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# **CANADA'S EXPORT STRATEGY**

## ***The International Trade Business Plan***

***1995/96***

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***An Integrated Plan for Trade, Investment  
and Technology Development***

**The International Trade Business Plan** is made up of an **Overview** highlighting Canada's international business development priorities, and a series of **Industry Sector Strategies**, which include lists of planned international activities. The following documents are available:

- Overview
1. Advanced Manufacturing Technologies
  2. Agriculture and Food Products
  3. Aircraft and Parts
  4. Automotive
  5. Biotechnologies
  6. Business, Professional and Educational Services
  7. Chemicals, Plastics and Advanced Materials
  8. Construction Products
  9. Consumer Products
    - Apparel and Fur
    - Textiles
    - Footwear
    - Sporting Goods (including recreational watercraft)
    - Tools, Hardware and Housewares
    - Residential Furniture
    - Business and Institutional Furniture
  10. Cultural Industries
  11. Defence Products
  12. Environmental Equipment and Services
  13. Fish and Sea Products
  14. Forest Industries
  15. Information Technologies and Telecommunications
    - Sector Overview
    - Computers and Peripheral Equipment
    - Electronic Components
    - Geomatics
    - Instrumentation
    - Software Products and Computer Services
    - Telecommunications
  16. Medical and Health-Care Products and Services
    - Medical Devices
    - Pharmaceuticals
    - Health-Care Services
  17. Minerals and Metals
  18. Oil and Gas Products and Energy Equipment
  19. Power Equipment
  20. Primary/Secondary Industrial Machinery
    - Mining, Forestry, Pulp and Paper
    - Agricultural Technology, Machinery and Equipment
    - Ocean and Marine Shipboard Technology
  21. Rail and Bus Equipment
  22. Space
  23. Tourism

For information on how to receive the Overview, or additional Industry Sector Strategies, please call: **1-800-267-8376**

All monetary figures in this document are expressed in Canadian dollars unless otherwise indicated.

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*Aussi disponible en français sous le titre* **Machinerie industrielle primaire et secondaire.**



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# Mining, Forestry, Pulp and Paper

**T**his sector includes suppliers of equipment and associated technologies used by the natural resource industries of forestry, mining and pulp and paper.

## International Environment

The international arena for resource equipment is dominated by multinational companies based in Scandinavia, Germany and the United States. Growing environmental regulations, coupled with lower commodity prices, have been forcing resource companies to become more cost-conscious. These trends have created and continue to create a greater demand for better equipment and newer technologies that are cost-effective and environmentally acceptable. For example, 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 byproducts. Similar regulations are expected to take hold in developing countries over the next few years.

Internationally, mining companies are encouraging the development of equipment that incorporates advanced technologies. The objective of these companies is to attain fully automated mining operations, thereby reducing the labour required in mining operations and improving the safety of underground operations. The forestry companies are aggressively pursuing the upgrading of equipment through technologies designed to improve productivity. A similar emphasis on cost saving and environmental impact is being followed in the pulp and paper sector.

## Canadian Position

Canadian resource equipment manufacturers and technology suppliers 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 exploration, mining and ore processing equipment and is supported by engineering and service companies. The majority of the firms in this sector are Canadian-owned, small- and medium-sized enterprises (SMEs). Exports represent a significant proportion of industry shipments and the Canadian domestic market continues to be dominated by imports.

The **forestry equipment** sector produces equipment for both harvesting and sawmill operations. The majority of the companies in this sector are small, producing specialized equipment for niche market applications. A high proportion of industry shipments are exported.

The **pulp and paper** equipment sector has been further weakened by continued rationalization. While some of the major companies in this sector have extensive process and machinery capabilities, international success has relied on system engineering and consortium approaches.

The demand for resource equipment continues to weaken domestically. It is, therefore, essential that the resource equipment firms intensify their search for export markets. The United States, Australia, New Zealand, Chile, Northern Europe and Asia represent important markets. Certain markets, such as the Commonwealth of Independent States (CIS) and some South American countries, present opportunities for system and/or turnkey solutions for each of these three industry sectors. In some cases, these types of opportunities may require innovative approaches

such as counter-trade measures, or industry collaborations such as strategic alliances or joint ventures to secure sales.

## Strategic Direction

- Target Western Europe, the CIS, North America and Australia for sophisticated equipment that uses advanced technologies to provide a degree of automated operation. These countries, which offer opportunities both as buyers and joint venture partners, 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.
- Focus more attention, especially on total system solutions based on more conventional equipment, to develop market opportunities in resource-rich regions where natural resource development is a priority, such as South America, Central and South Africa, and Southeast and East Asia.
- Encourage the smaller, technology-rich companies in the resource equipment sector, especially those in the mining and forestry sectors, to develop and strengthen their relationships, through alliances, consortia and joint ventures, with original equipment manufacturers and their more traditional customers, the resource companies.
- Encourage associations such as the Machinery and Equipment Manufacturers' Association of Canada (MEMAC) to promote consortia and networking among member firms for those market opportunities requiring a turnkey or integrated systems approach. Continue to support the marketing initiatives of export associations, (e.g. Western Canadian Wood Machinery and Services Export Association [WCWMSEA] and the Canadian Association of Mining Equipment and Services for Export [CAMESE]). Industry associations can play a key role in the promotion of Canadian capabilities.
- Promote the formation of networks and encourage them to establish working relationships with agencies such as the Export Development Corporation (EDC), in order to develop the most competitive financing package while limiting the risk of individual companies. Encourage companies to consider offering creative financing packages, particularly for the newly developing countries with emerging economies.
- Organize major international trade shows and carefully orchestrate incoming and outgoing trade missions to present Canadian capabilities abroad. The Department of Foreign Affairs and International Trade (DFAIT), with support from Industry Canada (IC), will play a key role in these initiatives.

## Documentation

- *Mining Equipment Sourcing*, study by Hatch & Associates, March 1993;
- *Automation Technology Opportunities in the Mining Sector*, study by Hatch & Associates, December 1993;
- *Automation Technology Opportunities in the Forestry Sector*, study by H. A. Simons, March 1994.

# Agricultural Technology, Machinery and Equipment

This sector includes manufacturers of livestock raising equipment and tractors, implements and machines that are designed for growing, storing, moving and primary processing of agricultural crops.

## International Environment

The market for farm machinery has become increasingly international as manufacturers strive to reduce costs with large-scale manufacturing to serve worldwide requirements. For example, tractor production is largely located in three different regions: Japan, the European Union (EU) and North America. Each region specializes in a particular size of tractor, and sells them throughout the world. Tractors with less than 40 horsepower are made in Japan, and those with 40 horsepower to 100 horsepower are predominantly manufactured in the EU. Tractors in excess of 100 horsepower are made in North America.

The bulk of the manufacturing is done in the United States, the United Kingdom, Germany, France, Japan and Canada. The world market, which was about \$32 billion in 1992, is divided into approximately three equal parts, EU, North America and the rest of the world.

The following trends are altering the nature of the global market for farm machinery:

- increasing production of cereal grains by traditional importers. This shift, in countries such as Saudi Arabia and the People's Republic of China (PRC), has not only resulted in these countries becoming net exporters of cereal grains, rather than importers, but also as good markets for farm machinery;
- the privatization of farming in Eastern Europe and the republics of the former Soviet Union (FSU). The new order of independent countries that are no longer required to source their equipment within the socialist bloc has opened a major new market for farm machinery producers in the Western world. However, finding appropriate financing and repayment mechanisms remains a significant challenge;

- the decreasing number of farmers and the increasing size of farms in North America;
- the emergence of regional trading blocs, particularly the North American Free Trade Agreement (NAFTA) and EU countries, coupled with the liberalization of farm machinery trade resulting from the General Agreement on Tariffs and Trade (GATT), require a rejuvenated marketing approach to maximize opportunities resulting from standardized regulations and tariff reductions.

## Canadian Position

The Canadian agricultural machinery industry encompasses a wide range of farm machinery, including two-wheel and four-wheel drive tractors, combine harvesters, seeding and tillage equipment, hay handling and harvesting equipment and grain handling and storage equipment. Over the years, the Canadian industry has successfully developed specialized machinery for the production of cereal grains on large farms under dry land farming conditions. In addition, certain "shortline" firms produce specialized equipment for particular crops (e.g. tobacco, potatoes and sugar beets).

According to Statistics Canada data, total industry employment in 1992 was 7881 people, working in 213 establishments. Total factory shipments in current dollars were \$856.8 million in 1992. Exports amounted to 57 percent of total shipments, with the United States receiving 90 percent. (Industry Canada sector estimates, based on provincial and association surveys/listings of agricultural equipment manufacturers, would suggest that 500 to 600 establishments make farm machinery in Canada and their production could be double the Statistics Canada data.)

The trend to internationalism offers an opportunity to Western Canadian manufacturers of farm machinery, since Canadian dry land farming technology is at the leading edge and is in demand in all the major countries growing cereal grains under large-scale dry land farming conditions. Canada will continue to be the world's leading source for large-scale dry land farm machinery and technology in the next decade.

Canada, with current dollar exports of approximately \$0.5 billion, accounts for 4 percent of world trade in farm machinery. The United States will continue to be Canada's largest market, but substantial opportunities for growth exist in Australia, Mexico, the EU, the PRC, Russia, Ukraine and Kazakhstan.

The principal strength of the industry is not only in the economies of scale that have resulted from favourable access to the U.S. market, but also the low-cost production and innovative products resulting from abundant low-cost, high-quality sources of manufacturing inputs (i.e. electricity, skilled workers, transportation and communications infrastructure, and steel). The free trade environment that has existed for 50 years has ensured that Canadian industry has access to a market large enough to exploit economies of scale.

## Strategic Direction

The overall goal of the international strategy is to increase the number of Canadian exporting companies by 30 percent and exports of farm machinery by 50 percent in five years. To achieve this goal, elements of the strategy must include market studies and targeted trade fairs and missions that will:

- continue to actively pursue the United States as Canada's main market, particularly for companies new to international trade;
- take advantage of the market opportunities for farm machinery in Mexico created by the NAFTA through joint venture marketing and manufacturing initiatives;

- target the CIS (especially Ukraine, Kazakhstan and Russia), and Central and Eastern Europe as prime development markets for Canadian dry land farming technology;
- develop investment and strategic alliances for technology exchange and diffusion to exploit the opportunities presented by the changing market regime of the EU. Particular opportunities to be pursued will result from the creation of a unified Germany, and the tariff reductions agreed to at the GATT negotiations in Brussels. Specific activities will focus on productivity improvement co-operation, technology exchanges, and increased marketing of equipment, particularly in the eastern part of Germany;
- strengthen co-ordinated marketing approach with industry associations and provincial agencies to expand marketing and technological exchanges to revitalize export market development for Canadian shortline farm machinery manufacturers;
- continue to use key Canadian agricultural equipment trade shows to promote Canadian agricultural mechanization technology;
- focus market development support in the PRC on large-scale grain harvesting, storage and processing equipment in Heilongjiang province;
- maintain a market development program for Canadian dry land farming technology in Australia;
- assist associations and companies to overcome financing and marketing problems in new markets, particularly in developing countries;
- continue market development for specialized cereal grain equipment in South America, Saudi Arabia, Iran, Jordan and the Maghreb countries of North Africa;
- encourage special crop equipment manufacturers (such as potato equipment manufacturers in New Brunswick and Prince Edward Island, tobacco equipment manufacturers in Ontario, and orchard equipment manufacturers in British Columbia and Ontario) to increase

marketing initiatives (i.e. individual visits, trade fairs and missions) to targeted regions and countries with sales growth potential;

- encourage industry associations (particularly CFIEI, PIMA, AFMAQ and OFEMA) to serve as channels for market information by making them a central source of data through direct participation in its development;
- assist companies and their associations to develop focussed strategies that reflect company and sector strengths and market opportunities by increasing their involvement directly in the trade development process.





# Ocean and Marine Shipboard Technology

The ocean and marine shipboard technology sector includes suppliers of low-volume/high-value custom-engineered products and services for use in, on and beneath the oceans.

## International Environment

The major competition comes from the United States, France, Germany, Norway and the United Kingdom.

The traditional markets for these supplier firms have been offshore oil and gas, marine science, marine defence and shipbuilding. Each of these markets has experienced declines over the past few years due to various economic factors such as depressed oil prices, global recession and East-West detente.

New markets are emerging, however. Internationally, there is a growing environmental awareness that is fostering regulatory regimes which impact on coastal zones. These regimes, in turn, are creating new market opportunities for companies in this sector. In the EU, for example, regulatory directives and the implementation of the polluter-pay principle, have created impositions on EU member states that should result in substantial new business opportunities.

New markets are also emerging from the obligations imposed on countries that have laid claim to their offshore regions as Exclusive Economic Zones (EEZs). Countries claiming these zones are obligated to manage them in accordance with UN requirements. The diverse needs to manage EEZs should provide both niche and turnkey business opportunities. A large number of EEZs are in the Pacific Ocean, associated with island states in such areas as Micronesia, Melanesia, parts of Asia and Australia.

International financial institutions (IFIs) such as the World Bank and the Asia Development Bank, are likely to be important players in markets emerging from environmental concerns and the obligations of ownership of EEZs.

Diverse opportunities exist in the CIS and other Eastern European countries. The use of barter and other forms of counter-trade in these markets is common, and innovative approaches are often needed to secure sales.

## Canadian Position

Canadian firms in the ocean and marine equipment and technology fields are generally small, Canadian-owned, with entrepreneurial and advanced technical capabilities.

- Approximately 500 firms are active in the sector and annual sales are about \$1 billion. There is representation across the country with clusters of specific activity in British Columbia and Atlantic Canada.
- Areas of recognized capabilities include hydrographic and oceanographic instrumentation, subsea robotics and remotely operated vehicles, remote-sensing systems, navigation and communication systems and "smart ship" technology.
- The traditional domestic markets for firms in this sector, such as offshore oil and gas, marine science, marine defence and shipbuilding, have declined appreciably over the last few years. However, many of the companies are suppliers to niche markets and have been highly successful internationally.
- The markets emerging from environmental concerns in the coastal zones and ownership obligations attached to EEZs, may support a "Team Canada" or turnkey approach as well as present niche opportunities to the industry in Canada. Companies should not be averse to collaborating with other Canadian and/or foreign firms to exploit these markets.

- IFI expenditures are expected to play an important role in these emerging markets. Despite Canada's role as a leading donor to IFIs, Canadian companies have not taken full advantage of associated procurement opportunities. Total lending from these institutions exceeds US\$40 billion a year, a significant portion of which could be of interest to Canadian suppliers. IFI procurement activity can represent a major source of financing for penetration into developing markets and regions that can otherwise be difficult markets.

## Strategic Direction

Industry networks are expected to be established on the east and west coasts through support mechanisms such as the Canadian Business Networks Coalition, a Canadian Chamber of Commerce-led initiative. These networks, along with industry associations and government agencies such as Industry Canada (IC), the Department of Fisheries and Oceans (DFO) and DFAIT, will be used to disseminate strategic market and industry intelligence to:

- encourage companies to seek new markets such as those emerging opportunities arising from environmental regulatory requirements (IC, DFO);
- promote alliances and other collaborative measures that will be needed to meet new business opportunities, such as turnkey contracts, arising from the creation of EEZs (IC, DFO, Natural Resources Canada [NRCan]);
- encourage the use of counter-trade initiatives for exploiting the CIS and Eastern Europe markets, especially those initiatives that incorporate innovative marketing and collaborative approaches (IC);
- improve mechanisms for supplier identification and development and for the timely dissemination of information and intelligence to potential bidders on projects arising from such financial

institutions as the World Bank, Asia Development Bank, Africa Development Bank and the European Bank for Reconstruction and Development (DFAIT, IC);

- promote participation in major international trade shows and conferences, along with carefully organized incoming and outgoing trade missions (DFAIT, IC).

## Contacts

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## Primary/Secondary Industrial Machinery

Activity	Date	Location	Dept.	Contact
<b>Africa and the Middle East</b>				
Mining Study: Southern Africa Potential	01-Apr-95	Lusaka	DFAIT	613-944-6586
Mining Mission from South Africa	01-Sep-95	Canada/Various	DFAIT	613-944-6590
Packprocess/Printexpo '95: Info Booth	01-Oct-95	Johannesburg	DFAIT	613-944-6590
Mining Mission from Canada	01-Jan-96	South Africa/ Various	DFAIT	613-944-6586
<b>Asia-Pacific South</b>				
Forestry Technical Mission from Eastern Canada	01-Sep-95	Auckland, Rotorua	DFAIT	613-995-7652
AIMEX (Mining Equipment): National Stand/Mission	16-Oct-95	Sydney	DFAIT	613-995-7352
China Paper '95: Info Booth	07-Nov-95	Beijing	IC	613-954-7812
<b>East Asia</b>				
HOFEX '95: Info Booth	02-May-95	Hong Kong	DFAIT	613-995-6961
<b>Latin America and the Caribbean</b>				
Marine Environmental Mission	TBD	Mexico City	IC	709-772-6602
<b>Multiple Markets</b>				
Woodtech Trade Fair	21-Sep-95	Vancouver	B.C.	604-844-1921
Incoming Buyers to Paleocanology Conference	10-Oct-95	Halifax	IC	902-426-9475
<b>United States</b>				
IEEE Oceans '95: Info Booth	09-Oct-95	San Diego	IC	902-426-9475
Navigating Beyond: Marine Technology Partnering	10-Apr-95	Newport	IC	902-426-9475
<b>Western Europe and European Union</b>				
Mission/Technology Exchange: Agricultural Machinery	01-Nov-95	Hannover, Dusseldorf	IC	613-954-3226
Oceanology International '96: Info Booth	01-Mar-96	Brighton	IC	613-954-3398

Note: Dates and locations are subject to change.



## Acronyms and Initialisms Used in The International Trade Business Plan

(This list does not include sector-specific references)

ACOA	Atlantic Canada Opportunities Agency	IC	Industry Canada
AG Can	Agriculture and Agri-Food Canada	IDRC	International Development Research Centre
ASEAN	Association of Southeast Asian Nations	IFI	international financial institution
BBS	electronic bulletin board system	ISO	International Standards Organization
BOSS	Business Opportunities Sourcing System	ITBP	International Trade Business Plan
CCC	Canadian Commercial Corporation	ITC	International Trade Centre
CIDA	Canadian International Development Agency	MAPAQ	Ministry of Agriculture, Fisheries and Food of Quebec
CIS	Commonwealth of Independent States	MDB	multilateral development bank
CSA	Canadian Standards Association	NAFTA	North American Free Trade Agreement
DFAIT	Department of Foreign Affairs and International Trade	NATO	North Atlantic Treaty Organization
DFO	Department of Fisheries and Oceans	NRC	National Research Council
DND	Department of National Defence	NRCan	Natural Resources Canada
EC	Environment Canada	NRCan-CFS	Natural Resources Canada - Canadian Forest Service
EDC	Export Development Corporation	OECD	Organization for Economic Co-operation and Development
EU	European Union	PEMD	Program for Export Marketing Development
FITT	Forum for International Trade Training	R&D	research and development
FORDQ	Federal Office of Regional Development - Quebec	SMEs	small- and medium-sized enterprises
FSU	former Soviet Union	UNEP	United Nations Environmental Program
FTA	Canada-U.S. Free Trade Agreement	WED	Western Economic Diversification
GATT	General Agreement on Tariffs and Trade	WTO	World Trade Organization
GDP	gross domestic product		
GNP	gross national product		
HRDC	Human Resources Development Canada		



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