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Canadian

E X C E L L E N C E

TRANSPORTATION

ENERGY AND
NATURAL RESOURCES

CONSTRUCTION AND
BUILDING PRODUCTS

TELECOMMUNICATIONS AND
INFORMATION TECHNOLOGIES

FINANCIAL INSTITUTIONS

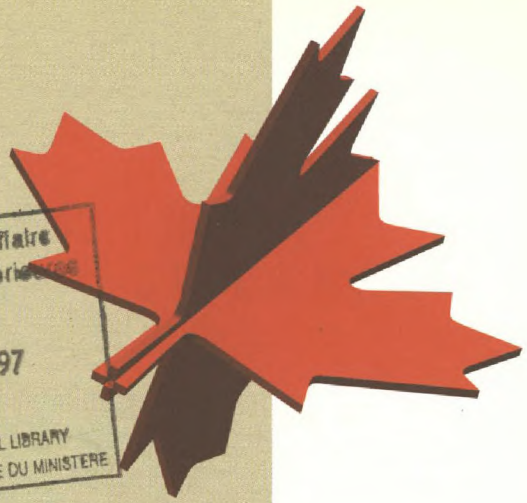
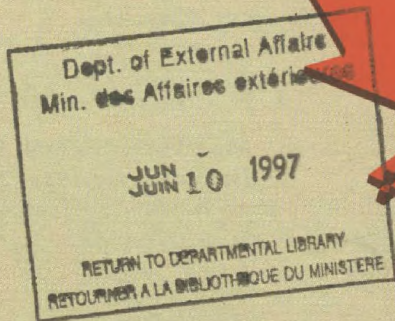
AGRI-FOOD

ENVIRONMENTAL INDUSTRIES

EDUCATION, ARTS AND CULTURE



Canada



Canadian

E X C E L L E N C E

Canadians have built a powerful, modern economy. We are connected by steel and micro-fibre, asphalt and satellites. We are united by a determination to forge stronger international trade and investment partnerships. Canadian governments and our business community are working as Team Canada to ensure that Canadian excellence meets international requirements.

Jean Chrétien
PRIME MINISTER OF CANADA



Team Canada - Équipe Canada

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T a b l e o f C o n t e n t s

MESSAGE FROM THE PRIME MINISTER OF CANADA 3

MESSAGE FROM THE MINISTER FOR INTERNATIONAL TRADE 5

INTRODUCTION 6

TRANSPORTATION 8

ENERGY AND NATURAL RESOURCES 14

CONSTRUCTION AND BUILDING PRODUCTS 22

TELECOMMUNICATIONS AND INFORMATION TECHNOLOGIES 26

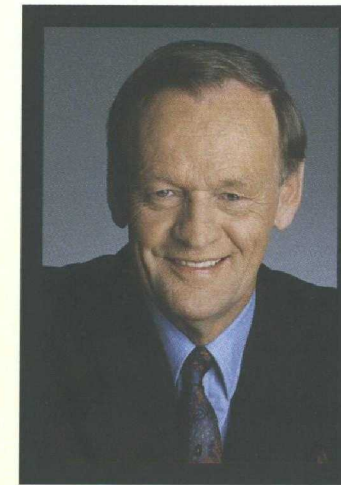
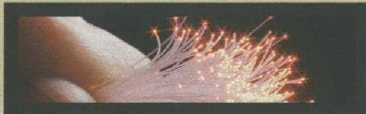
FINANCIAL INSTITUTIONS 32

AGRI-FOOD 36

ENVIRONMENTAL INDUSTRIES 40

EDUCATION, ARTS AND CULTURE 44

CONTACTS 50



MESSAGE FROM THE PRIME MINISTER OF CANADA

Canadians have a reputation around the world for outstanding products and services. Our customers know that we produce what they need, and we deliver it on time and according to the highest standards.

Canadians welcome the challenges and demands of economic growth.

- Our companies specialize in building and installing the facilities, systems and networks that make economies not only work, but work efficiently and effectively.
- We build transit systems, construct roads and even move payloads around outer space. We are at the forefront of oil and gas production and electricity generation and we are the world's largest exporter of minerals, metals and forest products.
- Our telecommunications networks and computer software are unsurpassed in their capacity to move and process information: the lifeblood of today's global economy.

Canadians are pioneers in environmental services that protect and restore air, land and water resources. In food production and processing, Canadian firms span the market, from breeding stock and cooking oils to smoked salmon and ice wine.

Our strong financial institutions offer many reliable services worldwide to help individuals to save and invest and businesses to grow. The doors of our colleges and universities are open, ready to extend to international scholars the top-quality education enjoyed by Canadians. And Canadian authors, film producers and artists have won international acclaim, receiving some of the world's most prestigious awards.

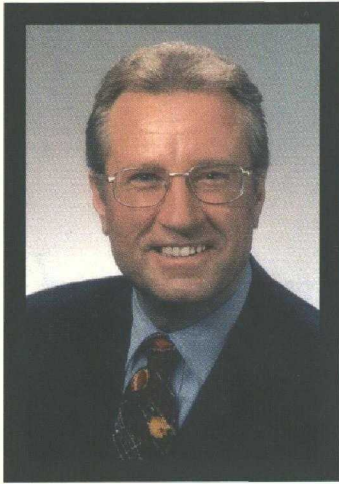
In building a strong, modern economy, Canadians know that success depends on resourcefulness and imagination.

I invite you to consider Canada's goods and services, its know-how and expertise, and its willingness to adapt these goods and services to satisfy the needs of its customers. Canadian firms are ready to form partnerships, joint ventures or strategic alliances to put Canadian excellence to work — at home and abroad. I encourage you to take advantage of the goods, services and technology that Canada and Canadians have to offer.

Jean Chrétien

The Right Honourable Jean Chrétien
PRIME MINISTER OF CANADA





MESSAGE FROM THE MINISTER FOR INTERNATIONAL TRADE

Canadian businesses are succeeding every day in international markets. Canada exports more on a per-capita basis than any country in the world. Exports continue to grow at an unprecedented rate, and now account for close to 40 per cent of our gross domestic product compared to 25 per cent five years ago.

Canadian Excellence chronicles the strength and competitiveness of Canada's capabilities in a number of sectors: transportation; energy and natural resources; telecommunications and information technologies; construction and building products; financial services; agri-food; environment; and education, arts and culture.

Canadian companies offer more than quality goods and services — they provide the willingness to adapt their goods and services to satisfy the needs of their customers, to transfer technology and to form strategic alliances. And most important, they can develop creative and lasting business partnerships.

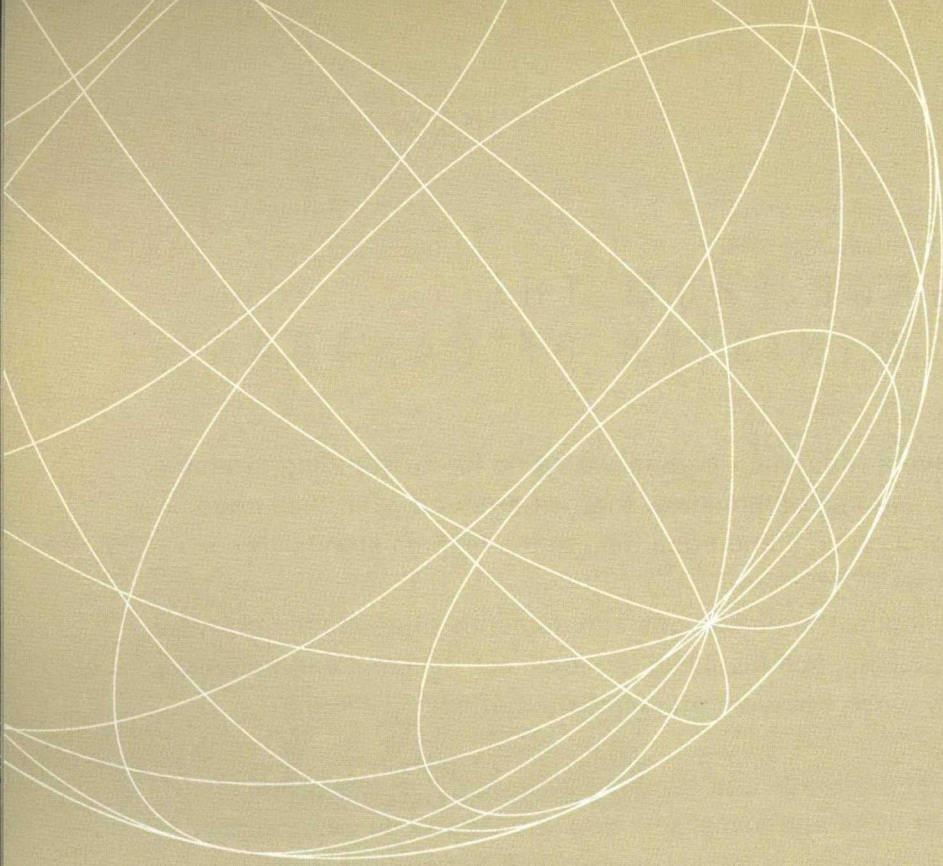
Canada is not only a good business partner, it is an excellent place to invest. It possesses one of the most open and competitive business environments in the world and provides easy access to the large North American market. According to an independent study by the Canadian consulting firm KPMG, business operating costs are on average 6.7 per cent lower in Canada than in the United States. Of the seven industries studied, the Canadian advantage ranges from 5.5 per cent for telecommunications equipment to 10.5 per cent for software production.

I strongly encourage you to consider what you can achieve in your market by teaming up with Canadian companies. *Canadian Excellence* will give you a greater appreciation of Canada's know-how and expertise, and introduce you to the benefits of partnerships with Canadian firms.

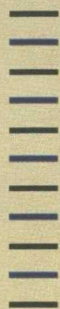
All you need to do is contact one of our Canadian Trade Commissioners, working in more than 125 locations throughout the world. They can help you identify and contact potential Canadian partners, and assist you to meet your business goals. Let them put Canadian excellence to work for you!

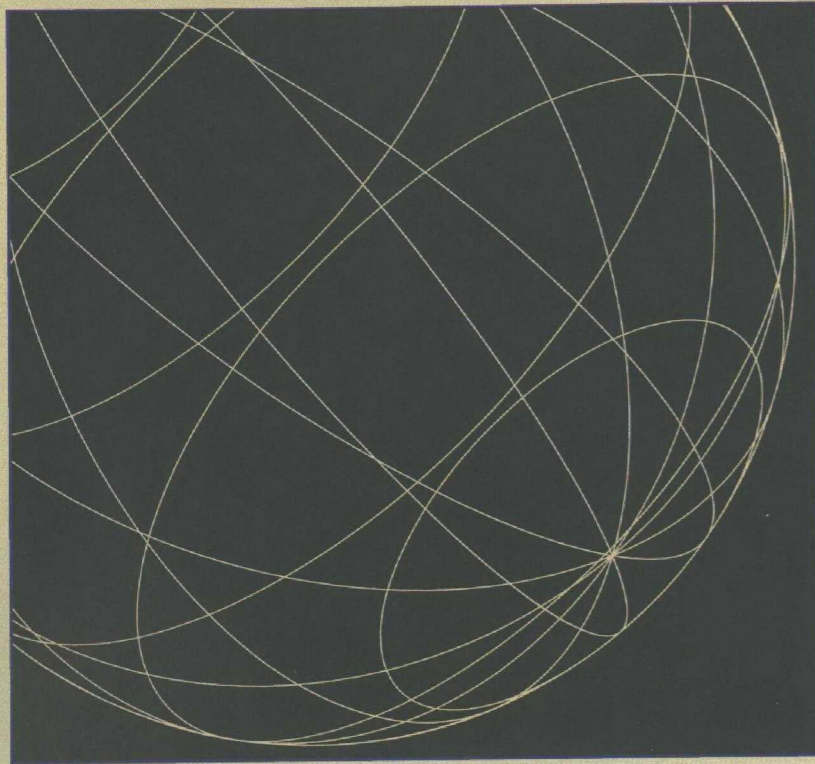
The Honourable Art Eggleton
MINISTER FOR INTERNATIONAL TRADE





Team Canada • Équipe Canada





Introduction

CANADIAN EXCELLENCE IS ABOUT THE advanced and productive industries that exist in Canada, and the dedication, knowledge and skill that Canadians apply to these industries.

Canada has an open economy that has long been geared towards trade with the rest of the world. It leads the Group of Seven (G-7) industrialized economies in trade as a share of gross domestic product (GDP). In 1995, Canadian exporters produced a trade surplus of more than \$28 billion — smashing the previous record of about \$20 billion in 1984. Canada now exports almost 40 per cent of everything it produces.

As a member of the North American Free Trade Agreement with the United States and Mexico, Canada has preferred access to the world's richest and second-largest trade zone, with over 370 million consumers. And its active participation in the Asia Pacific Economic Co-operation forum has enhanced its access to one of the fastest-growing markets in the world, the Asia-Pacific region.

Canada has the seventh-largest economy and the second-highest standard of living in the world. In 1995, for the third straight year, the United Nations ranked Canada as the best place in the world in terms of Quality of life. And the Paris-based Organization for Economic Co-operation and Development estimates that Canada will have the highest economic growth in the G-7 in 1996 and 1997.

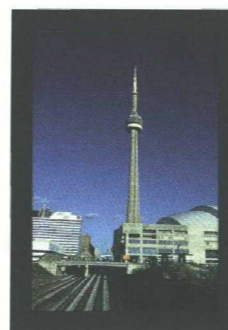
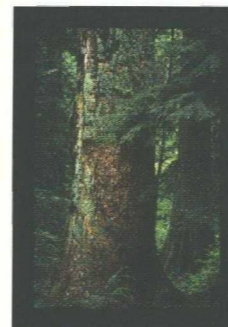
The federal government's fiscal policies have successfully addressed budget deficits and public debt. As a result, the annual federal deficit has slipped below 3 per cent of GDP, and inflation has settled at a respectable 1.5 per cent.

Canada offers one of the most advantageous business climates in the world. A well educated and highly skilled labour force, particularly in advanced technologies, combined with one of the most supportive R&D environments in the world, has boosted international investment confidence to its highest level in 15 years. Foreign direct investment in Canada has almost doubled in 10 years, exceeding \$168 billion by 1995.

Canada also possesses an extremely sophisticated and efficient infrastructure. In transportation, it is ranked as the best in the G-7, with rail, truck and air services fully integrated with U.S. networks. And with the information highway operating smoothly, Canada is fully equipped to embrace the new "digital economy."

One of Canada's greatest assets is its enviable reputation in leading-edge technologies. With its small and scattered population and vast geographical distances, Canada has long been a pioneer in telecommunications. It has arguably the most modern telephone system in the world, and is home to some of the world's most successful telecommunications companies.

Add to this abundant natural resources and low-cost energy supplies, safe, clean and modern cities, low-cost educational services, and universal health care, and it would be difficult to find a better business and investment partner than Canada.





The first bond of Canadian nationhood was a transcontinental railway built across this huge and rugged country late in the 19th century. Since then, efficient, reliable transportation has been a priority. To be competitive, Canadians have had to develop transportation systems and vehicles that move people and goods quickly, inexpensively and safely, over long distances, in all kinds of weather.

Necessity has created first-rate capability. Canada now has more kilometres of road and railway track per person than do most other countries, including the United States. Intermodal passenger systems, including subways, buses or commuter rail lines, exist in every major city. The Trans-Canada Highway, completed in 1962, is, at 7775 km, the longest national highway in the world.

Canadians have remained at the forefront of developments in transportation throughout the 20th century. They have developed the most automated light-rail and subway vehicles available. Canadians have designed new transportation systems accessible to seniors and travellers with disabilities and have developed transit buses that operate on natural gas. Just as important, they are hard at work developing solutions for the transportation challenges of the 21st century.

**CANADA
CAN PROVIDE THE
ELEMENTS THAT
MAKE AN URBAN
TRANSIT SYSTEM
SUCCESSFUL.**

RAIL AND URBAN TRANSIT

In 1995, the rail and urban transit sector of Canada's transportation industry shipped approximately \$2.5 billion worth of goods, of which more than 70 per cent was destined for foreign countries. The U.S. market is Canada's top customer, but countries in Asia and Latin America have shown an increasing interest in Canadian capabilities. Canadian sales to non-U.S. markets have increased significantly since 1993, particularly through the design, engineering and construction of ready-to-operate transit systems. Canadian companies have the proven technologies, expertise, new products and operational efficiencies to expand their markets.

Some major products offered by the Canadian industry include:

- RAIL ROLLING STOCK: PASSENGER AND FREIGHT
- TURN-KEY PASSENGER RAIL SYSTEMS
- BUSES: LARGE TRANSIT BUSES; LOW-FLOOR AND ALTERNATE-FUELLED BUSES; INTERCITY COACHES AND SCHOOL BUSES
- DIESEL LOCOMOTIVES: D-C AND A-C TRACTION
- SIGNALLING AND COMMUNICATION SYSTEMS
- ADVANCED TRAIN-CONTROL SYSTEMS
- SPECIALIZED SOFTWARE FOR TRANSIT SCHEDULING, OPERATIONS AND PUBLIC INFORMATION
- CONSULTING SERVICES SUCH AS THE DEVELOPMENT AND IMPLEMENTATION OF MANAGEMENT INFORMATION SYSTEMS

Canadian companies export far more than the vehicles on which urban transit systems are based. With showpiece urban transit systems in Canada, Turkey and the United States, and work under way in Malaysia, Canada provides the elements that make an urban transit system successful — including Canadian experience.

AUTOMOTIVE

The Canadian automotive industry is the sixth largest in the world. It is Canada's largest manufacturing sector and most prolific exporter. The total value of shipments in 1995 was \$71 billion, of which 95 per cent was exported.

This sector is fully integrated and rationalized on a North American basis. Many best-selling vehicle models in North America are made in Canada. Car and truck manufacturers in the United





States depend on Canadian-made parts. These are manufactured in Canada because Canadian companies deliver superior quality at competitive costs.

While the United States imports new vehicles from Canada, many overseas customers are interested in Canada as a source for replacement parts, accessories, and service and repair equipment. Canadian aftermarket sales and services were valued at \$21 billion in 1995. Canadian firms specialize in garage, repair and diagnostic equipment. Canada also has an extensive tool-and-die sector.

Canadian manufacturers are essential to the highly successful North American automotive industry. Canada's expertise is widely understood and utilized in the United States. Many other countries, including Japan, also appreciate that the Canadian automotive industry is a place to buy and a place to invest. Japanese automaker Toyota recently opened a new engine plant in Canada and is expanding its current assembly plant to a full-scale production plant. Honda, another Japanese automaker, is also expanding its production facilities in Canada.

AEROSPACE AND DEFENCE EQUIPMENT

Around the world, Canada has earned a reputation for high-quality, innovative products and services in selected niche markets.

Television viewers everywhere have seen astronauts doing intricate manoeuvres outside their spacecraft with the famous Canadian-built robot arm, the Canadarm. This is only one example of Canadian aeronautic success. Other examples include:

- *Bombardier, the parent company of Canadair and de Havilland, is a major Canadian-controlled global aircraft manufacturer. It has the world's largest market share of deliveries and orders for*

CANADA'S AEROSPACE INDUSTRY RANKS FIFTH IN THE WORLD AMONG EXPORTERS OF AIRCRAFT AND AIRCRAFT COMPONENTS. WITH A GLOBAL REPUTATION FOR EXCELLENCE IN SERVICE, LEADING-EDGE TECHNOLOGY, AND THE HIGHEST QUALITY STANDARDS, THE AEROSPACE AND DEFENCE SECTORS HAVE GROWN TO AN ANNUAL \$11.5 BILLION INDUSTRY. OVER 70 PER CENT OF CANADA'S AEROSPACE PRODUCTION IS EXPORTED.

30- to 50-seat turboprops and jets. The company has achieved particular success with the Canadair Regional Jet and the new, longer-range, enhanced version of the Challenger Business Jet, the Challenger 604. A new high-speed, 70-seat turboprop, the Dash 8 series 400, was launched in 1996. The Global Express, a new long-range executive jet, will be available in 1997.

- *Bell Helicopter Textron (Canada) designs and manufactures Bell Textron's entire line of civilian helicopters, sales of which account for 50 per cent of the international market.*

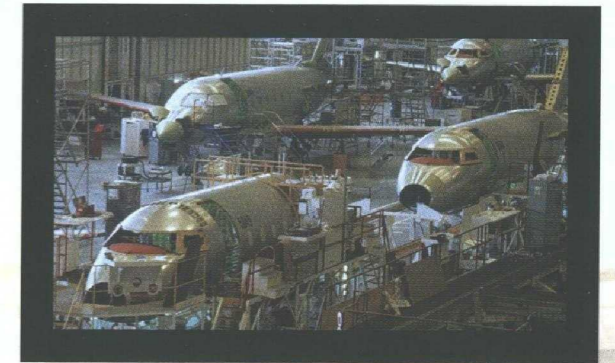
- *Pratt & Whitney Canada has a 30-per-cent share of the world market for small gas-turbine engines, which power the world's fleet of regional aircraft, military trainers and helicopters.*

- *CAE Electronics Ltd. is the world's leading designer and manufacturer of sophisticated commercial and military aircraft flight simulators and training devices. These simulators feature the latest technology in areas such as digital motion, control loading and sound systems.*

Canada is recognized internationally for its excellent training capacity. Canadian companies specialize in fields such as flight simulation and air traffic control, diagnostics and pilot training. Canada provides other training and consulting services in air navigation, aviation meteorology, aerial firefighting, airport planning, design, operations, maintenance and management. Canada is also a world leader in airport security products.

Canadian defence firms have developed subsystems and components for specialized markets in which they are world leaders. Canada is particularly competitive in light armoured vehicles, marine systems and platforms, informatics, aircraft upgrade programs, precision optics, robotic systems, explosive and narcotics detectors, shipboard systems acoustics, communications systems, helicopter haul-down systems and avionics.

Many Canadian defence firms have diversified their production so that they have commercial as well as military applications, increasing their export potential and their ability to survive declining global defence budgets.





SERVICES

Canadian-manufactured and Canadian-designed transit and aeronautics systems are highly regarded by transportation experts around the world. So are Canadian transit consultants. These consultants — who have developed superior skills in overcoming transportation problems in Canada's vast and difficult terrain — provide insight and assistance to clients around the globe.

Areas of Canadian consulting expertise include:

- AERONAUTICAL ENGINEERING AND SPACE TECHNOLOGY
- SEA PORT AND AIRPORT DEVELOPMENT, MAINTENANCE AND MANAGEMENT
- TRANSPORTATION SYSTEMS AND ELECTRICAL ENGINEERING
- TRANSPORTATION PLANNING
- TRANSIT MANAGEMENT
- POLICY DEVELOPMENT
- FISCAL PLANNING
- RAPID TRANSIT DESIGN
- COMMUTER RAIL SYSTEMS
- URBAN BUS SYSTEMS
- SYSTEMS FOR THE ELDERLY AND DISABLED
- DESIGN AND OPERATION OF MULTI-MODAL TERMINALS
- PRICING AND INFORMATION SYSTEMS
- OPERATING AND MAINTENANCE STRATEGIES
- DESIGN AND CONSTRUCTION OF RAIL PLANTS
- ENVIRONMENTAL ASSESSMENT STUDIES
- COMMUNICATIONS AND DATA COLLECTION
- HEATING AND AIR CONDITIONING

Canadian consultants are at the forefront of the international market for services such as the development and application of management information systems, intermodal operations, supervision of rail construction and locomotive rehabilitation programs.

**CANADIANS HAVE
REMAINED AT THE
FOREFRONT OF
DEVELOPMENTS IN
TRANSPORTATION
THROUGHOUT THE
20TH CENTURY.**



Energy and Natural Resources



— Canada is a land of vast energy reserves, from hydroelectric power to tar sands, from huge natural gas deposits to a unique nuclear capacity. Canada has become a leader in the multifaceted field of energy development. Canadians have designed, built and now operate a huge network of pipelines — including the world's longest petroleum pipeline and a natural gas pipeline system that supplies 45 per cent of North American natural gas requirements. Canada's private-sector and public utilities are working with partners around the world to develop and upgrade power systems.

OIL AND GAS

The world's first oil well was drilled in the Canadian community of Oil Springs, Ontario, in 1857. Before long, Canadians who had helped develop Canadian petroleum resources were exporting their expertise to other countries. For more than a century Canada has been working with other countries to develop oil and gas reserves. Now Canadians are also applying their technological, financial and managerial expertise in transmission and distribution in countries as diverse as Argentina, Malaysia and Australia.

A HIGHLY TRAINED CONTINGENT OF CANADIANS IS ACTIVE IN EVERY AREA OF OIL AND GAS EXPLOITATION.

Efficient exploitation of oil and gas reserves depends upon keeping up with the rapid pace of technological change in the industry. Canada is at the forefront of the latest developments in enhanced recovery techniques and oil sands extraction.

Canada offers a variety of equipment and services used in exploration, drilling, servicing, producing and processing. Canadian exports include geophysical prospecting equipment; drilling rigs and ancillary tools; pumping machinery; cementing and well-fracturing units; field processing components such as dehydrators, separators and treaters; and drill and processing equipment for offshore drilling platforms.

Canadian firms also have first-rate service capabilities, particularly in pre-drilling exploration and preparation, drilling services (mud, cement, logging, testing, coring and fishing), and well-completion services (perforating and stimulating).

More than 1500 Canadian firms operate internationally, offering other countries the opportunity to increase efficiency and develop new capabilities. A highly trained contingent of Canadians, from top-level managers and professionals to skilled workers, is active in every area of oil and gas exploitation. Engineers and consultants can assess the commercial viability of oil and gas reserves and the means to improve the production of existing projects. Canadian companies can help build and operate sophisticated pipelines over long distances and can also help gather, process and market natural gas and petrochemicals.



In 1994, foreign customers bought Canadian equipment and services worth approximately \$1.2 billion — eight times the level of exports recorded only eight years earlier. These sales have been supported by the willingness of Canadian firms to transfer technology, provide training and offer reliable after-sales services. Joint ventures are a Canadian specialty, and allow companies to tackle large projects and draw on many factors of production. Canadian companies have established foreign subsidiaries and joint ventures in diverse markets such as the United States, Europe, India and Southeast Asia.

Canadian companies will manufacture equipment such as drilling rigs and field processing units at home or abroad to suit local requirements. They also have a worldwide network of agents, distributors and service companies to ensure that parts and services will be readily available to overseas customers.

Canadian companies are world leaders at developing specialized equipment related to the extraction of sour gas, heavy oil and oil sands deposits, three key resources that are abundant in Canada. Specialized equipment for extracting oil from tar sands and gathering and treating sour gas is currently being exported to India, the People's Republic of China, Russia, Kazakstan and Azerbaijan.

Canadian expertise also extends into the areas of primary and secondary recovery of conventional oil. Canada has a well earned reputation in the field of advanced fracturing technology, as well as directional and horizontal drilling for the recovery of oil and gas from difficult formations and depleted wells. Top motor drives, software products, computer-controlled automatic coring devices and automated pipe-handling systems are all areas in which Canadian firms have made significant advances. Much of this technology and many new techniques have been developed in co-operation with overseas customers.

ELECTRICAL POWER

Canadians have developed a wealth of knowledge and experience in building systems that generate, transmit and distribute power. They have designed, built and operated some of the world's largest and most complex electrical projects, such as the James Bay and Niagara Falls projects in Canada. Canadian consulting engineers, government utilities, private manufacturers and construction firms are working in more than 70 countries around the world. Canadians are sought-after partners because they not only are experienced and have the latest equipment and technology, but also are willing to transfer that technology.

Canadian utilities specialize in generation technologies for hydro, nuclear and conventional thermal power and are regarded as international leaders in AC and DC transmission lines and long-distance and high-voltage transmission. Canada is a vast country, and its utilities have had to develop innovative transmission systems that operate efficiently and reliably in extreme heat, cold and high humidity. Canadian firms are innovators in the development of technology and systems that save energy, improve efficiency and control emissions.

**CANADA, THE
WORLD'S LARGEST
PRODUCER OF
HYDROELECTRIC
POWER, IS ALSO
THE SIXTH-LARGEST
PRODUCER OF
ELECTRICITY FROM
ALL SOURCES.**

Canadian power companies are competitive in all areas related to generation, transmission and distribution equipment, and professional services. Canada specializes in the design and construction of highly engineered, high-technology specialty equipment, including custom-designed hydro turbine generators, power boilers, gas generators and nuclear reactors.

Atomic Energy of Canada Limited (AECL) offers a unique technology in the CANDU nuclear power system. The major features that distinguish CANDU from its international competitors are the pressurized light water reactor (PWR) and the boiling light water reactor (BWR), which:

- ARE FUELLED BY NATURAL URANIUM AS OPPOSED TO ENRICHED URANIUM,
- USE PRESSURE TUBES RATHER THAN A LARGE PRESSURE VESSEL TO HOLD THE FUEL,
- USE HEAVY WATER RATHER THAN ORDINARY WATER AS A COOLANT AND MODERATOR, AND
- CAN BE REFUELLED WITHOUT BEING SHUT DOWN.

The Canadian power industry exports more than \$2 billion in goods and services annually to customers in countries such as China, Indonesia, Israel, Egypt and Venezuela. Canada's leading exports include:

- EQUIPMENT FOR HYDRO, THERMAL AND NUCLEAR GENERATING STATIONS
- POWER TRANSMISSION AND DISTRIBUTION EQUIPMENT
- ELECTRICAL WIRE AND CABLE PRODUCTS
- POWER AND DISTRIBUTION TRANSFORMERS
- CONTROL AND PROTECTION EQUIPMENT
- POWER-CONVERSION EQUIPMENT
- CO-GENERATION, MINI HYDRO STATIONS AND REMOTE LOCATION POWER GENERATION
- CONVENTIONAL AND ADVANCED TECHNOLOGY BATTERIES
- FUEL CELLS

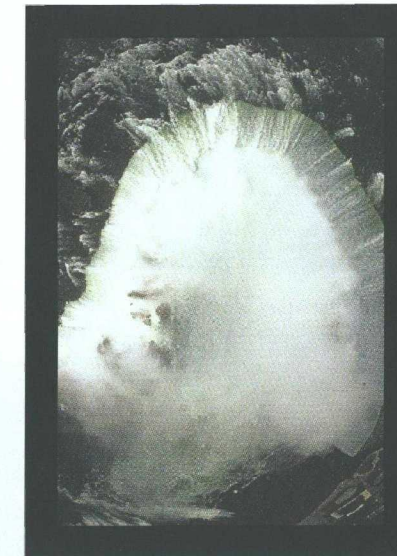




PHOTO COURTESY OF
GRAEME OXBY

MINING

Canada is one of the world's largest mineral producers and the world's leading exporter of minerals, metals and related products. From 1993 to 1995, the value of Canada's total exports increased from \$29 billion to over \$40 billion. Canada is the world's fourth-largest coal exporter.

With access to abundant, high-quality reserves, including the recently discovered Voisey's Bay nickel-copper-cobalt deposit and the Lac de Gras diamond deposits, Canada's minerals and metals industry produces some 60 non-fuel mineral commodities. These resources, combined with a well established mining infrastructure, an efficient transportation system and a highly skilled and productive workforce, have earned Canada an international reputation for excellence in mining. In 14 of the last 26 years, Canada has ranked first in the world as a destination for international mineral exploration capital.

Canada is committed to the sustainable development of minerals and metals and is playing a lead role internationally in the development of approaches aimed at the sound management of these resources.

MINING TECHNOLOGIES

To achieve and maintain Canada's impressive level of mineral production, Canadian companies have developed unique mining and exploration expertise in all aspects of underground and open-pit mining. In addition, more than 85 per cent of the mining work force in Canada uses electronics, robotics and advanced telecommunication technologies.

Canadians have pioneered the development of exploration techniques in the areas of ground and airborne geophysics. Canadian companies have captured 70 per cent of the world market for airborne geophysical

**CANADA LEADS
THE WORLD IN THE
PRODUCTION OF
POTASH, ZINC AND
URANIUM AND
RANKS AMONG
THE TOP FIVE
INTERNATIONAL
PRODUCERS OF
NICKEL, CADMIUM,
ASBESTOS,
ALUMINUM, COPPER,
GYPSUM, COBALT,
MOLYBDENUM, LEAD
AND GOLD.**

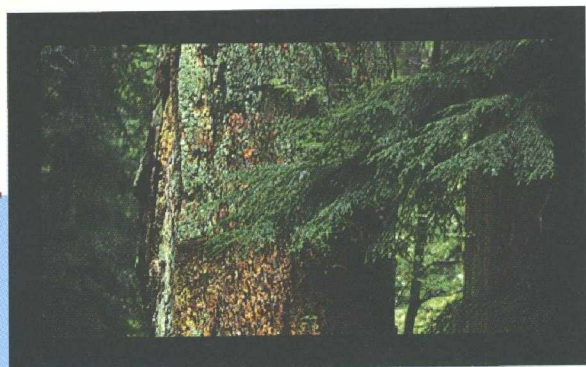
surveying, while Canadian geophysical equipment manufacturers, related software developers and data interpretation companies hold about 60 per cent of these world markets.

Canadian technologies improve mine safety, enhance environmental systems and increase productivity, allowing mining companies to explore deeper ore bodies. Canadian mining companies are developing the "intelligent mine" — one that can automatically detect changing mine conditions and respond appropriately. Canada has developed complete automated systems for mineral processing. It is the world leader in microwave applications to refractory and carbonaceous ores. This technology dramatically reduces energy requirements, improves recoveries and neutralizes mining wastes. Other technologies developed by Canadian companies, such as three-dimensional geological computer modelling and mine planning systems, maximize the value that can be extracted from an ore body.

Canada's expertise in mining equipment ranges from small diameter borehole survey instruments to tunnelling machines. Canadians are innovative designers and manufacturers of custom and utility vehicles, trucks, and load-haul-dump equipment of all sizes, as well as computerized maintenance and dispatch systems for underground mining. Canada's innovative mining equipment also includes dual rotary drills that penetrate and case at the same time, reverse circulation drilling machines, and high-technology equipment for bulk handling of materials. Canadians are at the forefront in the use of global positioning systems in open-pit mines. Other key technologies developed in Canada include three-dimensional drill hole technology that simplifies the process of delineating a mineral deposit; flash smelting, and continuous smelting, as well as world-leading assaying techniques.

Canadian mining companies have been innovators in developing leading-edge technologies to improve environmental quality. Canadian environmental service companies are enjoying rapid international growth. Among the environmental technologies in which Canada excels are exhaust purification, which ensures a clean underground environment; dewatering and fluidizing methods for the treatment of tailings; and a full range of groundwater monitoring instrumentation. Canada's mining industry was the first in the world to develop and adopt a national environmental policy.

Canada has a well established and effective scrap metals recycling industry, which includes many companies that have expertise in recycling electronic scrap.



INVESTMENT OPPORTUNITIES

The Canadian government is committed to a favourable mining investment climate. Canada offers foreign investors many opportunities to participate in hundreds of projects at all stages of development, from early exploration to production. As of November 1995, Canadian companies held a portfolio of some 2750 foreign mineral projects in 99 countries around the world. Canada annually holds one of the world's largest mining trade shows, which provides a unique window on Canadian mineral-investment opportunities worldwide.

Canada has championed the world's junior mining companies. Young international mining companies listed on Canada's stock exchanges provide further opportunities for investors to participate in mineral development the world over. Many major initial public offerings and secondary financings for mining take place on the Vancouver and Toronto stock exchanges.

FOREST INDUSTRIES

With some 240 million hectares of commercial forest land found within its borders, Canada is home to diverse species of some of the world's finest softwoods, mixed woods and hardwoods. The second-largest commercial softwood forest in the world is found in Canada. This fine resource base, combined with a highly skilled work force, advanced technology and proximity to international markets, gives Canada's forest products a leading competitive advantage in the world marketplace.

Canada is the world's largest exporter of forest products. In 1995, Canadian forest industry shipments totalled \$57 billion, three-quarters of which were exported to markets around the world. Principal exports include high-quality primary products such as market pulp, newsprint, softwood lumber and wood-based panel products. The production and

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MIXED WOODS
AND HARDWOODS.**

export of higher value-added products such as paper packaging, stationery and business papers, wood windows, doors, mouldings and furniture, as well as wood building products, are all areas of high growth potential. In 1995, Canada became the largest exporter of manufactured housing to Japan, with export growth of nearly 200 per cent since 1992. The industry is consistently the largest contributor to Canada's positive trade balance.

Two major groups comprise the forest industries sector: paper and allied industries and wood industries. Most of the country's major forest-sector firms produce both wood and paper products. Mills producing commodity pulp and paper and wood products tend to be world-scale operations, with integrated activities ranging from silviculture and harvesting to manufacturing. Producers of higher value-added products tend to be smaller operations.

Over its 200-year history, the Canadian forest industry has evolved as a world-class, technologically advanced industrial sector. It is a leader in sustainable forestation techniques, and a new Canadian standard is being developed for the certification of sustainably managed forests. Three world-class forest products research institutes have been established in Canada: the Pulp and Paper Research Institute of Canada, the Forest Engineering and Research Institute of Canada, and Forintek Canada Corporation. These institutes work collaboratively with industry and government to address technology, product-innovation and environmental issues. A strong co-operation between industry and government over the last decade has resulted in the development of world-class technologies, especially in paper recycling. For example, the closed loop technology is one technology that has revolutionized the paper industry around the globe.

The forest products industry is continually adapting to changes in the global business environment to maintain its pre-eminence. Canada's forests are managed on a sustainable yield and multi-use basis. Forest-product companies have made significant investments in capacity-increasing advanced manufacturing and environmental technologies, resulting in products of a high quality that are cost competitive yet respect the sensitive ecological balance of the forest resource.



Construction and Building Products



PHOTO COURTESY OF THE
CANADA EXPORT AWARD
PROGRAM

The construction and building products industry is one of Canada's largest and strongest industries, with an annual output of \$90 billion. Access to a rich and abundant supply of indigenous materials, combined with a highly skilled, efficient labour force and an ample manufacturing capacity, have fuelled an increase in exports by Canadian-based construction companies of 300 per cent in the last three years.

The competitiveness of Canada's construction and building products in the international marketplace is further enhanced by the willingness of Canadian companies to work with international partners to establish mutually accepted standards and building practices. Canada's building codes are constantly upgraded, and construction and building products must meet the exacting standards of the Canadian Standards Association. Canada's construction and building technologies also reflect the high priority placed on quality and energy conservation, while making efficient use of sustainable resources.

**CANADA'S
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EFFICIENT USE OF
SUSTAINABLE
RESOURCES.**

Since export growth is anticipated to continue, these conditions offer outstanding investment opportunities. Furthermore, the North American Free Trade Agreement provides investors with tariff-free access to a construction and building products market of more than \$US600 billion.

HOUSING

According to the Organization for Economic Co-operation and Development (OECD), Canadians are among the best housed people in the world. Weather conditions varying from harsh dry winters to hot humid summers have forced Canadian scientists to take the lead in developing technologies in air control, heat and moisture flow, durability, and fire safety.

Canadian housing products incorporate world-class building technology, exemplified by the Canadian-developed R 2000 standard, which ensures that products provide maximal energy conservation and optimal internal air quality and comfort.



Canadian expertise ranges from complete turnkey projects, for which Canada is renowned in places such as Germany and China, to manufactured components. Canada has become a recognized world leader in manufactured or pre-fabricated housing, with exports in this area more than tripling in the last three years.

Canada's pre-fabricated wood-frame housing system is world renowned for its high quality and price competitiveness. Available as a complete system, it is easily transportable and can be constructed in a very short time. Similar building systems in light steel are very successful internationally. Both systems are highly earthquake resistant. Panelized housing is equally suitable for export markets because it is transportable and can be constructed quickly.

Canadians have been equally at the forefront of developing world-class high-rise construction technologies such as concrete composite systems. The leading flying form techniques for effective construction of medium- and high-rise apartment blocks have been pioneered by Canada.





BUILDING PRODUCTS

Canada's building products industry encompasses more than 400 different manufactured products, worth \$25.8 billion in output per annum.

Among the manufactured products in which Canadians excel in workmanship and price competitiveness are windows and doors. Canada produces metal, wood and plastic windows and doors that are highly competitive in international markets. Exports of plastic and wooden doors and windows have increased more than 500 per cent over the last five years. Canadian-manufactured kitchen cabinets also enjoy a global reputation for leading quality, design and finish, as well as excellent growth and export capabilities.

Canada is a recognized leader in the development of heating system technologies and in applying thermal energy conservation techniques in housing. Canada's leading-edge heat recovery ventilators and air-exchange technology reflect the high priority the Canadian industry places on air quality. A proven breakthrough technology in air flow, temperature and moisture control is the seamless housewrap sheathing membrane, developed in Canada.

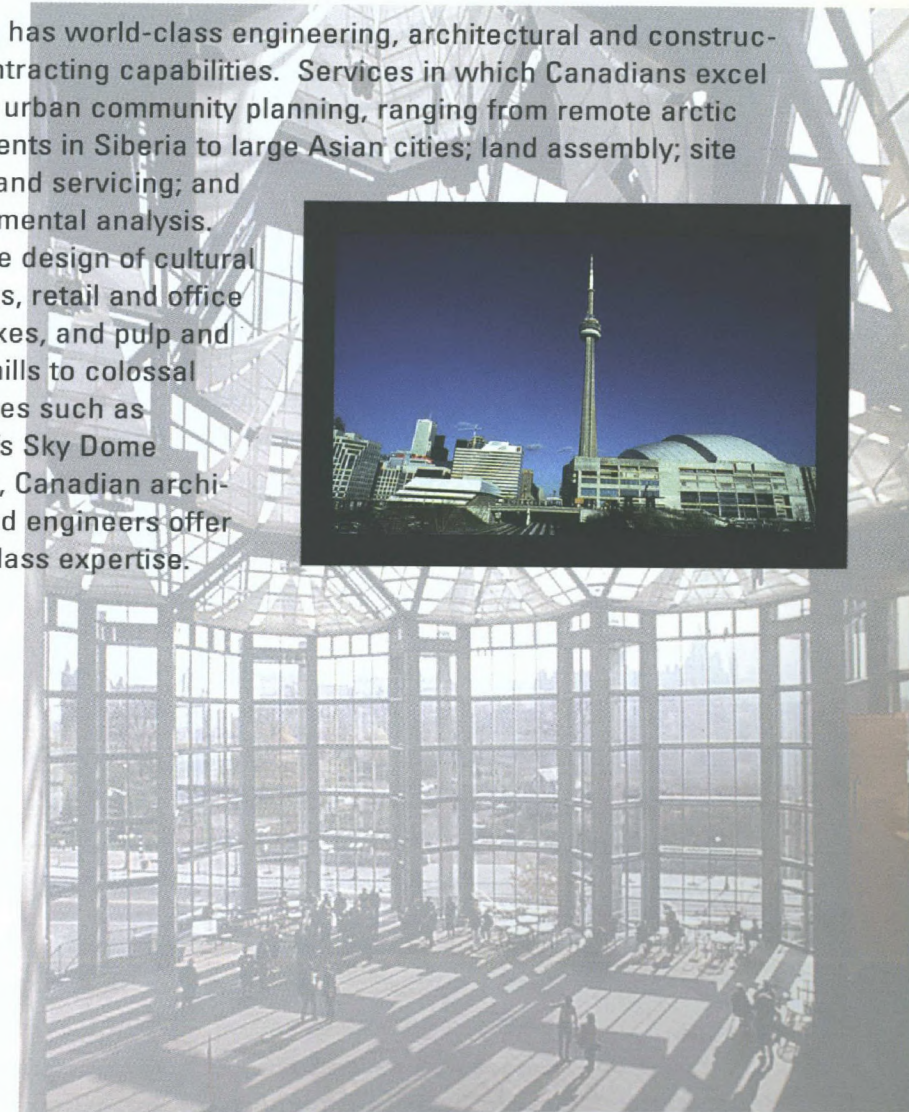
MATERIALS

Canada excels in the manufacture of construction and building materials ranging from trusses and insulated thin-brick panel cladding materials to aluminum and vinyl exterior cladding. Canadian scientists have successfully developed innovative technologies in masonry veneer and asphalt roof shingling, as well as high-density calcium silicate bricks.

Canadian companies have also developed outstanding production systems for fast-formed concrete foundations. Shotcrete and other construction and restoration techniques such as dry-stacked concrete block wall systems exemplify leading developments in the use of concrete. Canada leads in tilt-up concrete construction and curtain wall construction technologies. Canada is a world leader in colour-coated steel production, as well as in the reconstitution of structural wood to form composite products of the highest strength and quality.

CONSTRUCTION, ARCHITECTURAL AND ENGINEERING SERVICES

Canada has world-class engineering, architectural and construction contracting capabilities. Services in which Canadians excel include urban community planning, ranging from remote arctic settlements in Siberia to large Asian cities; land assembly; site design and servicing; and environmental analysis. From the design of cultural buildings, retail and office complexes, and pulp and paper mills to colossal structures such as Toronto's Sky Dome stadium, Canadian architects and engineers offer world-class expertise.



Telecommunications and Information Technologies

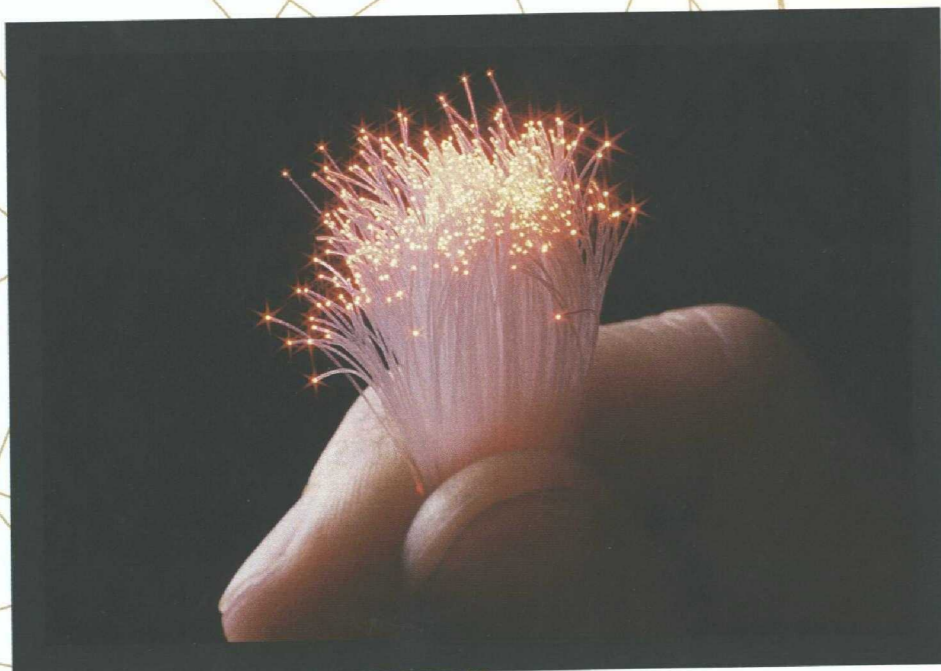


PHOTO COURTESY OF
COVER TO COVER DESIGN
CORPORATION

Staying on the leading edge of information and telecommunications technologies is essential to building an infrastructure that makes countries competitive in international markets. Working from a sophisticated base in Canada, Canadian companies have helped upgrade information and telecommunications systems around the world.

Canadians have been setting the pace in some of these industries for more than a century. The very first telephone call was placed in Canada by Alexander Graham Bell, the Canadian-born inventor of the telephone. Canadian information and telecommunications companies have built on these kinds of historical achievements. They have remained innovative and cost-efficient and continue to win large numbers of foreign contracts, many of them in the highly competitive U.S. market.

One need only look at a map to see that Canada's communications systems have had to overcome challenging geography and climatic extremes. They have done that successfully. Canada's recent telecommunications breakthroughs have coincided with advances in information technologies that include software products, computer services and new media, geomatics products, computers, peripherals and instrumentation, and electronic components.

**CANADA'S
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TELECOMMUNICATIONS.**

TELECOMMUNICATIONS

In 1994, the U.S. Mesa Research Group ranked Canada first in both the comprehensiveness and the quality of its telecommunications systems when compared with the United States, Japan, the United Kingdom, Germany and Singapore.

Canadians are the heaviest users of telephones in the world; 99 per cent of households have telephones, and 92 per cent have access to multiple television channels through cable networks. As a result, Canadians are very demanding about the scope and quality of their telecommunications capacity. Companies in Canada are active around the world in countries such as the United States, the United Kingdom, Brazil, China, Thailand and the Philippines, installing the same kinds of efficient communications networks that Canadians have come to depend upon.

Recent Canadian telecommunications "firsts" have included:

- THE WORLD'S MOST POWERFUL GEOSTATIONARY MOBILE COMMUNICATIONS SATELLITE (1996)
- THE WORLD'S MOST COMPREHENSIVE FIBRE-OPTIC NETWORK (1994)
- THE WORLD'S LARGEST POINT-TO-POINT ASYNCHRONOUS TRANSFER MODE (ATM) NETWORK (1993)
- THE WORLD'S LARGEST CONTIGUOUS CELLULAR NETWORK (1990)
- THE WORLD'S FIRST NATIONAL GEOSTATIONARY SATELLITE (1972)
- THE WORLD'S FIRST PACKET-SWITCHED NETWORK (1972)
- THE WORLD'S FIRST DOMESTIC DIGITAL MICROWAVE NETWORK (1971)

More than 90 per cent of Canada's telephone network has already been digitized. Coast-to-coast fibre-optic networks provide a full range of commercial services, as well as the necessary bandwidth required to develop and test tomorrow's high-speed multimedia services.

Over the next 10 years, Canada's local and long-distance networks will be upgraded in interactive, two-way broadband capacity. When the upgrading is complete, 80 to 90 per cent of all businesses and homes in Canada will have access to the multimedia traffic lanes and technologies of the information highway. Canada's goal is to build the highest-quality, lowest-cost information network in the world. Immense potential exists in all information and telecommunications subsectors for collaborative research and





development and for joint ventures and international alliances between Canadian and foreign companies.

In 1994, Canada sold \$6.4 billion in telecommunications equipment, mostly to customers in the United States, China and the United Kingdom. Canadian companies specialize in several areas of telecommunications, including switching systems, broadband and multimedia products and services, fibre-optic cabling, rural communications, design and application of submarine cable systems, satellite networking, computer telephony integration and mobile and cellular phones. There are very few areas of telecommunications and information technology in which Canadian companies are not at the forefront of development.

The willingness to form strategic alliances and transfer technology is an essential feature of a good partner. Many joint trade and investment opportunities have been realized after representatives of other countries visited Canada through the Telecommunications Executive Management Institute of Canada education program. Countries are moving toward the creation of more open economic systems that welcome healthy competition from abroad and joint enterprise within their own borders. Canada itself welcomes both competition and outside investment.

Canada's regulatory agency, the Canadian Radio-television and Telecommunications Commission (CRTC), has effectively opened local telephone service to competition from all suppliers, including cable companies, resellers and wireless providers. Telecommunications companies can now provide new information and multimedia services, such as home banking and shopping, distance education and telemedicine.

Canadian companies have worked with state enterprises in countries such as Malaysia to find the best way to open their own systems to lower costs and to increase efficiency. They have provided the feasibility and viability studies and assisted in the development of working systems.

**THERE ARE VERY
FEW AREAS OF
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AND INFORMATION
TECHNOLOGY IN
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OF DEVELOPMENT.**

INFORMATION TECHNOLOGIES

Canada's exports of information technology products (including computers, consumer electronics, peripherals and software products) are growing, with Canadian firms recording strong performances in this industry. With growing Canadian capacity, offshore investors and companies are approaching Canada in search of North American alliances.

Software products, multimedia products and geomatic solutions are three areas in which Canada continues to have considerable success.

The software products and computer services industry has grown rapidly in Canada. Revenues of the top 100 software products companies grew in 1994 by 38 per cent to \$1.5 billion, of which 62 per cent was derived from exports. Revenues of the top 50 service firms grew by 25 per cent to \$3.9 billion. Many of these companies have formed strategic alliances with foreign partners to enhance distribution and foster product development.



Canada has established leading positions in specialized markets such as graphics, Internet tools, document management, geographic information systems (GIS), systems development, and information-technology management.

In the field of multimedia, Canadian firms are developing high-quality training and educational products, as well as entertainment products such as CD-ROM games. Canadian firms also excel in specialized markets such as animation, three-dimensional simulation and photo applications. Although the United States is the largest foreign market for Canada's software and new media industries, Canadian companies are quickly building international alliances in countries such as the United Kingdom, Brazil, Peru, Norway and Singapore.

The field of geomatics is an area in which Canada has become a strong international leader. Geomatics involves the acquisition,





storage, analysis, distribution and management of geographically referenced information. This technology can be applied by both private-sector and government users to manage information on such diverse areas as natural resources (such as forestry), the weather and tax collection. The Canadian government has encouraged co-ordinated partnerships between the private and public sectors in this field. Canadian industry-government consortia have recorded several successes in winning projects internationally.

THE SPACE INDUSTRY

More than 150 Canadian firms are now involved in the space industry. In 1994, they sold over \$700 million in goods and services, of which nearly half was exported. The Canadian space industry exports a larger proportion of its total production than do any of its competitors.

Canadian companies have registered many successes around the world, most notably in mobile personal satellite communications, remote-sensing hardware and data acquisition. They are responding to growing demand for space equipment and services related to Earth observation facilities and telecommunications equipment. The industry has also developed an advanced capacity in robotics and space infrastructure and has been a major contributor to the International Space Station Program.

The recently launched Canadian satellite RADARSAT ushers in a new age in remote sensing and firmly positions Canada as a leader in Earth observation. Unlike most remote-sensing satellites, which use optical sensors to capture sunlight reflected from the Earth, RADARSAT can collect images of the Earth day or night and through clouds using a powerful microwave Synthetic Aperture Radar system. Positioned approximately 800 km above the Earth, RADARSAT produces images of the surface that can be used in monitoring the environment and managing the Earth's natural resources.

Television viewers around the world observed the mission of the U.S. space shuttle Atlantis in the fall of 1995. This mission used Canada's newly developed Space Vision System, which made possible the installation of a connecting bridge between the shuttle and the Russian space station MIR.

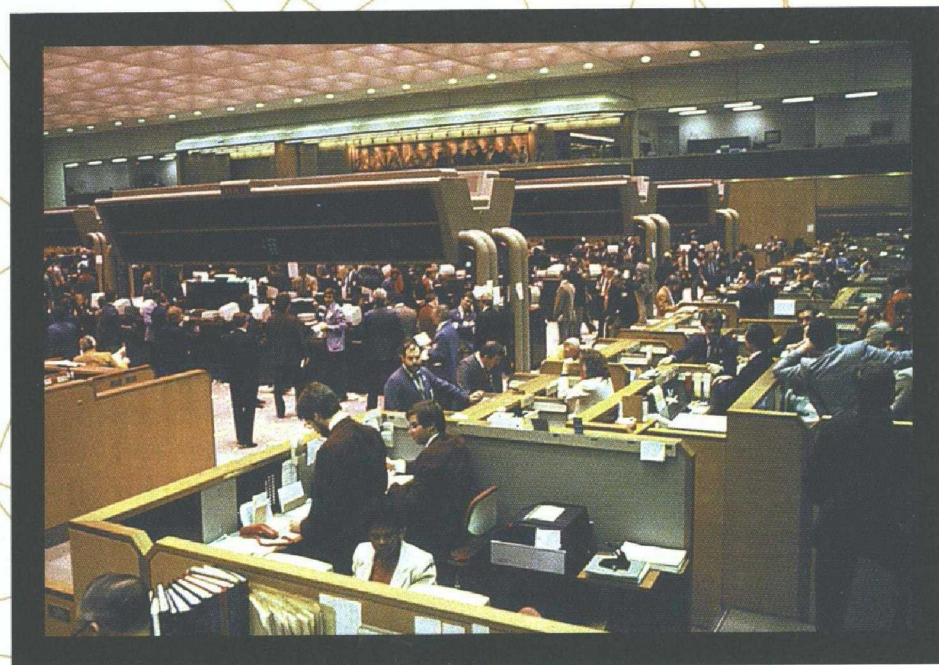
The Canadian-made MSAT, launched in early 1996, is the world's most powerful commercial satellite for mobile and fixed applications. The MSAT Network has brought advanced mobile and stationary wireless telecommunications to almost every square kilometre of Canada, picking up where cellular networks leave off. It covers all of Canada, the United States and Mexico, most of the Caribbean and Central America, and 400 km out to sea, helping individuals, businesses and search-and-rescue teams, in coastal and remote areas.



PHOTO COURTESY OF
RADARSAT INTERNATIONAL INC.



Financial Institutions



- Canadian financial institutions offer a variety of products and services that have made them attractive to customers and investors around the world. They offer investments that are not only lucrative, but low in risk.
- From banks, trust companies and co-operatives to insurance companies and stock exchanges, Canada's well regulated financial institutions are among the safest in the world.
- Canadian legislators are very attentive to the rules and regulations that govern Canada's financial sector. They are determined to maintain a system that is stable and encourages competition.

Canadian financial institutions are also among Canada's leading export earners. Liberalization of financial regulations in North America, Europe and Asia is providing foreign clients with greater opportunities to take advantage of Canadian financial services.



Canada's six major banks have all established foreign commercial operations, most of them in a number of countries on several continents. Canadian life insurance companies, major investment brokers and trust companies operate virtually everywhere in the world.

These institutions have responded to the growing interest of foreign investors in Canada as a secure, low-restriction market offering attractive returns and an opportunity for risk diversification. They have also responded to the growing demand for competitive, reliable financial services in other countries.



CANADIAN FINANCIAL INSTITUTIONS HAVE DEVELOPED A SOPHISTICATED CAPACITY TO MANAGE EFFICIENT AUTOMATED SYSTEMS SPANNING LARGE NETWORKS OF BRANCHES ACROSS CANADA.

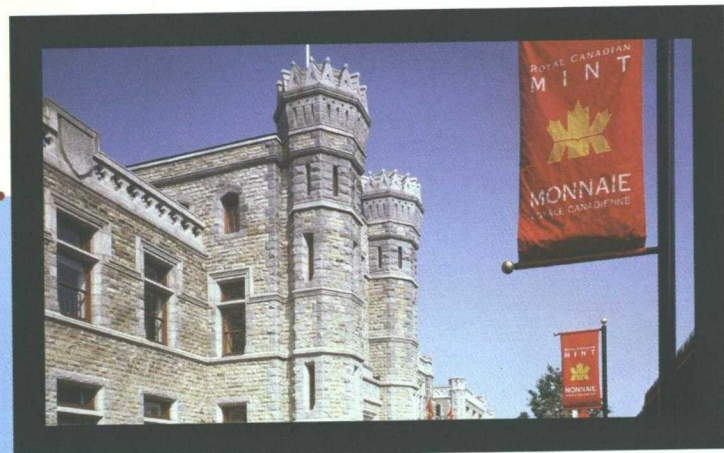
While there are differences among the services offered by Canadian institutions, there are also some basic similarities:

- Banks focus on private and investment banking services for both Canadian and international customers. They also offer foreign exchange and treasury services, trade credit, guarantees and acceptances.
- Trust companies offer private and merchant banking, investment services and a range of advisory services to both international and Canadian clients.
- Life insurance companies sell individual policies and annuities to local customers, either directly, through brokers, or through corporate employee benefit plans.
- Brokerage houses offer Canadian securities — as well as securities from other countries — to international and Canadian customers.

Technological change is making modern financial institutions more efficient and user-friendly. Canadian financial institutions have developed a sophisticated capacity to manage efficient automated systems spanning large networks of branches across Canada. They possess a wealth of expertise in operating and co-ordinating branches, in the design of payments systems, and in many other areas. Some foreign financial institutions have already learned that they can speed the modernization of their systems by taking advantage of these advisory resources.

The Canadian Depository for Securities has developed an automated facility for the electronic clearing of security transactions





and the custody of securities. This facility helps reduce clearing costs through both its efficiency and its protection against fraud and corruption.

Canadian institutions are always looking for ways to offer healthy returns on equity to international customers seeking opportunities that are diversified, potentially lucrative and safe. In recent years they have upgraded their capacity to offer assistance with investment banking, treasury and foreign exchange operations, and various private banking services. They are also experienced in the realm of venture capital through sponsorships and investments in venture funds that finance high-technology companies.

Canadian insurance companies have been successful at selling life and health insurance policies as well as pension plans and annuities to foreign companies. The Canadian advantage can be stated in one word: security. In Canada, life and health insurers must satisfy regulatory authorities that policy reserves are sufficient to meet the anticipated requirements of policyholders.

There are 160 insurance companies in Canada. Since there are also no significant barriers to entry for foreign or domestic players (other than clear regulations that guarantee the safety of a client's money), the Canadian insurance industry is extremely competitive.

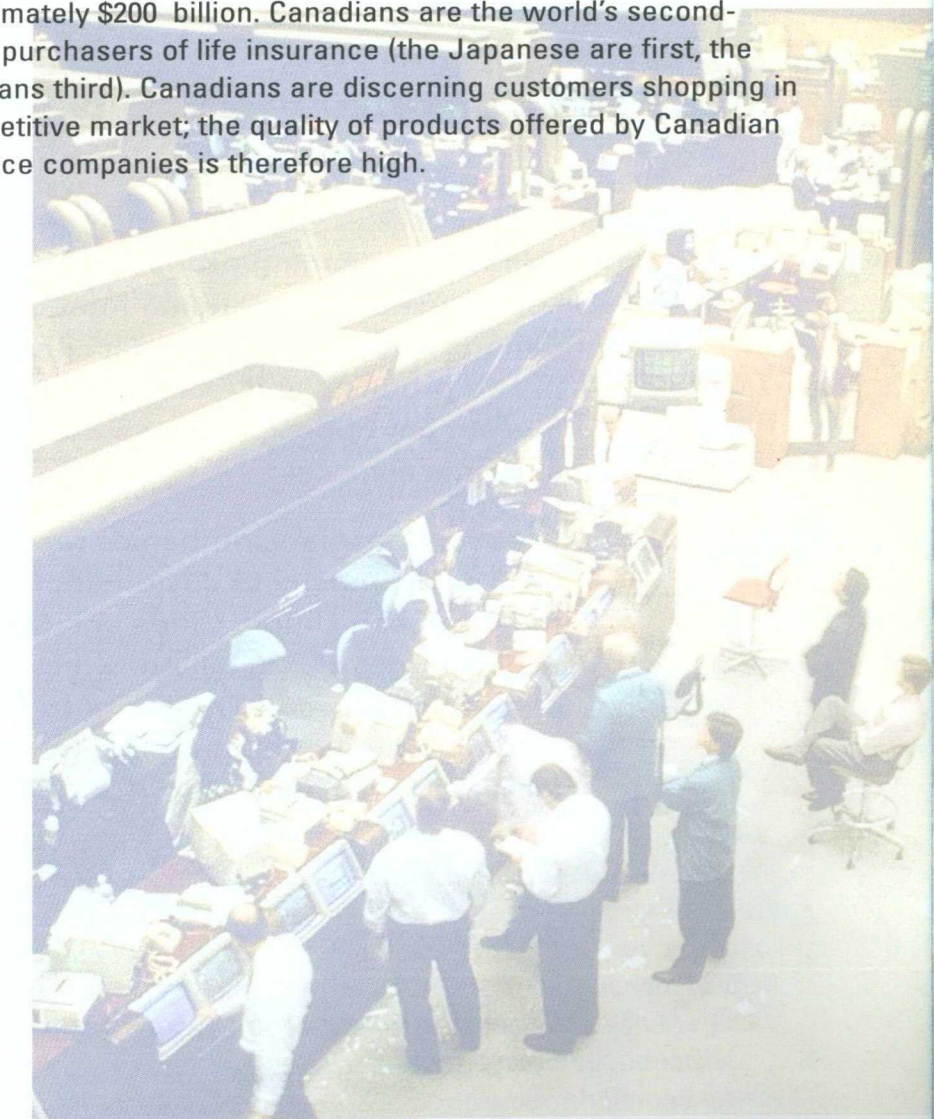
The system offers a variety of traditional life insurance products in health, accident and sickness, and annuities and other pension services. This Canadian system is appreciated in the United States and other foreign countries; more than 40 per cent of the industry's revenues come from abroad. More than five million non-Canadians own more than \$600 billion in life insurance policies underwritten by Canadian companies.



Although there has always been a strong regulatory framework for insurance companies in Canada, several steps were taken by the federal government in 1992 to enhance consumer protection. The Canadian industry itself provides a protection fund for policy holders with Canadian institutions. The government further enhanced the system's international reputation by bringing in a regime of Minimum Continued Capital and Surplus Requirements. This is similar to the Bank for International Settlements, which ensures that banks have adequate capital available to settle all claims in even the most difficult circumstances.

Canadian life and health insurers possess worldwide assets of approximately \$200 billion. Canadians are the world's second-largest purchasers of life insurance (the Japanese are first, the Americans third). Canadians are discerning customers shopping in a competitive market; the quality of products offered by Canadian insurance companies is therefore high.

**THE CANADIAN
ADVANTAGE CAN
BE STATED IN
ONE WORD:
SECURITY.**





- Canada is a leading producer and exporter in the increasingly sophisticated international food and beverage marketplace.
- Canada not only is the perfect place to shop for competitively priced products and technology, but also presents enticing investment opportunities and partners willing to form strategic alliances.
- In 1995, Canadian companies recorded \$17.5 billion in agri-food sales, mostly to customers in the United States, Japan, the European Union, China and Mexico. The industry set an export target of \$20 billion, which it expects to meet by the end of the decade. The secret to Canada's success has been a combination of high-quality foodstuffs and dramatically increased efficiency.

Under the North American Free Trade Agreement, Canadian-based agri-food companies have gained preferential access to the entire North American market of 370 million consumers. To serve this rich and demanding market, Canadian businesses offer first-rate, innovative products at competitive prices.



Canadian companies are committed to working in the international marketplace where the demand for value-added foods and beverages is booming, especially in emerging economies. Some sectors in which Canadian agri-food interests are internationally competitive are cereal grains, seafood and aquaculture, vegetable oils, meat and animal genetics, and processed food and beverages.

CEREAL GRAINS

Canada's international reputation for high-quality wheat is undisputed. Canadian grains and oilseeds and their byproducts are known for their consistency and superior quality. In 1995, foreign customers bought close to 40 million tonnes of grain, oilseeds and related products worth nearly \$8.9 billion.

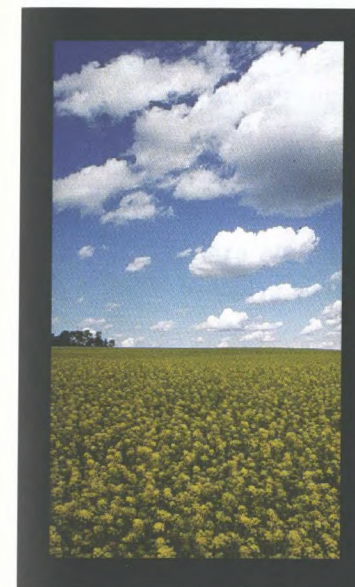
Many nutritionally and functionally superior grain varieties are emerging from ongoing work by a Canadian research network. This network, operating within a long Canadian tradition of developing new grain technologies, has committed itself to widening Canadian processors' current competitive advantages in quality and cost. It has developed cereal grains that possess superior protein composition and processing characteristics. New food ingredients and functional foods are being derived from both traditional and genetically modified grains.

Canadian grain processing industries include wheat, corn and oat milling; malting; and biscuit, breakfast cereal, pasta, gluten and starch. Current technology maximizes quality and production in these areas and is adaptable for use around the world.

SEAFOOD AND AQUACULTURE

New processing technologies and product innovations are transforming Canada's seafood processing and export industry. Canada is a world leader in processing seafood such as salmon, prawns, lobster, surf clams, geoduck, horse clams, crabs, rockfish, redfish, black cod and other groundfish species. It also leads in the processing of by-products for new food ingredients and industrial products such as chitin, chitosan and bi-polymer chemicals used in industries ranging from pharmaceuticals to water treatment.

Effective management, advanced technology and innovative marketing have responded to, and mitigated the effects of, the



decline of some groundfish stocks in Canada. The industry has combined new overseas product sources and a greater emphasis on aquaculture products and services to strengthen its position in the marketplace; sales are in excess of \$3 billion annually. Often, alliances forged with foreign firms have created new sources of supply and new potential for demand.

VEGETABLE OILS

Canada is internationally known for the development of canola, a superior oilseed, as well as many products derived from canola. Canola oil has become a popular vegetable oil worldwide, both for direct consumption and for use as an ingredient in many processed food products. Research and development (R&D) under way in Canada will lead to new edible oils with superior nutritional properties, as well as to a new array of non-edible vegetable oil products for industrial use.

MEAT AND ANIMAL GENETICS

Canada is a high-quality supplier of meats to world markets. The experience of Canadian livestock producers and meat processors and the application of state-of-the-art technology have contributed to Canada's reputation for excellence. Canada continues to develop new processing technologies in areas that include finished product handling, preservation and packaging. Canadian firms export both technology and consumer products.

With 16 per cent of the world market, Canada is the world's second-largest pork exporter (\$839 million in 1995). The strength of these sales is based on efficient production methods, access to economical feed, modern technology, strict inspection standards and superior breeding stock of Canadian pork producers.

Canada's cattle-breeding genetic exports are rising; semen exports totalled over \$30 million in 1995, and embryo exports are approaching \$4 million.

Canada's meat processors specialize in products made from red meats, including beef, veal, pork and lamb. Meat processing companies make a wide variety of meat products ranging from fresh or frozen meat to processed, smoked, canned and cooked meats, as well as sausage and deli meats.

PROCESSED FOODS AND BEVERAGES

The Canadian processed food and beverage industry has grown significantly. The value of annual exports increased from \$2.7 billion to \$4.9 billion between 1990 and 1995.



Meat and poultry products top the list of shipments by Canadian processors, followed by dairy and cereal products, including flour, baked goods, breakfast cereals, feeds and pasta. Other important exports include wines and spirits, fruits and vegetables, seafood products, soft drinks, confectioneries, vegetable oils and snack foods.

Canadian companies make good partners. While Canada's larger processors ship a variety of foods, many smaller firms have become competitive by using flexible processing equipment and adaptable production facilities. This flexibility often allows them to produce a variety of products. By adjusting production facilities, smaller firms can process private-label brands for retailers and other manufacturers under co-packing agreements and can respond more quickly to specialized product and market opportunities.

RESEARCH AND DEVELOPMENT

Canadian advances in food and beverage processing have been second to none. Canadian universities, industry-funded centres of excellence, and government research institutions all conduct R&D, and all collaborate closely with researchers in individual firms.

The cost of R&D in Canada is very competitive. In addition, Canada's academic and government research institutions house an impressive array of research professionals in food sciences and related disciplines. These institutions are linked through the Food Network of 12 universities and 18 federal and provincial government food-research facilities. Together, they create multi-disciplinary research teams.

Canadians are clearly the main beneficiaries of such a dedicated approach to technological innovation in the food and beverage industry. However, because this industry welcomes investment in Canada and partnerships abroad, entrepreneurs and consumers in other countries are also taking advantage of Canadian advances in this field.



Environmental Industries



- Canadians have a strong attachment to their environment.
- They wish to preserve the quality of their air and water, protect nature and conserve wildlife. Public opinion polls in Canada consistently show that the environment is a high priority for Canadians. Nearly all Canadians believe that governments and corporations should show greater concern for the world's ecology. These concerns in Canada — and similar concerns in other countries — have helped foster a Canadian environmental industry that has a reputation for innovative approaches to ecological challenges.
- Approximately 4500 Canadian firms are active in the environmental industry. These firms earned about \$11 billion in 1994, of which \$6 billion came from the sale of manufactured goods such as membranes for water treatment, heat exchangers, ventilation systems, recycling equipment, alternative fuel vehicle components and hydro turbines. About \$5 billion came from the sale of services such as consulting and environmental and energy engineering, as well as a wide range of scientific and technical services. These included spill prevention and clean-up, geomatics, remote sensing, waste management, laboratory testing and general research.



Most countries recognize that economic growth and environmental protection go hand in hand. While many countries are quickly developing their own capabilities, they also need efficient and workable innovations in services and equipment.

Clients and joint-venture partners around the world are looking to Canadian companies to provide the needed expertise for a wide range of environmental undertakings, whether they involve soil, water or air. More than 800 of Canada's environmental companies are active exporters, and Canada is a world leader in environmental services, biotechnology, remediation, monitoring and instrumentation.



WASTEWATER MANAGEMENT

Canadian industrial wastewater management firms, associated research and development centres, and universities have developed expertise and technical solutions for complex municipal and industrial water and wastewater treatment requirements. Some processes and applications in which Canadian firms specialize include:

PROCESS	APPLICATIONS
Anaerobic technology	Energy recovery that offers a significant cost savings
Sequencing batch reactor technology	Effluent treatment that produces a highly sanitized result and offers significant cost savings
Biological nutrient removal	Phosphorus removal to less than 0.3 mg/L and nitrogen removal to 1 mg/L at temperatures of less than 10°C





PHOTO COURTESY OF THE CANADA EXPORT AWARD PROGRAM

Reciprocating ion exchange	Metal ion recovery for recycling with payback periods as short as one year
Membrane systems	Separation and recovery of valuable feed stock to save on treatment costs
Automated polymer dosing	Sludge dewatering that offers up to a 40-per-cent polymer savings
Ultraviolet oxidation	Destruction of complex synthetic organic compounds for re-treatment and/or post-treatment of industrial effluent and remediation of contaminated aquifers
Ultraviolet disinfection	Cost-effective and "environmentally friendly" control of bacteria in effluent and industrial process waters
Wet air oxidation	Compact technology for breakdown of complex organic compounds
Wastewater treatment plant modelling	Realistic, dynamic modelling for process design and operation control of wastewater treatment plants

**CANADA IS
A WORLD LEADER
IN ENVIRONMENTAL
SERVICES,
BIOTECHNOLOGY,
REMEDICATION,
MONITORING AND
INSTRUMENTATION.**

AIR QUALITY MANAGEMENT

The majority of air quality management equipment manufactured by Canadian companies can be grouped into four categories: filters, extractors, specialized scrubber components and precipitators. Canadian companies have expertise in managing sulphuric emissions and the effects of acid rain, as well as in advanced industrial filtering systems.

Canadian air-quality management firms have developed innovative, cost-effective solutions in emerging sectors, including:

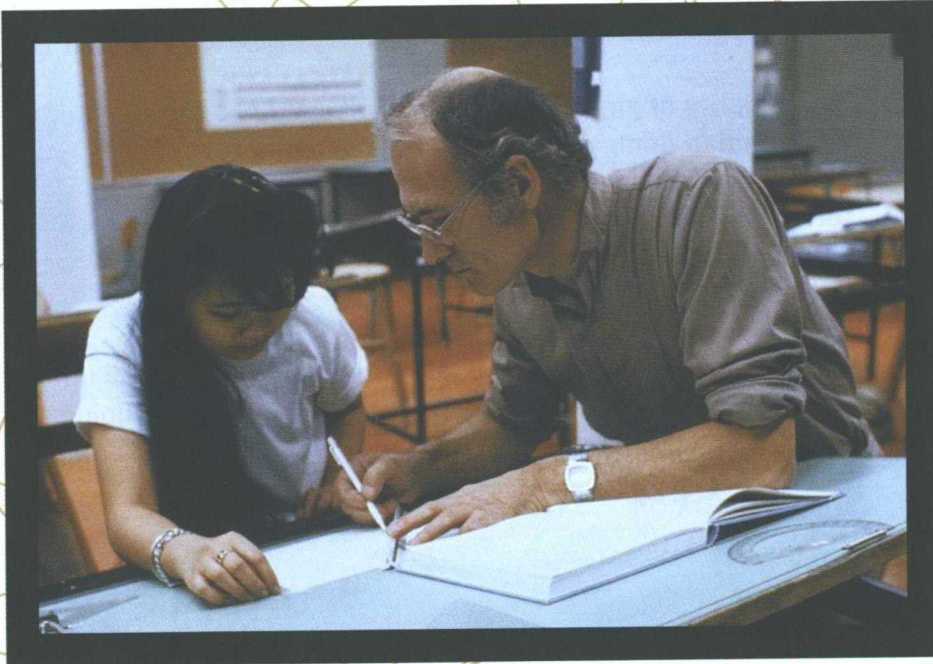
- CONTINUOUS EMISSIONS MONITORING WITH PROCESS CONTROLS
- BIOFILTRATION
- CLEAN INCINERATION TECHNOLOGIES
- HOT-GAS CLEANING USING ADVANCED PARTICLE FILTERS
- INDOOR AND AMBIENT AIR TECHNOLOGIES

SOLID WASTE MANAGEMENT

Currently 80 per cent of municipal and industrial solid waste in Canada is disposed of by landfilling. The remainder is disposed of through recycling, resource recovery and incineration. More stringent regulations in many countries have made solid waste management one of the fastest-growing sectors of Canada's environmental industry. While the emphasis to date of Canadian companies has been on the North American marketplace, Canadian solid waste equipment and services are shipped worldwide.

Canadian expertise in solid waste management includes:

- COMPOSTING AND RECYCLING TECHNOLOGIES
- MATERIAL RECOVERY FACILITIES
- INCINERATION
- WASTE-MANAGEMENT PLANNING
- SLUDGE MANAGEMENT
- SOIL REMEDIATION
- LANDFILL AND LINER DESIGN
- HAZARDOUS WASTE DISPOSAL



EDUCATION

In the modern knowledge-based economy, a highly educated and trained workforce is one of the most important resources in making a country competitive. Canada has gained international respect and admiration for the excellence of its educational system. Successful graduates from Canadian universities and colleges are now providing leadership in many governments and businesses around the world.

Canadians have always placed a premium on education and demanded first-rate schools. They spend more per capita on their education system than any other country in the Organization for Economic Co-operation and Development (OECD): 7.1 per cent of gross domestic product compared with an average of 6.1 per cent in other OECD countries.

Many Canadian universities — such as British Columbia, Alberta, Queen's, Toronto, McGill, Laval, Montreal and Dalhousie — are widely known and respected around the world. While perhaps not as well known, comparable programs are offered at dozens of other Canadian universities, including Simon Fraser, Lethbridge, Calgary, Manitoba, Waterloo, Concordia, New Brunswick, St. Mary's and Memorial. A consistent level of top-quality programs are offered at all schools. Instruction is available in either English or French and at some institutions in both languages.

Canada's community colleges, which offer training toward specific careers, complement the country's university system. Often their training is technical and provides hands-on experience. Many Canadian students are now combining university degrees with college degrees to ensure that they obtain the highest level of academic qualifications and specific training in a targeted job sector.

Learning is a lifetime occupation in Canada. Many Canadians undertake mid-career training through continuing education courses to upgrade their qualifications, acquire new professional skills and keep pace with changes in technology and with new theories and practices in the work place. Canadian educational institutions and corporations have designed courses specifically to meet the needs of a rapidly changing workforce.

In 1994-95, Canadian educational institutions attracted 59 200 international students at the post-secondary level: 22 500 to colleges and trade schools and 36 700 to universities.

International students who have studied in Canada speak glowingly of the country's safe and clean surroundings, its high quality of education, and the friendly welcome they receive from Canadians. Most overseas students are also happy that the weather is not as severe as they anticipated and that clothing and housing are adapted to the climate. Most Canadian cities are no colder than those of the northern United States. With four distinct seasons, Canada offers a wide range of outdoor activities, including skiing, skating, hiking, swimming, cycling and sailing.

Tuition fees for international students vary among institutions and programs of study. In many cases, fees are lower than those in the United States, the United Kingdom, Australia and New Zealand, while the quality of education remains excellent.

A network of Canadian Education Centres (CECs) has been established to provide information about study in Canada. Centres are located in Seoul, Taipei, Hong Kong, Bangkok, Jakarta, Kuala Lumpur and Singapore. These centres are designed to help match the interests and needs of international students with the resources available at Canadian schools. They can also help businesses and governments secure corporate and group training from Canadian suppliers. The CECs are operated by the Government of Canada in co-operation with the Asia Pacific Foundation of Canada.

Because Canada is a huge country, distance education allows people in remote areas to pursue their studies by correspondence with institutions throughout Canada. Many Canadian educational

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institutions are actively involved in the emerging field of distance education. Several schools are examining the possibility of offering such studies overseas. In some cases, Canadian telecommunications suppliers and educational institutions are working with foreign ministries of education to make distance learning possible from cities around the world.

Canadian educational institutions offer an unbeatable combination, including:

- EDUCATION THAT MEETS THE HIGHEST INTERNATIONAL STANDARDS
- PRESTIGIOUS, INTERNATIONALLY RECOGNIZED DEGREES
- TRAINING IN NEW TECHNOLOGIES, THEORIES AND PRACTICES FOR MID-CAREER UPGRADING
- REASONABLE FEES
- A SAFE, CLEAN, FRIENDLY ENVIRONMENT
- THE COMPANY OF MANY OTHER INTERNATIONAL SCHOLARS

ARTS AND CULTURE

Canada has successfully entered the international stage as it shares its rich cultural heritage through film, music, art and literature. Canadian authors, film producers and artists have won international acclaim, receiving some of the world's most prestigious prizes. Canadian cultural industries are producing high-quality products that are distinctively Canadian and have universal appeal. Growth in all cultural industries has been outstanding over the past five years.

Rapid growth in exports has taken place in virtually all sectors of Canadian cultural industries, as a result of increased industry productivity and global awareness of Canada's cultural heritage. The recording industry has witnessed a growth in exports by 324 per cent between 1990 and 1995. Export sales of books, in both English and French, more than tripled between 1989 and 1994, while exports of Canadian films

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tripled between 1990 and 1995. Supported by first-rate technology in areas such as telecommunications, broadcasting and multimedia, the industry is well poised to continue this growth.

PUBLISHING

The high quality of Canadian books is recognized internationally and compares favourably with books produced by Canada's main competitors. Canada's 350 publishers and exclusive agents sold over \$1.7 billion worth of product in 1993-1994, ranging from books by Margaret Atwood, winner of France's Order of Arts and Letters, and Michael Ondaatje, winner of the Booker Prize, to Harlequin Romances. Canada has an excellent repertoire of children's books and an illustrious body of literature from English and French Canada. Canadian publishing also encompasses periodicals and trade/text books.

To further enhance international partnerships in this industry, Canada has established the International Publishing Partnership Program, an international development initiative under the Association for the Export of Canadian Books (AECB). The long-term goal of the program is to develop sustainable publishing capacities in developing countries by fostering commercial partnerships between Canadian and developing-country publishers.

The production of many Canadian publications in both English and French enhances the export capability of this industry. As an officially bilingual nation, Canada has special expertise in developing didactic materials for teaching English and French as second languages.

MUSIC

Six major multinational firms, as well as 200 independent recording companies, operate in Canada. The Canadian music industry also benefits from producing for both English- and French-speaking markets. Canada is the world's second-largest producer of French-language recordings after France and the third-largest producer of English recordings after the United States and the United Kingdom. In addition, more than 200 titles of Canadian Aboriginal music are available. While home to many recording artists of international acclaim, Canada is also known in the international recording industry for its expertise in recording studio technology.

BROADCASTING

Broadcasting is one of the largest and fastest-growing components of Canada's cultural industries. Exports of television programming increased by 441 per cent between 1989 and 1994. In 1994 the industry contributed \$3.5 billion to Canada's GDP. Canada has three national English television networks and three French networks, several provincial educational television services, 21 specialty programming services, 6 pay-TV services and 3 pay-per-view services. Canada also operates the international radio and broadcasting service, Radio Canada International, and is one of the founding partners of TV-5, the international French-language television service seen around the world. In 1994 more than 100 private television stations were operating in Canada, with total revenues of close to \$1.5 billion.

Canada's team approach to working with international partners within the framework of co-production agreements is a key to its international success. Many Canadian broadcasters have entered into programming alliances with partners in Asia and Latin America and sell their programming in more than 100 countries. Similarly, Canadian independent television producers co-produce programming with partners in Europe, Latin America and Asia. Such Canadian television programs as "Anne of Green Gables" and "Due South" are seen around the world, from Japan to Germany.

As new cable and pay-TV services emerge around the world, Canadians are well equipped to provide their expertise in cable TV, broadcasting via satellite, and pay-TV services. Many Canadian television programming service holdings are active in international markets, including Australia, New Zealand and Chile.

FILM AND VIDEO

International partners are attracted to Canada's expertise in the filmmaking industry, and Canadian companies are active in sharing this expertise. Official co-production agreements with international partners in film and video have led to wider distribution and success in international media. Moreover, Canada's highly skilled technical services and excellent infrastructure have made Canada a major centre for film location shooting. A new generation of dynamic Canadian filmmakers such as Atom Egoyan, David Cronenberg and Claude Gagnon is successfully penetrating international markets in Europe and Asia.

MULTIMEDIA

There are approximately 500 producers of multimedia of varying specializations in Canada. Advanced broadcasting and telecommunications industries, combined with a strong creative base in the cultural industries, make Canada a world leader in the development of multimedia products and services. Canada is well positioned to take advantage of the opportunities offered by the emergence of new media.

VISUAL AND PERFORMING ARTS

Canada's rich collection of visual artworks range from exquisite Inuit soapstone carvings and many other aboriginal arts and crafts to photography by artists such as Jeff Wall and paintings by artists such as Betty Goodwin. Many of these visual works are exhibited internationally, joining Canada's performing artists as Canada's cultural ambassadors to the world.

Performing artists such as Canada's modern dance company La La La Human Steps, Canada's young Grammy winner Alanis Morissette, Quebec's extraordinary circus group Cirque du Soleil and concert pianist Louis Lortie regularly tour internationally.

International audiences are also drawn to Canada to witness the wide range of well established cultural festivals Canadian cities have to offer. Millions travel every year to enjoy such festivals as Montreal's International Jazz Festival, Stratford's theatre festival, Prince Edward Island's Charlottetown Festival and Toronto's Caribana festival, to name just a few.



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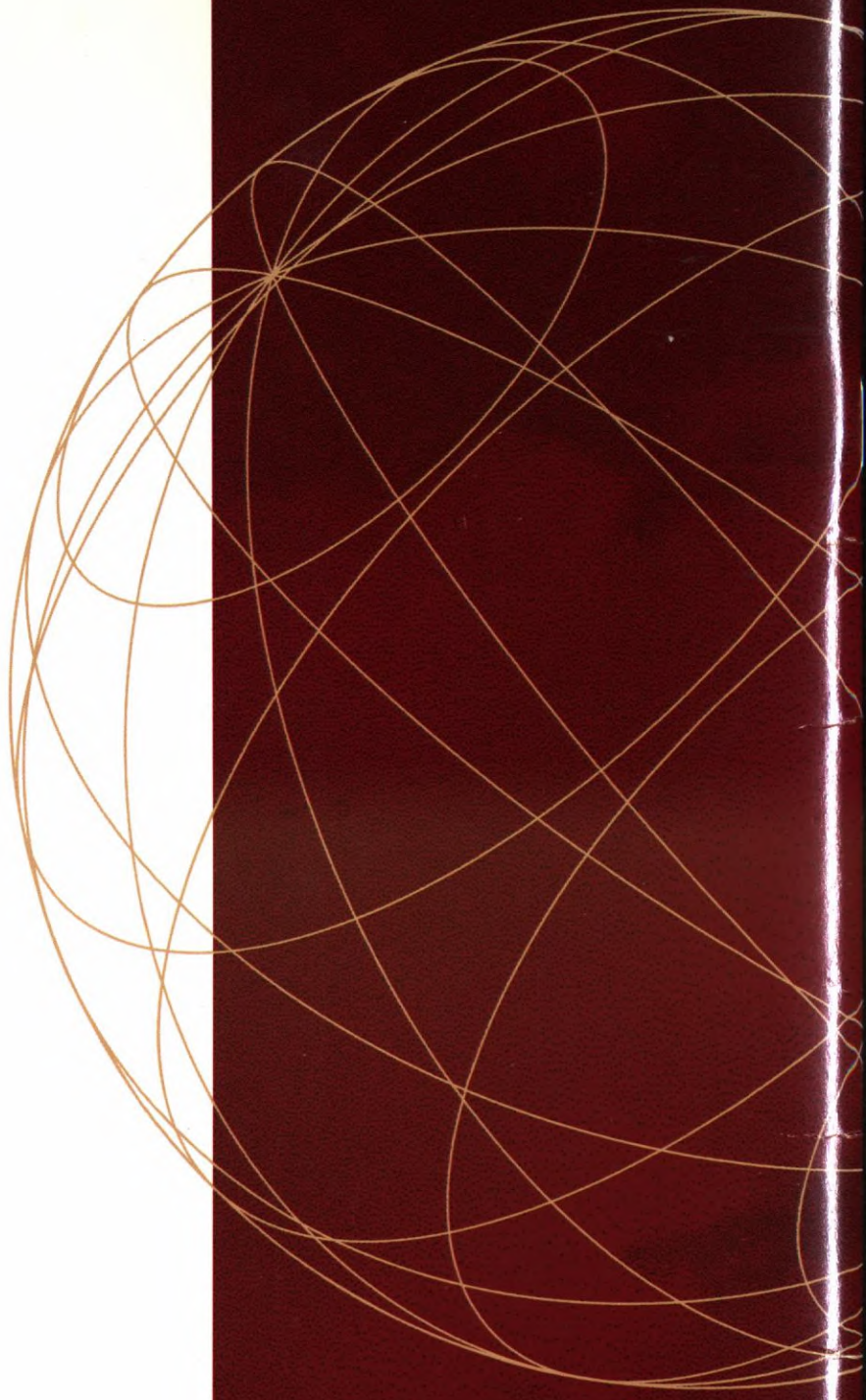
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