profile was compiled from a recently completed survey of attendees for Canadian arts events. This information has the marketing potential to assist arts companies in developing long-term and reliable domestic planning strategies, including the planning of programming options.

Weaknesses of the arts sector in Canada include below-average incomes for professional artists, especially self-employed artists, recurring operating deficits, the growing competition for leisure time and the climbing costs of production.

Cultural Industries

The cultural industries sector consists of broadcasting, film and television production and distribution, sound recording and book publishing. Significant economic returns are derived from the foreign sale of Canadian cultural products: cultural export revenues were estimated at more than \$350 million in 1989. Canada has recognized the importance of this sector, and the key to its success will continue to be based on the development of a strong domestic market.

Exposure to foreign audiences and markets by Canadian artists is recognized as an important element of Canada's external relations, and an important element in the overall success of domestic cultural objectives. Canada's film and television co-production agreements (signed with 23 countries to date) help gain access to international markets and thus enhance the export of Canadian film products.

Broadcasting

Broadcasting is the major vehicle for exchange of cultural expression among Canadians and a key component of our cultural industries. Federal legislation, policies and regulations are intended to encourage domestic program production and ensure the continued presence of Canadian programming in the broadcasting system. They include:

Canadian content regulations that require broadcasters to reserve 50 per cent of their entire schedules — and 60 per cent of their primetime schedules — for Canadian-made programs;

Simultaneous substitution regulations that require Canadian cable companies to substitute local signals for American channels when the same programs are presented at the same time by both, thereby maximizing local broadcasters' advertising revenues by increasing the number of viewers tuned to the local Canadian channel;

Bill C-58, which limits tax breaks for advertising expenditures to only those advertisers who purchase advertising time on Canadian television channels, thereby ensuring that advertising dollars remain in Canada.

Canadian production is increasing as Canadian broadcasters realize that good Canadian programs are not only popular in Canada, but also generate international sales. Still, it remains cheaper by far for Canadian broadcasters to acquire broadcast rights for expensive U.S. programs than to create original Canadian programs.

Film and Television Production and Distribution

The feature film industry in Canada is largely controlled by American-owned companies, who frequently come here to shoot their films, but rarely establish permanent offices in Canada. The Canadian production sector is characterized by a large number of relatively small companies — a total of 742 establishments in 1990-1991 — and revenues of \$700.7 million.

The distribution sector is largely controlled by a few foreign companies competing with more than a hundred small Canadian companies. The foreign domination of this sector is so strong that Canadian audiences see very few Canadian films that are exclusively distributed by Canadians. Foreign films occupy 95 to 96 per cent of screen time in Canadian cinemas, and foreign companies earn approximately 86 per cent of Canadian film distribution revenues. While considered a "cultural industry" in Canada, this sector is clearly viewed as a commercial industry by the United States. At the moment, there are ongoing discussions with the Canadian film industry for legislative change regarding the distribution issue and the recognition of Canada as a separate market from that of the United States.

Canadian-owned companies are beginning to gain increased control of the feature film distribution industry and already do quite well in the broadcast and non-theatrical distribution markets.

Sound Recording

The sound recording industry in Canada consists of six dominant multinational corporations, which control approximately 89 per cent of the production market and approximately 200 Canadian companies, which account for about 11 per cent.

In addition to a small domestic market controlled by multinationals, the industry faces several major challenges: significant copyright issues; i.e. neighbouring rights and home copying, financial weakness, inadequate resources to devote to marketing and limited access to distribution systems, particularly in English Canada.

The Canadian Radio-Television and Telecommunications Commission's (CRTC) Canadian content and French-language content requirements for music played on Canadian radio have been very effective in greatly improving access to the domestic market for Canadian sound recordings. To increase its exposure and revenues, the Canadian sound recording industry must concentrate on the marketing of Canadian products in the global marketplace.

Book Publishing

Book publishing, like other cultural industries in Canada, must compete with large multinational competitors for a relatively small Canadian market. While only a small number of the companies operating in Canada are foreign-owned, they earn approximately 50 per cent of domestic revenues, which amounted to \$ 1.2 billion in 1990, and about 40 per cent of total revenues (which include exports), which amounted to some \$ 1.4 billion in that same year.

Canada recognizes that the importance of book publishing goes beyond its direct economic benefits and has enacted legislation aimed at ensuring the viability of this sector. In 1985, the Government established the so-called Baie Comeau policy for foreign investment in the book trade, which required the creation of joint ventures with majority Canadian control on new investments and the divestiture of control to Canadians in cases of direct or indirect acquisitions.

The Baie Comeau policy was strengthened in 1992, and a new industrial development program for publishing firms that are 75 per cent Canadian-owned was introduced, thereby putting Canadian publishers in a stronger position to gain control of their own market.

C Strategic Direction

Canadian cultural industries are producing products and services with standards of excellence and world appeal. A new generation of dynamic business-oriented entrepreneurs in this sector is emerging rapidly, particularly in Quebec and Western Canada. Facilitating access to Canadian talent is particularly important because of new opportunities for cultural exports to Asia, Europe and North America. The industry representatives will require skills to penetrate these markets.

Market access and promotion are key elements for improving the potential of Canadian cultural products abroad. There will be a tighter focus of access issues on specific market efforts, and increased interdepartmental co-operation in targeting key markets of mutual interest. The main areas for concentrating marketing efforts should include the following: the United States, the European Community, the Pacific Rim, Russia and Eastern Europe, and Mexico and Latin America. The individual sectors that comprise the cultural industries would require further targeting based on past experience and present trends.

Current priorities include:

- improved delivery of information on foreign markets to the arts and cultural sector;
- improved delivery to foreign markets of information on the arts and cultural industries in Canada in order to maximize international publicity and good will for this sector in Canada;
- enhanced capacity of Canadian arts firms to undertake international tours through the use of new forms of touring, including electronic touring through broadcast or recorded programming disseminated abroad; and
- improved co-ordination and complementarity between federal and provincial support programs.

Specific measures include:

- increased awareness in the arts and cultural industries of available support by preparing a *Directory of Arts and Cultural Industries Export Assistance Programs* containing comprehensive information on all relevant federal, provincial, non-governmental organization (NGO), and industry association programs;
- increased awareness of Canadian trade officials abroad of the arts and cultural industries by compiling, and updating regularly, *Export Potential Profiles of Canadian Arts and Cultural Industries and Products*. (The updating and expansion of EAITC's WINCULTURE electronic database will be considered as the long-term practical source of detailed information at posts); and
- an *Annual Arts and Cultural Industries Seminar* to bring together marketing experts from posts, officials of federal and provincial departments and agencies, representatives of NGOs and industry associations, and marketing officers of arts and cultural industries companies. The seminar will be organized to allow sectoral discussions and analysis of market environments, and specific product and market experiences. The proceedings will be distributed each year to participants and throughout the arts and cultural industries.

Arts and Cultural Industries

Activity	Date	Location	Dept.	Contact
United States				
TV and film location; mission from Los Angeles to	Apr 1993	Prairie Provinces	EAITC	613-944-9474
Canadian Music CD distribution to U.S. radio stations; promotion	Apr 1993	United States	EAITC	613-944-9474
Books; national stand: American Booksellers Association	May 1993	Miami	EAITC	613-944-9474
			AECB	613-562-2324
Musical equipment; mission from United States to: Music West '93	May 1993	Canada	WED	604-666-7543
Film and video; information booth: Showbiz West Expo '93	Jun 1993	Los Angeles	EAITC	613-944-9474
Sound recording; national stand: New Music Festival	Jun 1993	New York City	DOC	416-588-4752
Theatre Festival of the Americas; mission from California to	Sep 1993	Montreal	EAITC	613-944-9474
Performing arts showcases; mission from Dallas to	Oct 1993	Toronto	EAITC	613-944-9474
Periodicals; NEBS mission to: Folio	Nov 1993	New York City	EAITC	613-944-9474
Film and television production and distribution; mission to: NATPE	Jan 1994	Los Angeles	EAITC	613-996-3197
American film market; seminar	Feb 1994	Los Angeles	DOC	613-990-4245
Film and video; national stand: Location Expo	Mar 1994	Santa Monica	EAITC	613-944-9474
Western Europe and European Community				
Books; national stand: Book Fair	Apr 1993	Bologna	EAITC	613-996-2147
			AECB	613-562-2324
Film and television production and distribution; symposium and mission to: MIPTV	Apr 1993	Cannes	EAITC	613-996-3197
			DOC	613-990-4859
Film production and distribution; mission to: Cannes Film Festival	May 1993	Cannes	DOC	613-990-4252
			EAITC	613-996-3197
Film and television production and distribution; symposium and mission to: MIPCOM	Oct 1993	Cannes	EAITC	613-996-3197
Music and record industry; mission to: MIDEM	Jan 1994	Cannes	DOC	416-593-1665
			CIRPA	514-842-5147
			ADISQ	
Film production and distribution; mission to: Berlin Film Festival	Feb 1994	Berlin	EAITC	613-996-3197
East Asia				
Film and television production and distribution; mission to	Aug 1993	Japan, Singapore, Korea, Taiwan	DOC	613-990-4253
Asia Pacific South				
Music and record industry; mission to: Asia Beat	Nov 1993	Hong Kong	DOC	604-684-9337
Latin America and the Caribbean				
Cultural symposium; mission to	Jul 1993	Mexico	EAITC	613-996-3197
Film and television production and distribution; mission from Mexico to	Sep 1993	Toronto	DOC	613-990-4231
Performing arts; mission to: Cervantino Festival	TBD* 1993	Mexico	EAITC	613-995-0668
Central/Eastern Europe and the Commonwealth of Independent States				
Film production and distribution; festivals	May 1993	Russia	DOC	613-990-4259
Film and television production and distribution; mission to European countries	Sep 1993	Russia, East	DOC	613-990-4259

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Multiple Markets				
Film and television production and distribution; incoming buyers	Jul 1993	Banff	EAITC	613-996-3197
Film and television production and distribution; seminar and incoming buyers to: Montreal International Film Market	Aug 1993	Montreal	EAITC	613-996-3197
			DOC	613-990-4253
Music and record industry; mission to: In the City (ITC)	Sep 1993	Manchester	DOC	416-588-8962
				McRaven Ent
Film and television production and distribution; seminar and incoming buyers to: Toronto Festival of Festivals	Sep 1993	Toronto	EAITC	613-996-3197
			DOC	613-990-4253
Film and television production and distribution; incoming buyers to: Vancouver Film Festival	Sep 1993	Vancouver	EAITC	613-996-3197
Books; national stand: Book Fair	Oct 1993	Frankfurt	DOC	613-562-2324
Music and record industry; mission to: Independence Day (BID)	Oct 1993	Germany	DOC	416-588-8962
				McRaven Ent
Performing arts; incoming buyers to: CINARS	Dec 1993	Montreal	EAITC	613-996-2156
Film and television production and distribution; incoming buyers to: Festival du film sur l'art	Mar 1994	Montreal	EAITC	613-996-3197
Incoming film producer's to PAN Export Forum	Mar 1994	St. John's	ISTC	709-772-5511
Performing arts; incoming buyers to: Du Maurier Showcase	TBD 1993	Toronto	EAITC	613-995-0668
Performing arts; incoming buyers to: Festival de la nouvelle danse	TBD 1993	Montreal	EAITC	613-995-0668

* TBD - to be determined

Automotive Industries

A International Environment

Total world production of automobiles in 1991 was 48.5 million vehicles, produced by fifteen countries. Three regions dominate the sector: Asia-Pacific (16.9 million units), North America (11.8 million) and Western Europe (15.1 million). The balance comes from Central and South America, Eastern Europe and, to a lesser extent, Africa and Australia.

Global competition in the sector is expected to intensify, particularly in the components subsector. Several years of slow economic activity in North America, a more recent slowdown in Europe and Japan, combined with modest signs of improvement in the sector, have led to forecasts of a worldwide assembler dissimulation. Several firms are expected to merge or leave the industry.

Asian vehicle makers, already formidable competition, are increasing their production capacity in Europe as well as capturing a larger share of the North American market. Because of increasing Japanese presence in all major markets, there is pressure on Japanese assemblers to increase domestic purchases and content. To take advantage of this supply opportunity, many Canadian parts and component manufacturers will have to strengthen their sales to Asian and European vehicle manufacturers, and their Tier Ones, in order to remain competitive and grow.

The European trading area is one of the largest consumers and producers of vehicles. The emergence of a single trading area is redefining the European market, and the European automotive industry is undergoing a number of major structural changes that may represent new opportunities for Canadian companies. These changes include: increasing integration of the European automotive industry and the European Community market as a whole; a movement to worldwide sourcing; entry of Asian automotive assemblers and parts manufacturers; the impact of changes in Eastern Europe on traditional European industry; and the emerging potential of the Eastern Europe market. In response to increasing Japanese competition, the European industry is reexamining its traditional manufacturing strategies.

Growth in the Mexican automotive sector has been particularly marked since 1990 with local parts consumption increasing by over 30 per cent. The North American Free Trade Agreement (NAFTA) will further reduce trade barriers, which have been maintained under the Mexican Decree, and will open up the market to Canadian manufacturers. In addition, Canadian parts firms are interested in export and investment opportunities in the Mexican market. A number of aggressive Canadian firms have established operations there, while others are currently positioning themselves for eventual participation.

B Domestic Position

Canada has the sixth-largest automotive sector in the world. In 1991, Canada assembled 1,878,000 vehicles, down 3 per cent from 1990, which represented 17.5 per cent share of North American production. Canadian parts production was 11 per cent of North American parts production. Retail sales in 1991 were 1,288,000 units, down from a high of 1,566,000 in 1988.

The Canadian industry consists of car, truck and trailer assembly, tires and components manufacturing, aftermarket/accessories supply and garage equipment. Most Canadian parts manufacturers are high-volume producers, although the trend has been to lower-volume and niche-market supply. Manufacturing employment in 1991 averaged 137,400, down from a high of 167,800 in 1988. Dealerships and the aftermarket (including service stations and repair garages) employed over 75,000 and 200,000 respectively. The Canada-United States Free Trade Agreement (FTA), which incorporated a five-year tariff reduction schedule ending in 1993, for automotive aftermarket parts, has reduced the price differentials between the United States and Canada from 25 per cent to 5 per cent, where U.S. prices were lower.

Canada has a strong vehicle assembly sector, which accounts for two-thirds of sector shipments. The auto parts sector (about 20 per cent Canadian-owned) accounts for 60 per cent of automotive employment and total value-added, and faces a period of intense challenge and competition. There are a number of Canadian companies with leading-edge technology and a few with proprietary products.

Canada, to a large degree, lacks ownership of prevailing parts technology, an area where European firms often excel. Canadian parts manufacturers will need such technology to maintain their international, competitive position. Research and development is low overall. Consequently, investment prospecting must concentrate on high-technology/high value-added manufacturing. Canada's federal regulatory (taxes/operations), technological and environmental requirements continue to adjust so as to provide a competitive business climate.

After seven years of growth, the softer North American economy resulted in lower vehicle production and sales in 1989, 1990 and 1991, while Japanese brand market share grew to 36 per cent. Big Three manufacturers are under competitive pressure in their domestic markets, and the North American industry as a whole continues to restructure to improve competitiveness. Assembly overcapacity continues to be a problem in North America.

The value of automotive shipments in 1991 was \$43.2 billion, or about 2 per cent of Gross Domestic Product. Over 85 per cent of this is exported, mostly to the United States. Canada had an overall automotive trade surplus in 1991 of \$2.3 billion, which included a \$9.2 billion surplus with the United States and a \$4.7 billion trade deficit with Japan.

Total auto-related investments in Canada over the period 1980-1990 are estimated at \$15 billion, of which \$1.5 billion was Japanese assembler investment. Japanese assemblers in North America provide a market opportunity for Canadian parts suppliers.

The Canadian automotive industry is integrated completely into, and dependent upon, the North American market under the Auto Pact, the FTA and soon the NAFTA. For Mexico, direct export sales opportunities are expected to grow.

In the aftermarket sector, exports account for over \$1 billion, while imports amount to just less than \$1 billion (Canadian) annually. The value of automotive aftermarket manufacturing shipments in Canada (including accessories, repair parts and specialized garage equipment but excluding distribution and retail costs) is estimated at \$3 billion. Small and medium-sized companies currently make up the Canadian aftermarket, but they are being slowly integrated into larger foreign-owned conglomerates. The sector is undergoing restructuring — acquisitions, mergers and new alliances, focusing marketing along a north-south axis. Foreign-owned Canadian companies have limited export mandates, especially those having similar product lines as their parent.

Implementation of the FTA has dramatically changed the distribution and pricing structure in Canada, in that the Canadian aftermarket is now more integrated with the United States. The distribution of aftermarket products is now more direct, and price differentials with the U.S. market are lower.

C Strategic Direction

General

Canada's objective is to maintain a policy environment that will foster the continuation of a modern, economically efficient and internationally competitive motor vehicle and parts industry.

Key objectives include:

- participating fully in an integrated North American market as provided under the Auto Pact, and as embodied in the FTA and the NAFTA;
- encouraging auto makers with plants in Canada to maintain, expand and/or modernize their investments;
- encouraging complementary parts investment in Canada for product mandates with the potential for global supply, to acquire new product/process capability and seek new technology mandates;
- encouraging research and development (R&D) through joint ventures, licensing and technology exchange;
- enhancing industry/government/labour co-operation in addressing issues affecting the sector;
- increasing OE parts sales to all North American assemblers (Big Three and others) and their Tier One suppliers in North America;
- building on the success of a strong OE sector, to expand opportunities in the Canadian replacement, aftermarket and automotive service equipment manufacturing;
- increasing opportunities for the export of vehicles to markets outside North America;

- negotiating appropriate access to other countries in Multilateral Trade Negotiations (MTN); and
- reviewing Canadian Most Favoured Nation (MFN) tariffs post-1996 to take into account the end of duty remission and duty drawback programs.

Geographic/Sectoral Strategic Priorities

The priority markets for Canadian auto-related manufacturers are the *United States, Japan, Mexico and Europe*. Each market requires a different approach.

Global Aftermarket (mainly United States)

- Monitor those U.S. states with emission standards laws in place or those states planning such laws for vehicles in service (like Canada's province of British Columbia) and target efforts to these markets, since replacement parts will be required for the repair of the emission systems in those vehicle populations.
- Monitor changes in aftermarket distribution networks, as the competition increases, to get quality product at the right price to the Canadian consumer and to make changes to marketing strategies accordingly.
- Emphasize the marketing of selective repair and service skills where such expertise is exceptional.
- Enhance the technical capability of Canadian aftermarket manufacturers through joint venturing and licensing arrangements with U.S. and European companies now exploiting product-market niches with leading-edge technology.
- Monitor new technology and product development for accessory parts in the European market.

Europe

In the past, the major thrust in Europe has been to encourage joint ventures, technology transfers, and investment in Canada by European OEM and AM parts manufacturers. Activities have concentrated on Germany because of its technical capabilities in the sector and the interest of German companies to consider Canada as a base for their potential North American operations. Objectives for Europe are:

- Enhance the technological capability of Canadian parts makers through joint ventures, licensing arrangements and technology exchanges with leading European companies and organizations.
- Encourage European assemblers to source OEM parts in Canada where it is effective to do so on a cost/quality/service basis.
- Encourage leading European companies to make direct investments in Canada where appropriate.

- Encourage Canadian companies with leading-edge or proprietary technology to pursue opportunities in the European market, including joint ventures or direct investment where appropriate.
- Support aftermarket parts and accessory/service equipment producers in their efforts to penetrate the European market.
- Promote Canadian strengths in high-technology exports (e.g. alternately fuelled vehicles).

Eastern Europe

- Where appropriate, support Canadian companies seeking to make long-term, strategic investments in the developing Eastern European automotive industry.

Japan

Programs are designed to promote increased sourcing, parts and major component investment and technology acquisition from Japan. An integrated North American market must be maintained. Activities include:

Investment:

- As markets grow, encourage expansion of assembly investment.
- Attract complementary high value-added parts manufacturing investments.
- Promote R&D, joint ventures, technology acquisition and licensing with Japanese auto sector companies.

Trade/Marketing Objectives:

- Enhance the Canadian sector presence in Japan by determining the feasibility of establishing a sales/technical liaison office in Japan to serve Canadian firms.
- Increase sourcing of Canadian parts by Japanese assemblers and Tier One parts manufacturing operations.
- Encourage increased exports of Canadian automotive products to Japan.
- Review Japanese imports, exports and sourcing patterns for potential new investments and technology.
- Review MFN parts tariffs for MTN action.

Mexico

The advent of the NAFTA makes it imperative that the industry work to position itself now in Mexico, in order that it may profit fully from the anticipated provisions of the Agreement, in particular during the phase-in period for full free trade implementation.

Key elements and objectives of the Government's approach to the Mexican market include:

- providing direct sales efforts with multinationals for procurement of Canadian parts in the context of the existing Mexican and North American regulatory framework;
- accelerating the establishment of strategic partnerships with Mexican parts suppliers:
 - establishing component manufacturing and assembly capabilities in Mexico;
 - promoting Canadian strengths in high-technology exports (e.g. alternately fuelled vehicles); and
 - delivery, service and quality control mechanisms necessary to support procurement by multinational assemblers in the country;
- integrating the production, supply and service relationships between these joint ventures and Canadian "parent" operations, to position them for the post-NAFTA North American automotive trading environment; and
- enhancing Canadian automotive expertise in Mexico, either through a dedicated resource in the Canadian Embassy or by determining the feasibility of establishing a Canadian automotive parts industry presence marketing/sales office in Mexico.

Automotive Industries

Activity	Date	Location	Dept.	Contact
United States				
Alternate fuel; mission to: Alternate Fuel Show	Sep 1993	Dallas	EAITC	613-944-5149
Speciality equipment; national stand: Specialty Equipment Market Association	Nov 1993	Las Vegas	EAITC	613-944-5149
Automotive engineering; national stand: Society of Automotive Engineers Congress	Feb 1994	Detroit	EAITC	613-944-5149
Western Europe and European Community				
Auto technology; information booth: Autotechnica	Apr 1993	Brussels	EAITC	613-996-7544
Spare parts; information booth: Aftermarket	Feb 1994	London	EAITC	613-995-6565
Canadian International Automotive Show; buyers from Finland, Sweden and Norway to	May 1994	Toronto	EAITC	613-995-4730
Auto mechanics and parts; national stand: Automekanica	Sep 1994	Frankfurt	EAITC	613-996-3774
Japan				
Auto services; information booth: 1993 Auto Services Show	Jun 1993	Tokyo	EAITC	613-995-1678
Auto parts; national stand and mission to: Tokyo Motor Show	Oct 1993	Tokyo	EAITC ISTC	613-995-1678 613-954-3445
Asia Pacific South				
Aftermarket auto parts; information booth: Automotive Expo and Bodytech '93	May 1993	Australia	EAITC	613-996-7652
Africa and the Middle East				
Transportation; Ontario Government mission to	Mar 1994	Middle East	MEDT	416-325-6651
Latin America and the Caribbean				
Aftermarket auto parts; information booth: Expo Rujac '93	Aug 1993	Guadalajara	EAITC	613-996-6921
Truck parts and services; national stand: Transexpo '93	Sep 1993	Monterrey	EAITC	613-996-5358
Auto parts; mission to	Feb 1994	Mexico	ISTC	613-954-3436
Central/Eastern Europe and the Commonwealth of Independent States				
Automotive; mission to	Jun 1993	Prague	EAITC	613-996-7107

Biotechnologies

A International Environment

There are, at present, 3,000 to 4,000 biotech firms worldwide with sales totalling \$5 to \$7 billion and employing approximately 200,000 people. World product sales are expected to increase from \$100 to \$150 billion by the year 2000. While bio-industries currently represent only a small segment of global economic activity, tremendous growth and far-reaching implications for other sectors make them extremely important industries from a strategic perspective.

Products and services in health care, agriculture, aquaculture, forestry, fine chemicals, mining and the environment will all benefit from biotechnological discoveries. Governments worldwide now see biotechnology as a critical resource for economic growth, both in terms of an opportunity to compete in new industries, as well as technologies to enhance traditional sectors, such as food, energy, health care and chemicals. Consequently, virtually every major industrialized country has either devised or is developing a biotechnology policy.

The United States leads all other nations in the development of its bio-industries. Despite its inherent riskiness, investments from public, private and corporate sources continue to back the rapid commercialization of biotechnology research in the United States. In 1991 alone, a total of \$3.7 billion was invested in 85 U.S. biotech firms.

Although Japan trails the United States, it is rapidly expanding its bio-industries and plans to be the world leader by the year 2000. Japanese corporations have taken the lead in developing applications for biotechnology research (e.g. the brewing industry and fermentation process). By acquiring research expertise and technology from abroad and focusing on the applications, Japan is quickly closing on the leadership position of the United States. However, as a result of the recent widespread recession, Japanese corporations are focusing more on near-market opportunities. This decreases the prospects for Canadian biotechnology companies, most of whom are still in the research and development (R&D) mode, to develop business relations with their Japanese counterparts.

In Europe, a large number of biotechnology companies have been established as a result of several biotechnology programs developed by the European Community. Most of the major European pharmaceutical and chemical firms have incorporated biotechnology into their strategic plans and have made significant investments to bring biotechnologies into their operations.

Countries in the Pacific Rim Region and Latin America also have begun to promote the development of indigenous bio-industries. These industries, however, are still at very early stages of development because their research base is insufficient to support significant growth.

The richest market for biotechnological innovation is health care. Agriculture and environmental protection/remediation, however, are major emerging markets. The latter has strong implications for the forestry, energy and chemical industries. The growth potential in these areas is at least as large as that for health care.

B Domestic Position

In Canada, there are approximately 300 biotech firms employing about 7,200 people. Total industry revenues in 1991 were estimated at \$1.3 billion with 65 per cent of this based on exports. Exports are projected to grow at 50 per cent annually in the coming years.

International competition facing these firms is expected to increase and Canadian firms will be challenged to bring higher quality products and services to market with less development time and at lower costs.

The growth of many Canadian biotechnology companies has been fuelled by cross-border alliances and joint ventures. Unlike the companies in many other Organization for Economic Co-operation and Development (OECD) countries, Canadian resource-based companies have been slow to adopt productivity-enhancing biotechnologies, and this has slowed the sales growth of younger biotech enterprises. Without the domestic sales, Canadian biotech companies have been forced into international collaborative agreements at much earlier stages to market their products and services.

Other major issues affecting Canadian bio-industries include:

- access to growth capital — nationally and internationally;
- insufficient market intelligence and marketing capabilities;
- lack of manufacturing expertise and facilities;
- access to trained personnel at the research and especially at the production level;
- the development of a transparent and responsive regulatory and intellectual property system; and
- the establishment of key alliances for marketing and distribution of Canadian products in major trading blocs.

The strengths upon which Canadian bio-industries can build are:

- strong public funding for biotechnology research in health care, agriculture, forestry and other key disciplines;
- strong in-house R&D spending (small and medium-sized Canadian biotechnology firms spent \$500 million on R&D in 1991);
- a leadership position in developing agricultural applications for biotechnology;
- a strong technology transfer orientation within university and government labs;
- excellent national capabilities for clinical and field trials;

- a growing Canadian biotechnology network; and
- a strong orientation to niche markets in Canadian firms.

C Strategic Direction

Canadian bio-industries should place a priority on markets in developed countries. Government efforts will focus on assisting earlier stage companies that have not developed key marketing alliances or distribution networks.

The more traditional markets for biotechnology products and services are in industrialized countries. These industrialized countries are also often sources of much needed technologies, investment and joint venture partnerships.

The Association of Southeast Asian Nations (ASEAN) and Latin American economies, however, are growing rapidly. They could be fruitful target markets for properly matched Canadian companies with suitable niche products.

Activities

Roundtables, seminars and promotional material at conferences such as Bio-Recognition should be used to develop recognition of Canadian biotechnology capabilities within industrialized countries.

Further international collaboration with early stage Canadian companies should be encouraged, such as matching Canada's R&D strengths with distribution capabilities of foreign multinational corporations. Groups that can identify and screen possible international joint venture opportunities should be used.

Greater effort should be extended in gathering market intelligence outside the United States. Science and Technology Counsellors and Trade Commissioners should work to consolidate existing knowledge and disseminate this information to industry.

Emphasis should also be placed on building industry associations and networks to help gather and disseminate industry and marketing intelligence to Canadian biotechnology entrepreneurs.

Markets

The following priorities exist for developing international business for younger biotechnology companies.

United States

- hold investment/partnering conferences and investment/partnering seminars in U.S. posts (e.g. New York).

Europe

- focus on France, the Netherlands, Belgium, Germany, the United Kingdom and Italy;

- emphasize on Canadian firms involved in human health-care, agriculture and veterinary biotechnology;
- develop country specific investment/partnering initiatives;
- match Canadian-European companies.

Developing Countries

- gather intelligence on the ASEAN and Latin American markets and businesses.
- focus on Canadian companies with niche technologies and products.
- emphasize Canadian firms involved in human health-care, environment, agriculture and aquaculture biotechnology.
- encourage equity participation and/or joint ventures.

Biotechnologies

Activity	Date	Location	Dept.	Contact
United States				
Biotechnology; information booth and seminar: Association of Biotechnology Companies Exhibition	Apr 1993	Raleigh (N.C.)	EAITC	613-944-9482
Microbiology; national stand: American Society for Microbiology	May 1993	Atlanta	EAITC	613-944-9482
Health care and biotechnology; strategic partnering forum	May 1993	Houston	EAITC	613-944-6577
Biotech products; seminar and mission from: Cripps and Salk Institutes	Jun 1993	Vancouver, Toronto, Montréal	EAITC	613-944-9482
Industrial co-operation in agri-food biotechnology; mission from Chicago to	Jun 1993	Toronto	EAITC	613-944-6577
Biotechnology healthcare; mission from Detroit to Neurological sciences; information booth and mission to: American Society for Neurological Sciences	Jun 1993 Oct 1993	Toronto, Montreal Washington (D.C.)	EAITC EAITC	613-944-6577 613-944-9482
Biotechnology strategic partnering; mission to Plant Consortium Conference; mission from Chicago to	Oct 1993 Oct 1993	San Francisco Ottawa	EAITC EAITC	613-944-9482 613-944-9482
Biotechnology (agri-business); mission to	Nov 1993	Missouri, Illinois	EAITC	613-944-6577
Health care and hightech; investment forum	Dec 1993	San Jose	EAITC	613-944-6577
Health care and pharmaceuticals; strategic partnering	Mar 1994	New York City	EAITC	613-944-6577
Bio industries; strategic partnering (investment)	Mar 1994	United States	INVCAN	613-995-0759
Biotechnology, toxicology; breakfast, seminars	TBD* 1993	San Diego	EAITC	613-944-9482
Biotechnology; breakfast, seminars	TBD 1993	Los Angeles	EAITC	613-944-9482
Biotechnology; breakfast, seminars	TBD 1993	New York City	EAITC	613-944-9482
Biotechnology; breakfast, seminars	TBD 1993	Princeton	EAITC	613-944-9482
Biotechnology: cellular genetics, development genetics, protein engineering, microbial ecology; breakfast, seminars	TBD 1993	Philadelphia	EAITC	613-944-9482
Biotechnology: designer foods, biosensors and bio-electronics, gene-splicing, biotech breakthroughs breakfast; breakfast, seminars	TBD 1993	Chicago	EAITC	613-944-9482
Biotechnology; breakfast, seminars	TBD 1993	Seattle	EAITC	613-944-9482
Bio-industries; research partnering	TBD 1993	United States	INVCAN	613-995-0759
Biotechnology: enzymes, health care, bio-research laboratories, Canadian technologies; breakfast, seminars	TBD 1993	San Jose	EAITC	613-944-9482
Western Europe and European Community				
Environmental innovations; information booth: Tecnova	May 1993	Madrid	EAITC	613-996-6359
Biotech products and processes; information booth and exhibition: Bioexpo '93	Jun 1993	Paris	EAITC	613-996-2363
Biotechnology; mission to	Nov 1993	Austria	EAITC	613-995-9766
Biotechnology; investment roundtable	TBD 1993	Western Europe	INVCAN	613-992-5339
Japan				
Biotechnology; investment mission to: Alliance Bio '93	May 1993	Japan	INVCAN	613-995-2783
East Asia				
Bio industries; strategic partnering (investment)	TBD 1993	Seoul, Taipei, Hong Kong	INVCAN	613-995-6639
Asia Pacific South				
Biotechnology; strategic partnering (investment)	TBD 1993	Indonesia, Singapore, Thailand, Malaysia	INVCAN	613-995-6634
Multiple Markets				
Agriculture biotechnology; strategic alliance mission to	Sep 1993	Japan, Taiwan	WED	306-975-5880

* TBD - to be determined

Chemicals, Petrochemicals and Pharmaceuticals

A International Environment

The chemicals industry is a major global industry that accounts for a significant share of foreign direct investment and international trade (US\$1.2 trillion). Unlike most industries, it does not produce one group or family of products derived from a few key materials. It makes more than 60,000 chemical products from a wide range of metals, minerals, crude oil, natural gas, vegetable oils, animal fats and other raw materials. These products include commodity inorganic and organic chemicals, resins, elastomers, fertilizers and crop protection chemicals, fine and specialty chemicals including pharmaceuticals, paints and varnishes, soap and cleaning compounds.

The U.S. chemical industry is the world's largest, accounting for about 23 per cent of world production. It is followed by Japan, Germany and France. Trade in chemicals is fiercely competitive, with producers active on a global scale. Total world exports of chemicals amounted to about US\$300 billion in 1991. Germany is the largest exporter, followed by the United States. About 20 multinational firms account for 25 per cent of worldwide sales. This figure includes US\$125 billion in pharmaceutical sales — the fastest growing chemical sector.

The energy-rich Middle East countries have developed significant petrochemical capacity over the past ten years. Exports from this region have, therefore, come to compete with those from traditional petrochemical exporting countries; i.e. the United States, Japan and Western Europe. Newly industrialized countries like South Korea and Taiwan are also developing domestic chemical capacity to satisfy growing local markets and to take advantage of export opportunities. Indeed, the Asia-Pacific region is forecast to be the fastest growing chemical market.

Globalization has precipitated a major restructuring of the industry, particularly within the European Community and North America. Competition is increasingly organized along the lines of the three emerging trading blocs; i.e. North America, Western Europe and the Asia-Pacific region.

The following factors have a major impact on the world chemicals industry:

- increasing competition and trade liberalization arising from the current General Agreement on Tariffs and Trade (GATT) round (combined with the Canada-United States Free Trade Agreement (FTA) and the North American Free Trade Agreement (NAFTA));
- growing public concern about how chemical products are produced, marketed and disposed of and the resulting demands for new "environmentally friendly" products and technologies;
- changing industry dynamics and product definitions resulting from the evolution of science and engineering into new fields and the development of new products that cut across disciplines. Competitiveness is increasingly tied to developing cross-disciplinary teams of technical experts to define research and development (R&D) and commercial prospects; and

- the globalization of industry in general, which means that individual firms are unlikely to grow and prosper without the benefit of mutually reinforcing supplier capabilities, and/or close competitors and external innovation catalysts within their domestic or continental industrial "cluster."

B Domestic Position

The chemical sector is Canada's third-largest manufacturing sector based on the value of shipments, which totalled \$22.2 billion in 1991 (about 8 % of total manufacturing activity). In 1991, employment in the sector was approximately 90,000 — about 5.6 per cent of manufacturing employment. The chemicals sector also ranks third in value-added.

Imports and exports in 1991 totalled \$8.5 billion and \$6.1 billion, respectively. Imports represented 35 per cent of the domestic market and were comprised largely of specialty and formulated chemicals tailored for specific end-uses. Exports were primarily commodity products and accounted for 28 per cent of factory shipments. Overall, the United States accounted for 76 per cent of Canada's imports and received 69 per cent of our exports.

Canadian-owned firms tend to be small and primarily serve niche markets. Production is normally geared to domestic (often regional) markets. Now, however, Canadian producers are beginning to take advantage of opportunities arising from the Canada-United States Free Trade Agreement (FTA). Indeed, many larger companies have already rationalized their operations in terms of the larger North American market. This has meant the closing of Canadian branch plants in some cases, but also the opportunity to supply from Canada in other cases.

The Canadian commodity chemicals sector — particularly the ammonia and petrochemicals subsectors — remains competitive due to the availability of competitively priced oil and gas. For specialty and fine chemicals, however, proprietary products developed outside Canada are imported since, in many cases, the Canadian market is not large enough to justify production. As well, in other cases, producers must frequently rely on raw materials and specialized components that are not readily available in Canada.

In the human resources area, rationalization has meant that many key technical, marketing and management positions have disappeared from Canadian operations. To a large extent, industry management remains focused on manufacturing and domestic marketing. Greater emphasis is needed on enhancing knowledge of innovation and world markets. For Canadian subsidiaries, the winning of research/manufacturing mandates from the present company is a key to growth. The supply of science and technology graduates is currently a positive factor.

Research and development (R&D) in the Canadian chemicals sector has been limited, in part, due to the influence of multinational firms. As a result, an inevitable bias toward acquiring off-the-shelf technology — as opposed to developing it in Canada — exists. Pharmaceutical R&D, however, has grown significantly. Proposed legislation (Bill C-91) to strengthen intellectual property protection for drug products should reinforce this trend by enhancing Canada's attractiveness as a location for R&D investment and export manufacturing by the pharmaceutical industry. Indeed, a number of investments totalling over \$650 million for the 1992-1996 period have already been announced.

The capital-intensive sectors of the chemical industry face higher construction costs in Canada than do their U.S. Gulf Coast competitors. Transportation, labour and input costs also affect Canada's competitive position. The pipeline infrastructure is acceptable but fails to provide the same degree of flexibility as in the U.S. Gulf Coast area or Western Europe.

C Strategic Direction

Compared to their international competitors, Canadian chemical companies are driven by a short-term, cost focus (as opposed to a longer-term, innovation focus). With the exception of the pharmaceutical industry, most companies are geared toward production but place insufficient emphasis on marketing.

In order for the Canadian chemicals sector to improve its competitive position internationally, several key issues must be addressed:

- Canadian subsidiaries of multinational companies must demonstrate that they can make a solid contribution to the goals of the multinational parent company. They must develop a critical mass of functions and linkages within Canada, while developing access to firms outside the country.
- Canada must create and sustain a business climate that reinforces the international competitiveness of Canadian firms.
- Industry must intensify its drive toward innovation by promoting technology awareness, increasing its commitment to R&D and adapting leading technologies, which are available worldwide.
- Individual companies must be more anticipative and proactive in considering potential new markets and in forging new alliances, particularly in Asia and Europe.
- Industry must increase its efforts to develop mutually beneficial industry clusters among suppliers, close competitors and external innovation catalysts.

In order to address these concerns, the Government, in concert with industry, will work to:

- promote multinational investment in the Canadian chemical industry by demonstrating that Canada provides a competitive investment environment;
- encourage Canadian subsidiaries to secure research/product mandates from their parent companies;
- encourage companies to innovate through increased commitment to R&D, both through in-house research and by acquiring leading-edge technologies;
- encourage companies, particularly small and medium-sized firms, to "think globally" and to become proactive in considering potential new markets and forging strategic alliances; and
- assist companies to align themselves with other partners, such as suppliers and customers, to develop mutually beneficial industry clusters.

Chemicals, Petrochemicals and Pharmaceuticals

Activity	Date	Location	Dept.	Contact
United States				
Chemicals; investment seminar	Jun 1993	Houston	EAITC	613-944-6577
Chemical equipment; national stand: Chem Show	Dec 1993	New York City	EAITC	613-944-7986
Promotion of Strategic Alliances in Chemical Sector	ONG* 1993	United States	ISTC	613-954-3075

*ONG - ongoing

Commercial Services

A International Environment

World trade in services was estimated at over \$800 billion in 1990. Between 1975 and 1985, the average annual rate of growth of trade was 8 per cent. Among all services industries, producer services accounted for the bulk of world trade. Producer services, as distinct from consumer services and government services, are services sold to businesses rather than to final consumers.

The major exporting countries in this sector are the members of the Organization for Economic Co-operation and Development (OECD). Each is a strong competitor, having its own areas of specialization or dominating specific markets, but the United States remains the overall leader in service exports. Other non-OECD countries are now emerging as serious international contenders in certain subsectors, such as consulting engineering. They include newly industrialized countries (Korea, Brazil, India and Mexico), who benefit from cost advantages, or smaller players (Chile, Argentina and Indonesia), who can compete successfully in their respective geographic regions. The major importers of services are the United States, Pacific Rim countries, South Asia, Africa and the Middle East.

Three of the most prominent characteristics of the services sector are:

- Globalization — New service export opportunities are emerging as a result of new trade policies. Multilateral Trade Negotiations, the North American Free Trade Agreement (NAFTA) and European integration are all addressing the topic of services and are likely to have a significant impact in opening world markets to trade in services.
- Product-Service Linkage — The distinction between products and services is becoming increasingly blurred, and the two are often inseparable in production and sale, (e.g. turnkey projects/operations, systems maintenance or product information hotlines). The export value of machinery often includes up to a 40 per cent service input.
- Partnering — Increased partnering activity is occurring between firms from various countries on single projects or by splitting major capital projects into various subcomponents for various firms. Canadian firms are increasingly teaming up to face their large international competitors.

B Domestic Position

Canadian economic activity in the service sector has increased sharply in the post-war period, rising from about one-half to two-thirds of total Gross Domestic Product (GDP). The number of service sector workers has also risen and now accounts for over 72 per cent of total employment in Canada.

Within the Canadian service sector, producer services have been the major growth area and now account for over 40 per cent of total services output. Producer services include:

- accounting
- consulting engineering
- management consulting
- scientific services
- architectural services
- financial services
- communications services
- environmental services
- construction services
- geomatic services
- legal services
- industrial design
- computer services
- personnel services
- security services
- training services
- transportation and logistic services
- distribution (retail and wholesale) services
- health-care services

Although Canada's balance of services trade is in deficit (\$10.8 billion), exports are increasing more rapidly than imports. Over the last decade, producer services exports have increased at an average rate of 8.2 per cent per year, outpacing imports which grew only 7.1 per cent annually. Most services exports are to the United States and an increasing number of Canadian firms are succeeding in carving out niche markets.

Many producer services firms have gained international prominence. Canadian consulting engineers rank among the most capable in the world and have developed a significant international presence. Much of their business can be attributed to their success in winning highly competitive contracts through international financial institutions (i.e. multilateral development banks and United Nations agencies).

C Strategic Direction

Canada is capable of achieving further comparative and competitive advantages in a range of producer services such as:

- services related to mining and early stage processing, forestry, agriculture, hydro-electric power generation and distribution, geography and climatic conditions (e.g. exploration services, engineering services, construction, resource-based scientific services, including environmental services, and land transport);
- services relating to overland transportation and communications, particularly for sparsely populated regions;
- selected producer services in high-technology fields, (e.g. in areas such as biotechnology, computer communications and systems integration, software and related training and aftersales services packages); and,
- capital project management services in areas such as oil and gas, transportation and tourism resort development.

Greater efforts to penetrate U.S. and Latin American markets should build on the results of the Canada-United States Free Trade Agreement (FTA) and the NAFTA. The Asia-Pacific region and others, where international finance institutions (IFIs) figure prominently, should be target areas for Canadian services firms. Also, the Middle East may offer attractive opportunities for services exports.

As well, there are a number of priority areas for certain subsectors:

- Consulting Engineering, Architectural Services and Construction — These specialized engineering services, which may be associated with IFI projects in developing countries, will continue to be in high demand. Canadian firms will have to form alliances, joint ventures and consortia with firms in other countries to compete in these areas.
- Environmental Services — As a result of increased environmental controls, there are vast opportunities for Canadian service exporters in this sector in the United States, Latin America, Eastern Europe and the Asia Pacific region.
- Health Care Services — IFI expenditures in lower- and middle-income economies for health-care services point to significant opportunities for Canadian service providers in the Asia-Pacific region, Latin America and the Caribbean.
- Management Consulting — Opportunities exist in a number of offshore markets, such as Eastern and Central Europe, where Western-style economies are emerging. Training, privatization and auditing are areas of strength on which Canadian firms could capitalize.
- Financial and Legal — Globalization trends and the need to be close to clients will drive the establishment of an international presence, especially in areas such as Latin America, Eastern and Central Europe. Africa and the Middle East are also strong growth prospects. For Canadian banks, the Mexican market will offer attractive opportunities under the NAFTA. Possible relaxation of regulatory barriers in Asia may also create attractive opportunities.
- Education and Training — Enormous needs for education and training services will exist in the developing world, the former U.S.S.R., Eastern Europe as well as in commercial markets in the OECD. Trends indicate that aid agencies are providing a growing amount of funding for these types of services.
- Trading Houses — Major markets exist in the Caribbean, Central and South America, the Middle East, the former U.S.S.R. and the Indian subcontinent.
- Distribution and Transportation Services — Retail, food service, wholesale distribution networks and courier services may be areas of opportunity in Central and Eastern Europe as well as Mexico.

The following measures are recommended to encourage the export development of Canadian service firms during the next few years:

- develop international marketing skills and programs for Canadian services companies to penetrate foreign markets;
- build further technology/marketing relationships between Canadian goods and services providers in Canada to compete internationally;
- enhance Trade Commissioners' knowledge of Canadian services companies to better meet their international business requirements;
- build international financing support for Canadian services companies to compete abroad; this includes building support through domestic agencies such as the Export Development Corporation, Canadian International Development Agency, Canadian Commercial Corporation and International Development Research Centre;
- increase awareness of IFI projects as a leading source of goods and services export opportunities in developing countries;
- increase partnering between Canadian and foreign firms to offer competitive integrated packages;
- develop industry statistics to gain a fuller understanding of Canada's service industries in an international context; and
- review taxation issues to ensure Canadian service companies can bid competitively.

Commercial Services

Activity	Date	Location	Dept.	Contact
United States				
Industrial efficiency financial consultant; partnering mission to	Apr 1993	Buffalo	EAITC	613-944-9440
Scientific instruments; mission to: federal government	May 1993	Washington (D.C.)	EAITC	613-944-9440
Hydro rehabilitation; mission to	May 1993	Eastern seaboard	EAITC	613-944-9440
Hydro rehabilitation; mission to	May 1993	West coast	EAITC	613-944-9440
Consulting engineers and architects export; conference	Jun 1993	Minneapolis	EAITC	613-944-9440
Architecture and interior designer; mission to	Oct 1993	Washington (D.C.)	EAITC	613-944-9440
Engineering, health care and financial; mission to	Nov 1993	Michigan, Indiana	EAITC	613-944-9440
Architects; mission to: Lake Superior Design Conference	Jan 1994	Minneapolis	EAITC	613-944-9440
Health care insurance management; mission to	Feb 1994	Minneapolis	EAITC	613-944-9440
Transport and environment services; mission to: Borderland Trade Show	Mar 1994	El Paso	EAITC	613-994-9440
Japan				
Resort development; seminar	Apr 1993	Tokyo, Osaka, Nagoya	EAITC	613-995-8596
Africa and the Middle East				
Construction services and products; mission to	May 1993	Beirut	EAITC	613-944-6983
Education and training services; mission to: Education and Training Conference	Oct 1993	Kuwait and other Gulf States	EAITC	613-944-6847
Latin America and the Caribbean				
Construction products and services; information booth and mission to: CIHAC '93	Sep 1993	Mexico City	EAITC	613-996-2268
Trading House; mission to	Nov 1993	Caribbean	EAITC	613-996-3877
Central/Eastern Europe and the Commonwealth of Independent States				
Subcontracting; mission to	Sep 1993	Baltic States	EAITC	613-996-6652
Energy resources management; mission to	Oct 1993	Russia	EMRC	613-996-2510
Multiple Markets				
Let's Talk Risk; workshop on export finance	May 1993	Saskatoon	ISTC	306-975-5318
Access to finance; workshop	Sep 1993	Various	EAITC	613-996-6188

Consumer Products

A International Environment

The consumer products sector makes up one of the largest components of world trade in goods, totalling hundreds of billions of dollars annually, and is growing steadily. For such products as apparel and textiles, bicycles and other sporting-goods, the fastest growth has been in developing or state-managed economies, which export to the developed world. In other areas, such as furniture, growth is highest between major developed countries and trade blocs, such as Western Europe and North America. Newly industrialized and developing countries are expected to continue to increase their share of world trade, both in labour-intensive industries, such as apparel, and in capital-intensive, standard technology, mass production industries such as bicycles.

Because of population growth, developing countries are expected to gradually increase their share of world consumption of consumer goods. In developed countries, the demand for consumer goods will have the fastest growth in high-quality, fashionable and functionally designed products, which can be purchased and serviced conveniently, and can meet the needs of the aging population. This demands that retailers and manufacturers work collaboratively in long-term efforts to improve quality and merchandising.

Trade within emerging regional trade blocs is expected to increase faster than trade between these blocs or between developing and developed countries. Canada's main focus of export efforts in the consumer goods sector will be with other developed countries, particularly the United States, over the next five to ten years.

Main Global Players

Primary Textiles	United States, Germany, Hong Kong, Italy, China, United Kingdom
Apparel	United States, Germany, Hong Kong, Italy, China, South Korea, France, Japan, United Kingdom
Office Furniture	United States, Japan, Germany, Italy, France, Taiwan, United Kingdom
Sporting Goods	United States, Taiwan, China, European Economic Community
Footwear	China, Former Soviet Union, Italy, Taiwan, United States, Germany, United Kingdom
Consumer Audio	United States, United Kingdom, Japan

B Domestic Position

With a few exceptions (hockey equipment, snowmobiles and personal water craft), Canadian consumer goods industries are small players on the world scene. Our production rarely exceeds 1 to 1.5 per cent of world production, and our trade rarely exceeds 2 per cent of world trade in the sector. Canadian industry faces the challenge of continuing to become more productive and efficient, and of developing more value-added products to compete with foreign products in domestic and international markets.

Apparel

The apparel sector accounts for almost \$5.9 billion in shipments, \$409 million in exports (about 6 per cent of shipments) and about 2,000 establishments with some 90,000 employees. Its domestic strengths include a diversified manufacturing base and product range, high-quality product, fashion orientation, flexible manufacturing plants and good profitability, all of which provide a strong and viable base from which to develop export markets.

Footwear

The footwear industry accounts for \$653.5 million in shipments, \$44.9 million in exports (about 6.9 per cent of shipments) and about 130 establishments with an estimated 12,000 employees. The footwear industry is making significant efforts to become more internationally competitive. Two areas of success are winter and safety footwear. Some firms are having success in both the domestic and U.S. markets because of continued improvements in products, marketing expertise and manufacturing systems.

Textiles

Canada's textile industry exports almost 20 per cent of its \$7 billion of annual sales, and employs some 60,000 people. Exports, primarily to the United States have more than doubled over the past decade. The industry is highly diversified, both horizontally and vertically. There are two major groups of producers: manufacturers of primary textiles (fibres, filaments, yarns, fabrics), and manufacturers of textile products (such as non-woven fabrics, carpets and household products). A third group supplies fabric accessories to the motor vehicle industry.

The many subsectors of the industry have distinctive operations and markets. The textile industry, overall, is highly modernized and capital intensive, with producers of primary textiles being larger and having greater economies of scale than producers of textile products. The degree of capital intensiveness and vertical integration varies widely within the textile products area.

Both the apparel and textile sectors have been sheltered from competition with lower-cost countries by high tariffs and protection under the Multifibre Arrangement. However, the trade-distorting effects of quotas and the many tariffs on apparel and textiles will be reduced over the next decade, assuming a successful outcome to the Uruguay Round of the Multilateral Trade Negotiations.

These changes are putting greater competitive pressure on Canada's textile industry. Productivity improvement in the textiles industry, supported by investment, has outpaced the rate of improvement for Canada's manufacturing sector as a whole over the last ten years. Faced with a rapidly evolving trading environment, international and domestic textile trade pressures, and the globalization of production and markets, textile firms have been challenged to change more swiftly to become more internationally competitive. Continuing dependence on the important but limited Canadian market is no longer a viable option for textile firms, whether they are large multinationals with a Canadian presence or smaller companies serving specialized market niches.

Sporting Goods

Sporting goods industries covered here include manufacturers of equipment for seasonal sporting and recreation activities, fitness equipment and recreational boats. Although many of the firms in the sector are relatively small, they are strong performers in international markets, tending to be dynamic and niche-oriented. Canadian companies have an international reputation for high-quality, well engineered and well designed sports equipment, and are world leaders in a number of areas such as hockey, exercise equipment, high-quality bicycles and recreational watercraft. The prime markets for Canadian sporting goods are the United States, Europe and Japan. Manufacturers of these products employ approximately 14,000 people, and are responsible for total shipments of \$1.2 billion, of which \$270 million (22%) were exported.

Consumer Audio Equipment

The Canadian audio industry produces a range of products from the high-end, high-quality products to mass-produced name brand speakers. Canadian speakers, amplifiers and tuners in the middle- to upper-end are gaining increasing international recognition as among the finest in the world. The industry's technological excellence, particularly in the speaker sector, has been supported by research at the National Research Council, which has helped turn Canada into a world leader in speaker technology and innovation. While total annual sales of Canadian audio products amount to \$60 million, half of this consists of exports to about 30 different countries. Priority markets are Hong Kong, Taiwan, Singapore, Indonesia, Thailand, Korea, Japan, the United States and most Western European countries.

Office Furniture

The office furniture industry in Canada employs approximately 13,000 people. Annual shipments are in the range of \$1.2 billion, 25 per cent of which is exported, primarily to the United States. Canadian exports of office furniture have had noticeable success in the United States, but, in order to build on this to make further inroads internationally, the industry faces the challenge of improving its marketing, technology, productivity and training.

Challenges Facing the Consumer Products Industry

- domestic and international economic conditions that constrain disposable incomes, business activity and, thus, demand for consumer products;
- fragmentation in the industry and the small size of most firms. This limits their ability to plan, pay for and implement successful strategies to penetrate or secure markets, to acquire best-practice technologies or to effect significant productivity improvements; and

- a need for more industry linkages and alliances. Supplier-user, manufacturer-retailer, manufacturer-designer or complementary market-niche relationships would help some of the above constraints.

C Strategic Direction

General

The challenge facing the consumer products sector will be to capitalize on the market opportunities available under the Canada-United States Free Trade Agreement and the North American Free Trade Agreement and to put in place the industrial restructuring, business linkages and productivity gains necessary to remain viable and growing in the face of increased international competition, particularly in the areas of textiles and apparel.

The following are key components of the government's strategy:

- Encourage partnerships between government, industry and labour to examine important industry issues and to develop an adjustment agenda for the textiles, apparel, furniture and footwear industries.
- Promote stronger industry associations to improve unity and advocacy of industry issues and to make a range of valuable services available to the typically small or medium-sized business firms in consumer goods industries.
- Promote technology acquisition from Europe and Japan.
- Promote access to technology and markets through partnerships and strategic alliances.
- Encourage the marketing of higher value-added products particularly to the United States.
- Encourage industry associations to take the lead and share the costs of market development activities.
- Work with smaller firms to help them be better prepared to compete in international markets.
- Develop better industry statistics and market- and technology-related intelligence, and make this more available to clients.
- Encourage co-operative marketing arrangements between companies with complementary technology or capabilities.

Apparel and Footwear

- For apparel, focus on the United States.
- For winter and safety footwear, continue to target the northern United States.

Textiles

- Target support on higher-end engineered textiles, including technical textiles and non-wovens in specialized international markets, primarily the United States.
- Encourage the Canadian carpet industry to increase its attention to strategic long-term, sustained market development, targeting the United States and Pacific Rim.
- Identify niche opportunities for the Canadian hosiery industry.

Sporting Goods

- Focus market development efforts on niche markets in the United States, Europe and Japan.
- Promote international recognition of Canadian brands.

Consumer Audio

- Improve Canadian brand recognition by making leading internationally recognized audio reviewers more aware of Canadian industry and National Research Council facilities.

Office Furniture

- Focus market development support on the United States.

Consumer Products

Activity	Date	Location	Dept.	Contact
United States				
Footware All-Industry Marketing Conference (AIM)	Apr 1993	Tucson	ISTC	613-954-2921
Montreal Residential Show; mission from United States to Giftware; national stand: Crafts and Gift Show	Jun 1993	Montreal	EAITC	613-944-9479
Giftware; national stand: Crafts and Gift Show	Jun 1993	Washington (D.C.)	EAITC	613-944-9479
Giftware; national stand: Crafts and Gift Show	Jun 1993	Charlotte	EAITC	613-944-9479
Giftware, arts and crafts, jewellery; solo show: Giftware Rep Locator	Jun 1993	Minneapolis	EAITC	613-944-9479
Arts and Crafts; national stand: Inuit Art Exhibit	Jun 1993	Columbus	EAITC	613-944-9479
Contract furniture; national stand: Designfest '93	Jul 1993	Orlando	EAITC	613-944-9479
Giftware; information booth: Gift Show	Jul 1993	Atlanta	EAITC	613-944-9479
Giftware; national stand: Summer Gift Show	Jul 1993	Rochester	EAITC	613-944-9479
Apparel; national stand: Eurostyle	Aug 1993	New York City	EAITC	613-944-9476
Apparel; national stand: Mid-West Men's Wear Collective	Aug 1993	Chicago	EAITC	613-944-9476
Sporting goods and apparel; national stand: National Sporting Goods Association World Sports Expo '93	Aug 1993	Chicago	EAITC	613-944-6134
Sporting goods and apparel; national stand: Outdoor Retailer Expo West	Aug 1993	Reno	EAITC	613-944-6134
Apparel; national stand: Canada Mode	Sep 1993	New York City	EAITC	613-944-9476
Boat and boat products; national stand: IMTEC	Sep 1993	Chicago	EAITC	613-944-9482
Contract furniture; solo show	Oct 1993	Philadelphia	EAITC	613-944-9479
Contract furniture; solo show	Oct 1993	Detroit	EAITC	613-944-9479
Furniture; solo show	Oct 1993	Cincinnati	EAITC	613-944-9479
British Columbia Indian Crafts; solo show	Oct 1993	Washington (D.C.)	EAITC	613-944-9479
Mission to: NEEF Folio (New York)	Oct 1993	New York City	ISTC	613-954-3105
International Interior Design Exposition; mission from United States to	Nov 1993	Toronto	EAITC	613-944-9479
National Spa and Swimming Pool Institute International Exhibition	Nov 1993	Anaheim	ISTC	613-954-3094
Apparel; mission to	Jan 1994	Minneapolis	EAITC	613-944-9476
Contract furniture; mission from United States to	Jan 1994	Toronto	EAITC	613-944-9479
Giftware; national stand: Crafts and Gift Show	Jan 1994	Chicago	EAITC	613-944-9479
Safety equipment and clothing; mission to: General Services Administration	Jan 1994	Fort Worth	EAITC	613-944-9440
Audio products; information booth: CES	Jan 1994	Las Vegas	EAITC	613-996-1435
Apparel; national stand: Canada Mode	Feb 1994	New York City	EAITC	613-944-9476
Apparel; national stand: Eurostyle	Feb 1994	New York City	EAITC	613-944-9476
Apparel; national stand: Mid-West Men's Wear Collective	Feb 1994	Chicago	EAITC	613-944-9476
Apparel; national stand: Western Shoe Associates Show	Feb 1994	Las Vegas	EAITC	613-944-9476
Apparel; mission to	Feb 1994	Buffalo	EAITC	613-944-9476
Giftware; national stand: Winter Gift Show	Feb 1994	Rochester	EAITC	613-944-9476
Atlantic Crafts Show; mission from United States to	Feb 1994	Halifax	EAITC	613-944-9476
Boat and boat products; national stand: International Miami Boat Show	Feb 1994	Miami	EAITC	613-944-9482
Furniture; forum: Health Care Design	Mar 1994	Minneapolis	EAITC	613-944-9479
Contract furniture; solo show	Mar 1994	Cleveland, Columbus	EAITC	613-944-9479
Sporting goods; information booth: Interbike	Sep 1994	Anaheim	EAITC	613-996-1435
Western Europe and European Community				
Children's books; information booth: Bologna Children's Book Fair	Apr 1993	Italy	EAITC	613-995-9766
Fur; mission to	Apr 1993	Spain	EAITC	613-996-6359

Activity	Date	Location	Dept.	Contact
Fur Fair; buyers from Switzerland, Belgium to Upholstery machinery; information booth: Interzum '93	May 1993	Montreal	EAITC	613-996-7544
Women's wear; information booth: Premier Women's Wear	May 1993	Cologne	EAITC	613-996-3774
Sporting goods; information booth: MIAS International	Aug 1993	Birmingham	EAITC	613-995-6565
Sport Articles Exhibition	Sep 1993	Milan	EAITC	613-995-4766
Sporting goods; information booth: ISPO '93	Sep 1993	Munich	EAITC	613-996-3774
Apparel Manufacturers Mission to IMB Show	Sep 1993	Cologne	ISTC	613-954-2888
Wood engineering curriculum development - Exchanges with	Oct 1993	Ontario, Manitoba	ISTC	204-983-2840
Technology Mission to Shoe and Allied Trades Research Association and selected U.K. Footware Firms	Oct 1993	Kettering (U.K.)	ISTC	613-954-2853
Hardware products; information booth: Domotechnica '94	Feb 1994	Cologne	EAITC	613-995-9766
Fashion apparel; seminar	Feb 1994	Brussels, London, Dusseldorf	INVCAN	613-995-7231
Sporting goods; information booth: Swisspo '94	Mar 1994	Zurich	EAITC	613-996-7544
Sporting goods; information booth: ISPO '94	Mar 1994	Munich	EAITC	613-996-3774
Hardware; national stand: International Hardware Fair	Mar 1994	Cologne	EAITC	613-996-3774
Audio products; solo show	TBD* 1993	Munich, Frankfurt	EAITC	613-996-1435
Japan				
Consumer Products; information booth: Tokyo International Trade Fair	Apr 1993	Tokyo	EAITC	613-995-1677
Solo Giftware and Jewellery Show	Aug 1993	Tokyo, Osaka	ISTC	613-954-3104
Fur and apparel; information booth: Fur and Fashion Tokyo Show	Feb 1994	Tokyo	EAITC	613-996-2460
Canadian residential furniture; solo show	Apr 1994	Osaka	EAITC	613-995-1677
Consumer products; mission from Japan to	TBD 1993	Canada	EAITC	613-995-1677
East Asia				
Fashion; buyers from Hong Kong to	Sep 1993	Toronto, Montreal	EAITC	613-995-6962
Audio products; show	Mar 1994	Hong Kong, Taiwan	EAITC	613-996-1435
Asia Pacific South				
Canadian Hardware Show; mission from New Zealand to	Feb 1994	Toronto	EAITC	613-995-7662
Africa and the Middle East				
Trading House; mission to	Mar 1994	Iran	EAITC	613-944-7029
Latin America and the Caribbean				
Hardware; information booth: Hardware Merchants Association of Jamaica Show '93	Apr 1993	Kingston	EAITC	613-996-6921
Consumer products and industrial machinery; mission to	Oct 1993	Santiago	EAITC	613-996-4199
General sales; mission to	Mar 1994	Jamaica, Dominican Republic	EAITC	613-996-3877

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Central/Eastern Europe and the Commonwealth of Independent States				
Consumer products; information booth: TIBCO '93	May 1993	Bucharest	EAITC	613-996-7107
Household and consumer goods; buyers from Yugoslavia, Bulgaria to	TBD 1993	Canada	EAITC	613-996-7107
Multiple Markets				
European Furniture Design and Technology	May 1993	Paris, Milan	ISTC	613-954-5258
National Hardware Show; National Stand	Aug 1993	Chicago	ISTC	613-941-5267
The 9th International Office Environment and Management Show	Feb 1994	Tokyo	ISTC	613-954-3094

Defence Products

I Defence Electronics

A International Environment

The international environment for the defence electronics sector is characterized by advancing technologies and fierce competition. The end of the so-called "Cold War" has brought declines in defence budgets in traditional markets, such as the United States and other North American Treaty Organization (NATO) countries. International demand for weapons systems (including planes, missiles, ships and vehicles) has therefore declined significantly, resulting in much stiffer competition among defence firms for the remaining business. From the defence electronics perspective, however, recent declines in defence budgets have been offset by the rising electronics component of military hardware: the number and value of electronics subsystems is growing as a proportion of the total cost of military hardware with the result that the overall market for defence electronics is flat.

The issue of market access is of growing importance, as the proportion of the defence electronics market that is truly open to international competition is likely to decline. Protectionist pressures in some traditional markets may arise, as countries seek to reserve declining domestic opportunities for domestic suppliers.

In the United States, Canada has enjoyed an especially privileged access to the defence markets. In most instances, the U.S. customer is a U.S. defence contractor, who has selected a Canadian firm as a supplier in a competitive solicitation.

In Europe, access is extremely difficult unless there is a teaming arrangement with a domestic partner or a domestic affiliate company, which is acting as the prime contractor. Canada, through the Department of National Defence (DND), has occasionally been invited to join with other NATO countries in NATO collaborative development projects.

A number of accessible markets exist for Canadian defence products in the Pacific Rim and Middle East countries. These are primarily defence departments in developing countries, such as Korea, Egypt, Saudi Arabia, Kuwait, Malaysia, etc. Canada has established new defence industrial co-operation Memorandum of Understanding (MOUs) with Spain, Saudi Arabia and Australia, and has proposed one with Korea. However, exporters must be aware that sales are subject to the Export and Import Permit Act. Canadian firms usually have to deal through local agents, who are familiar with the local business and political culture. Competition is usually fierce, and, in some instances, local production is required, as is the establishment of local repair and overhaul facilities.

The markets for defence-related products in air traffic control, avionics and simulator products are cyclical in nature, and market access is less of a problem than it is for defence products. Canadian simulator companies are well placed in their market niches. In the Air Traffic Control (ATC) sector, Canadian companies bid as prime contractors on international projects, as well as provide niche products as first and second tier suppliers. The ATC marketplace is expanding as older ATC systems are upgraded and as new technologies are developed.

B Domestic Position

The Canadian defence electronics sector consists of approximately 150 companies. The sector utilizes very advanced technologies and produces highly skilled engineering and manufacturing jobs. Companies in the sector invest heavily in research and development (R&D). They successfully spin-off military technology into the commercial marketplace. After a decade of sustained growth, the industry peaked in 1988 in terms of employment, revenues, shipments, exports, investments and profits. Since that date, the sector's aggregate results have flattened in the face of a more difficult competitive environment.

The top ten companies in the industry generated \$1,500 million in revenues in 1991 and have approximately 14,000 employees. Sector firms develop, manufacture and repair military radio and communications equipment; radars for surveillance and navigation (both civil and military); simulators and training devices (both civil and military); air traffic control systems (both civil and military); acoustic and infrared sensors; computers for navigation and fire control; signal processors and display units; and special purpose electronic components; and are engaged in systems engineering and associated software. The industry exports a majority of its output, principally to the United States (60%).

The largest domestic customer is DND. Procurements tend to be competitively sourced whenever possible, with Canadian Industrial and Regional Benefits (IRBs) figuring prominently in the selection of the winning team in the case of major programs. There is no policy support to give Canadian firms preferential treatment. This is in direct contrast to the government/industry relationships evident in Europe and, increasingly, in the United States. When there are large Canadian procurements, Canadian companies, as first, second and third tier niche suppliers, are usually spread throughout the various foreign-led bid teams.

The lack of a large domestic market has not been an insurmountable obstacle to the success of Canadian defence electronics firms. As suppliers of niche products and services, they have been able to retain their international markets. To note, increasingly, foreign customers are looking for domestic usage by Canadian government departments/agencies as a stamp of approval for a product. Although this is a desirable factor, it cannot apply at all times.

C Strategic Direction

To ensure that Canadian companies remain internationally competitive, the following strategic objectives will be pursued:

Technology

Promote the development of both new niche-market products and systems engineering/integration capabilities.

- Promote and assist market-driven R&D projects.
- Promote and assist the development of systems integration and systems software capabilities in the Canadian industry.
- Maintain and strengthen the knowledge base of customer needs to guide future technological requirements.
- Assist the development of new products through the Defence Industry Productivity Program (DIPP).

Promote the development of dual use (military/commercial) technologies.

- Encourage and assist the development of dual use technologies to reduce dependence on pure defence markets.

Promote co-operative R&D between Canada and other countries.

- Capitalize on defence development MOU's and agreements currently in place.
- Promote new defence development MOU's and agreements in strategic markets.

Markets

Maintain and expand share of the U.S. defence electronic market

- Optimize the Canada-U.S. Defence Development and Production Sharing Arrangements (DDSA/DPSA).
- Participate in SUBCON, a meeting place between U.S. primes and U.S. Department of Defence logistics agencies and Canadian companies.
- Identify locations and pursue repair and overhaul market opportunities for replacement and/or upgrading of avionics equipment.

Expand market share in priority markets of Asia, Pacific Rim, Middle East and renaissance East Europe

- Investigate joint venture opportunities in above-mentioned regions for easier access to major projects/contracts.
- Use government-provided market intelligence and support from Canadian missions to complement company market strategies.

- Investigate the aftermarket trade for parts and components as an opening to opportunities in the repair and overhaul international markets.
- Participate in major trade fairs and, depending on the subsector, in locations "Where the World Shops" such as the Paris Air Show; Farnborough, United Kingdom; National Business Aviation Show, United States; Asian Aerospace, Singapore; Dubai Air Show, United Arab Emirates; and Fidae, Chile.

Human Resources

Promote the development of human resources within the industry in order to enhance the knowledge and skill base necessary for future prosperity and growth.

- Support industry-led training and development initiatives emerging from the Prosperity consultations.

Business Climate

Promote co-operation between Canadian companies in the pursuit of export markets.

- Encourage "Team Canada" business arrangements in the pursuit of export markets.

II Marine and Land Defence

A International Environment

The warming of East/West relations has encouraged governments to reevaluate their national priorities, reallocate their resources and significantly reduce defence spending. Declining defence budgets and procurement are having a major impact on defence industries producing strategic weapons systems. Typically, these systems have been the largest and most expensive defence programs for most nations. Many defence firms are therefore being forced to rationalize and diversify into defence-related, civil applications and markets, resulting in a reduction in the number of major defence contractors.

While expensive nuclear weapons, advanced missiles and aircraft programs are being reduced or terminated, there is a growing recognition that modern conventional forces are required for national security and international security commitments. Service life extension and improvement programs for existing equipment, as well as the acquisition of new light rapid response conventional equipment, represent the most promising areas for future growth in defence markets. Adaption of defence products for defence-related, civil applications also offers future promise.

The post-Cold War era will also mean new policies for the development and acquisition of new systems and weapons. Nations will want to maintain their own capabilities, while keeping costs in line with reduced defence budgets. The result is expected to be greater international co-operation and joint ventures for the development of new systems and weapons.

B Domestic Position

The Marine and Land Defence Systems sector represents a significant part of Canada's defence products industry (the other components being aerospace and electronic products — described elsewhere in this document). It consists of five subsectors: marine defence products, munitions, defence technologies, defence security products and military vehicles and components.

Generally, firms within this industry sector are specialized defence contractors and subcontractors who rely primarily on the domestic and U.S. market. Only a few companies have annual sales in excess of \$100 million. In all, the sector is composed of approximately 300 small to medium-sized companies, including the defence divisions of several multinational corporations. Annual sales are estimated at \$2.5 billion, of which 60 per cent is exported. On average, the industry employs about 14,000.

The marine defence products subsector strengths include such products as the Recovery Assist Secure and Traverse (RAST) system for shipboard helicopter recovery, cable-handling systems, ship infrastructure and mission systems.

The munitions subsector strengths are in the manufacture of small arms, propellant and ammunition. Canada is recognized for its expertise in environmentally friendly and close-quarters training ammunition and associated equipment for military, paramilitary and commercial global markets.

The defence technologies subsector includes advanced applications in alternative power sources, the environment, optics, robotics and advanced industrial materials. Some specific applications are improved night-vision equipment, an autonomous robotic aircraft refuelling system and an automated replenishment-at-sea system, capable of transferring both solids and/or liquids between ships at sea.

The defence security products subsector strengths include such areas as bomb disposal, weapon and narcotics detection, military apparel for both nuclear, biological and chemical (NBC) warfare and cold weather protection (including all-weather and impact-resistant communications equipment).

In the military vehicles and components subsector, the industry's strengths are in supplying components to Canadian and U.S. defence contractors, manufacturing light armoured and military pattern vehicles, and repairing and overhauling vehicle systems.

The marine and land defence sector in Canada has the capability to develop and successfully export conventional defence products. Canadian firms have concentrated their efforts on developing subsystems and components as applicable to defence and civilian niche markets. Rationalization of the global defence industry is offering Canadian firms an entry to niche-oriented and specialized defence, as well as defence-related civilian markets, a good example being sonar technology.

In the United States, Canadian firms that have specialized products and that are bona fide subcontractors to major U.S. defence contractors have done well. Nevertheless, they will have to improve and build upon existing relationships, implement new and innovative measures, and continue to respond to the needs of major U.S. defence contractors if they are to compete in this increasingly competitive and sometimes protectionist market.

In Europe, Canadian firms have had some success in penetrating niche markets. This can be attributed to having a unique and competitively priced Canadian product at the right time. It is increasingly evident, however, that Canadian firms will have to strengthen their competitive position by forging strategic joint-venture partnerships in order to make significant inroads in the European marketplace.

Within Asia and Pacific Rim countries, Canadian firms have not begun to realize their full potential. Some sales have been made in Korea, but more effort is required to promote Canadian technology and expertise in marine and land defence products.

The process of restructuring, downsizing and diversifying Canada's defence industry has already begun. In general, firms in the marine and land defence products sector have rationalized their operations and are well-positioned to take advantage of emerging defence and defence-related, civilian international products and service opportunities.

C Strategic Direction

The key strategic challenge confronting the marine and land defence sector is to actively seek out new joint venture opportunities and to capitalize on what Canadians, traditionally, have done well.

The Government's primary role will be to help industry to develop new and competitive defence and defence-related, civilian products and services and to market them effectively, both in the United States and global markets. The Defence Industry Productivity Program (DIPP), the Program for Export Market Development (PEMD) and other government programs and services will play a major role in this regard.

The following strategic objectives will be pursued:

Build on Canada's positive image in specialized defence products and technologies by:

- helping Canadian firms to actively seek out global defence and defence-related, civilian export markets and reduce their dependency on domestic sales through Canadian trade offices abroad, national and international trade fairs and exhibitions, outgoing/incoming trade missions, sector campaigns and promotional activities to help individual firms penetrate specific markets;
- supporting the industry in developing defence and defence-related, civilian proprietary niche-market world mandate products and defence-advanced technologies for global markets under the auspices of the Defence Industry Productivity Program (DIPP) and other departmental programs and services; and

- distributing and disseminating sector intelligence to promote and support competitiveness factors as applicable to new product developments, production processes, a trained workforce and skilled management.

Encourage new investment and joint ventures by:

- fostering development of business networks and strategic partnerships to realize new opportunities and promote entrepreneurial capabilities via departmental and interdepartmental networks, and Canadian business associates and contacts; and
- promoting a positive investment climate to fully utilize existing capacity and support new ventures in Canada, when economically justified.

Encourage reduction of non-tariff barriers by:

- promoting a NATO "Code of Conduct" for defence trade.

Strengthen co-operation between Canada, its NATO partners, and non-aligned countries by:

- advocating improvements to facilitate U.S./Canada and global, defence-products trade;
- encouraging sector firms to take advantage of new opportunities resulting from bilateral agreements such as U.S./Canada activities as pertinent to DDSA/DPSA, under the auspices of DIPP; and
- gathering information and intelligence on multilateral agreements (such as R&D panel activities between Canada and Canada's NATO partners and Defence Industrial Co-operation Memoranda of Understanding with other countries) and disseminating it to sector firms.

Strengthen ties between government and industry associations by:

- encouraging industry to participate actively in existing defence industry associations and to serve as a conduit on issues of interest to members; and
- encouraging associations to develop ties with their international counterparts in the United States and overseas and to offer a broad range of business services in marketing, technology, investment, skills-upgrading, purchasing and contracting.

Defence Products

Activity	Date	Location	Dept.	Contact
United States				
Aerospace, land and marine electronics; information booth: Sea-Air-Space/Navy League	Apr 1993	Washington (D.C.)	EAITC	613-944-9481
CANEXP III, vendors to prime contractor; mission to	Apr 1993	Philadelphia	EAITC	613-944-9481
Defence electronics; mission to: Industry Day at Defence/Electronics supply centre	Apr 1993	Dayton	EAITC	613-944-9481
Tribal update modernization project; mission to: COMDEF '93	Apr 1993	Norfolk	DND EAITC	613-992-3868 613-944-9481
Defence electronics, aerospace, land and marine system; symposium information booth: TABES '93	May 1993	Huntsville (Alabama)	EAITC	613-944-9481
Security equipment; national stand: COPEX '93	May 1993	Baltimore	EAITC	613-944-9475
Communication and electronic equipment; national stand: Armed Forces Communication and Electronics Association	Jun 1993	Washington (D.C.)	EAITC	613-996-3518
Aviation supply office; mission from Philadelphia to	Jun 1993	Toronto, Winnipeg, Montreal	EAITC	613-944-9481
Defence electronics; solo show: Canada Day at Fort Monmouth	Jun 1993	Princeton	EAITC	613-944-9481
Technical Innovation show; Presentation at Embassy USAF Wright Laboratory; mission from Dayton to	Jun 1993	Washington (D.C.) Canada	EAITC EAITC	613-944-9481 613-944-9481
Philips Laboratory Kirtland Airforce Base; mission to	Jul 1993	Dallas	EAITC	613-944-9481
Subcontractor at; national stand: Air Show Canada	Aug 1993	Abbotsford	EAITC	613-944-9481
Land and marine systems; information booth: Marine Corp Show	Aug 1993	Washington (D.C.)	EAITC	613-944-9481
Security equipment; national stand: ISC East '93	Aug 1993	New York City	EAITC	613-944-9475
Defense General Supply; mission from Virginia to	Sep 1993	British Columbia, Ontario, Manitoba	EAITC	613-944-9481
Philips Laboratory; mission from Dallas to	Sep 1993	Eastern Canada	EAITC	613-944-9481
Vendors to prime contractor; mission to	Sep 1993	Utah, Colorado	EAITC	613-944-9481
Security equipment; national stand: ASIS	Sep 1993	Washington (D.C.)	EAITC	613-944-9475
Land vehicle; mission to: Land Vehicle Base	Sep 1993	Warren (Michigan)	EAITC	613-944-9481
McDonnell Douglas; mission from Denver to	Sep 1993	Montreal, Toronto, Calgary, Vancouver	EAITC	613-944-9481
Robotics; mission to	Sep 1993	Huntsville (Alabama)	EAITC	613-944-9481
Aviation Training Command (ATCOM); mission from United States to	Sep 1993	Montreal, Toronto, Vancouver	EAITC	613-944-9481
Clean up of military bases in Pacific; mission to	Oct 1993	Philadelphia	EAITC	613-944-9478
Defence electronics; mission to: Rome Labs/Griffiths	Oct 1993	Rome (N.Y.)	EAITC	613-944-9481
research and development; mission from Dayton to: Wright Laboratory	Oct 1993	Eastern Canada	EAITC	613-944-9481
Armament, munition and chemical; mission from Chicago to	Oct 1993	Canada	EAITC	613-944-9481
Electronics and chemical equipment; mission to: Electronics and Chemicals Centre	Oct 1993	Detroit	EAITC	613-944-9481
Vendors to prime contractor; mission to	Oct 1993	Dallas, Fort Worth	EAITC	613-944-9481
AUSA	Oct 1993	Washington (D.C.)	ISTC	613-954-3789

Activity	Date	Location	Dept.	Contact
Aviation Training Command; mission to	Nov 1993	St Louis	EAITC	613-944-9481
Land and marine systems; mission to: United States supply naval base	Nov 1993	Seattle	EAITC	613-944-9481
Aerospace Industry Association of Canada; mission to: Defence Logistics Agencies	Nov 1993	Philadelphia	EAITC	613-944-9481
Signal equipment; symposium: 21st Annual Fort Gordon Regiment	Dec 1993	Augusta (Georgia)	EAITC	613-944-9481
Communications and electronics; Conference: Armed Forces Communication and Electronics Association	Jan 1994	San Diego	EAITC	613-944-9481
Helicopter and helicopter technology; national stand: Helicopter America International	Feb 1994	Las Vegas	EAITC	613-944-9481
Aerospace; mission to: Industry Days at two military bases	TBD* 1993	Orlando	EAITC ISTC	613-944-9481 613-954-3335

Western Europe and European Community

Defence and aerospace; mission to	May 1993	Bonn	EAITC	613-996-3774
Aviation; national stand: Paris Air Show	Jun 1993	Paris	EAITC	613-996-3607
Defence electronics, land, sea and air, police, security and civil aviation; information booth: International Defence Industry and Civil Aviation Fair	Sep 1993	Ankara	EAITC ISTC	613-996-5263 613-954-3789
Helicopter and helicopter technology; information booth: Helitech	Sep 1993	Surrey	EAITC	613-995-6565
Covert and operational equipment and material; national stand: COPEX United Kingdom (Covert and Operational Procurement)	Nov 1993	Surrey	EAITC ISTC	613-995-6565 613-954-3296

Asia Pacific South

Defence equipment; solo show	Oct 1993	Melbourne, Sydney, Canberra	EAITC	613-995-7652
Aerospace equipment; information booth: Asian Aerospace	Feb 1994	Singapore	EAITC	613-996-5824
Marine and aerospace equipment; information booth: Langkawi International Marine and Aerospace (LIMA) Exhibition	Feb 1994	Singapore	EAITC	613-996-5824

Latin America and the Caribbean

Security equipment and services; mission to	Nov 1993	Costa Rica, El Salvador, Guatemala	EAITC	613-996-2268
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* TBD - to be determined

Electrical Equipment

A International Environment

The electrical equipment industry is largely composed of industrial electrical and power generation equipment manufacturers. In both these areas, electrical equipment manufacturing is considered a capital-intensive business and utilizes a number of advanced technologies.

The major markets for electrical equipment manufacturers are electrical utilities followed by construction and manufacturing industries. Together, they generate approximately 2,700 gigawatts (one gigawatt = one billion watts) of electricity per year from locations all around the world. Nearly 40 per cent of electricity-generating capacity is located in Europe and almost 30 per cent is situated in the United States and Canada.

Worldwide markets for electrical equipment are expected to grow by about \$3 trillion over the balance of this decade. The largest potential growth is expected to occur in Asia, and developing areas such as Africa, Latin America and the Middle East, where additional electric power-generating capacity will be needed to carry out industrial development plans.

The largest expansion in electrical systems will probably be in China, about 9.5 per cent per year. Especially strong growth is also expected in Southeast Asia including Korea, Taiwan and Indonesia. Virtually all of these Asian markets are open to Canadian firms. Even Japan, whose markets have traditionally been closed in the past, is now importing large quantities of electrical equipment.

The United States — the market for about 75 per cent of world electrical equipment exports — is expected to grow at only 2 per cent annually for the balance of this decade. Despite aging facilities, U.S. utilities will attempt to hold down major investments, including new plant and equipment orders.

Market growth for electrical equipment will also be slow in Europe for the balance of the decade. An estimated 3.5 gigawatts of European power is scheduled to be retired from nuclear service by the year 2000. Eastern Europe desperately needs power to support economic expansion, and it needs to upgrade and replace many old plants, but this will be mainly in the form of rehabilitation of existing plants. No new projects are likely to be implemented in Eastern Europe before the year 2000.

B Domestic Position

The electrical equipment manufacturing industry in Canada employs approximately 85,000 people and ships about \$9.5 billion in products annually, \$2 billion of which are exports. Exports have become increasingly important to electrical equipment manufacturers as a result of the recent prolonged recession in Canada.

Canada has developed a world-class reputation for electrical equipment manufacturing in a number of areas.

- power plant and transmission products;
- custom specialty electrical products and systems;
- hydro generators and turbines;
- utility and industrial boilers;
- medium and large power transformers;
- shunt reactors;
- medium and high voltage capacitors;
- protection equipment; and
- advanced electrical pulp and paper mill equipment.

Research and Development (R&D) activities have allowed many Canadian firms to become competitive in these areas. R&D activities concentrated in the provincial electrical utilities have been especially productive in developing competitive, state-of-the-art equipment. The utilities of Ontario, Quebec and British Columbia have large well-equipped R&D divisions with world-class testing facilities, and the industry works closely with these provincial utilities for R&D in electrical products.

Also, Canadian subsidiaries have benefited from access to state-of-the-art technology developed in large U.S. and European R&D facilities. Smaller, independent manufacturers have been able to acquire then develop their own technologies through international licensing arrangements and other sorts of alliances.

Product quality is also a major strength of Canadian companies and has been a key in competing against Japanese and European manufacturers in Third World power-sector markets. The Canadian Standards Association's stringent requirements for Canadian manufacturers and the quality standards required to cope with Canada's severe operating conditions is recognized worldwide by electrical equipment buyers.

The industry, however, still faces many challenges. The industry continues to work with government and trade unions to develop the skilled tradesmen and technologists that the industry needs to remain competitive internationally. Also, non-tariff and tariff barriers remain an impediment to selling to the world's largest market for electrical equipment, the United States.

C Strategic Direction

Canadian electrical equipment manufacturers should continue to focus on product design and the adaptation of new emerging electrotechnologies, such as advanced batteries, amorphous transformers and superconductivity in their products to succeed in world markets. Export consortia and joint ventures with large foreign firms to penetrate Asian markets may be successful ways of exploiting international market opportunities.

The greatest potential new markets for Canadian electrical equipment are the burgeoning power sectors of the developing countries in Asia, South America and Africa. In particular:

Pacific Rim:

Pakistan, India, Thailand, China, Korea, Taiwan, Malaysia, Indonesia, Philippines, Vietnam and Laos.

Latin America:

Mexico, Colombia, Chile, Brazil and Argentina.

Africa and Middle East:

Iran, Saudi Arabia, Turkey, Egypt, Algeria and Cameroon.

Alternative energy sources (solar, wind, etc.) are also drawing renewed interest in developed nations. Those subsectors involved in energy savings and improved system efficiencies are growing rapidly. Many analysts also see the electric automobile being produced in significant numbers by the end of the decade.

Priorities:

- Encourage Canadian companies to form consortia in bidding on medium and large power projects in developing countries. In the area of electric power systems, the companies are being encouraged to join under Canadian Power Systems Export Promotion (CAPSEP) to bid on such projects. CAPSEP also includes consultants, utilities and constructors in addition to the electrical equipment manufacturers.
- Improve access to Korea and the U.S. procurement market.
- Work toward harmonizing electrical standards; IEC and ISO 9000.
- Continue R&D and market support for the emerging electrotechnologies, especially those involved with energy savings, alternate energy, improved energy efficiencies and the electric vehicle.

Electrical Equipment

Activity	Date	Location	Dept.	Contact
United States				
Small hydro-power equipment; information booth: Waterpower '93	Aug 1993	Nashville	EMRC	613-996-6119
Transmission and distribution equipment and services; national stand: Power Generation '93	Nov 1993	Dallas	EAITC	613-944-5149
Air conditioning, heating and refrigeration equipment; national stand: Air Conditioning, Heating, Refrigeration Expo	Jan 1994	New Orleans	EAITC	613-944-7486
Western Europe and European Community				
Small hydro-power equipment; information booth: Hydroenergia '93	Oct 1993	Munich	EMRC	613-996-6119
East Asia				
Hydro-power transmission; seminar	Jun 1993	Taiwan	EAITC	613-996-7582
Electrical Power Equipment Mission and Seminar in China	Jun 1993	Beijing	ISTC	613-954-3262
Power generation and distribution; mission to	Sep 1993	Korea	EAITC	613-943-0897
Hydro and thermal energy; information booth: Energy Show	Sep 1993	Vietnam	EAITC	613-995-8744
International Nuclear Conference - INC '93	Oct 1993	Toronto	ISTC	613-954-3179
Power and energy equipment; information booth: EP China '94	May 1994	China	EAITC	613-996-6987
Asia Pacific South				
Power transmission and distribution efficiency; seminar/mission to	Oct 1993	Philippines	EAITC ISTC	613-995-7659 613-954-3262
Coal, gas, geothermal and nuclear power; information booth: Electric Indonesian Trade Show	Dec 1993	Indonesia	EAITC	613-995-7659
Electric and power supply equipment; information booth: Elenex '94	Mar 1994	Thailand	EAITC	613-992-0952
Africa and the Middle East				
Power and energy; mission to	Apr 1993	Lebanon	EAITC	613-944-6983
Latin America and the Caribbean				
Electric and power equipment and services; mission from Chile to	Mar 1994	Canada	EAITC	613-996-4199

Environmental Industries

A International Environment

The world market for environmental products and services was estimated to be about US\$200 billion in 1990. This figure is expected to grow to about US\$300 billion by the end of the decade. Organization for Economic Co-operation and Development (OECD) countries account for some 82 per cent of the world market, spending approximately 1.2 per cent to 1.5 per cent of Gross Domestic Product (GDP) on environmental products and services. The average annual growth rate for OECD environmental expenditures is expected to be about 5.5 per cent.

The U.S. market (which accounts for approximately 39 per cent of the total world market) is valued at about US\$81 billion (1990) and is growing at an average annual rate of 5.4 per cent. Two spending areas that have seen rapid growth in recent years include business environmental plant and equipment, and government expenditures for sewer construction. The dynamics of the market are changing, however, as U.S. priorities shift to the management of hazardous waste (with some 10,000 toxic sites for clean-up) and to air pollution controls.

Western Europe accounts for about 27 per cent of the world market with total environmental expenditures of approximately US\$53 billion. The environmental industries market is expanding at an average annual rate of 4.9 per cent, although higher rates have been registered in Germany, France, the United Kingdom and Italy. Higher growth rates are also forecast for newer European Community (EC) member countries, such as Portugal, Greece and Spain. Europe is primarily concerned with water and wastewater treatment and air pollution controls, although waste management and land reclamation are becoming more important. Growing air pollution, resulting from increased air traffic, has also strengthened the market for air pollution controls.

The Asia-Pacific market, dominated by Japan, is valued at about US\$24 billion, or 12 per cent of the total world market. The Japanese market will grow at an average rate of 6.7 per cent. The growing affluence and influence of Japan is also promoting greater interest in quality of life considerations and resulting demands for clean air and water.

Important emerging markets for environmental products and services include Taiwan, Singapore, Hong Kong, South Korea, Malaysia and Thailand, which have enjoyed high GDP growth rates in the 6 to 8.7 per cent range and have adopted vigorous environmental protection regimes. Indeed, countries like Taiwan and Indonesia are reportedly making public examples of polluters. Many countries, however, are just beginning to respond to environmental problems so that the scope of potential opportunities is difficult to assess. Nevertheless, significant opportunities should exist in water treatment (waterways, groundwater, industrial and municipal wastewaters) and point-of-use treatment. Other opportunities are expected to emerge in emissions controls, CFC (chlorofluorocarbons) alternatives, hazardous waste treatment and clean-coal technology. Foreign expertise will be required due to the lack of domestic expertise in these areas.

Developing countries throughout the world will offer significant opportunities in the environmental sector, although prospects may be limited due to economic hardship and the need for support by international financial institutions (IFIs). Strategic environmental planning and institution-building initiatives (such as those provided by Canadian International Development Agency (CIDA), and capacity-building technical linkages (such as those provided by Environment Canada research institutes) will serve as a basis for further industry activity.

East European and Commonwealth Independent States (C.I.S.) environmental markets amount to about US\$15 billion and are growing, on average, at about 4 per cent per year. Recent upheavals in the C.I.S. have revealed widespread environmental degradation and pollution. These countries also lack the resources needed to purchase necessary environmental goods and services.

The following trends are expected to persist or develop in the future:

- Environmental considerations are increasingly being used as non-tariff barriers to keep out products, processes or industries from countries that are perceived as having less stringent environmental standards.
- Volatile growth in environmental products and services will result from political and other factors competing for public attention, funding and commitment.
- Over the long term, industry will be required to recognize and internalize environmental costs, manage pollution at source, build in "process" changes rather than "add on end-of-pipe" solutions, and develop technologies that aim for "zero discharge."
- There is growing, worldwide recognition of the link between the environment and the economy and an emerging belief that long-term economic growth is only possible if the environment is protected at the same time.
- Environmental issues are inevitably, and increasingly, linked to issues of global security.

B Domestic Position

This relatively new Canadian industrial sector provides a wide range of environmental conservation, protection and enhancement products and services for municipalities, manufacturers, resource industries and others. About 142,000 Canadians work in this sector, employed by over 3,500 companies. An estimated 65 per cent of firms provide environmental services, while the remaining 35 per cent are involved in manufacturing. Currently, there are over 350 active exporters, although as many as 1,200 firms have export potential.

The Canadian market accounts for about 3.5 per cent of the world market and is growing by roughly 7.9 per cent per year. Exports currently amount to approximately \$1 billion annually, with almost 80 per cent directed at the U.S. market. Canadian manufacturers of environmental products have shipments of \$4.3 billion per year, while environmental services account for about \$2.5 to \$3.5 billion in revenues.

Canada has a solid environmental science and technology base upon which to build, including research and development (R&D) facilities within companies, universities and federal and provincial governments. Canadian manufacturers have numerous equipment and systems for water and wastewater treatment, the treatment of hazardous wastes and air pollution controls. Canada has also built a good reputation for handling solid and liquid wastes, with products such as specialty incinerators, shredders, compactors and recycling systems and equipment. Capabilities extend to the manufacturing of equipment components, including attachments for pumps and valves, separators and filters. Production processes are relatively capital intensive and contribute significant value-added. Based on 1986 data, output per worker in terms of sales was almost \$100,000 — some 23 per cent higher than that of general manufacturing and about double the record for the whole economy. For the most part, manufacturers (largely based in Ontario and Quebec) have pursued the north-eastern U.S. market.

Environmental services industry firms have won numerous offshore engineering projects and enjoyed success through various activities and projects supported by the IFIs. Entry is generally easy, an exception being waste management operations where high capital start-up costs and operator licensing requirements create barriers. Numerous small firms serve local, provincial or regional markets and typically offer niche services. Firms involved in international work also tend to be relatively small but successfully market their specializations. Multidisciplinary environmental consulting, acquisitions and mergers, joint ventures and strategic alliances are increasingly being used to enhance corporate capabilities and to maintain or expand market share.

The environmental services subsector includes establishments that provide consulting and related engineering, scientific and technical services. These services are offered in such areas as resource conservation and protection, water supply, sewage collection and treatment, solid waste disposal, industrial wastewater treatment, air pollution controls and energy conservation. Consulting engineering firms, solid waste management operators and recyclers, private laboratories and research establishments are included in this group.

C Strategic Direction

The main strategic objective is to ensure that Canadian firms have access to world markets for environmental goods and services, while building on markets already established by Canadian firms and pursuing new market opportunities with specially targeted initiatives. The primary challenge is to expand Canada's market share, including markets of the developing world, by developing market-responsive environmental products and services and adapting new and innovative technologies.

The priority markets of this sector have been identified as follows:

The United States will be the first priority export market for both products and services.

- The main objective will be to accelerate the establishment of strategic alliances between Canadian and American firms for investment, technology transfer and new business development. Traditionally, half of the sector's worldwide trade, industrial partnering, technology and investment development initiatives have been targeted at the United States — a trend that is expected to continue.

Second priority export markets include Western Europe and Asia, which have shared a third of all Canadian trade, technology and partnering initiatives.

- The more developed countries of Western Europe already have a significant environmental industry and dominate sales in Europe. These countries can provide Canadian firms with new markets for their goods and services as well as additional opportunities for strategic partnerships and technology transfer.
- A recent initiative by Industry, Science and Technology Canada (ISTC), External Affairs and International Trade Canada (EAITC) and Investment Canada to encourage the formation of alliances with American firms may lead to a similar initiative with European firms.
- Opportunities may also arise among countries like Greece, Portugal and Spain as a result of emerging EC-wide environmental standards; less advanced member countries may be required to improve their environmental protection standards and practices to meet new EC directives.
- A proposed Memorandum of Understanding (MOU) between Canada and Spain respecting future trade and partnering co-operation may provide a model for similar co-operation with other countries.
- Canadian firms have consistently reported difficulty accessing the Japanese market, which also has a strong domestic environmental industries sector. Japan accounts for about 90 per cent of the Asian market. Nevertheless, there are significant prospects for Japanese technology transfer and partnering arrangements with Canadian firms interested in penetrating third markets.
- Other promising Asian markets include Taiwan, Hong Kong, South Korea, Thailand, Malaysia and Singapore, which have increasingly moved to adopt environmental protection laws in response to growing public demand.
- In order to help Canadian firms tap into emerging opportunities in these markets, key priorities will be to promote partnering arrangements and enhance awareness of Canadian capabilities.

Third priority markets include Eastern Europe and the C.I.S., Africa, the Middle East, Latin America and the Caribbean. These markets account for about one-sixth of Canada's trade related initiatives.

- The C.I.S. and East European markets are becoming more attractive with support from IFIs.
- Poland has recently established a special tax on polluting industries to generate the revenue to undertake environmental projects. This tax has already significantly enhanced the level of co-operation between Poland and Canada.

- Under the North American Free Trade Agreement (NAFTA), Mexico promises significant market potential for Canadian environmental goods and services. As one of the first sectors to mount a major trade mission concurrent with the announcement of the NAFTA, many excellent future prospects have been uncovered.
- Further environmental industry initiatives will continue to build partnering arrangements between Canadian and Mexican firms for new trade, technology transfer and business investment. Indeed, this country is expected to move into second priority status in future years.
- Market prospects in developing countries tend to be tied to environmental activities and related projects, supported by IFIs and CIDA. Many firms are positioning for future environmental activity in Latin America and North Africa, where CIDA initiatives over the next few years are expected to emphasize environmental technology transfers, institutional reinforcement and human resources development.
- Greater networking among governments and IFIs and a proactive approach on behalf of firms who may be entering export markets for the first time, will open new opportunities for numerous small and medium-sized firms. This approach has already yielded new business in countries such as Indonesia and the Philippines.
- Cultivating developing country markets will be enhanced by strategic, long-term initiatives, most notably country-to-country MOUs.
- Trade and technology development will be enhanced through technical and capacity-building initiatives through information-sharing and joint R&D programs, in co-operation with agencies such as CIDA, Environment Canada, and Energy, Mines and Resources.
- Technical training will continue to be made available through agencies, such as the Canadian Office for Training in the Environment — a development instrument that augments commercial activity, while conferring socio-economic benefits.

Environmental Industries

Activity	Date	Location	Dept.	Contact
United States				
Environment technology; national stand: New England Environmental Expo	Apr 1993	Boston	EAITC	613-944-9478
Restoration opportunities; mission to Analytical laboratory certification; workshop	May 1993	Idaho Falls	EAITC	613-944-9478
	May 1993	Washington (D.C.)	EAITC	613-944-9478
Environmental technology; investment forum	May 1993	Atlanta	EAITC INVCAN	613-944-6577 613-995-8956
Municipal water management and handling products; national stand: American Water Works Association	Jun 1993	San Antonio	EAITC	613-944-9478
Equipment for handling, treatment, storage and transportation of hazardous material; national stand: HazMat International	Jun 1993	Atlantic City	EAITC INVCAN	613-944-9478 613-995-8956
Air and waste management; national stand: Air and Waste Management Association	Jun 1993	Denver	EAITC ISTC	613-944-9478 613-954-6479
Waste management and treatment; national stand: Waste Expo '93	Jun 1993	Chicago	EAITC INVCAN	613-944-9478 613-995-8956
Partnering; seminar: North Coast Growth Capital Conference	Jun 1993	Cleveland, Pittsburgh, Cincinnati	EAITC INVCAN	613-944-6577 613-995-8956
Solid waste management and treatment; national stand: Solid Waste Association of North America	Aug 1993	San Jose	EAITC	613-944-9478
Canada-United States environmental; forum	Aug 1993	Raleigh	EAITC	613-944-9478
Biomass industry; national stand: First Biomass Energy Conference of the Americas	Aug 1993	Burlington	EMRC	613-996-6226
Wastewater management and treatment; national stand: International Public Works Congress and Exposition	Sep 1993	Phoenix	EAITC	613-944-9478
Environment instrumentation; national stand: North American Instrumentation Society Exposition	Sep 1993	Chicago	EAITC	613-944-9478
Water and wastewater equipment and services; mission to Environmental partnering; workshop	Sep 1993	Houston	EAITC	613-944-9478
	Sep 1993	Seattle	EAITC	613-944-9478
Incoming Buyers Mission from United States to Wastewater treatment; national stand: Water Environment Federation	Sep 1993	Toronto	ISTC	613-954-3382
	Oct 1993	Anaheim	EAITC	613-944-9478
Equipment for handling, treatment, storage and transportation of hazardous material; national stand: Great Lakes North-Am HazMat Show	Oct 1993	Detroit	EAITC	613-944-9478
Environment; investment mission to	Oct 1993	Washington (D.C.)	EAITC INVCAN	613-944-6577 613-995-8956
Oil spill recovery and prevention products and services; national stand: Oil Spill Recovery and Prevention Exposition	Nov 1993	San Francisco	EAITC	613-944-9478
Environmental strategic alliance; workshop	Nov 1993	Boston	EAITC INVCAN	613-944-6577 613-995-8956
Environment; information booth: Great Lakes Trade Show	Nov 1993	Buffalo	EAITC	613-944-6577
Hazardous waste; roundtable	Nov 1993	Chicago, St. Louis, Milwaukee	EAITC INVCAN	613-944-6577 613-995-8956
Equipment for handling, treatment, storage and transportation of hazardous material; national stand and conference: Superfund '93	Dec 1993	Washington (D.C.)	EAITC INVCAN ISTC	613-944-9478 613-995-8956 613-954-3296
Hazardous waste; workshop	Jan 1994	Pittsburgh or Cincinnati	EAITC INVCAN	613-944-9478 613-995-8956

Activity	Date	Location	Dept.	Contact
Industrial wastewater management (solid and hazardous waste); roundtable	Jan 1994	New York City	INVCAN EAITC	613-995-8956 613-944-6577
Environmental partnering; workshop	Feb 1994	Seattle	EAITC	613-944-9478
Environmental technology; forum	Feb 1994	Atlanta	EAITC INVCAN	613-944-6577 613-995-8956
Hanford tour and partnering opportunities; workshop	Mar 1994	Seattle	EAITC	613-944-9478
Air quality; seminar	Mar 1994	New Jersey	EAITC	613-944-6577
Western Europe and European Community				
Environment products; information booth: Heleco '93	Apr 1993	Athens	EAITC	613-996-5263
Environment technology; mission to	May 1993	Finland, Estonia	EAITC	613-995-4730
Environment industries; strategic alliance roundtable	May 1993	Berlin	INVCAN	613-995-0812
Strategic Alliances Trade Mission to Spain	Jun 1993	Madrid, Bilbao, Barcelona	ISTC	613-954-3382
Industrial wastewater management (solid and hazardous waste); roundtable	Sep 1993	Germany, United Kingdom, Netherlands, Italy	INVCAN	613-995-8956
Industrial wastewater management; information booth and meetings: Pollutech '93	Oct 1993	Paris	INVCAN	613-995-8956
IFEST '93 International Trade Fair for Environmental and Safety Technologies	Oct 1993	Antwerp	ISTC	416-973-5056
Environment technology; information booth: Environmental Technology Fair	Nov 1993	Turkey	EAITC	613-996-5263
Environmental Control and Protection Technology Exhibition, Conference and information booth: ECOTECH '93	Dec 1993	Utrecht	ISTC EAITC	416-973-5056 613-995-6435
Environment technology; information booth: SEP '94	Mar 1994	Italy	EAITC	613-995-9766
Environmental industry; mission to	ONG* 1993	Netherlands	ISTC	613-954-3217
Japan				
Strategic Partnering Mission to Japan	Oct 1993	Japan	ISTC	613-954-6479
Environmental equipment and service; information booth: New Earth '93	Dec 1993	Osaka	EAITC	613-995-1678
East Asia				
Environment technology; information booth: Korean Environmental Trade Fair '93	Apr 1993	Korea	EAITC	613-943-0897
Environmental industries; mission to	Sep 1993	Korea	EAITC ISTC	613-943-0897 613-954-6479
Contractors, Engineers and Suppliers Trade Mission to: Environment industry; strategic partnering	Sep 1993 Oct 1993	China Hong Kong, Taipei, Seoul	ISTC INVCAN	613-954-6479 613-995-6634
Recycling technology and equipment; mission to	Jan 1994	Korea	EAITC	613-943-0897
Asia Pacific South				
Environment technology; information booth: Entech Asean Trade Show	Jun 1993	Thailand	EAITC	613-992-0959
Environmental technologies; mission to	Jun 1993	Melbourne, Sydney, Brisbane	EAITC	613-995-7662
Environment technology; information booth: Pollution and Environmental Technology Trade Show	Nov 1993	Indonesia	EAITC	613-995-7659

* ONG - ongoing

Activity	Date	Location	Dept.	Contact
Environmental Services Business Mission to Southeast Asia	Oct 1993	Indonesia, Malaysia, Philippines	ISTC	613-941-4214
Environmental; seminar	Feb 1994	New Delhi, Pune, Bombay, Bangalore	EAITC	613-996-5903
Africa and the Middle East				
Environmental; mission and participation from Egypt, Israel, Tunisia, Morocco to: Globe '93	Mar 1994	Canada	EAITC	613-944-0396
Latin America and the Caribbean				
Environment technology goods and services; national stand: ControlAmbiental Expo '93	Sep 1993	Mexico	EAITC	613-996-6921
Environmental industries; strategic partnering	Nov 1993	Mexico	INVCAN	613-995-0759
Central/Eastern Europe and the Commonwealth of Independent States				
Environmental Technologies Mission	May 1993	Helsinki	ISTC	416-973-5056
Environmental; mission from Prague to	Sep 1993	Quebec, Ontario, B.C.	EAITC	613-996-7107
Environmental; information booth: EnviBrno	Oct 1993	Brno	EAITC	613-996-7107
Multiple Markets				
NAFTA Conference on Environmental Development (Mexico)	May 1993	Monterrey	ISTC	613-954-3225
Environmental products and services; mission to: HazMat '93	Sep 1993	Los Angeles	WED	403-495-6952
Meteorological equipment and instruments; exhibition	Feb 1994	Geneva	ENVCAN	613-947-1911
Globe '94; mission from Asia Pacific South, North Africa, Middle East to	Mar 1994	Vancouver	EAITC	613-996-1431
IFAT '93	ONG 1993	Munich (Germany)	ISTC	416-973-5159

Fish and Seafood Products

A International Environment

The annual world harvest of fish and shellfish is approximately 100 million tonnes. Since the extension of coastal fishing jurisdiction to 200 miles in 1977, the number of countries actively competing in the seafood industry has risen to over 100. This has brought many new suppliers and alternative species into the international arena, changing trading patterns, and creating new market opportunities and more intense global competition.

The United States has been the world's leading exporter (in terms of value) since 1988, although China ranks first in terms of landed volume. The European Economic Community (EEC) and Japan, while still major producers of fisheries products, are unable to meet domestic demand and, together with the United States, are the major net importers of fish products. Many developing countries, with warm water, fast-growing species and low labour rates, have become significant international competitors, and this competition will become stronger in the future. Russia and China have also become major players in the supply of fisheries products to international markets.

Overfishing, environmental pollution and changing climatic patterns have put traditional wild fish stocks under increasing pressure, which has led to increased focus on the exploitation of non-traditional or underutilized species and has spurred more attention to aquaculture. New harvesting techniques, production and processing technologies are making it possible to convert certain underutilized marine resources into commercially viable products. The exploitation of such marginal species will be limited by market factors and should not be seen as a means for overcoming supply failures and shortages.

Significant worldwide growth in aquaculture is also changing market opportunities by making more fresh products available year-round. In 1991, aquaculturists produced 15 to 20 per cent of the world's edible fish output. According to some forecasts, this could account for 25 to 30 per cent of total production by the year 2000.

Rapidly expanding populations, along with greater awareness of the health benefits of fish and seafood, will lead to increased global demand. The Asia Pacific region, for example, will comprise 60 per cent of the world population by the year 2000. The trend toward Western-style eating habits, coupled with growing demand for fast food and other convenience products, is putting more emphasis on the supply of portion-controlled and value-added products, targeted at middle and higher-income consumers.

Tariffs and non-tariff barriers remain an important determinant of access in many markets of interest to Canadian fish and seafood exporters. If the Multilateral Trade Negotiations (MTN) succeed in lowering import duties, reducing tariff preferences and levels on value-added products, eliminating import quotas and providing improved international mechanisms for addressing unjustified phytosanitary restrictions, there will be important new opportunities for the Canadian industry.

B Domestic Position

The commercial fishing industry remains a vital contributor to the economy of many Atlantic, Pacific and inland communities, often representing the sole source of employment. The industry is currently undergoing a painful but long overdue adjustment as a result of a general economic slowdown, supply shortages for certain species, intense competition in foreign markets and weak market demand for certain shellfish and finfish. The northern cod moratorium off Newfoundland and Labrador, scheduled to extend into 1994, can be expected to stimulate greater efforts to exploit non-traditional species and is prompting a search for alternative sources of raw material, domestically and offshore, in an attempt to maintain Canadian processing operations and supply capabilities. Preliminary data for 1991 indicate that Canadian fish and shellfish landings are valued at \$ 1.4 billion (below the 1990 level of \$ 1.5 billion) with overall industry shipments of \$ 3 billion, including value-added processing activities.

Canada is presently the world's second largest exporter by value (\$2.4 billion in 1991) and sixteenth (by landed volume) of fish and seafood. In 1991, Canada exported over 80 per cent by value of its commercial production, with main markets being the United States (63 per cent of Canada's exports), Japan (17%) and the European Community (15%), with the remaining exports distributed among some 70 countries. Considerable scope and opportunity exists to supply higher value-added products to the more advanced developing countries, especially in the Pacific Rim. Important market niches include the Western-style hotels, international communities and tourist facilities throughout the world.

The Canadian fish and seafood products industry enjoys a number of competitive strengths. Despite current resource problems for certain species, Canada still has a solid access to fish and shellfish stocks. The sophisticated and exacting fish inspection system and the Quality Management Program developed by industry and government are directed at ensuring that high-quality, safe and nutritious seafood products are offered to the world marketplace. Proximity and ease of access to the U.S. market is a major advantage for Canadian exporters. Canada also benefits from preferred access to the United States under the Canada-United States Free Trade Agreement (FTA) and will gain advantages under the North American Free Trade Agreement (NAFTA) in the Mexican market.

The Canadian seafood industry faces a number of important challenges, both domestically and abroad, whose resolution will determine the future viability of the industry. Key domestic issues include resource conservation and supply, production capacity, technology advances in processing and product development, training and workforce mobility and the fragmented structure of the processing industry.

Industry leaders have stressed that, in their view, the Canadian fishing sector will be unable to compete globally in the future without addressing some domestic structural and regulatory obstacles to efficiency and competitiveness. Such factors, they argue, lead to oversupply of vessels, plants and people engaged in production, and make returns insufficient for either capital investment or for sustaining traditional employment levels.

Key International Marketing Challenges

Fully adopt the principles of marketing

Increasingly fierce international competition and changes in supplier relationships means that the companies will need to adopt a more market-driven, rather than production-driven, approach to international business.

Improve technological capabilities

The upgrading of processing and harvesting technologies in order to lower production costs, achieve higher utilization of raw material and greater use of underutilized species, will be key elements in successful competition in international markets. The development of genetic improvements to certain aquaculture species offers the potential for substantial gains in feed efficiencies and growth rates with the result of increasing the rates of return on investment. Canada has lagged behind Nordic and European countries in making use of the newest processing equipment for the efficient production of certain underutilized, farm-raised and value-added products. A further constraint is the cost and availability of financing for equipment acquisition, new product development, test marketing and commercial launching of new products.

Maintain and recover market share

New competitive finfish species have eroded Canada's share in the United States and other markets, especially for cod. Assuming cod stocks recover, significant efforts will be necessary to regain market share and rebuild the customer base. The 1991 agreement between the European Community (EC) and the European Free Trade Association, as well as the probability that Scandinavian countries will join the EC, may also lead to a decline of Canadian seafood exports to our third largest trading bloc.

C Strategic Direction

Improve the Delivery of Market Intelligence

Industry has indicated a need for better and more timely commercial information on developments and sales opportunities in foreign markets. More government effort is to be targeted at providing the private sector, preferably through industry associations, with information on market conditions, consumption trends, market access factors, distribution channels, and business contacts with respect to seafood in general, industrial species or specific products.

Diversify Exports into More Value-added and Non-traditional Products

Areas to target for industrial and market development are value-added processing, non-traditional (underutilized) species and aquaculture products. Aquaculture and non-traditional species can help offset declines in traditional resources, seasonal supply constraints, and fluctuations in prices because of temporary shortages. To develop adequately and provide a reasonable financial return, both of these areas will require significant investment and transfer of technology. At the same time, concerted efforts will also be required to maintain market share for more traditional finfish and shellfish species due to changes in supply, competition and demand.

Continue to Pursue Market Access for Canadian Exporters

Efforts will focus on defending existing levels of market access and removing such barriers as tariffs, tariff rate quotas, import quotas, health and phytosanitary restrictions.

Establish Focused Market Priorities

A longer-term marketing strategy, taking into account shifting market demand, new competitors or demographic changes, is essential to international success. Based on these factors, the United States, Japan and Western Europe will continue to be the best prospective markets in the foreseeable future. Other key markets to target for expansion are Mexico, Australia, New Zealand, the Caribbean and countries in the Far East. Hotel, restaurant and institutional trade in major tourist areas represent important areas for the promotion of fish and seafood products. Market research, funding and trade development activities will be undertaken in greater co-ordination with federal and provincial departments and agencies.

Encourage More Innovative Marketing Strategies

The impact of globalization, and increasing competition from Russia and China, requires the Canadian fish and seafood sector to pursue strategic partnerships, alliances and investment opportunities to secure raw material for processing, and markets for Canadian products, particularly for value-added products. Joint ventures, technology exchanges and marketing arrangements with foreign firms in Japan, the United States and in European countries are increasing.

Technology Enhancement

Process automation and design, the development and use of new packaging materials, and adaptation of biotechnology processes will require scientists, fishermen, financiers, processors and marketers to work closely together to provide a stronger base for enhancing Canada's export performance. More emphasis will be placed in identifying and tapping foreign fish harvesting, processing, production and aquaculture technologies.

Raise the International Profile of Canadian Fish and Seafood Products

Heighten awareness, through education of consumers, institutions and retailers, that Canada has a good supply of both traditional and non-traditional, farmed and value-added fishery products — all of consistently high quality. It is also important to create a distinctive image for Canadian products in order to establish customer-brand and product recognition and loyalty. Broadened sector participation in strategically selected international events, such as trade fairs, seafood shows and conferences, will be pursued to improve industry's global presence and competitiveness. Certain species and products will benefit from generic marketing programs, which distinguish Canadian fishery products from those of our competitors. Generic promotional materials can also help exporters independently pursue opportunities in lower-priority markets. Consideration will need to be given to stimulate the adoption of funding mechanisms, such as levies or check-offs to support generic marketing initiatives.

Fish and Seafood Products

Activity	Date	Location	Dept.	Contact
United States				
Fish and fish products; NEBS mission to	Apr 1993	Chicago, Minneapolis	EAITC	613-944-9483
Fish and fish products; national stand: Summer Fancy Food Show	Jun 1993	New York City	EAITC	613-944-9483
Fish and fish products; national stand: National Food Distributors Show	Aug 1993	San Diego	EAITC	613-944-9483
Fish and fish products; national stand: Natural Food Products Expo East	Sep 1993	Baltimore	EAITC	613-944-9483
Fish and fish products; national stand: National Prepared Frozen Food Festival	Oct 1993	East Rutherford	EAITC	613-944-9483
Fish and fish products; national stand: Ohio Grocers' Association Show	Oct 1993	Columbus	EAITC	613-944-9483
Fish and fish products; mission to	Oct 1993	New York City, Washington (D.C.)	EAITC	613-944-9483
Fish and fish products; national stand: Private Label Show	Nov 1993	Chicago	EAITC	613-944-9483
Fish and fish products; national stand: Prepay Summer Fancy Food Show '94	Nov 1993	New York City	EAITC	613-944-9483
Canadian aquaculture; promotion	Nov 1993	New York City	EAITC	613-944-9483
Seafare Americas	Nov 1993	Orlando (Florida)	ISTC	613-941-4263
Canadian seafood; seminar	Jan 1994	Chicago	EAITC	613-944-9483
Fish and fish products; information booth: Seafare Southwest	Feb 1994	Long Beach	EAITC	613-944-9483
Fish and fish products; national stand: Winter Fancy Food Show	Mar 1994	San Francisco	EAITC	613-944-9483
Fish and fish products; national stand: Natural Food Products Expo West	Mar 1994	Anaheim	EAITC	613-944-9483
Fish and fish products; national stand: International Boston Seafood Show	Mar 1994	Boston	EAITC	613-944-9483
Fish and fish products; buyers from Atlanta to	TBD* 1993	Atlantic Canada, British Columbia	EAITC	613-944-9483
Fish and fish products; buyers from Detroit to	TBD 1993	Atlantic Canada, British Columbia	EAITC	613-944-9483
Fish and fish products; buyers from Chicago to	TBD 1993	Atlantic Canada, British Columbia	EAITC	613-944-9483
Fish and fish products; buyers from Boston to	TBD 1993	Atlantic Canada	EAITC	613-944-9483
Western Europe and European Community				
Fish and fish products; information booth: International Food and Drink Exhibition	Apr 1993	London	EAITC	613-995-6565
Seafood outlook; buyers from Greece to	Apr 1993	Atlantic Canada	EAITC	613-996-1530
Fish and fish products; national stand: European Seafood Exposition	Apr 1993	Brussels	EAITC	613-996-7544
Fisheries products; buyers from United Kingdom to	Jun 1993	Atlantic Canada	EAITC	613-995-6565
Fish and fish products; mission to: Aqua Nor	Aug 1993	Oslo	EAITC	613-995-4730
Seapex - Salon international de la transformation des produits de la mer	Sep 1993	Lavallors, Perret (France)	ISTC	613-954-2927
Fish and fish products; national stand: Anuga '93	Oct 1993	Cologne	EAITC	613-943-0893
Fish and fish products; information booth: Food Ingredients Europe	Oct 1993	Paris	EAITC	613-996-2363
Fish; buyers from Spain to	Oct 1993	Atlantic Canada	EAITC	613-995-6440

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Italie Food Expo	Nov 1993	Milan	ISTC	613-954-2927
Fish and fish products; information booth: Food and Drink Expo '94	Mar 1994	Birmingham	EAITC	613-995-6565
Fish and fish products; information booth: Alimentaria International Food Fair	Mar 1994	Barcelona	EAITC	613-996-6359
Fish and fish products; national stand: SIAL '94	Oct 1994	Paris	EAITC	613-996-2363
Japan				
Fish and fish products; information booth: Utage '93 Gourmet Fair	Apr 1993	Osaka	EAITC	613-995-8619
Food gift items; solo show	May 1993	Tokyo	EAITC	613-995-8619
Fish and fish products; information booth and mission: Tokyo International Seafood Show	Jun 1993	Tokyo	EAITC	613-995-1677
Seafood; solo show	Jun 1993	Osaka	EAITC	613-995-1677
Lobster and white wine; solo show	Sep 1993	Osaka	EAITC	613-995-1677
Non-traditional Fisheries Species; seminar	Oct 1993	Tokyo	EAITC	613-995-1677
Fish and fish products; information booth: Foodex '94	Mar 1994	Makuhari	EAITC	613-995-8619
Frozen Herring Roe; mission to	TBD 1993	Japan	EAITC	613-995-1677
Fish and fish products; mission from Japan to	TBD 1993	Canada	EAITC	613-995-1677
East Asia				
Fisheries; seminar	May 1993	Korea	EAITC	613-943-0897
Fisheries products; information booth: Hofex '93	May 1993	Hong Kong	EAITC	613-995-6962
Fisheries products; information booth: International Fine Food and Food Equipment Show	Jun 1993	Taiwan	EAITC	613-996-7582
Fisheries products; information booth: Taichung International Food Show	Jun 1993	Taiwan	EAITC	613-996-7582
Seafood; buyers from Hong Kong to	Aug 1993	British Columbia	EAITC	613-995-6962
World Fishing Exhibition	Aug 1993	Taiwan	ISTC	613-941-4263
Live and frozen seafood; promotion	Nov 1993	Taiwan	EAITC	613-996-7582
Fisheries products; mission to	Feb 1994	Korea	EAITC	613-943-0897
Fish and fish products; solo show	Mar 1994	Korea	EAITC	613-943-0897
Fish and fish products; in-store promotion	ONG* 1993	Hong Kong	EAITC	613-995-6962
Seoul Food Participation and Workshops	ONG 1993	Korea	CBEF	403-274-0005
Exploratory Mission	ONG 1993	Korea	CBEF	403-274-0005
Seminars and workshops for commercial, procurement and end-user groups	ONG 1993	Korea	CDA	403-450-0169
Asia Pacific South				
Processed food; mission from Malaysia to	Apr 1993	Canada	EAITC	613-996-5824
Processed food; promotion: Canada Food Week	Apr 1993	Singapore	EAITC	613-996-5824
Fishing equipment; information booth: FISHEX '93	Apr 1993	New Zealand	EAITC	613-995-7662
Latin America and the Caribbean				
Fish processing equipment; information booth: Pesca Industria '93	May 1993	Ensenada	EAITC	613-996-5358
Fish and fish products; national stand: Antad '94	Mar 1994	Guadalajara	EAITC	613-996-3558
Pesca 94 Seafood Conference	Dec 1994	Santiago	ISTC	613-954-2927
Central/Eastern Europe and the Commonwealth of Independent States				
Fish and fish products; information booth: Polagra '93	Sep 1993	Warsaw	EAITC	613-996-7107

* ONG - ongoing

Forest Industries

A International Environment

Given its cyclical nature, the forest industries sector fell once again into a down-cycle in 1990 due to worldwide overcapacity and reduced consumption. World demand is expected to grow over the remainder of the 1990s, although at a slower rate than during the 1970s and 1980s.

Several factors have an important impact on the competitive position of the industry internationally. Environmental issues represent a major challenge for the industry, particularly the pulp and paper subsector. Concerns over waste management, effluent emissions, recycling, land-use policy, forest management practices, and chlorine bleaching of pulp and paper have already had an important impact. Recycled paper content requirements in the United States and chlorine bleaching restrictions in Europe also present important marketing challenges. The United States and Nordic countries are particularly well-placed to meet the environmental requirements of more demanding and aware customers (for example, totally chlorine free (TCF) pulp in Europe).

Growing competition can also be expected from new competitors in non-traditional producing areas. Brazilian and Iberian pulp producers, for example, are emerging as important competitors for Canadian producers, as are recycled newsprint manufacturers located in urban centres close to consumers.

Questions of market access are also extremely important. Canadian softwood lumber, for example, currently faces a number of trade restrictions (including codes and standards and other non-tariff barriers) in a number of traditional markets. In 1992, the United States imposed a countervailing duty of 6.51 per cent on softwood lumber imported from Canada claiming unfair government subsidization and injury to U.S. producers. Bi-national panels have been requested under the Canada-United States Free Trade Agreement (FTA) to resolve this issue.

In Europe, softwood lumber faces new regulations due to a perceived risk of pinewood nematode infestation. Canadian newsprint enters the European Community (EC) under a duty-free quota of 600,000 tons (which, in 1992, lasted only until June) with access to a further 50,000 million tonnes (MT) autonomous quota if it is not filled by other countries. Exports in excess of the quota are subject to a 9 per cent duty — severely restricting the competitiveness of Canadian newsprint relative to duty-free newsprint from Sweden and Finland. Similarly, Canadian softwood plywood enters the EC under a duty-free quota, which is bound under the General Agreement on Tariffs and Trade (GATT) of 600,000 cubic metres, which is usually exhausted early in the year. Product outside of the quota is subject to a 10 per cent duty. Similar restrictions (i.e. higher tariffs than on comparable foreign softwoods) face Canadian spruce/pine/fir lumber entering Japan.

Changes occurring in Eastern Europe, however, may create both added competition in Europe and new market opportunities for Canadian exports. Implementation of the North American Free Trade Agreement (NAFTA) agreement could also spell new opportunities, particularly in Mexico.

B Domestic Position

The forest products industry is largely Canadian-owned and consists of over 4,300 establishments spread across the country. The industry has traditionally been an important contributor to Canada's prosperity. In 1991, it generated \$34.8 billion in shipments and operated at 65 per cent of capacity. With exports in the same year of \$20 billion and imports of \$2.5 billion, the industry had a trade surplus of almost \$17.5 billion, making it the single largest contributor to Canada's favourable balance of trade.

Canada remains the world's largest exporter of forest products, with a share of world trade double that of our major competitors: the United States, Sweden and Finland. The United States is Canada's most important export market, traditionally accounting for some 65 per cent of the value of export shipments. The EC and Japan follow, accounting for roughly 16 per cent and 10 per cent of total exports, respectively. The Middle East also imports a significant share of Canada's forest products exports and presents important opportunities for future growth.

The industry is also Canada's largest manufacturing sector in terms of exports, value-added in manufacturing, employment and wages. Forest products manufacturers have traditionally accounted for 1 out of 7 manufacturing jobs in Canada and currently provide direct employment for 249,000 workers, down 30,900 from 1990. An additional 25,000 jobs are anticipated to be lost in coming years, as a result of restructuring and increased competition. Total direct and indirect employment is about 800,000.

Forest products are a major economic force in all regions of the country and represent about 45 per cent of manufacturing in British Columbia, 21 per cent in Atlantic Canada, 16 per cent in Quebec, 9 per cent in the Prairie provinces and 6 per cent in Ontario. In about 350 communities, the industry constitutes the major (or sole) manufacturing employer.

The forest products sector is composed of two major industry groups: Paper and Allied Industries and Wood Industries. The Paper and Allied Industries group is made up of two distinct segments: pulp and paper (e.g. market pulp, newsprint, fine papers) and converted paper products (e.g. packaging, coated papers, tissue). In 1991, this industry group had shipments of \$21.8 billion (approximately 63 % of total shipments). The Wood Industries group consists of two segments: commodity products (e.g. softwood and hardwood lumber and plywood, oriented strandboard, particleboard, miscellaneous panelboard products) and value-added wood products (e.g. kitchen cabinets, windows, doors, manufactured housing and their various components). Shipments in 1991 totalled \$13 billion (37 % of total shipments).

Canadian production of forest products is dominated by softwood lumber, mechanical and chemical wood pulps and newsprint. Other forest products include a comprehensive range of wood-based panel products, remanufactured wood products, value-added finished building components, prefabricated buildings and packaging, writing and coated papers.

While Canada enjoys a number of competitive advantages in this sector, a number of problems and weaknesses have become apparent. Traditionally, Canada's trade position in commodity forest products was built on the competitive advantage provided by an abundant, accessible, high-quality forest resource and low-cost energy. Most of the harvest, until quite recently, has been from natural forests. However, the forest industry in several regions of Canada is now operating at the upper limit of economic wood supply and must increasingly rely on more distant, higher-cost and often lower-quality forests at the same time as it is required to re-plant and manage harvested areas.

A key factor in the economic growth and vitality of this sector, throughout the balance of the decade and beyond, will be the preservation of a positive international image for Canadian forest products. Cyclical excesses or shortages of capacity, demand shifts to new products, competition from new sources with low labour and wood costs and significant protectionist pressures in major markets will also challenge the industry in the years ahead.

C Strategic Direction

The future success of the Canadian forest products industry will depend, in part, on expanding market development into new markets and diversifying into new higher value-added products.

To ensure Canadian access to traditional international markets for Canadian forest products and to help firms remain internationally competitive, the Government — in concert with industry — will pursue the following strategic objectives:

Strategic Objectives/Specific Measures

Build on Canada's image abroad as a leader in environmentally friendly forest products, based on a renewable and recyclable forest resource.

- Refine the information campaign to accurately portray the state of Canada's forests and Canadian forest management practices to dispel misinformation (primarily in the European market) that could seriously harm Canadian forest products exports.
- Emphasize Canada's positive international image for the energy-efficient, residential, (R-2000) wood-frame housing system and related technology and building products.
- Encourage association offices (in collaboration with Canadian embassies and officers abroad) to promote a favourable image of Canadian forest management practices by developing appropriate promotional materials.

Develop new environmentally friendly products, technologies and sustainable forestry practices.

- Accelerate research and development (R&D) spending on new environmentally friendly product and process technology and value-added wood and paper products.

- Develop a detailed knowledge base of environmental concerns relating to the forest industry, and explore solutions involving R&D and new technology to ensure Canada's place as a leader in forest products.
- Review government policy in areas, such as forest management, and help industry address technical challenges, such as the need to respond to concerns about chlorine bleaching of pulp.

Work to eliminate tariff and non-tariff barriers to forest products exports worldwide and to maintain access.

- Negotiate the elimination of tariff and non-tariff barriers to forest products exports worldwide through the General Agreement on Tariffs and Trade (GATT) and improve co-ordination of market access issues and negotiations dealing with multilateral and bilateral trade; pursue opportunities arising from the North American Free Trade Agreement (NAFTA) to establish a presence in the Mexican market.

Promote greater scientific co-operation between Canada and other countries.

- Capitalize on Memorandums of Understanding (MOU's) under the Canada-EC Industry Co-operation Agreement.
- Organize incoming and outgoing missions, speaking tours and scientific exchanges to Europe and Scandinavia to address issues and explore new technical solutions in the pulp and paper sector, including converted paper products.
- Utilize Canadian technology officers stationed abroad more effectively.

Improve ties with industry and industry associations (e.g. SBA, Manufactured Housing Association of Canada, COFI, BPIB, CPPA).

- Encourage industry associations to disseminate market information and intelligence, and to expand export-readiness training.
- Help industry associations develop long-term export marketing strategies and activities, and strengthen their trade development activities through the Co-operative Overseas Market Development Program (COMDP), the Co-operative Industrial Market Development Program (CIMDP) and the Timber Frame Construction Demonstration Housing Program.
- Support the operations of the Canadian Pulp and Paper Association (CPPA) office in Brussels.
- Explore opportunities to share market-development costs with industry and the provinces.
- Provide assistance, including fee-for-service arrangements, to organizations such as the proposed Canadian Building Products Export Council (CBPEC) in order to encourage the development of new sectoral export-marketing strategies.

- Review and implement (where possible) the recommendations contained in the report of the Forest Sector Advisory Committee, entitled *Canada's Forest Industry: A Strategy for Growth*.
- Support value-added wood products tripartite efforts like CIMDP to assist firms to become export ready, and to expand and diversify markets.

Expand opportunities within priority markets and promote priority products and technologies.

- Focus existing market intelligence and trade development activities on priority markets (including the United States, Europe, Japan, Mexico and the Middle East) and priority technologies and products (including timber-frame construction and related value-added wood and building products, R-2000-related building products and fine papers).
- Emphasize promotion of wood-frame construction in selected export markets as a vehicle to increase sales of building products, systems and materials.
- Improve co-ordination of the international environment and market development strategies of industry associations, External Affairs and International Trade Canada (EAITC), Industry, Science and Technology Canada (ISTC) and Forests Canada, and the trade development and competitiveness priorities of EAITC and ISTC, respectively.
- Improve federal-provincial co-operation in international marketing by increasing use of the Forest Industry Development Committee (FIDC).

Forest Industries

Activity	Date	Location	Dept.	Contact
United States				
Pulp and paper machinery and equipment; information booth: Technical Association of the Pulp and Paper Industries	Feb 1994	Atlanta	EAITC	613-944-9475
Western Europe and European Community				
Secondary wood manufacture; CIMDP (West) mission to	May 1993	Norway, Germany	BCWS	604-684-4126
Pulp and paper machinery and equipment; information booth: Pulp and Paper Engineer's Association Exhibition	Jun 1993	Sweden	EAITC	613-995-4730
Pulp and paper environmental mission to Sweden, Finland and Western Europe	Jun 1993	Scandinavia, Western Europe	ISTC	613-954-3054
Hard wood; mission to	Sep 1993	Netherlands	EAITC	613-996-1530
Value-added wood products; information booth: SAIE '93	Oct 1993	Italy	EAITC	613-995-9766
Value-added wood products; investment partnering	Oct 1993	Brussels	EAITC	613-995-6439
Building material; information booth: Interbuild '93	Nov 1993	Birmingham	EAITC ISTC	613-995-6565 613-954-3126
Construction, national stand: Batimat	Nov 1993	Paris	ISTC	613-954-3126
Japan				
Value-added wood products; information booth: Kobe Interhome '93	Jun 1993	Kobe	EAITC	613-995-1678
Hardwood Flooring Mission to Japan	Jun 1993	Tokyo, Osaka, Fukuoka	ISTC	613-954-3029
Manufactured Housing Solo Show	Nov 1993	Tokyo, Osaka, Fukuoka	ISTC	613-954-3037
Plywood technical; mission to	Dec 1993	Tokyo, Osaka	EAITC	613-995-1678
Oriented strand board (OSB); mission to	Feb 1994	Japan	ISTC	613-954-3039
Forest industries; two missions from Japan to	TBD* 1993	Canada	EAITC	613-995-1678
East Asia				
Pulp and paper machinery and equipment; information booth and mission to: Pulp and Paper Fair	Jun 1993	Korea	EAITC	613-943-0897
Pulp and paper; mission from Korea to	Nov 1993	Canada	EAITC	613-943-0897
Pulp and paper machinery and equipment; information booth: China Paper and Forest '93	Nov 1993	Beijing	EAITC	613-996-6987
Asia Pacific South				
Wood products and machinery; information booth: Timber and Working with Wood Expo	Nov 1993	Melbourne	EAITC	613-995-7662
Pulp and paper equipment; mission to	Nov 1993	Pakistan	EAITC	613-996-5903
Wood products and machinery; information booth: Forest Industries Exhibition	Feb 1994	New Zealand	EAITC	613-995-7662
Africa and the Middle East				
Wood; mission from Morocco to	Sep 1993	Eastern Canada	EAITC	613-944-0396
Latin America and the Caribbean				
Forest machinery and services; national stand: Expocorma '93	Nov 1993	Concepcion (Chile)	EAITC	613-996-5358

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Central/Eastern Europe and the Commonwealth of Independent States				
Forestry and fishing; mission to	Oct 1993	Russian Far East	EAITC	613-992-8590
Forestry machinery and equipment; national stand: Pap-For '93	Oct 1993	St. Petersburg	EAITC	613-992-8590
Multiple Markets				
International Standards Organization (ISO) Technical Committee '89 Wood Panels	Sep 1993	Vancouver	ISTC	613-954-3039
Forest products; mission to	Sep 1993	TBD	WED	403-495-6952
Wood products; Co-operative Oversea Market Development Program: (COMDP) Eastern and Western Canada	ONG*1993	Worldwide	ISTC	613-954-3031

* ONG - ongoing

Industrial Materials and Construction Products

The industrial materials sector includes a number of subsectors: non-ferrous metals such as nickel, zinc, copper, aluminium and other base metals in ores, primary or fabricated forms; ferrous metals, namely iron and steel; non-metal mineral products, such as granite and glass; polymeric materials like plastics and rubber; and advanced industrial materials, such as ceramics and composites. Because of their economic significance and diverse material content, construction products are presented as a distinct horizontal subsector for the purpose of this document.

A International Environment

Minerals and Non-Ferrous Metals

The major world markets for minerals and non-ferrous metals are the United States, Japan and the European Community (EC). The Asia Pacific economies, namely, Taiwan, Japan and Korea are expected to be the fastest growing markets for primary and semifabricated products. The Commonwealth of Independent States (C.I.S.) has become a significant supplier of many base metals to world markets, causing major disruptions to supply-and-demand balances for aluminium and nickel in particular. C.I.S. exports of base metals in their primary forms are expected to moderate over the medium to long term, as unproductive complexes are closed, environmental regulations become more stringent and domestic consumption increases.

Traditionally, Canada, the United States and Australia have received most of the world investment for exploration and development of mineral and non-ferrous metal deposits. Increasing attention is now being given to other countries, particularly in Latin America, for non-ferrous mineral exploration and development.

Ferrous Metals

In 1991, world crude steel production was 732 million tonnes (MT) and is projected to be 728 MT in 1992. World steel consumption was 616 MT in 1991 and is expected to be 613 MT in 1992. Major exporters are the EC, South Korea, Japan, Brazil, Canada, the United States, Taiwan, the C.I.S., the Czech Federal Republic and Poland. Major markets include the EC, the United States, and Japan.

Market growth worldwide has stagnated in this sector, while crude steel production remained steady over the 1980s; however, domestic consumption has been rising over the same period. The steel industry is expected to shrink significantly in the C.I.S. and Eastern Europe, in terms of both production and employment. Growth in production and consumption is expected to occur in Brazil, Argentina, Venezuela, South Korea, Thailand and Taiwan.

Market access and trade-remedy legislation, specifically dumping, continue to be major concerns for industry. The steel industry is in a cyclical downturn resulting in losses, downsizing and fierce international competition. Negotiations for a Multilateral Steel Agreement are currently on hold; however, Canada is seeking a bilateral deal with the United States that would recognize the integrated nature of the Canada/U.S. market and would eliminate the numerous trade actions that have been filed in both countries against the other. Cases could be filed in the EC and Japan that would affect Canadian trade.

Plastics and Polymer Products

This sector comprises the synthetic resins industry, which produces the basic raw materials used in several downstream manufacturing sectors: plastic products, rubber products, paints and coatings, adhesives and sealants. The resins industry is dominated by MNEs, which operate on a global basis. Most are foreign-owned. Most of the manufacturing industries, however, are Canadian-owned SMRs.

With the exception of rubber products, all segments are expected to continue to grow relative to the economy as a whole. Most trade is North American in nature.

Construction Products

Construction products companies tend to be domestically oriented due to high transportation costs, the high service nature of this business and the fact that construction products have been subject to domestic codes and standards. With the exception of certain commodity construction products, such as cement and flat glass, the industry is dominated by small and medium-sized enterprises (SMEs) and is largely indigenous.

Advanced Materials

The global market for advanced materials and processes is growing rapidly in the major industrial economies. The U.S., Japanese and European markets have experienced 20 per cent annual growth for much of the 1980s versus 2 per cent to 3 per cent growth for conventional materials. The Japanese market, alone, was valued at \$16 billion in 1990 up from \$2.1 billion in 1981. The U.S. market for structural ceramics was \$117 million in 1987. It is expected to reach \$5 billion by the year 2000.

With increased globalization, more and more companies are developing international partnerships resulting in strong technical and commercial ties among suppliers, processors and product manufacturers. These alliances make it possible to reduce research and development (R&D) costs and create synergies leading to market growth.

B Domestic Position

Canadian exports of industrial materials amounted to \$27 billion in 1991, representing over 18 per cent of total Canadian exports.

Minerals and Non-Ferrous Metals

The Canadian minerals and non-ferrous metals subsector is one of the world's leading producers and exporters of ores, concentrates, primary metals, salts, coal and a multitude of other minerals. The industry is highly diversified, focusing on state-of-the-art technology for exploration and exploitation. Canada is also, increasingly, an exporter of mining, exploration and metallurgical technology, services and equipment.

In 1991, the total value of Canadian minerals and metals production (which also includes the ferrous subsector), in the crude stage, was \$16.9 billion. From mining and concentrating through to the semifabricating and fabricating industries, the minerals and metals industry accounts for 4.7 per cent of Canada's Gross Domestic Product (GDP). In the future, Canada's minerals and metals production will remain important in absolute terms, but growth rates, especially in terms of employment, will not be as high as in the past.

Increasing production of base metals from Australia, and Asian and South American countries that have recently liberalized their investment climate, will affect Canada's relative share of the world market. Trade liberalization, resulting from a positive outcome to the Uruguay Round of the Multilateral Trade Negotiations (MTN), would benefit Canadian industry at all stages of production, but particularly semifabricated and fabricated metal products. Building on the Canada-United States Free Trade Agreement (FTA), the implementation of the North American Free Trade Agreement (NAFTA) should further improve market access for our mineral and metal products in the United States, as well as provide opportunities for Canadian trade and investment in the Mexican market.

Korea, Taiwan, China and the Association of Southeast Asian Nations (ASEAN) countries will provide opportunities for the sale of Canadian products and technology and for investment. There are longer term potential opportunities in the (C.I.S.) for trade, investment and sales of technology by Canadian industry.

Production technology, R&D, geomatics processing technology and geoscience research are niches of excellence within Canadian industry. The environmental services sector also offers opportunities in foreign markets where environmental standards are tightening and/or becoming increasingly enforceable.

Ferrous Metals

The relative size of the Canadian steel industry has been declining for the last two decades. The Canadian steel industry now constitutes 0.5 per cent of GDP compared to 1.2 per cent in 1970. Steel producers now employ 35,000 workers, down more than 30 per cent from 1980. Canadian shipments peaked in 1989 at 13.3 MT but have since fallen to 11.2 MT (1991).

Canadian steel exports of 4.6 MT (1991) represent about 4 per cent of world steel exports, and our imports of 2.5 MT account for about 2 per cent of world steel imports. The U.S. market absorbed over 60 per cent of our exports and were the source of 60 per cent of our imports in 1991. Aside from the United States, the other major markets for Canadian industry are in Asia, e.g. Korea and Taiwan.

Plastics and Polymer Products

Plastics and polymer products encompass synthetic resins, products of plastic and rubber, paints, adhesives, sealants and printing inks. The principal markets are the packaging, construction, automotive, furniture and electrical/electronics industries.

The sector employs 90,000 people. Domestic shipments are approximately \$15 billion. Imports account for about \$4.8 billion compared to exports of \$2.8 billion, for a net trade deficit of \$2 billion.

The most widely traded goods in this sector are synthetic resins and a limited range of processed products. A large proportion of Canadian trade is with the United States. As companies rationalize their North American operations, all sectors are expected to experience an increase in both import and export trade.

Recent trends suggest a significant downsizing of the Canadian management and technical staff of MNE resin companies. Some small facilities have been closed, while others have been given more freedom to export their production.

Most small firms have not traditionally exported, but many have been forced to develop export markets to survive as some MNE customers have consolidated operations outside Canada, usually to U.S. locations. Simultaneously, the recession has cut domestic demand. The adjustments that have been made in response to these changes may enable these companies to compete more aggressively, as we emerge from the recession.

Within this grouping, plastic products offer the greatest potential for improving our trade balance, since most of these companies are Canadian-owned and-controlled.

Despite the recent cyclical downturn and rising environmental pressures, long-term prospects for plastic products continue to be strong. While the global outlook for synthetic resins is positive, there is concern about the impact of MNE rationalization on Canadian operations.

Construction Products

Construction products include fabricated metal and mineral products, such as architectural metal products, metal stampings and containers, as well as non-metallic mineral-based construction products, such as cement, concrete, glass, gypsum wallboard and dimension stone.

Canada's national standards system, backed by the model *National Building Code* has helped create a Canadian industry that produces high-quality specialty and fully manufactured construction products.

Canadian producers have been successful in increasing their penetration of foreign markets, particularly U.S. markets, for construction products. Increasing internationalization, coupled with a protracted recession in other markets, has resulted in a greater penetration of the Canadian construction products market by foreign producers. Canadian manufacturers are concerned that some imported construction products do not meet the requirements of Canadian building codes and/or product standards.

Advanced Materials

Advanced materials are new or improved materials, possessing physical or chemical properties that make them superior, either technically or economically, to conventional materials.

While Canada possesses niche strengths in sectors, such as metal matrices, metal powders, ceramics and polymers, there is room for substantial growth to achieve the potential that this segment offers in the longer term. Canada's current advanced materials segment is small in dollar terms relative to traditional materials. We are marginal players in this sector compared to other advanced countries like Japan, Europe and the United States.

C Strategic Direction

Minerals and Non-ferrous Metals

The coming years are expected to be critical for the minerals and non-ferrous metals subsector, as world markets are facing major disruptions resulting from the entry of new players from developing countries and the former East Bloc. Competition is expected to remain fierce on the basis of price and delivery, with the result that the Canadian industry will continue to pay very close attention to its cost structures and efficiencies.

With the growing focus on R&D and new technologies in the mining services area, niche players in technical development and geoscience can benefit from increased international collaboration. Canadian manufacturers of semifabricated and fabricated metal products should see growing export opportunities in the United States, EC and the Asia Pacific region. Over the longer term, significant growth could be achieved, both in value and employment terms, by building on the strength of this subsector to expand downstream activities in the production of semifabricated, fabricated and differentiated products.

The Government will focus its attention on trade relations with other governments aimed at maintaining and improving market access and defending our rights under existing agreements. It will continue to support Canadian industry in multilateral organizations, such as International Study Groups, that monitor production and trade in key areas, such as nickel, lead, zinc and copper. The Government will make a conscious effort to improve the collection and dissemination of value-added market intelligence/information from posts abroad and elsewhere in government to industry. Particular attention will also be given to the impact of non-tariff and environmental barriers to trade and investment.

Governments at all levels will need to maximize policy and program co-ordination to ensure that the Canadian environment for investment and technology development in this vital sector remains competitive with that of other countries.

Ferrous Metals

The major focus for international business development will continue to be on the U.S. market, particularly in the central and northeast regions where the strengths of the Canadian industry, namely, proximity, speed of delivery, just-in-time service, quality and price provide a competitive advantage. Greater priority will also be placed on the Mexican market. In addition, efforts to develop customer relationships in Asia and Europe will be pursued vigorously.

In order to enhance our competitiveness in the U.S. market, government and industry will work together to help firms further specialize their products, achieve economies of scale and reduce costs by investing in technologies to reduce production costs and improve product quality. Rationalization of plants and product lines will continue, as the industry adjusts to the very competitive steel products market.

Plastics and Polymer Products

MNEs in the Canadian plastics and polymer products sector are well positioned to take advantage of emerging international business opportunities. The primary focus will be on the SME processors, whose principal growth market will be the United States. Alliances and licensing arrangements with offshore partners will also be pursued. It is important that Canadian firms not only develop but also transfer technology domestically and internationally, as well as adopt appropriate foreign technologies.

Construction Products

The U.S. market will remain the major international market opportunity, but Canadian producers are well positioned to compete in niche markets in Europe and Asia. The Government will assist industry in marketing activities to penetrate these markets and adopt offshore technologies that enhance their long-term competitiveness. Specifically, the Government will encourage development of foreign market opportunities for the Canadian dimension stone industry, particularly granite. In the field of finished construction products, international harmonization of product standards will be pursued by government and industry to improve access to foreign markets for Canadian producers.

Advanced Materials

Canada should concentrate its efforts on exploiting technical and marketing strengths, demonstrated by key companies, and strategic alliances in niche opportunities for advanced materials, specifically in the fields of metal matrices, metal powders, ceramics and polymer composites.

The United States is the priority export market for Canada's advanced materials manufacturers. The U.S. defence sector has been a major user of these materials. While it is in decline, opportunities may still be sought under Canada-U.S. defence development- and production-sharing agreements. Commercial applications will also increase in importance as advanced materials technologies gain an increasing share of automotive and other commercial markets in which use of advanced materials has been limited due to high costs.

Japan, with its established technological strengths in advanced materials, will be important primarily as a source of technology rather than as a market in the short term. The Japan Science and Technology Fund, administered by External Affairs and International Trade Canada, supports a variety of co-operative science and technology activities; specifically, Japan's work in composites technology for bridges and structures may find commercial application in North America.

With respect to Europe, strategic opportunities should be sought for the use of advanced materials in co-operative ventures between Canadian and European partners; aerospace and surface transportation equipment may offer opportunities. The Government is working toward developing agreements with the EC that may lead to better access for Canadian firms to develop co-operative agreements with European partners.

Industrial Materials and Construction Products

Activity	Date	Location	Dept.	Contact
United States				
Building and home improvement products; national stand: International Tile Show	Apr 1993	Miami	EAITC ISTC	613-944-7486 613-954-3126
Building and home improvement products; national stand: Pacific Coast Builders Show	May 1993	San Francisco	EAITC	613-944-7486
Building and home improvement products; national stand: Kitchen and Bath Show	May 1993	Atlanta	EAITC	613-944-7486
Building and home improvement products; national stand: National Hardware and Building Products	Aug 1993	Chicago	EAITC	613-944-7486
Building and home improvement products; national stand: Building Products Solo Show	Oct 1993	Minneapolis	EAITC	613-944-7486
Building and home improvement products; national stand: Building Industry Show	Oct 1993	Los Angeles	EAITC	613-944-7486
Building and home improvement products; national stand: Solo Hardware and Building Show	Jan 1994	Seattle	EAITC	613-944-7486
Building and home improvement products; national stand: National Association of Home Builders	Feb 1994	Las Vegas	EAITC ISTC	613-944-7486 613-954-3126
Building and home improvement products; seminar: Canadian Wood Council	May 1994	Las Vegas	EAITC	613-944-7486
Western Europe and European Community				
Construction; information booth: EMEX	May 1993	Stockholm	EAITC	613-995-4730
Construction; mission to	May 1993	Spain	EAITC	613-996-6359
Mining, metal and minerals products; mission to: New Material Conference	Jun 1993	Madrid	EAITC	613-996-1530
Building material; information booth: Interbuild '93	Nov 1993	Birmingham	EAITC ISTC	613-995-6565 613-954-3126
Construction; national stand: Batimat	Nov 1993	Paris	EAITC ISTC	613-996-2363 613-954-3126
Construction; information booth: Batibouw	Feb 1994	Brussels	EAITC ISTC	613-996-7544 613-954-3126
Metals and minerals working group; meeting	Mar 1994	Ottawa	EMRC	613-992-4482
Japan				
Building material and equipment; information booth: Construction Material and Equipment Fair	May 1993	Osaka	EAITC ISTC	613-995-1678 613-954-3126
Building products; information booth: Kobe Interhome '93	Jun 1993	Kobe	EAITC ISTC	613-995-1678 613-954-3126
R-2000 project; mission to	Jun 1993	Japan	EMRC	613-996-8151
Building products; information booth: Building Material Fair	Sep 1993	Sapporo	EAITC	613-995-1678
Three-storey wooden housing design; seminar	Sep 1993	Osaka	EAITC	613-995-1678
Building materials; solo show	Nov 1993	Fukuoka, Nagoya, Osaka	EAITC	613-995-1678
Building products; information booth: Japan Home Show '93	Nov 1993	Tokyo	EAITC ISTC	613-995-1678 613-954-3126
Building materials and housing; information booth: West Japan Total Living Show	Mar 1994	Kita Kyushu	EAITC	613-995-1678
Building products; mission from Japan to	TBD*	Canada	EAITC	613-995-1678
East Asia				
Building material; information booth and seminar: Building Material Exhibition	Jun 1993	Taiwan	EAITC	613-996-7582
Building material; national stand: International Building Exhibition	Jun 1993	Hong Kong	EAITC ISTC	613-995-6962 613-954-3126

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Nonferrous minerals and metals; annual meeting of Canada and China	Sep 1993	Ottawa	EMRC	613-996-2499
Building supplies; buyers from Taiwan to Mineral; investigation mission to	Dec 1993	Canada	EAITC	613-996-7582
Building supplies; buyers from Taiwan to	Dec 1993	Vietnam	EMRC	613-996-2499
Building products; mission from Hong Kong to	Dec 1993	Canada	EAITC	613-996-7582
Building products; mission from China to	Jan 1994	Canada	EAITC	613-995-6962
Building material; information booth and mission to: Taipei International Construction Show	Feb 1994	Canada	EAITC	613-996-6987
	Mar 1994	Taiwan	EAITC	613-996-7582
Asia Pacific South				
Building products; buyers from Indonesia to	May 1993	Canada	EAITC	613-995-7659
Building products; information booth: Sibex Building Products	May 1993	Singapore	EAITC ISTC	613-996-5824 613-954-3126
Building products, hardware; information booth: Buildex '93	May 1993	Auckland	EAITC	613-995-7662
Building products, hardware; information booth: Interbuild '93	Jun 1993	Sydney	EAITC	613-995-7662
Latin America and the Caribbean				
Mining; Second Working Group Meeting of the MPS/SEMIP	Sep 1993	Mexico City	EMRC	613-995-9571
Building materials CIHAC '93	Sep 1993	Mexico City	ISTC	613-954-3126
Central/Eastern Europe and the Commonwealth of Independent States				
Construction material; information booth: Coneco '93	May 1993	Bratislava	EAITC	613-996-7107
Construction material; information booth and mission to: Poznan Fair	Jun 1993	Poznan	EAITC	613-996-7117
Canadian housing construction techniques; seminar and mission to	Sep 1993	St. Petersburg, Moscow	EAITC	613-992-8590
Metallurgical products; buyers from Bucharest to	TBD 1993	Canada	EAITC	613-996-7107
Construction; incoming buyers to: Ideas '94	TBD 1993	Belgrade	EAITC	613-996-7107
Multiple Markets				
International Lead and Zinc Study Group	Apr 1993	London	EMRC ISTC	613-992-4481 613-954-3123
International Nickel Study Group	Apr 1993	Netherlands	EMRC ISTC	613-992-4481 613-954-1854
Ad Hoc Committee on Aluminum, Alumina and Bauxite	May 1993	Geneva	ISTC EMRC	613-954-1854 613-992-4481
Building material; Conference and information booth: Innovative Housing '93 World Conference	Jun 1993	Vancouver	EMRC	613-943-2259
International Copper Study Group	Jun 1993	Portugal	EMRC ISTC	613-992-4482 613-998-5262
United Nation Economic Commission for Europe Working Party on Coal	Sep 1993	Vancouver	EMRC	613-992-1904
Technical and environmental co-operation for coal	Oct 1993	China, Korea, Mexico	EMRC	613-992-8468
International Lead and Zinc Study Group	Oct 1993	Berlin	EMRC ISTC	613-992-4481 613-998-5262
International Nickel Study Group	Oct 1993	Netherlands	EMRC ISTC	613-992-4481 613-954-1854
Mining; symposia for potential foreign investors	Feb 1994	Tokyo, Seoul, Bonn, Brussels, London	EMRC	613-992-2662
Metals and minerals working group	Mar 1994	Ottawa	EMRC ISTC	613-992-4481 613-954-3122

Information Technologies

A International Environment

Information Technology (IT) is one of the world's fastest growing and largest industries, with broad product applications across all industry sectors. The IT industry includes telecommunications equipment and services; computer services and software; microelectronics and components; computers and peripheral equipment and instrumentation.

The IT market was estimated to have a worldwide turnover of more than \$1 trillion in 1992 and is projected to reach \$2 trillion by the year 2000, an average annual growth rate of 7.6 per cent. U.S. economists predict that this year, 1993, the combined computer and electronics sectors will constitute the largest single industry in the United States.

As trade barriers fall and businesses take advantage of enlarged markets, organizations of all kinds are relying more on IT systems to disseminate information across global networks and to provide integrated worldwide business services, e.g. in the banking and financial services areas and the mobile telecommunications services. In addition, manufacturers increasingly are adopting automated systems such as computer-integrated manufacturing and computer-assisted design to respond to intensified competition.

While the industry has a record of explosive growth, there are signs that it is facing some severe structural adjustments. Market saturation, an overabundance of suppliers and falling prices are some of the symptoms that became apparent last year, especially in the computer hardware field. The decline in the industry's revenue growth has affected the profitability of the computer makers, particularly the older, broad-based systems suppliers. However, the industry has predicted a modest recovery in profitability in 1992. The areas of greatest potential are expected to be the software and services areas, which are forecast to grow 20 per cent annually for the next five years. Hardware prices will continue to be under severe pressure for the foreseeable future.

A significant consolidation within the IT industry can be expected to occur in the short to medium term, as a result of a major decline in the growth of IT revenues, a slowly recovering economy in North America, uncertain prospects in Europe and the potential of a recession in Japan. Alliances between surviving IT firms could increase dramatically, as they seek greater economies of scale, more effective methods of product distribution and better ways to defray the ever increasing cost of research and development (R&D). For Canadian IT firms, creating global partnerships is an essential element of their efforts to remain in contention with foreign rivals.

B Domestic Position

Canadian IT companies account for about 3 per cent of the world's IT production and services. IT is a \$40 billion industry in this country, directly employing close to 300,000 people. It is the seventh largest domestic market and contributes 7 per cent of manufacturing Gross Domestic Product (GDP) (comparable to pulp and paper) and 5 per cent of services (more than transportation). The growth rate of the Canadian IT industry is significantly larger than that of the economy as a whole, and is predicted to reach 10 per cent of Gross National Product (GNP) by the year 2000. The industry is concentrated in Quebec and Ontario, although there are clusters of firms in other parts of the country, notably in the Vancouver, Calgary and Halifax areas.

Canadian firms are export oriented, selling 70 per cent of their products in foreign markets, principally the United States. Our proximity to the U.S. market, especially in the North American Free Trade Agreement (NAFTA) environment, is a major advantage that provides attractive export opportunities for Canadian firms. However, despite this export orientation and these opportunities, Canada has the second largest trade deficit in IT (\$6.2 billion in 1991) among Organization for Economic Co-operation and Development (OECD) countries. Canadian IT imports are comprised chiefly of consumer electronics, computers and other products, such as components. Exports, however, often incorporate services that are not captured by trade data. Hence, the deficit picture could be misleading.

The IT sector performs 35 per cent of all industrial R&D in Canada and includes two of the country's top five R&D spenders: BCE (which owns Northern Telecom and Bell Northern Research) and IBM Canada. It is estimated that IT firms, including small enterprise, spend about 12 per cent of their revenues on R&D. Canada's R&D tax credit regime is recognized as the best of the Group of seven leading industrialized (G-7) countries.

The Canadian IT industry has made significant progress, particularly in telecommunications, software computer services, system integration and process instrumentation. There are some 4,000 software companies in Canada whose strengths lie in the integration of customized software and systems. The country is a major global player in telecommunications equipment and is well known internationally in banking systems, geographic information systems, medical systems, environmental controls, remote sensing, process instrumentation, resource exploration, navigation systems and so on. Northern Telecom and other multinational firms make important contributions to manufacturing and R&D, and often spin off new technology firms. Multinational firms such as IBM, Hewlett Packard and Amdahl are attracted by Canada's world-class universities, with their excellent computer science and engineering faculties, centres of excellence, and national and provincial research laboratories.

Canada can sustain its competitive position in international trade and successfully exploit foreign opportunities, but there are a number of barriers that must be overcome. Access to adequate financing is repeatedly emphasized by smaller firms as the sector's most serious obstacle to growth. A second challenge is a projected shortage of human resources with appropriate technical skills. Innovators and entrepreneurs who establish new enterprises often lack complementary skills in marketing and management that will enable their firms to grow beyond a certain threshold and to penetrate foreign markets.

In addition to these barriers, there are impediments to the growth of the industry as a whole. Regulations in the telecommunications industry require updating to reflect new global realities. The Canadian informatics market is fragmented and consists primarily of small firms tied to the home market. The industry is vulnerable to rapid changes in technology. Finally, new initiatives are needed to assist smaller firms to grow to a more viable size and become export ready.

C Strategic Direction

The Canadian information technology sector is a vigorous and expanding industry with a strong export orientation. In order to ensure that it remains competitive in international markets and enlarges its market share, efforts will be directed at:

- increasing the number of export-ready Canadian firms;
- promoting awareness of opportunities in foreign markets;
- improving access to foreign markets;
- increasing foreign market awareness of Canadian capabilities; and
- reforming the regulatory environment to reflect new global realities.

Specific initiatives will depend on the subsector and the size of companies.

To achieve these goals, an improved partnership between government and industry is required. Furthermore, better co-ordination between the relevant programs of federal government departments, and between federal and provincial governments will be necessary. The relevant industrial associations will need to be strengthened so that they can play a greater role in assisting their membership to increase their business developments abroad.

Export Readiness

In the present context, export readiness refers to the viability and competitiveness of the firm and its ability to pursue and service foreign markets. The factors that influence a firm's export readiness are:

- access to adequate financing to support their international activity;
- management competency;
- human resource competency;
- competitive, exportable products;
- customer service;
- effective marketing and distribution;
- a focused competitive strategy; and
- strategic alliances and relationships.

The sector campaigns of Industry, Science and Technology Canada for the various IT subsectors and the Department of Communication's activities in support of this sector are designed to address these factors. Greater co-operation between federal government departments, the provinces and industrial associations in the delivery of these programs will ensure that industry benefits from the effort.

Market Focus

The federal government will give priority to those markets that offer the greatest potential for increased trade, investment and technology transfer.

- In general, the United States, Europe and Japan will remain the principal market focus, although it is recognized that priorities will vary for each subsector and type of business development.
- Latin America, particularly Mexico, and the emerging markets of the Asia-Pacific region will be second priority markets, particularly for telecommunications, computer hardware and geomatics.
- Eastern Europe has potential for all sectors but is of lower overall priority.

Market Intelligence

The sector has expressed a pressing requirement for more specific foreign market intelligence (such as market opportunities, contacts, regulatory requirements), as opposed to generic market information, which is usually readily available from other sources. It will be an important part of this strategy to develop more efficient and effective means to collect and deliver this intelligence by:

- defining industry requirements;
- setting clearer priorities for our posts abroad; and
- developing comprehensive Canadian sector intelligence and better methods to respond to foreign opportunities.

Market Awareness

Compared to the United States and Japan, Canada is a small player in the world's IT marketplace. With such competition, it is imperative that foreign buyers are aware that Canadian firms have the capability to meet their requirements, often with better technology at better prices. Traditional mechanisms, such as trade shows, still have a place in achieving this goal but these will be fewer in number and better focused. They will be supplemented by efforts to market Canada and Canadian firms as *the* source to turn to when seeking an IT product or service or a strategic alliance. These efforts will include:

- profile-building exercises, such as being a Partner Country at Cebit '94, events that directly highlight Canadian capability;
- expanding training of personnel of foreign organizations that are potential buyers of Canadian products and services, either in Canada or in their home country;
- industrial technical seminars in support of collaborative R&D projects in targeted markets; and
- technical support to international projects.

Market Access and Support

World IT markets, once severely limited by restrictive trade practices of government-regulated/owned industries and other tariff and non-tariff barriers, are opening up through negotiation of agreements, such as the NAFTA, and the realization of most countries that they are limiting their potential growth and productivity by excluding foreign technology. However, there are still a few markets that impede access to Canadian products and services. Increased attention will be paid to the elimination of these barriers through:

- the General Agreement on Tariffs and Trade (GATT) and bilateral negotiations;
- negotiating mutual recognition agreements (MRA) to permit Canadian products to be tested at accredited Canadian laboratories; and
- promotion of common world standards and open systems integration.

For some countries, institutional arrangements, such as government to government Memorandums of Understanding (MOU's), as well as evidence of ministerial support of companies' business development efforts, are necessary to successfully penetrate the market.

Strengthening Industry Associations

Industry associations are ideally placed to articulate the industry's concerns to government and other interested parties. This is particularly true in the IT industry, which is composed of many small and medium-sized enterprises (SMEs). This strategy will, therefore:

- encourage associations to play an active role in the design and delivery of services and programs in response to members' needs; and
- support associations to expand their capacity to offer innovative means to promote international business and deliver market intelligence to their members.

Regulatory Reform

Government and industry must work together to determine what the correct form and degree of regulation should be in Canada. Co-ordination between all levels and branches of government is necessary to ensure a consistent approach that strikes the right balance between encouraging innovative new Canadian solutions and safeguarding the public interest.

Information Technologies

Activity	Date	Location	Dept.	Contact
United States				
Computer communication; strategic partnering seminar	Apr 1993	Columbus	EAITC	613-944-9440
Software services; forum	Apr 1993	Omaha, Lincoln	EAITC	613-944-6577
Office systems; national stand: Federal Office Systems Exposition	Apr 1993	Washington (D.C.)	EAITC	613-944-9440
Information technology; national stand: Intergovernmental Technology Conference	Apr 1993	Columbus	EAITC	613-996-4699
Geomatics strategic alliance; workshop	Apr 1993	Boston	EAITC	613-944-9440
Telecommunications; national stand: Supercomm '93	Apr 1993	Atlanta	EAITC	613-944-9474
Telecommunications; national stand: National Association of Broadcasters	Apr 1993	Las Vegas	EAITC	613-944-9474
Telecommunications; national stand: Mississippi Telecommunications Association	Apr 1993	Mississippi	EAITC	613-944-9474
Computer hardware, software, data processing and office automation; national stand: Comdex '93	May 1993	Atlanta	EAITC	613-944-6576
Software; partnering opportunities	May 1993	Seattle, Portland	EAITC	613-944-9440
Software; strategic alliance workshops	May 1993	Boston	EAITC	613-944-6577
Electronic components; national stand: Midwest Electronics Expo	May 1993	Minneapolis	EAITC	613-944-5149
Computer; national stand: Federal Computer Conference West	May 1993	Anaheim	EAITC	613-944-9440
Computer hardware, software; information booth: Government Technology Conference	May 1993	San Francisco	EAITC	613-944-9440
Telecommunications; information booth: IISSC	May 1993	San Francisco	EAITC	613-944-9474
Telecommunications; information booth: ICA-Comnet	May 1993	Dallas	EAITC	613-944-9474
Informatics (Paramax tour); mission to: U.S. government agencies	May 1993	United States	WED	613-954-1640
Technology partnering in the U.S. government marketplace; seminar	May 1993	Montreal, Ottawa, Moncton	EAITC	613-944-9440
Computer hardware and software, data processing, office automation; national stand: PCExpo '93	Jun 1993	New York City	EAITC	613-944-6576
Software services; strategic alliance	Jun 1993	Minneapolis	EAITC	613-944-6577
High technology; mission to: state and local government procurement office	Jun 1993	Los Angeles, San Diego, Long Beach	EAITC	613-944-9440
Canadian telecommunications industry; seminar	Jun 1993	Chicago	EAITC	613-944-6577
Electronic and telecommunications; mission to	Jun 1993	Newport Beach	EAITC	613-944-6577
Micro computer; national stand: FedMicro	Aug 1993	Washington (D.C.)	EAITC	613-944-9440
Technology marketing strategies for Governments; seminar	Aug 1993	Montreal, Ottawa, Moncton, Calgary, Winnipeg, Toronto	EAITC	613-944-9440
Computer hardware and software, data processing, office automation; national stand and mission to: Network '93	Sep 1993	Dallas	EAITC	613-944-6576
Computer hardware, software; information booth: Computer Show	Sep 1993	Rochester	EAITC	613-944-6577
Software developers; mission to	Sep 1993	Seattle	EAITC	613-944-6577
Electronic components; forum: Atlantic Canada Investment	Sep 1993	Newport Beach	EAITC	613-944-6577
Telecommunications; national stand: Southeastern Telecommunications Association	Sep 1993	Nashville	EAITC	613-944-9474
Telecommunications; national stand: Telecommunications Association	Sep 1993	San Diego	EAITC	613-944-9474
Telecommunications; buyers from Atlanta to	Sep 1993	Central Canada	EAITC	613-944-9474

Activity	Date	Location	Dept.	Contact
Geomatic services; media tour and mission to	Sep 1993	Colorado	EAITC	613-944-9440
Microelectronics mission to the United States	Sep 1993	North America	ISTC	613-952-8417
Software; investment seminar	Oct 1993	New York City	EAITC	613-944-6577
Information technology to U.S. federal government; information booth: TechExpo	Oct 1993	Washington (D.C.)	EAITC	613-944-9440
Telecommunications; national stand: Caribecom '93	Oct 1993	Puerto Rico	EAITC	613-944-9477
Information technology services; mission to	Oct 1993	Seattle	EAITC	613-944-9440
Telecommunications; national stand: Communication Manager Association	Oct 1993	New York City	EAITC	613-944-9474
Telecommunications; investment forum	Oct 1993	Dallas, Fort Worth	EAITC	613-944-6577
Telecommunications; strategic partnering (investment) forum	Oct 1993	TBD*	INVCAN	613-995-0759
Computer hardware and software, data processing, office automation; national stand: Comdex fall '93	Nov 1993	Las Vegas	EAITC	613-944-6576
Software; partnering forum and strategic alliance	Nov 1993	Minneapolis	EAITC	613-944-6577
Geomatics; media tour	Nov 1993	Boston	EAITC	613-944-9440
Telecommunications and informatics; investment seminar	Nov 1993	New York City	EAITC	613-944-6577
Software and ocean technology; strategic alliance	Dec 1993	Boston	EAITC	613-944-6577
Electronic components; forum: Strategic Technology	Dec 1993	Newport Beach	EAITC	613-944-6577
GIS government opportunities; mission to	Dec 1993	Washington (D.C.)	EAITC	613-944-9440
Federal government information technology and geomatics; mission to	Dec 1993	Washington (D.C.)	EAITC	613-944-9440
Telecommunications; matchmaking session	Dec 1993	Chicago	EAITC	613-944-6577
High technology services; media tour	Jan 1994	San Francisco	EAITC	613-944-9440
Telecommunications; national stand: ComNet	Feb 1994	Washington (D.C.)	EAITC	613-944-9440
Telecommunications; mission to	Feb 1994	Newport Beach	EAITC	613-944-6577
Design engineering; information booth	Mar 1994	Chicago	EAITC	613-944-6577
Software publishers; symposium	Mar 1994	San Francisco	EAITC	613-944-6577
Electronic components; national stand: Electronics Show	Mar 1994	San Diego	EAITC	613-944-5149
Federal government information technology; mission to: Interop Show	Mar 1994	Washington (D.C.)	EAITC	613-944-9440
Information technology to U.S. federal government; information booth: TechExpo	Mar 1994	Washington (D.C.)	EAITC	613-944-9440
Software; investment roundtable	TBD* 1993	Boston, Los Angeles, Seattle, Detroit, Atlanta	INVCAN	613-995-0796
Telecommunications; strategic partnering	TBD 1993	United States	INVCAN	613-995-0759
Optoelectronics; strategic partnering	TBD 1993	United States	INVCAN	613-995-0759

Western Europe and European Community

Firearms, bank security system, safety equipment; information booth: Security and Safety '93	Apr 1993	Istanbul	EAITC	613-996-5263
Computer products; information booth: Computer Integrated Manufacturing Conference and Industrial Automation Fair	May 1993	Amsterdam	EAITC	613-995-6435
Technology, design and quality; national stand: Nortec	May 1993	Portugal	EAITC	613-992-7001
Information technology and geomatics; national stand and information booth: Geotechnica '93	May 1993	Cologne	EAITC	613-995-6435
Information technology and telecommunications; buyers from Rome to	May 1993	Canada	EAITC	613-996-6359
Telecommunications and software; strategic alliance investment roundtable	May 1993	Berlin, Vienna, Brussels	INVCAN	613-995-0812

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
European venture capital project; mission to	May 1993	The Hague, Paris, London	INVCAN EAITC	613-995-9998 613-995-6493
Television and technical equipment; information booth and mission to: ITV Symposium	Jun 1993	Montreux	EAITC	613-995-6435
Data communication equipment; information booth: Networks '93	Jun 1993	Birmingham	EAITC	613-995-6435
Photonics Mission to Europe	Jul 1993	Sweden, Finland, Germany, Netherlands	ISTC	613-954-0538
Computer and terminal equipment; national stand: System '93	Sep 1993	Munich	EAITC	613-996-2147
Detection, alarm, protection equipment and system; mission to: Security '93	Oct 1993	Utrecht	EAITC	613-996-1530
Software technology; mission to	Oct 1993	Lisbon	EAITC	613-996-1530
Advanced technology; mission to	Oct 1993	Finland, Estonia	EAITC	613-996-1530
Electronic products; mission to: Eurocomnet	Nov 1993	Amsterdam	EAITC	613-995-6435
Instrumentation; national stand: BIAS Exhibition	Nov 1993	Milan	EAITC	613-996-2147
Telecommunications; buyers from Norway to	Nov 1993	Montreal, Toronto, Vancouver	EAITC	613-996-1530
Telecommunications; mission to	Nov 1993	Paris	EAITC	613-996-2363
Security products; information booth: COPEX	Nov 1993	Surrey	EAITC	613-995-6435
High technology; buyers from Scandinavia to	Feb 1994	Montreal, Toronto, Vancouver	EAITC	613-995-4730
Office technology and network equipment; national stand: CEBIT '94	Mar 1994	Hanover	EAITC ISTC	613-996-1918 613-952-8417
Microelectronics; mission to	Mar 1994	Germany	ISTC	613-952-8417
Idographics; mission to	Mar 1994	Milan	ISTC	613-996-1530
Software; investment roundtable	TBD 1993	U.K., France, Italy, Belgium, Denmark, Finland, Netherlands	INVCAN	613-995-0796
Geomatics; investment roundtable	TBD 1993	U.K., Italy, Belgium, Netherlands, Austria	INVCAN	613-995-0796
Japan				
Software, telecommunications, electronics; investment mission to: Alliance '93	Dec 1993	Tokyo	INVCAN	613-995-2783
Information technologies; mission from Japan to	TBD 1993	Canada	EAITC	613-996-2460
East Asia				
Computer and office automation; information booth: Computer and Office Automation Fair	Apr 1993	Korea	EAITC	613-943-0897
Satellite technology; seminar	Jun 1993	Taiwan	EAITC	613-996-7582
Computer companies; information booth: Computex '93	Jun 1993	Taiwan	EAITC	613-996-7582
Rural telecommunications; mission to	Jun 1993	China	EAITC DOC	613-995-6962 613-990-4210
RocSat-1; buyers from Taiwan to	Jul 1993	Canada	EAITC	613-996-7582
Telecommunications and geomatics; national stand and mission to: Expo '93 Taejon	Sep 1993	Korea	EAITC EMRC	613-996-7644 613-943-0897
Mobile telecommunications; mission to	Sep 1993	Beijing	DOC	613-990-4210
Information and telecommunications; information booth: Cenit Asia '93	Oct 1993	Hong Kong	EAITC	613-995-6962

Activity	Date	Location	Dept.	Contact
Rural telecommunications; seminar	Oct 1993	China	EAITC	613-996-6987
Instrumentation; information booth and mission to: Korinstrument '93	Nov 1993	Korea	EAITC	613-943-0897
Telecommunications; information booth and workshop: Taipei Telecom '94	Feb 1994	Taiwan	EAITC	613-996-7582
Software; mission to	Feb 1994	Taiwan	EAITC	613-996-7582
Telecommunications; national stand: Expo Comm China '94	Oct 1994	China	EAITC	613-996-6987
Advanced communications; strategic partnering (investment)	TBD 1993	Seoul, Taipei, Hong Kong, Singapore	INVCAN	613-995-6634
Asia Pacific South				
Telecommunications equipment and services; national stand: Asia Telecom '93	May 1993	Singapore	EAITC DOC	613-996-5824 613-990-4213
Electronics; information booth: International Engineering Exhibition	May 1993	Australia	EAITC	613-995-7652
Telecommunications users group; information booth: ATUG '93	May 1993	Sydney	EAITC	613-995-7652
Information technology; investment partnering workshops	May 1993	British Columbia, Alberta	INVCAN	613-995-2783
Telecommunications; strategic alliances investment roundtable	May 1993	Singapore	INVCAN	613-995-9468
Software; mission to	Jun 1993	Singapore, Malaysia	WED	403-495-4977
Computer products; information booth: Computer World '93	Jul 1993	Wellington	EAITC	613-995-7652
Telecommunications; information booth: Telecommunications Users Group	Aug 1993	Auckland	EAITC	613-995-7652
Software; buyers from Philippines to: Softworld	Sep 1993	Vancouver	EAITC	613-995-7659
Broadcast equipment and services; information booth: Phil Broadcast Show	Sep 1993	Philippines	EAITC	613-995-7659
CAD, CAM, CAE; mission to	Sep 1993	Melbourne, Sydney, Brisbane	EAITC	613-995-7652
Pay TV; mission to	Sep 1993	Melbourne, Sydney, Canberra	EAITC	613-995-7652
Information technology; investment workshop	Sep 1993	Toronto, Montreal	INVCAN	613-995-2783
Technology Spectrum; seminar	Sep 1993	Bangkok	DOC	613-990-4213
Information technology; mission from Singapore to	Oct 1993	Canada	EAITC	613-996-5824
Telecommunications equipment; seminar	Oct 1993	India	EAITC	613-996-5903
Canadian Computer Show; mission from New Zealand to	Nov 1993	Toronto	EAITC	613-995-7652
Technology Seminar, telecommunications and informatics	Dec 1993	Manila	DOC	613-990-4214
Pacific Rim Computer and Communications Show; mission from New Zealand to	Jan 1994	Vancouver	EAITC	613-995-7652
Geomatics; information booth: FIGXX	Mar 1994	Melbourne	EAITC EMRC	613-996-7652 613-996-7644
Computers; information booth: PC '94	Mar 1994	Australia	EAITC	613-995-7652
Computer products; information booth: Computer World '94	Mar 1994	Auckland	EAITC	613-995-7652
Rural telecommunications mission	ONG* 1993	Bombay, Bangalore, New Delhi	DOC	613-990-4214
Africa and the Middle East				
Telecommunications and informatics; information booth	Apr 1993	Casablanca	EAITC	613-944-0396
Telecommunications; information booth: Commtel '93	Apr 1993	Jeddah	EAITC	613-944-5984
Geomatics; mission to	Apr 1993	Iran, Turkey, Saudi Arabia	EAITC EMRC	613-996-7644 613-944-5984

* ONG - ongoing

Activity	Date	Location	Dept.	Contact
Telecommunications; mission to	Apr 1993	Amman	DOC EAITC	613-990-4214 613-944-6847
Informatics; mission to: Centre de Télétection and East Africa	Nov 1993	Abidjan, East Africa	EAITC	613-944-5997
Remote sensing; conference	Nov 1993	Riyadh	EMRC	613-996-7644
Telecommunications technology; seminar	Dec 1993	Tunis	EAITC	613-944-8134
Telecommunications; mission to: Exposition des Telecommunications and West Africa	Dec 1993	West Africa	EAITC	613-944-5997
Telecommunications; information booth: Saudi Com '94	Jan 1994	Gulf region	EAITC	613-944-5984
Television systems; mission from Senegal to	TBD 1993	Toronto, Montreal	EAITC	613-944-5997
Latin America and the Caribbean				
Telecommunications equipment and services; national stand: Telexpo	Apr 1993	Sao Paulo	EAITC	613-996-6921
Telecommunications equipment and services; national stand and mission to: Com Expo '93	May 1993	Venezuela, Chile, Argentina	EAITC DOC	613-996-2268 613-990-4214
Seminar on New Wireless Telecommunications Technologies	May 1993	Mexico	DOC	613-993-5444
Telecommunications equipment and services; national stand: Canto '93	Jun 1993	Aruba	EAITC	613-996-6921
Computer software; national stand and mission to: Comdex '93	Aug 1993	Sao Paulo, Argentina	EAITC	613-996-6921
Computer hardware and software; national stand and mission to: Compumondo '93	Oct 1993	Mexico City	EAITC	613-996-2268
Computer hardware and software; national stand: Inforven '93	Oct 1993	Caracas	EAITC	613-996-2268
Software; mission to	Oct 1993	Mexico City	WED	403-495-4977
Mission of telecommunications companies	Nov 1993	Argentina, Brazil, Peru	ISTC	613-954-0599
Telecommunications, computer equipment and services; national stand: Expo Comm '93	Feb 1994	Mexico City	EAITC	613-996-2268
Telecommunications; strategic partnering (investment)	TBD 1993	Mexico	INVCAN	613-995-0759
Geomatics; mission to	TBD 1993	Brazil, Mexico, Chile, Venezuela, Argentina	EMRC	613-996-7644
Central/Eastern Europe and the Commonwealth of Independent States				
Telecommunications and information systems; information booth and mission to: Infosystem '93	Apr 1993	Poznan	EAITC	613-996-7107
Telecommunications; national stand: Expo Com '93	May 1993	Moscow	EAITC	613-992-8590
Office automation, computer and informatics; mission to	Sep 1993	Bulgaria	EAITC	613-996-7107
Computer hardware; mission to	Nov 1993	Prague	EAITC	613-996-7107
Telecommunications; mission to	Feb 1994	Budapest	EAITC	613-996-7107
Advanced technologies; mission to	Feb 1994	Prague	EAITC	613-996-7107
Multiple Markets				
Comdex Canada '93; buyers from United States and Mexico to	Jul 1993	Toronto	WED	204-983-0179
Microelectronics mission to Asia	Nov 1993	Japan, Taiwan, Korea	ISTC	613-952-8417
Advanced technologies; investment financing seminar	Jan 1994	Ottawa	INVCAN	613-995-2783
Geomatics, digital mapping and cadastre; seminar	Mar 1994	Ottawa	EMRC	613-996-7644
Geomatics; mission to	TBD 1993	Thailand, India, Japan, China	EMRC	613-996-7644

Medical and Health Care Products

A International Environment

In 1990, the world market for health care\medical products (excluding East European countries) was estimated to be \$US 65.2 billion and is forecast to grow by 7 per cent annually to the year 2000, with certain products growing by 20 per cent or more annually. The U.S. market accounts for 59 per cent of the world market, Japan 12 per cent, the former West Germany 7 per cent and Canada 4 per cent. The Canadian market exceeded \$2.0 billion in 1990, having grown at an average annual rate of 9 per cent over the previous 13 years.

U.S. manufacturers dominate nearly every field in the international health care\medical products market and compete with large multinationals in Europe and Japan for the "big ticket items."

Major importers of health care\medical products are as follows:

• United States	\$3.5 billion	• United Kingdom	\$1.4 billion
• Germany	\$2.2 billion	• Japan	\$1.3 billion
• France	\$1.9 billion		

Note: 1989 figures

Other countries of Asia and Latin America, which are improving their economic infrastructures, are also considered emerging markets for health care\medical products.

Several trends indicate that there will be an increasing worldwide demand for health care\medical products.

- **Cost Containment** — From 1977 to 1988, Canadian health care expenditures increased from \$15.1 billion to \$51.4 billion. U.S. health care costs more than doubled over a similar time frame and are expected to rise to \$1.5 trillion or 15 per cent of Gross National Product (GNP) by the year 2000. Pressures to contain health care costs should result in a movement away from labour-intensive health care practices (almost 70 per cent of costs today) to more technology-intensive methods, including new diagnostic devices, less invasive surgical techniques, increased adaptation of devices for home use and greater emphasis on outpatient versus in-hospital treatment.
- **Aging Population** — By the year 2030, 20 per cent of the North American population will be over 65 and will make up 60 per cent of all hospital expenditures. This demographic shift has fuelled health care costs and has resulted in a dramatic increase in demand for products, such as electronic cardiovascular devices and mobility aids.

- Home Health Care — Financial constraints in hospitals and a more health-conscious population have created a boon for the home health care market (estimated at \$8 billion in 1987 in the United States and expanding by 20 to 25 per cent annually). Health care\medical products now being used at home include diagnostic kits, health monitors (blood pressure, blood glucose levels, cholesterol), ventilators and dialysis units.
- AIDS Crisis — The market for AIDS products (e.g. diagnostic kits, blood-handling products, and blood-screening tests) is over \$1 billion, having increased by 65 per cent annually since 1987.
- New Third World Markets — Simple, easily transportable products, such as mobile hospitals, blood analyzers and portable X-ray units have witnessed high market growth rates in the past five years.

B Domestic Position

Canadian production, estimated to be \$650 million in 1988, accounts for about 1.5 per cent of world production. Over one-third of total production is exported, with 60 per cent of exports going to the United States.

Canada has over 700 health care\medical products manufacturers employing over 10,000 people. Three-quarters of these firms employ less than 50 people. Eighty-nine percent of the companies are Canadian-owned, and they tend to be export-oriented with many investing heavily in research and development (R&D). These indigenous companies include a number that have developed world-leading technologies and unique innovative devices.

Subsidiaries of foreign-based MNEs, another segment of companies, tend to be larger and to dominate the Canadian marketplace. Eighty percent of the Canadian market is served by imports, many through the distribution channels of these Canadian subsidiaries. Historically, most MNEs have manufactured some product lines in Canada for the domestic market and have invested little in R&D. With rationalization, some manufacturing facilities have closed, resulting in job losses. However, an effort has been demonstrated on the part of a number of Canadian subsidiaries to attempt to influence their corporate headquarters to make their Canadian operations part of the companies' global strategies through the granting of R&D or export manufacturing mandates.

Factors affecting international competitiveness:

Strengths:

- a core group of high value-added technology-intensive companies;
- a rich body of research and innovation from Canada's universities, hospitals and government laboratories, which provides extensive opportunities for exploitation by the manufacturing sector. At the federal government level, the National Research Council and Health and Welfare Canada assist Canadian diagnostics and other firms to establish collaborative R&D opportunities to develop new technologies or license products from the federal laboratories;

- a regulatory environment that is less adversarial than in the United States, a factor that may influence decisions by foreign firms to locate in Canada to gain early access to market; and
- a health care system of international repute, which can contribute to a positive image for Canada's medical manufacturing sector.

Weaknesses

- historic lack of world product mandates for Canadian subsidiaries: most Canadian subsidiaries' manufacturing mandates have been in low-technology disposables for the domestic market, where labour costs put us at a disadvantage relative to less developed areas of the world. Canada's pursuit of mandates should be in technology-intensive rather than labour-intensive areas;
- lack of investment capital: this impedes the development of many start-up and early-stage firms; and
- lack of business "know how" (e.g. in development of marketing strategies) on the part of technology-oriented entrepreneurs.

C Strategic Direction

For Canadian health care\medical products firms looking to compete in the 1990's, the following product areas represent specific opportunities with global applications.

- imaging (software, therapy and diagnostic; e.g. ultrasound);
- in-vitro diagnostics;
- assistive devices (wheelchairs, patient lifts);
- dental devices; and
- cardiovascular devices.

These subsectors will be encouraged, as will companies producing devices that are sensitive to cost containment issues and firms focusing on the commercial development of higher value-added devices.

To exploit these opportunities, Canadian health care\medical products firms must enhance their international business strategies — through investment, marketing and technology alliance initiatives.

The United States, as the consumer of 59 per cent of world production in health care and medical products, will be the primary focus for this sector. Canadian participation in U.S. health care trade shows will be supported to develop export opportunities for Canadian companies. This includes a major national stand participation in the Atlanta National Home Health Care Exhibition and several smaller exhibits in a number of specialized U.S. events. Areas of emphasis will be hospital and medical equipment suppliers. Assistance to Canadian health care\medical products companies and research institutes to find strategic partners in the United States will also be a priority. Strategic Partnering Events in the United States which

look to match U.S. corporate partners with Canadian health care\medical products firms for product development, financing and marketing assistance, will be encouraged. Also, there will be a further focus on attracting investment from U.S. MNEs in the form of product and research mandates for Canadian subsidiaries.

Other areas of interest include the increasingly unified market of Europe. There will be a continuing effort in Europe for matchmaking Canadian and German companies for strategic alliances, and there is a proposal for extending this activity to Italy. Also, there will be a greater emphasis on keeping Canadian companies informed on new European Community (EC) standards, compliance requirements and emerging opportunities in this marketplace.

Japan also remains an area of interest, but as a qualified priority, given the possible non-tariff barriers and the high expense of developing that market. The focus will be on items, such as wheelchairs, patient lifts, walkers, incontinence products and other products for the elderly.

In other parts of Asia, market development efforts are slated for Singapore, Thailand, Indonesia and Malaysia, with more technologically advanced products, such as medical-imaging and cardiovascular devices targeted at Singapore.

Initiatives for Latin America, which have been identified as developing markets by the industry, will include activities in Ecuador and Panama.

In all of these marketplaces, Canadian health care\medical products firms will be encouraged to gain certification under International Standards Organization (ISO) 9000 to enhance their international supply capabilities in this sector.

Medical and Health Care Products

Activity	Date	Location	Dept.	Contact
United States				
Medical devices and equipment; national stand: Mid-Atlantic Health Care Show	May 1993	Atlantic City	EAITC	613-944-9482
Medical devices; national stand: Medical Design and Manufacturing Conference and Expo '93	Jun 1993	New York City	EAITC	613-944-9482
Medical supplies and equipment; national stand: Caribbean Health Care Expo Fair	Jun 1993	Puerto Rico	EAITC	613-944-9482
Medical equipment; strategic partnering (investment)	Jun 1993	New York City	INVCAN	613-995-0759
Medical Design and Manufacturing Conference and Expo '93	Jun 1993	New York City	ISTC	613-954-5977
Medical devices; national stand: Washington Health Care Association	Sep 1993	Seattle	EAITC	613-944-9482
Medical devices; mission to: Hospital Industry Distributor Association	Sep 1993	Kansas City	EAITC	613-944-9482
Medical devices; symposium: South Florida Medical Health Care Symposium	Oct 1993	Fort Lauderdale	ISTC	613-941-2366
Home health care products; national stand: National Home Health Care	Nov 1993	Atlanta	EAITC	613-944-9482
MEDTECH international; incoming strategic partners from United States to	Nov 1993	London, Ont.	EAITC	613-944-9482
Medical devices; mission to	Nov 1993	Houston, Galveston	EAITC	613-944-9482
Radiological equipment and accessories; national stand: Radiology Society of North America	Dec 1993	Chicago	EAITC	613-944-9482
Medical supplies and equipment; mission to: Procurement Veteran Affairs Hospital Centre	Dec 1993	Chicago	EAITC	613-944-9482
Medical devices; strategic partnering mission to	Jan 1994	Newport Beach	EAITC	613-993-6577
Medical equipment; investment forum	TBD* 1993	United States	INVCAN	613-995-0759
Western Europe and European Community				
Medical devices; mission to	May 1993	Denmark, Sweden	EAITC	613-995-4730
Medical devices; trade fair: Expomed	Sep 1993	Brussels	INVCAN	613-992-5339
Advance technology; investment mission to	Nov 1993	Denmark	EAITC	613-995-4730
Medical equipment products; buyers from Spain to	Nov 1993	Ontario, Quebec	EAITC	613-996-1530
Medical Devices Opportunities - Part II: Medica '93	Nov 1993	Dusseldorf	ISTC	613-954-3066
			EAITC	613-996-3744
			INVCAN	613-992-5339
Medical instruments and devices; mission to	Jan 1994	Vienna	EAITC	613-995-9766
Medical devices; investment roundtable	TBD 1993	Western Europe	INVCAN	613-992-5339
Japan				
Health care products and services for elderly; seminar and exhibition	Nov 1993	Osaka/Tokyo, Nagoya/Fukuoka	EAITC ISTC	613-996-2460 613-954-2951
East Asia				
Health care products and services; mission to	Jul 1993	Taiwan	EAITC	613-996-7582
Health care products and services; information booth: Taipei International Medical Equipment and Pharmaceutical Show	Nov 1993	Taiwan	EAITC	613-996-7582
Medical equipment; information booth and mission to: Korean Medical Equipment Show	Mar 1994	Korea	EAITC	613-943-0897

* TBD - to be determined

Activity	Date	Location	Dept.	Contact
Asia Pacific South				
Medical devices; mission to:	Sep 1993	Singapore, Thailand,	ISTC	613-941-2370
Medical equipment; information booth: Labex '93	Oct 1993	Melbourne, Sydney	EAITC	613-995-7652
Equipment and products for the disabled; promotion	Nov 1993	Melbourne	EAITC	613-995-7652
Africa and the Middle East				
Medical and health equipment; mission to	Apr 1993	Jordan	EAITC	613-944-0396
Pharmaceutical and medical equipment; mission from Lebanon and Jordan to	Jun 1993	Canada	EAITC	613-944-5997
Health products and services; information booth and mission to: Jeddah Health Care '93 Show	Oct 1993	Jeddah, Gulf Region	EAITC ISTC	613-944-5984 613-954-5977 613-954-2951
Latin America and the Caribbean				
Health care equipment and services; information booth: Expomedica '93	Oct 1993	Panama	EAITC ISTC	613-996-6921 613-995-0460
Central/Eastern Europe and the Commonwealth of Independent States				
Medical supplies and equipment; mission to: Health Care '93	Oct 1993	Kiev	EAITC	613-996-6652
Medical supplies and services; mission to	Oct 1993	Budapest	EAITC	613-996-7107

Oil and Gas Field Equipment

A International Environment

The total world output for oil and gas equipment is estimated at US \$30 billion per year. With capital spending by international oil and gas producers expected to approach \$200 billion per year for the next five years, growth in the oil and gas equipment sector is expected to remain high. Much of this business will be directed to suppliers of exploration and development drilling equipment, plants and transportation systems.

By 1993, the Middle East will account for about 10 per cent of the world market, while North America, including Mexico, will account for approximately 15 per cent and South America 10 per cent. The C.I.S. and Eastern Europe, Western Europe, Southeast Asia, including India, and China will account for 25 per cent, 10 per cent, 20 per cent and 10 per cent of the total world market respectively.

While oil and gas well drilling is declining in North America, important gains in petroleum drilling and production are taking place in Mexico, Venezuela, Nigeria, Saudi Arabia, the Commonwealth of Independent States (C.I.S.), Norway, the North Sea, India, China and Iran. Many of the major oil companies, including smaller Canadian firms, are expanding their exploration and production budgets for foreign operations. Also, changes to legal and business practices in many countries, such as privatization, are attracting Western participation (e.g. India).

B Domestic Position

The Canadian oil and gas equipment industry is composed of approximately 200 small to medium-sized establishments employing a total of about 4,400 people including many skilled workers and professionals. In 1991, shipments were estimated at \$760 million, of which \$330 million or 43 per cent were exports.

Canada's export interests are broadly based. Exports are destined primarily to the following countries: the C.I.S. (15%); the People's Republic of China (10%); South Asia (10%); South America (10%); and the Middle East (10%). Canada's share of the world export market in 1991 was approximately 2.2 per cent. Canadian imports were estimated at \$120 million, representing 28 per cent of the domestic market. About 97 per cent of these imports were from the United States.

The Canadian industry has faced a number of challenges in recent years.

- Many firms are relatively small, undercapitalized and still carry heavy debt loads incurred during the mid-1980s. Consequently, they often lack the resources to carry out extensive research and export promotional programs.

- The decline of Canadian drilling activity, due to weak oil and natural gas prices during the past years, has had a major effect on domestic sales. Approximately only 100 of the 700 available rigs are currently working in Canada. This diminishing investor interest in financing oil and gas drilling has hurt the market for petroleum equipment.
- The industry is burdened with higher wage rates, and material and overhead costs vis-à-vis U.S. suppliers.
- In general, the industry, with its small domestic market, does not benefit from the same economies of scale as many of its international competitors. However, numerous cost-reduction programs over the last 10 years have resulted in productivity improvements and the sector has been able to maintain its economic viability.

Despite these challenges and its small world market share, the Canadian oilfield manufacturing industry is recognized as one of the leading suppliers of niche advanced petroleum equipment and technologies in the following areas:

- Canada is a world leader in specialized subsurface mining equipment for extracting oil sands (for example, heavy-duty draglines) and sour gas gathering and treatment facilities. In the field of sour gas, Canada's expertise is unparalleled. Because of the high concentration of hydrogen sulphide (H₂S) in a number of its fields, Canada has developed some of the largest and most efficient gas plants in the world and has become the world leader in sour gas technology for sweetening, dehydration, cryogenic natural gas liquids recovery and sulphur-degassing processes. Canadian equipment designed especially for heavy oil, sour gas and tar sands is being exported to other nations that have similar reserves, such as India, the People's Republic of China and the C.I.S.
- Canadian firms have developed specialized techniques and equipment for secondary recovery from wells that have reached a low rate of productivity (e.g. well stimulation by fracturing equipment and thermadrive boilers).
- Canadian companies have also made major advances in the development of top motor drives, winterized drilling rigs, directional and horizontal drilling techniques, computer-controlled automatic coring controls and automatic pipe-handling systems.

C Strategic Direction

The international market for oilfield equipment will be stimulated by technological advances and product improvements. The opportunities are greatest for those firms that have the experience and technology to develop and exploit a specialized market niche, as well as those producing small, custom-designed process plants.

To penetrate foreign markets, Canadian oil and gas equipment companies are establishing foreign subsidiaries and joint ventures in the United States, Europe, the C.I.S., India and Southeast Asia. In addition, manufacturers are establishing a worldwide network of agents, distributors and service companies to ensure that parts and services will be readily available to the foreign customers.

In general, the desire of developing countries to maintain or expand their petroleum production and increase their portion of the value-added should assure growth for Canadian equipment exports.

Geographic Priorities

The major export market opportunities for Canada during the 1990s will be the Middle East, East Asia (China and Vietnam), Mexico, Africa, the C.I.S. and some South American countries. Canadian companies can also expect to benefit from increased business opportunities in the Eastern bloc countries, which have recently made changes to their ownership and joint venture laws. This applies to Poland, Hungary and Romania, which all have indigenous oil and gas industries. Norway also presents major opportunities for Canadian companies with exploration development, production and pipelines investments forecast to exceed \$11.5 billion in 1993.

Opportunities for Canadian oil and gas machinery, equipment and technology designed for Northern Alberta and the Arctic, exist in the C.I.S. The Shtokomanovskoye gas field in the Northern Barents Sea will cost \$20 billion to develop. In the Tyumen province of Western Siberia alone, only 150 of the known 530 oil-gas deposits are developed and producing. At least 25,000 Russian wells are out of service, and an estimated 1,000 drilling rigs are needed to restore production to 1982 levels.

In the area of investment prospecting (strategic alliances), efforts should be targeted at the United Kingdom, France, Italy, Germany and Norway, as firms in these countries are willing to establish a North American base activity. In addition, alliances represent a way of overcoming certain practices that hinder Canadian sales in these European Community (EC) markets.

Strategic Priorities

The strategic priorities for the oil and gas field equipment industry are shaped by the following bases of international competition, which are also common to other sectors: technological expertise in certain niche markets where Canadian firms have developed a superior product; the availability of complementary services, such as engineering and training; price competitiveness; a physical presence in the market; and a proven international track record. The key to the long-term growth of the Canadian oil patch relies on the successful expansion to countries with a strong and dynamic petroleum industry. As such, the priorities for international business development activities are as follows:

- Continue to participate in recognized trade fairs outside Canada (Offshore Technology Conference, Houston; Offshore Europe, Aberdeen; Offshore Southeast Asia, Singapore).
- Continue visits by foreign buyers to meet with Canadian firms, particularly in conjunction with the National Petroleum Show in Calgary.
- Continue to identify and transfer foreign technologies/products (inflow and outflow) to/from countries such as France, the United Kingdom, Norway, the United States, and Germany.

- Working with the Petroleum Services Association of Canada (PSAC), encourage Canadian firms in this sector to establish a presence abroad, either by opening offices directly or by hiring Canadian expatriates (who have worked in the market) as local representatives in the key markets. A local representative representing two to three Canadian companies can be a financially advantageous compromise for medium-sized companies.
- Encourage and assist firms in developing more market opportunity analysis and identification in order to develop a substantial, long-term and sustained presence in a target foreign market.
- Assist PSAC to undertake their defined objectives in terms of export sales for members consistent with opportunities, supply capacity and trade development activities.
- Place more emphasis on projects that highlight Canadian technology and expertise.
- Encourage Petro Canada International Management Services (PCIMS) to specify Canadian-made equipment and services wherever possible.

Oil and Gas Field Equipment

Activity	Date	Location	Dept.	Contact
United States				
Oil and gas equipment and services; national stand: Offshore Technology Conference	May 1993	Houston	EAITC	613-944-7486
Oil and gas equipment and services; national stand: Alaska Oil and Gas Show	May 1993	Alaska	EAITC	613-944-7486
Western Europe and European Community				
Oil and gas equipment and services; information booth: Offshore Europe '93	Sep 1993	Aberdeen	EAITC ISTC	613-995-6565 613-954-3192
Oil and gas; mission to	Nov 1993	Norway	EAITC	613-995-4730
East Asia				
Heavy oil technology; symposium	Apr 1994	China	EAITC	613-996-6987
National Petroleum Show; mission from China to	Jun 1994	Calgary	EAITC	613-996-6987
Asia Pacific South				
Oil and gas equipment and services; information booth: 5th Malaysian Oil and Gas Show	Jul 1993	Malaysia	EAITC	613-996-5824
Oil and gas; buyers from Bangladesh to	Aug 1993	Canada	EAITC	613-992-0952
Africa and the Middle East				
Oil and gas equipment and services; information booth: Middle East Oil Show	Apr 1993	Manama (Bahrain)	EAITC	613-944-6847
Oil and gas; mission to	Oct 1993	Nigeria, Gabon, Cameroon	EAITC	613-944-6586
Oil and gas; mission to	Oct 1993	Tunis, Algeria	EAITC	613-944-8134
Oil and gas; mission to	Dec 1993	Egypt	EAITC ISTC	613-944-0396 613-954-3192
Oil and Gas Show; information booth	Mar 1994	Kuwait	EAITC	613-944-7043
Latin America and the Caribbean				
Petroleum equipment and services; national stand: Expetro '93	Apr 1993	Ciudad Del Carmen	EAITC	613-996-5358
Oil and gas products and services; mission to	Nov 1993	Mexico, South America	WED	403-495-6952
Central/Eastern Europe and the Commonwealth of Independent States				
Oil and gas equipment; information booth: Neftegaz '93	Apr 1993	Moscow	EAITC	613-996-6429
Oil and gas equipment and services; buyers from Bucharest to: Interan '93	Jun 1993	Bucharest	EAITC	613-996-2399
Mining, oil and gas; mission to	Oct 1993	Kazakhstan, Uzbekistan, Kyrgyzstan, Turkmenistan	EAITC	613-996-6429
Oil and gas products and services; mission to	Oct 1993	C.I.S., Eastern Europe	WED	403-495-6952
Multiple Markets				
Heavy oil emulsion upgrading; consortium	ONG* 1993	Ottawa	EMRC	613-995-1493
Heavy oil and bitumen feedstock reactivity; consortium	ONG 1993	Ottawa	EMRC	613-995-1493
Process fundamentals for heavy oil and bitumen upgrading; consortium	ONG 1993	Ottawa	EMRC	613-995-1493
Natural gas conversion; consortium	ONG 1993	Ottawa	EMRC	613-995-1493

* ONG - ongoing

Resource Equipment and Technologies

A International Environment

The resource equipment and technology sector includes suppliers of equipment and embodied technologies used by the natural resource industries, including ocean and marine equipment. The major resource equipment suppliers are multinational companies based in Scandinavia, Germany and the United States. Significant competition to Canadian industry in the ocean technology markets comes from both Europe and the United States.

Growing environmental regulations, coupled with lower commodity prices worldwide, are forcing resource companies to practice cost-based competition. This is creating a greater demand for better equipment and newer technologies, particularly those that are cost-effective and employ environmentally acceptable processes. For example, in order to comply with environmental regulations, many international mining and forestry companies operating in industrialized countries must purchase safer equipment for extracting and processing natural resources and recycling by-products. Similar regulations are expected to take hold in developing countries in the near to medium term.

Regulatory regimes addressing environmental issues are also expected to generate significant new business in the marine sector. In the European Economic Community (EEC), member states are expected to make large investments in the marine coastal areas in the coming years in order to meet EEC environmental laws. The new countries of the Commonwealth of Independent States (C.I.S.), because of their significant interests in maritime operations, are expected to provide new business opportunities, especially in the marine equipment sector. Japanese expenditures on coastal development for recreational purposes also provide a potential new market opportunity for certain ocean technology companies.

Resource extraction technologies could be a major growth area for ocean technology equipment companies. The traditional sector markets for ocean technologies have included offshore oil and gas, marine science, marine defence and marine equipment. New market opportunities are being generated by marine environmental concerns, recreational needs, and salvage and ocean mining operations. Certain ocean technologies are also being applied to enhance the performance of equipment in mining and forestry operations. The outcome of this technology diffusion should result in the expansion of markets, both export and domestic, for the companies within the resource equipment cluster.

B Domestic Position

Canadian resource equipment manufacturers can be divided into two categories: smaller, Canadian-owned firms producing specialized products for niche markets and larger multinational companies, often foreign-owned.

In general, Canada's resource equipment sector has concentrated on the development of cost-effective, environmentally acceptable processes and techniques and has begun to develop specialized and high-quality custom-engineered equipment.

The mining equipment sector produces a full range of mining equipment. In 1990, a total of 185 Canadian small and medium-sized enterprises (SMEs) were directly involved in the manufacture of primary and related mining equipment. Shipments in 1990 totalled \$374 million of which 49 per cent (\$183 million) were exported. Of a domestic market of \$607 million, the Canadian industry supplied 26 per cent (\$191 million), resulting in an import penetration of 74 per cent (\$452 million). A significant opportunity exists to replace these imports.

Mining equipment suppliers are developing equipment that incorporates advanced technologies with the objective of attaining fully autonomous mining operations. This equipment development will enhance the competitiveness of the Canadian equipment industry in both the domestic and international markets by reducing the labour required in the mining operation and thus improving the safety of underground workings.

The forestry equipment sector is represented by approximately 40 companies employing some 2,400 persons with shipments in 1990 of \$451 million. The majority of these companies are small, producing specialized equipment for niche-market applications.

This sector is aggressively pursuing the upgrading of equipment through technologies designed to improve the productivity of their equipment, particularly forest-harvesting machines. With the weakening of the domestic market, forestry equipment companies have intensified their search for export markets in the United States, Australia, New Zealand, Chile, Northern Europe and Asia.

The ocean technology sector is comprised of over 550 companies, producing in excess of \$800 million in annual shipments (some 60 per cent of which are exported). The sector employs about 7,000 people, many of whom are professionally trained. Most of these companies are small, technically capable, niche-market suppliers.

The industry is developing internationally recognized capabilities in the field of marine robotics, hydrography, oceanographic instrumentation and ocean information systems.

C Strategic Direction

- Developed countries (Europe including the C.I.S., North America and Australia) will be targeted for sophisticated equipment that uses advanced technologies to provide a degree of autonomous operation. These countries prefer this equipment for quality and innovation for users who are trying to reduce the labour component of their operations and where environmental issues are predominant.
- Attention will also be given to developing resource-rich countries (South America, Central Africa and Southeast and East Asia) for conventional equipment manufacturers where natural resource development is a priority.
- For ocean technologies, the European market, including the countries within the C.I.S., will be targeted as priority markets. Specifically, Spain, Portugal and Greece should be singled out for particular initiatives in the marine environment/ocean technology fields; Russia and the Ukraine for marine equipment and ocean technology markets. These markets will likely involve strategic alliances and technology-transfer initiatives.

- Major international trade shows and carefully orchestrated trade missions, incoming and outgoing, will be continued to present Canadian capabilities abroad.

To exploit these markets, Canadian companies should be prepared to form strategic alliances and establish medium-term international marketing plans. Financing is another important consideration. The ability to raise the necessary financing to compete for major international contracts has led to the success of many multinationals operating in this sector. Forming partnerships can be an effective way for Canadians to arrange large-scale financing.

Resource Equipment and Technologies

Activity	Date	Location	Dept.	Contact
United States				
Marine technology products; national stand and NEBS mission to: International Marine Technology Exhibition and Conference	Sep 1993	Chicago	EAITC	613-944-9482
Mining, minerals and related equipment; national stand: Minexpo '96	Oct 1996	Las Vegas	EAITC	613-944-6134
Western Europe and European Community				
Forest machinery and equipment; mission to: Ligna '93	May 1993	Hanover	WED	604-666-7546
Nor Shipping; mission to	Jun 1993	Norway	EAITC	613-995-4730
Ocean technology; buyers from Italy to	Sep 1993	Atlantic Canada, British Columbia	EAITC	613-995-9766
Marine equipment; national stand: Marine Equipment Trade Show	Nov 1993	Netherlands	EAITC	613-992-7001
Marine equipment; information booth: Oceanology International	Mar 1994	Brighton	EAITC	613-995-6565
East Asia				
Shipboard Marine Equipment and Services Strategic Alliance and Technology Mission to China	May 1993	Shanghai (China)	ISTC	613-954-3428
Mining equipment; seminar	Oct 1993	China	EAITC	613-996-6987
Mining, Forestry and Pulp and Paper Technical Mission to China	Oct 1993	China, Vietnam	ISTC	613-954-7812
Asia Pacific South				
Mining equipment; information booth: International Mineral Processing Expo	May 1993	Sydney	EAITC	613-995-7662
Mining equipment and services; mission from Indonesia to	Jun 1993	Canada	EAITC	613-995-7659
Africa and the Middle East				
Mining machinery and equipment; information booth: International Mining Machinery and Equipment Show Technomin '93; buyers from Saudi Arabia and Amman to	Apr 1993	Tehran	EAITC	613-944-7029
Mining equipment and services; mission to	Sep 1993	North Bay	EAITC	613-944-5984
	Oct 1993	Southern Africa	EAITC	613-944-6590
Latin America and the Caribbean				
Mining equipment and services; mission to	May 1993	Chile	EAITC	613-996-5358
Mining equipment and services; national stand: Mining Congress '93	Oct 1993	Acapulco	EAITC	613-996-2268
Mining technology mission to Expomin '94	May 1994	Chile	ISTC	613-954-7812
Central/Eastern Europe and the Commonwealth of Independent States				
Mining equipment and technology; mission to	Jun 1993	Yugoslavia, Macedonia, Bulgaria, Albania	EAITC	613-996-7107

A International Environment

The space industry, like the aircraft industry, is characterized by its strategic significance, cyclical activity, rapid innovation, substantial government assistance for research and development (R&D), long pay-back periods and a highly skilled workforce. In 1990, world space industry activity was valued at about US\$80 billion. This activity was concentrated in the former Soviet Union (45%), the United States (43%), Europe (6%) and Japan (2%). Competition among countries is intense, with many countries projecting significant increases in space budgets over the coming years.

Most industrialized nations regard the use of space to be of national strategic importance. For this reason, as well as for reasons of high costs, high risks and long waiting periods for economic returns, national governments are important and active participants in this sector. Indeed, government programs account for 92 per cent of the space market worldwide. While defence space spending is difficult to estimate, it is believed to exceed civilian spending by a considerable margin, particularly in the United States. Governments generally look to procure equipment domestically, especially where national security or R&D is involved, as is the case in most non-commercial activity.

The high cost of space-related R&D, however, has contributed to the "internationalization" of major space programs, characterized by the establishment of new or stronger links between space companies in different markets or trading blocs. A prime example is the European Space Agency (ESA), created in 1975. ESA is the main forum in which the 13 member nations agree on common space objectives and areas for future space co-operation. The trend toward growing international collaboration in space was reinforced with the undertaking by ESA, Japan and Canada to build Space Station Freedom under the leadership of the United States.

Given the growing number of countries with dedicated space programs and domestic capabilities, the use of space technology and products is increasing. Indeed, companies that receive large defence space contracts can often apply the technologies developed to related commercial ventures. Markets for certain products and services, most notably communication satellites, are already reaching levels sufficient to support commercial ventures. The market for earth terminals for private business communications networks, for example, is growing. The processing and sale of satellites from many countries for meteorological, geological, agricultural and geodetic uses is also increasing. All told, however, the commercial market accounts for less than 8 per cent of the total world space market.

The growing trend toward the commercialization of space activity has been reinforced by the changing relationship between many space firms and government. As the space sector matures, the industry-government relationship is being recast with respect to the development and transfer of technology. In the process, many traditional government monopolies are being dismantled. In some cases, this shift is allowing the private sector to offer new space-related products and services to commercial markets.

The fact that many foreign space companies are heavily subsidized and protected by their national governments represents the most important international marketing and market-access problem in the space sector. There is, consequently, little or no real global competition in certain segments of the market, although competition outside protected segments is fierce. Another impediment is that major prime contractors exercise great caution in selecting new suppliers. Vendors that have proven to be reliable and whose products are known to be of high quality tend to be used over and over again. The need to reduce technical risk and establish solid relationships with potential contractors is therefore critical.

Government procurement practices represent another key market-access impediment. Price, quality and performance considerations may be overshadowed by a variety of non-tariff barriers, such as domestic sourcing, off-set and regional distribution requirements.

B Domestic Position

In 1990, the space industry in Canada employed an estimated 3,000 people and generated sales of approximately \$400 million. Over 100 Canadian firms are involved in this industry. Only seven firms, however, recorded space-related sales in excess of \$8 million in 1990 and these accounted for over 90 per cent of industry sales. Spar Aerospace is by far the largest, representing over half of total industry sales and employment. The majority of the companies in the industry, including five of the seven leading firms, are Canadian-owned and -controlled.

On a per capita basis, the Canadian space industry is comparable to that of most other industrialized countries in terms of sales and employment, even though it represents only about 5 per cent of the total Canadian aerospace sector. It also exports a larger proportion of its total production than most other countries. Exports have grown from about \$10 million in 1977 (17% of sales) to an estimated \$180 million in 1990 (45% of sales). In some specific subsystems, Canadian companies now enjoy significant international market share.

Canada has developed high quality state-of-the-art products and systems that target niche markets. Canadian companies are most active in communications satellite systems, remote-sensing satellite systems and space robotics. Consulting and other services are also important. Radarsat International (RSI) is involved in space and remote-sensing technologies and has been licensed by the Canadian government to market RADARSAT data worldwide. Many other Canadian space companies have succeeded in capturing specific market niches and are developing specialized products with greater mass production potential for international markets. As well, Spar has developed the capability to provide total communications satellite systems at home and abroad.

As an active participant in the U.S. space program, Canada is perceived by many countries as having access to U.S. technology that is not readily available from other sources.

While many Canadian space firms are world players, they are often at a competitive disadvantage relative to firms in the United States, Europe and Japan. The small Canadian market, for example, prevents domestic companies from developing a secure base and taking advantage of economies of scale. Canadian firms are therefore at a disadvantage when marketing high-volume products where cost is the critical factor. As well, the small domestic market has prevented firms from spreading major fixed costs, especially those for R&D (which range from 10% to 15% of sales in Canada), over larger production runs.

The lack of diversification of many Canadian firms can also be a disadvantage. Major U.S., European and Japanese space firms tend to be large, diversified corporations with smaller space divisions (i.e. British Aerospace, Rockwell International). As such, they are less vulnerable to the cyclical nature of the space business and can transfer technologies throughout the various divisions of the corporation. Moreover, the firm as a whole has more financial and political clout, and there is a broader, more experienced management pool to draw from.

Several international alliances and consortia have been formed in response to competitive pressures. Such co-operative ventures as Alenia/Aerospaziale/DASA and Matra/Marconi/Fairchild are one way to pool resources and lower risk, at the same time guaranteeing their members involvement in international programs. Canadian companies are aware of this trend and must find ways to respond to it.

Future prospects for the Canadian space industry are bright, particularly in the areas of communication satellite systems and components, sensors and processing equipment for remotely sensed data. Canadian companies are also aggressively entering new markets based on non-space applications of technology initially developed for space. A prime example is the application of the "Canadarm" technology to Space Station Freedom to develop robots for harsh terrestrial environments, such as loading fuel cells in nuclear reactors, handling nuclear waste and cleaning up toxic areas. Canadian industry is also positioning itself to take advantage of future opportunities in such areas as material processing in space, i.e. manufacturing high quality drugs, alloys and crystals, an area that may soon become commercially viable.

C Strategic Direction

As with many other industry sectors, there can be no one all encompassing international strategy for marketing space-related products and services. There are too many variables, including the many different markets for various specialized products and services. Nevertheless, an overall government/industry Action Plan for the space sector should strive to:

- concentrate promotional efforts on selected priority markets;
- co-ordinate international marketing activities among government departments and agencies more effectively;
- improve government-industry consultation regarding the formulation and implementation of international marketing strategies;
- enhance the Canadian space sector's international profile by reviewing and co-ordinating the availability of promotional material like directories, glossy industry profiles and videos;
- develop additional sources of market intelligence and ways of ensuring its effective dissemination to industry;
- encourage Canadian firms to enter into alliances or partnership arrangements with other international players as a way to ensure market access and economies of scale; and
- encourage space industry exporters to use the wide range of services and assistance provided by Canada's worldwide network of embassies and consulates.

Space

Activity	Date	Location	Dept.	Contact
United States				
Aerospace products; mission to: Space Week '93	Jul 1993	Vandenberg	EAITC	613-944-9481
Canada Day at Phillips Lab	Jul 1993	Albuquerque	ISTC	613-954-3166
Western Europe and European Community				
Information technology and geomatics; national stand and information booth: Geotechnica '93	May 1993	Cologne	EAITC EMRC	613-995-6435 613-947-1216
Aerospace products; mission to: ESTEC Space Fair	Jun 1993	Netherlands	EAITC	613-996-1530
Space industries; mission to	Sep 1993	Italy	EAITC	613-995-9766
Aerospace products; information booth: International Aerospace Federation	Oct 1993	Graz (Austria)	EAITC	613-996-4875
Japan				
Incoming Japanese space mission to	Oct 1993	Canada	ISTC	613-952-3976
Asia Pacific South				
Geomatics; information booth: FIGXX	Mar 1994	Melbourne	EAITC EMRC	613-996-7652 613-996-7644
Africa and the Middle East				
Geomatics; mission to	Apr 1993	Iran, Turkey, Saudi Arabia	EMRC EAITC	613-996-7644 613-944-5984
Remote sensing; conference	Nov 1993	Riyadh	EMRC	613-996-7644
Multiple Markets				
Space Industry Mission and Technology Seminar - S.E. Asia	Sep 1993	Korea, Taiwan, Malaysia	ISTC	613-952-3976

Tourism

A International Environment

Since the 1950s, tourism has emerged as one of the world's most important growth industries. Currently, it is a \$2.65 trillion industry worldwide. The overall size of the industry is impressive, and the World Tourism Organization predicts that international trips will continue to grow at an annual rate of 4 per cent in the 1990s — a significantly lower rate than in the past. This slowdown, together with the growing availability of tourism products and services, has dramatically escalated international competition for travel revenue.

In recent years, the industry has shifted from its traditional focus on market growth to one of capturing market share. New entrants within the global tourism industry have significantly increased competition among countries for tourist dollars. Travellers have also become more sophisticated, value conscious and discriminating in their choice of destinations, forcing suppliers or producers to offer quality, competitively priced tourism products and services. Issues, such as competitiveness, productivity, the use of high technology, strategic partnering, transportation accessibility and sustainable tourism development have a major impact on a country's ability to maintain and develop market share.

Most international tourism revenue is earned by 20 countries. In 1990, the United States was the top generator of net revenues of US\$40.6 billion. Several European countries were also prominent tourism income earners. Western Europe is the most important tourist destination, followed by North America. Significant emerging markets to generate revenue are South Korea, Taiwan, Brazil and Argentina.

Throughout the 1990s, travel within Europe is expected to continue to expand. Rapid growth in traffic from Europe to North America (via the North Atlantic) is also expected. At the same time, trips within the Asia-Pacific region — as well as between Europe and Asia — are expected to increase significantly.

B Domestic Position

In Canada, tourism is a \$25 billion industry that accounts for 4 per cent of Gross Domestic Product (GDP) and 5 per cent of employment, generating about 550,000 jobs. In 1991, tourism ranked third among Canada's exports at \$7.8 billion, after motor vehicles (\$24.2 billion) and auto parts (\$8.4 billion). The tourism sector is comprised of a number of subsectors, including transportation, accommodation, restaurants, retail trade, recreation and entertainment.

Canada's tourism industry is the ninth largest in the world, with receipts of US\$6.4 billion and a 2.15 per cent share of the world market. The industry's annual 9.1 per cent growth rate in the 1980's was surpassed only by the United States and Australia among Organization for Economic Co-operation and Development (OECD) countries. Yet, like many other industrialized countries, Canada runs a deficit on its travel account (\$7.2 billion in 1991).

International revenues grew by 3.4 per cent in 1991 and are anticipated to continue growing at an annual average rate of 5.4 per cent over the remainder of the period. Higher growth in revenues compared to visitors are expected as a result of targeting high-yield, affluent tourists.

Canada's five major international markets are the United States, the United Kingdom, Germany, France and Japan. The U.S. market is, by far, the most important; it provides Canada with 80 per cent of its international visitors but 59 per cent of its revenues. The U.S. market is expected to grow at an annual average rate of only 0.7 per cent between 1991 and 1995.

Among the European markets, the United Kingdom is currently the most important to Canada. France is the fastest growing market, outpacing growth in all of Canada's international markets. In Germany, Canada ranks second to the United States as a preferred long-haul destination. Travel from the United Kingdom is expected to grow at an average annual rate of 1.5 per cent in 1992-1995. During the same period, growth in the number of French visitors to Canada is forecast at 7.5 per cent per year, and German travel to Canada is expected to increase at an average annual rate of 5 per cent.

In the Asia/Pacific market, Japan remains dominant. Canada's current share of the Japanese outbound market is 4 per cent. The average annual growth rate of Japanese visitors to Canada for the period 1992-1995 is forecast at 5.2 per cent. Japan is expected to become the leading source of tourists to long-haul destinations by the end of the decade.

Business travel to Canada accounted for \$1.4 billion in 1991 or 18 per cent of international travel revenues. It represents an especially lucrative market for Canada in the United States because of that country's proximity and its position as the primary generator of international business meetings, conventions and incentive travel. Canada's major competitive advantage in the U.S. market is its service infrastructure and customer service orientation. Customs, taxation and air accessibility issues remain obstacles, as does the magnitude of marketing investment needed in this highly competitive market.

C Strategic Direction

In general terms, Canada's tourism strategy attempts to match product supply and international customer demands in an increasingly complex operating environment.

Adapting its products and services to the demands of the discriminating international traveller is one of the major challenges facing Canada's tourism industry. As well, securing sufficient transportation links and overcoming skill shortages and productivity problems are issues for the industry. Better integration of public and private efforts is needed.

The Government's tourism marketing strategy has been designed to take into account global changes occurring within the industry. The tourism market is now demand- rather than supply-driven. Quality and value expectations of tourists are increasing. Travellers — particularly those who travel internationally — are more sophisticated, experienced and cosmopolitan. At the same time, competitive pressures within the industry are increasing, as the availability of tourism products and services continues to expand.

A number of strategic measures will address the competitive challenges facing the Canadian tourism industry. These include:

Focusing on specific markets and market niches by:

- concentrating on Canada's primary international markets: United States, United Kingdom, France, Germany and Japan;
- developing a select number of secondary markets: Australia, the Netherlands, Italy, Spain and Switzerland, and consider the emerging markets of South Korea, Taiwan, Singapore, Hong Kong, Brazil and Argentina;
- focusing marketing resources on specific high-yield affluent customer segments, which have been identified through market research and segmentation;
- developing creative and innovative approaches to reach target audiences more effectively and efficiently than the competition;
- gradually shifting the marketing emphasis from the 3 per cent of U.S. international travel to the 97 per cent of domestic travel; and
- increasing Canada's share of the huge \$36 billion domestic U.S. meetings, conventions and incentive travel market by promoting Canada as an extension of this market.

Working more closely with industry to:

- integrate public and private sector efforts that target specific customer segments;
- share risk and undertake strategic marketing and market development activities with organizations that have common goals and values;
- develop and work with a system of "key accounts," which are companies or organizations that have been evaluated and selected on the basis of their proven ability or forecasted potential for generating maximum incremental tourism revenue for Canada;
- continue upgrading the skills base, and increase the use of technology to improve effectiveness and efficiency;
- improve business planning skills, while examining, with other governments, ways of reducing the cost of doing business in Canada; and
- protect and upgrade Canada's environment.

Maintaining the high ratio of repeat visitors through continuous product innovation and value-added packaging.

Increasing the number of first-time visitors to this country through:

- greater product differentiation and better product positioning; and
- capitalizing on Canada's French and English heritage, unique native culture and multiculturalism, and clean, safe cities as well as its reputation for spectacular scenery, and great outdoors.

Improving market access for tourists by focusing on transportation, especially air service, so that Canada has the greatest possible access to world markets.

Tourism

Activity	Date	Location	Dept.	Contact
United States				
Travel trade; marketplace: Spotlight Canada	Apr 1993	Pittsburgh	EAITC	412-392-2308
Business travel; marketplace: Showcase Canada	Apr 1993	Pittsburgh	EAITC	412-392-2308
Travel trade - heritage and culture; on-site tour: Spotlight Canada	Apr 1993	Cincinnati	EAITC	513-762-7655
New Exporters to Border States (NEBS) mission to Local Market Initiative: Adventure	Apr 1993	Detroit	ISTC	416-973-5080
	Apr 1993	Chicago, Dallas, Minneapolis, New York City, Los Angeles	ISTC	613-954-3874
Atlantic Canada SEA SELL '93	Apr 1993	United States	ISTC	613-954-3872
			ACOA	902-426-8351
Travel trade; workshop: Spotlight Canada	May 1993	Los Angeles	EAITC	213-687-7432
Travel trade - touring; B.C. and Alberta, NEBS mission to	May 1993	Seattle	EAITC	206-443-1777
Travel trade; educational tour: Spotlight Canada	May 1993	Cleveland	EAITC	216-771-0150
Travel trade - heritage and cultural; mission to: Spotlight Canada	Jun 1993	Detroit	EAITC	313-567-2086
Travel trade; workshop: Spotlight Canada	Jun 1993	New York City	EAITC	212-768-2400
Travel trade - seniors; Atlantic Canada, NEBS mission to	Jul 1993	Atlanta	EAITC	404-577-6810
Business travel - incentive; NEBS mission to	Jul 1993	Chicago	EAITC	312-616-1860
Travel trade - seniors and baby boomers; Quebec, NEBS mission to	Aug 1993	Atlanta	EAITC	404-577-6810
Travel trade - seniors; Ontario, NEBS mission to	Aug 1993	New York City	EAITC	212-768-2400
Business travel - association; workshop	Aug 1993	Chicago	EAITC	312-616-1860
Travel trade; marketplace: Spotlight Canada	Sep 1993	Buffalo	EAITC	716-852-1247
Travel trade - golf resort Canada; marketplace: Golf Canada Resorts adventure; NEBS mission to	Sep 1993	Washington (D.C.)	EAITC	202-682-1740
Travel trade - tour operators; mission to: Spotlight Canada	Sep 1993	Boston	EAITC	617-536-1731
Travel trade - adventure; marketplace: Adventure Canada	Sep 1993	Dallas	EAITC	214-922-9806
Travel trade; workshop: Spotlight Canada	Oct 1993	Dallas	EAITC	214-922-9806
Travel trade; workshop: Spotlight Canada	Oct 1993	Seattle	EAITC	206-443-1777
Travel trade; Manitoba and Saskatchewan, NEBS mission to	Oct 1993	Minneapolis	EAITC	612-333-4641
Travel trade; workshop: Spotlight Canada	Oct 1993	Pittsburgh	EAITC	412-392-2308
Business travel; marketplace: Showcase Canada	Nov 1993	Detroit	EAITC	313-567-2086
Business travel; marketplace: Showcase Canada	Nov 1993	New York City	EAITC	212-768-2400
Travel trade - middle-aged; British Columbia and Alberta, NEBS mission to	Nov 1993	New York City	EAITC	212-768-2400
Tourism; promotion	Nov 1993	Atlantic City, New Jersey	WED	403-495-4977
Best Business Practices Workshop Canada-Maine Country Innkeepers	Nov 1993	Portland	ISTC	902-426-9905
Travel trade; marketplace: Canada Salutes U.S. Seniors	Dec 1993	Dallas	EAITC	214-922-9806
Business travel - association; NEBS mission to	Dec 1993	Chicago	EAITC	312-616-1860
Travel trade; marketplace: Canada Salutes U.S. Seniors	Jan 1994	Boston	EAITC	617-536-1731
Travel trade; workshop: Dan Dipert travel show	Jan 1994	Dallas	EAITC	214-922-9806
Advertising Program in the primary U.S. market to promote travel to Canada	Jan 1994	United States	ISTC	613-954-3874
Business travel; marketplace: Showcase Canada	Feb 1994	Buffalo	EAITC	716-852-1247
Travel trade; marketplace: Spotlight Canada	Feb 1994	Dallas	EAITC	214-922-9806
Travel trade; marketplace: Adventure Canada	Feb 1994	Detroit	EAITC	313-567-2086
Travel trade; workshop: Spotlight Canada	Feb 1994	Los Angeles	EAITC	213-687-7432
Travel trade; marketplace: Spotlight Canada	Feb 1994	San Francisco	EAITC	415-495-6021
Travel trade; marketplace: Adventure Canada	Mar 1994	Boston	EAITC	617-536-1731
Travel trade; marketplace: Spotlight Canada	Mar 1994	Buffalo	EAITC	716-852-1247
Business travel; marketplace: Showcase Canada	Mar 1994	Los Angeles	EAITC	213-687-7432

Activity	Date	Location	Dept.	Contact
Travel trade; marketplace: Spotlight Canada	Mar 1994	Minneapolis	EAITC	612-333-4641
Media; marketplace: Dateline Canada	Mar 1994	New York City	EAITC	212-768-2400
Travel trade - baby boomers and middle-aged; NEBS mission to	Mar 1994	Dallas	EAITC	214-922-9806
Travel trade; workshop: Spotlight Canada	Mar 1994	Dallas	EAITC	214-922-9806
Media; marketplace: Dateline Canada	Apr 1994	Los Angeles	EAITC	213-687-7432
Travel trade - touring; promotion: Canada "King of the Road"	TBD* 1993	Chicago	EAITC	312-616-1860
Media Tours - United States	ONG* 1993	United States	ISTC	613-954-3870
Western Europe and European Community				
European Incentive and Business Meetings Exhibition; PALEXPO	May 1993	Geneva	ISTC	416-973-5082
Trade exhibition: World Travel Market	Nov 1993	London	ISTC	613-954-3839
International Tourism Bourse (ITB)	Mar 1994	Berlin	ISTC	613-954-3839
Japan				
Kanata Annual Marketplace	Oct 1993	Japan	ISTC	613-954-3915
Tourism; mission from Japan to	TBD 1993	Canada	EAITC	613-995-8596
East Asia				
Media visit; mission from Taiwan to	May 1993	Canada	EAITC	613-996-7582
Tourism; information booth: Intertour '93	Jun 1993	Hong Kong	EAITC	613-995-6962
Travel agents familiarization tour; mission from Taiwan to	Sep 1993	Canada	EAITC	613-996-7582
Tourism; information booth: International Travel Fair '93	Dec 1993	Taipei	EAITC	613-996-7582
Asia Pacific South				
Asian sales mission to	Oct 1993	Taiwan, South Korea	ISTC	613-954-3915
Tourism; series of solo show: Corroboree	Jan 1994	Australia	EAITC	613-995-7652
Marketing studies and research	ONG 1993	Taiwan, Hong Kong, South Korea, Australia	ISTC	613-954-3967
Multiple Markets				
Rendez-vous Canada 1993 (17th Annual Tourism Marketplace); incoming buyers to	May 1993	Winnipeg	ISTC	613-954-3970

* TBD - to be determined

* ONG - ongoing

Urban Transit and Rail

A International Environment

During the past decade, the international rail and urban transit industries have faced major challenges. Competition from the trucking industry, the elimination of uneconomic routes, increased size of rail cars and attempts to extend the working life of rolling stock and locomotives have all led to a major streamlining of the rail sector. In urban transit, decreased budgets for purchasing equipment and services, strict controls on exhaust emissions, increased attention to passenger safety and accessibility for the disabled and the aged have had an impact on suppliers. Environmental concerns will be major determinants in plans for transit developments during this decade.

Over the next decade, developing countries, with some of the world's fastest growing cities, will require solutions to urban transit problems. Cities that were first to develop mass transit will need to renew their systems and rolling stock.

The advent of a single market in Western Europe increases the scope for cross-border strategic alliances and investments between suppliers. The potential in Eastern Europe is limited by lack of financing, competition from European multinationals and low costs of Eastern European manufacturers.

In Latin America, privatization offers new opportunities. Its rail standards are the same as Canada's and it is a relatively close and cheap market to service. However, in the near term, financial constraints may dictate that Latin American countries upgrade and refurbish existing plants and equipment, rather than purchase original equipment market (OEM) products.

In Africa and the Middle East, there are opportunities for locomotive suppliers, consultants and rail maintenance equipment. Many of the opportunities in Africa are with major railroad rehabilitation projects financed by the African Development Bank or the World Bank.

There is little interest, with a few notable exceptions, in the Asian market for urban transit products and services, but there is scope for railway systems and engineering. The distances and negotiations are long, which substantially increases the costs of doing business, and the culture is frequently perceived as a barrier.

"Buy America" policies remain a major non-tariff barrier (NTB) to the U.S. transit market and have resulted in an increasing number of companies establishing U.S. subsidiaries to ensure that they remain eligible to sell to American transit owners. In addition, many states have employment or procurement legislation giving their manufacturers preference over out-of-state suppliers. This particularly hurts the Canadian component suppliers.

B Domestic Position

The industry consists of about 250 companies, employs 10,000 Canadians, and is predominantly Canadian-owned. An estimated 60 per cent of the companies are interested or active exporters. Exports of rail and bus equipment were about \$1.2 billion in 1990, or 70 per cent of total sales in the sector. This excludes sales of aftermarket components and products, which cannot always be identified by sector. The sales of consulting services are also substantial.

Global changes in the urban transit and rail industry during the last decade have resulted in a considerably leaner, more aggressive and more competitive Canadian industry, which is successful in penetrating world markets. The Canadian industry is highly rated for the quality of its products, competitiveness in domestic markets, and access to competitive supplier firms and other factors of production.

Canada has experience in the building and operation of railways for a harsh and variable climate. Canada's track system is the third longest, and its freight system the fourth largest, in the world. The Canadian railway industry is a leader in developing solutions to the problems of transportation, especially in operating long-haul freight lines, and offers products and expertise that are of interest to railways abroad. Canada is providing innovative and efficient solutions to its transit problems. Toronto, Montreal and Vancouver are showcases of the achievements of Canadian companies. Substantial research and development is being conducted by such organizations as the Canadian Institute of Guided Ground Transport, the Transport Development Centre of Transport Canada and the Canadian Urban Transit Association.

Some of the major products and services provided by the Canadian industry are: diesel locomotives; passenger and freight-rail rolling stock; advanced train-control systems; locomotive event recorders and simulators; radios; end-of-train units; head-hardened rail and other rail products; automatic vehicle location-and health-monitoring systems; fare-collection technology; wheelchair lift and restraint systems for transporting the handicapped; linear induction motors; systems and software for scheduling and maintenance of bus fleets; supervisory control and data acquisition for metro systems; use of alternate fuels; and such consulting services as the development and implementation of management information systems (MIS), intermodal operations, supervision of rail construction, and locomotive rehabilitation programs. In addition, a number of companies have developed specialized procedures and equipment for servicing the rail industry; e.g. transfer lines for stripping, cleaning, inspecting and rebuilding locomotive engines, and robot-driven equipment for painting the inside surfaces of tank cars.

Competitive financial packages will continue to be a major determinant in the ability of the industry to succeed internationally. Buyers of mass transit are purchasing more integrated systems, which means that bidders must not only provide vehicles, but also consultant services and financial packages. Since most mass-transit competitors offer comparable technology, pricing and financing often become the deciding factors in the selection of winning bids. Canadian companies often lack the financial depth of other competitors, especially when presenting bids for turnkey projects. European or Japanese consortia, frequently, have combined assets greater than those of the whole Canadian industry, allowing them to

arrange for financing and performance bonds much more easily than a Canadian group.

To compete successfully with the Japanese, the Europeans and others, Canadian companies will have to develop consortia. Projects developed on a build, operate and transfer (BOT) basis, will become more common. While Export Development Corporation (EDC) financing can play a critical role in obtaining export orders in the face of international competition, concessional financing and subsidies by foreign governments make it difficult for Canadian companies to compete in many overseas markets. The industry also contends that Canadian banks, unlike their foreign counterparts, do not support export financing.

C Strategic Direction

- Carry out a market intelligence survey to determine opportunities for exports, joint ventures and strategic alliances in the rail and urban transit sector and disseminate them to Canadian suppliers.
- Maintain a database on existing and future expected international markets and an up-to-date directory of Canadian exporters of rail and urban transit equipment and services.
- Work with the Transit Export Co-ordination Committee, a joint government and industry body, to improve exchange of information, co-sponsor business development activities and address key international business development issues.
- Provide support, through the Canadian Urban Transit Association (CUTA), to the Transit Suppliers Council in its promotion of Canadian capabilities and its efforts to counteract Buy America and other non-tariff barriers.
- Encourage the formation of export consortia to procure international contracts.

Urban Transit and Rail

Activity	Date	Location	Dept.	Contact
United States				
Intermodal transportation; national stand: Intermodal Transportation Trade Show	Apr 1993	Atlanta	EAITC	613-944-9440
Urban transit; mission from Seattle to	Apr 1993	Canada	EAITC	613-994-5149
Urban transit; mission from Detroit to	May 1993	Canada	EAITC	613-994-5149
Urban transit; mission from Los Angeles to	May 1993	British Columbia	EAITC	613-994-5149
Mass transit; mission to: Solo Mass Transit Show	Jul 1993	Cleveland	EAITC	613-994-5149
Urban transportation; national stand: International Public Transit Show	Oct 1993	New Orleans	EAITC ISTC	613-994-5149 613-954-3443
SAE Truck and Bus Manufacturers' Show	Nov 1993	Detroit	ISTC	613-954-3729
Transportation and trucking; national stand: Mid-America Trucking Show	Mar 1994	Louisville, (Kentucky)	EAITC ISTC	613-994-5149 613-954-3729
Western Europe and European Community				
Major surface transportation; mission to	May 1993	Finland, Denmark	EAITC	613-995-4730
Public Transit; buyers from Athens to	Jun 1993	Montreal, Toronto, Vancouver, Winnipeg	EAITC	613-996-5263
High-speed rail; mission from Paris to	Oct 1993	Canada	EAITC	613-996-2363
East Asia				
Transportation; mission to	Oct 1993	Korea	EAITC	613-943-0897
Asia Pacific South				
Railway equipment; information booth: International Union of Public Transport	May 1993	Sydney	EAITC ISTC	613-995-7652 613-954-3443
Railway equipment; mission to	Nov 1993	Melbourne, Sydney, Brisbane	EAITC	613-995-7652
Railway equipment; solo catalogue show: Railway Equipment Catalogue Show	Nov 1993	Sri Lanka	ISTC EAITC	613-954-3443 613-992-0952
Africa and the Middle East				
Transportation; mission to	May 1993	Algeria, Tunis	EAITC	613-944-8134

Multisectoral Activities

Activity	Date	Location	Dept.	Contact
United States				
Database development; venture capitalist	Apr 1993	San Jose	EAITC	613-944-6577
Kit folder promoting; seminar	May 1993	Toronto, Montreal, Moncton	EAITC	613-944-9440
Roundtable; venture capitalist	Jun 1993	New York City	EAITC	613-944-6577
Technology cluster mission to United States	Sep 1993	New England	ISTC	709-772-4918
Government procurement; mission to: National Association of State Purchasers Conference	Nov 1993	United States	EAITC	613-944-9440
Machine tools and other industrial equipment; national stand: Great Lakes Industrial Show	Nov 1993	Cleveland	EAITC	613-944-9475
20 various and multisectoral; NEBS missions to	TBD* 1993	Boston	EAITC	613-944-9474
17 various and multisectoral; NEBS missions to	TBD 1993	Buffalo	EAITC	613-944-9474
7 various and multisectoral; NEBS missions to	TBD 1993	Detroit	EAITC	613-944-9474
4 various and multisectoral; NEBS missions to	TBD 1993	Minneapolis	EAITC	613-944-9474
20 various and multisectoral; NEBS missions to	TBD 1993	Seattle	EAITC	613-944-9474
Western Europe and European Community				
Horizontal fair; information booth: Thessaloniki International Fair	Oct 1993	Athens	EAITC	613-996-5263
Ocean Technology mission to Oceanology International '94	Mar 1994	United Kingdom	ISTC	709-772-6602
Europe and Italy Global Corporation Portfolios	TBD 1993	Italy, U.K.	ISTC	613-941-2381
Industrial research and development and technology development; initiative	ONG* 1993	Germany	ISTC	613-998-1041
Japan				
Scientific instruments, medical devices, optoelectronic, biotechnology, food processing, software and waste management; investment mission to	Oct 1993	Japan	INVCAN	613-992-5204
East Asia				
Corporate liaison; promotion	Apr 1993	Korea	EAITC	613-943-0897
Railway equipment and services and grain handling; mission from China to	May 1993	Canada	EAITC	613-996-6987
Korea Workshop	May 1993	Regina	ISTC	306-975-4343
Special trade events; seminar	Aug 1993	China	EAITC	613-996-6987
Venture capital; seminar	Oct 1993	Taiwan	EAITC	613-996-7582
Investment; roundtable	Oct 1993	Seoul	INVCAN	613-995-6634
Industry; seminar	Nov 1993	China	EAITC	613-996-6987
Taiwan Workshop	Feb 1994	Saskatoon	ISTC	306-975-4343
Trade, investment, tourism (Experience Canada); promotion	Mar 1994	Korea	EAITC	613-943-0897
Asia Pacific South				
Conference on Asia-Pacific region	Apr 1993	Regina	ISTC	306-975-4343
Horizontal all-sector; seminar and information booth: Catalogue Show	Feb 1994	Bangladesh	EAITC	613-992-0952

* TBD - to be determined

* ONG - ongoing

Activity	Date	Location	Dept.	Contact
Africa and the Middle East				
Consumer and capital goods and services; information booth: Cairo International Fair	Apr 1993	Cairo	EAITC	613-944-0396
Industrial products and services; information booth: Abu Dhabi	Apr 1993	Abu Dhabi	EAITC	613-944-6847
Industrial products and services; information booth: Riyadh International Fair	Apr 1993	Riyadh	EAITC	613-944-5984
Technology co-operation; forum	Apr 1993	Tel Aviv	EAITC	613-944-6983
Telecommunications, power and energy; mission to	Apr 1993	Jordan, Lebanon	DOC	613-990-4214
Telecommunications, environment and others; mission to	May 1993	Tel Aviv	EAITC	613-944-6983
Jeddah Chamber of Commerce; mission from Jeddah to	Jun 1993	Canada	EAITC	613-944-5984
Technology co-operation; forum	Jun 1993	Tel Aviv	EAITC	613-944-6983
Industrial products and services; information booth: International Fair	Sep 1993	Damascus	EAITC	613-944-6983
Industrial products and services; national stand: International Trade Fair	Oct 1993	Tehran	EAITC	613-944-7029
Environment and transportation sector; national stand: Foire internationale de Tunis	Oct 1993	Tunis	EAITC	613-944-8134
Consumer and capital goods and services; information booth: Cairo International Fair	Feb 1994	Cairo	EAITC	613-944-0396
Trading house; mission to	Mar 1994	Iran	EAITC	613-944-7029
Latin America and the Caribbean				
Newfoundland Consultants to Caribbean Development Bank	Apr 1993	Barbados	ISTC	709-772-5511
Health-care equipment and services; information booth: Expocomer '94	Mar 1994	Panama	EAITC	613-995-0460
Investment; strategic partnering	TBD 1993	Mexico	INVCAN	613-995-0759
Central/Eastern Europe and the Commonwealth of Independent States				
Ukraine seminar	Jun 1993	Saskatoon	ISTC	306-975-4343
Horizontal; national stand: Zagreb International Fair	Sep 1993	Zagreb	EAITC	613-996-7107
Multiple Markets				
Trading house and supplier matchmaking; trade fair: Market at Your Doorstep '93	Apr 1993	Halifax	EAITC	613-943-1100
Marine Technology Society Conference and Trade Show at Ocean '93	Sep 1993	United States, Canada	ISTC	709-772-6602

Appendix 1

FEDERAL GOVERNMENT PARTICIPANTS

The following is a list of federal government departments and agencies that contributed to the *International Trade Business Plan*.

	Telephone
Agriculture Canada	613-993-6671
Atlantic Canada Opportunities Agency	613-954-8062
Canadian International Development Agency	819-994-5397
Communications Canada	613-990-4282
Consumer and Corporate Affairs Canada	613-953-6661
Department of National Defence	613-992-5398
Energy, Mines and Resources	613-943-8089
Environment Canada	819-953-5591
External Affairs and International Trade Canada	613-996-1775
Fisheries and Oceans	613-993-2540
Forestry Canada	819-997-1107
Industry, Science and Technology Canada	613-954-4235
Investment Canada	613-995-1196
National Research Council	613-998-9964
Western Economic Diversification	204-983-0722

Appendix 2

SECTOR STRATEGY PARTICIPANTS

The following list identifies the government departments and agencies principally involved in the preparation of industry sector strategies and the policy, regulatory and program issues identified therein. It is not intended to be comprehensive. As noted in Appendix 1, many other departments and agencies took the time to provide their input and comments.

ADVANCED MANUFACTURING TECHNOLOGIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA Advanced Manufacturing Technology	613-954-3249
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Advanced Technologies Division	613-996-1891

AERONAUTICS

EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Aerospace and Defence Programs Division	613-996-3437
INDUSTRY, SCIENCE AND TECHNOLOGY CANADA Aeronautics Branch	613-954-3150

AGRICULTURAL FOOD AND BEVERAGES

EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Agri-food, Fisheries and Resources Division	613-996-3537
and Agriculture and Fisheries Trade Policy Division	613-993-3586
AGRICULTURE CANADA	613-993-6671
INDUSTRY, SCIENCE AND TECHNOLOGY CANADA Primary Food Products Directorate	613-954-2936

ARTS AND CULTURE

DEPARTMENT OF COMMUNICATIONS, Arts and Policy Planning	613-990-4084
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Culture and Sport Division	613-995-2486

AUTOMOTIVE INDUSTRIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA Light Vehicles Directorate	613-954-3445
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Secondary Industries Division	613-992-7882

BIOTECHNOLOGIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA Biotechnology Directorate	613-954-1035
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA Agri-food, Fisheries and Resources Division	613-996-3597
INVESTMENT CANADA, Investment Prospecting	613-992-5339

CHEMICALS, PETROCHEMICALS AND PHARMACEUTICALS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Chemicals Directorate 613-954-3069
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Agri-Food, Fisheries and Resources Division 613-996-3597

COMMERCIAL SERVICES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Service and Construction Industries Branch 613-954-2994
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Financial and Business Services Division 613-996-6210

CONSUMER PRODUCTS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Consumer Products Branch 613-954-2975
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-996-0550

DEFENCE ELECTRONICS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Defence Electronics Directorate 613-954-3334
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Aerospace and Defence Programs Division 613-996-3437

ELECTRICAL EQUIPMENT

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Electrical and Energy Equipment 613-954-3257
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-995-7683

ENVIRONMENTAL INDUSTRIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Environmental Industries 613-954-1890
 ENVIRONMENT CANADA 613-953-5591
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-996-1431

FISH AND FISH PRODUCTS

EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Agri-Food, Fisheries and Resources Division 613-996-3535
 FISHERIES AND OCEANS 613-993-2540
 INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Seafood and Marine Products 613-954-2927

FOREST INDUSTRIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Forest Industries Branch 613-954-3026
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Agri-Food, Fisheries and Resources Division 613-996-4209
 FORESTRY CANADA, Trade and Trade Policy Division 613-997-1107

INDUSTRIAL MATERIALS AND CONSTRUCTION PRODUCTS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Materials Branch 613-941-3569
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Agri-food, Fisheries and Resources Division 613-996-3597

INFORMATION TECHNOLOGIES

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Information Technologies Branch 613-954-3452
 DEPARTMENT OF COMMUNICATIONS
 International Co-operation and Technical Marketing 613-990-4282
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Advanced Technologies Division 613-996-1891

MARINE AND LAND DEFENCE SYSTEMS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Space, Marine and Defence Branch 613-954-3789
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Aerospace and Defence Programs Division 613-996-0666

MEDICAL DEVICES AND HEALTH CARE PRODUCTS

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Health Care Products Directorate 613-954-3068
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-996-1435

OIL AND GAS FIELD EQUIPMENT

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Electrical and Energy Equipment 613-954-3192
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-996-0550

RESOURCE EQUIPMENT TECHNOLOGY

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
 Industrial Equipment 613-954-3398
 EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
 Secondary Industries Division 613-995-7683

SPACE

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
Space, Marine and Defence Branch 613-954-3299
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
Aerospace and Defence Programs Division 613-996-4875
CANADIAN SPACE AGENCY 514-496-4204

TOURISM

INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
Tourism Canada 613-954-3893
EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
U.S. Trade and Tourism Development Division 613-998-8823

URBAN TRANSIT AND RAIL

EXTERNAL AFFAIRS AND INTERNATIONAL TRADE CANADA
Secondary Industries Division 613-992-7882
INDUSTRY, SCIENCE AND TECHNOLOGY CANADA
Urban Transit and Rail Directorate 613-954-3426

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