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Oil and Gas Products and Energy Equipment

Canada's International Business Strategy

1996-1997

Team Canada • Équipe Canada

Canada's International Business Strategy

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. Aerospace and Defence
3. Agriculture, Food and Beverages
4. Arts and Cultural Industries
5. Automotive
6. Bio-Industries
7. Business, Professional and Educational Services
8. Chemicals, Plastics and Advanced Materials
9. Construction Products and Services
10. Consumer Products
    - *Apparel*
    - *Textiles*
    - *Footwear*
    - *Sporting Goods*
    - *Pleasure Boats and Equipment*
    - *Tools, Hardware and Housewares*
    - *Residential Furniture*
    - *Business and Institutional Furniture*
    - *Giftware and Crafts*
11. Electrical Power Equipment and Services
12. Environmental Industry
13. Fish and Seafood Products
14. Forest Industries
15. Information Technologies and Telecommunications
    - *Overview*
    - *Telecommunications Equipment and Services*
    - *Software Products, Computer Services and New Media*
    - *Geomatics*
    - *Computers, Peripherals and Instrumentation*
    - *Electronic Components*
16. Medical and Health-care Products and Services
    - *Medical Devices*
    - *Pharmaceuticals*
    - *Health-care Services*
17. Metals, Minerals and Related Equipment, Services and Technology
18. Oil and Gas Products and Energy Equipment
19. Resource Equipment and Technology
    - *Agricultural Technology, Machinery and Equipment*
    - *Ocean and Marine Shipboard Technology*
20. Space
21. Tourism
22. Urban Transit and Rail Equipment

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 Produits pétroliers et gaziers, et matériel d'exploitation de l'énergie.

OIL AND GAS PRODUCTS AND ENERGY EQUIPMENT

The suppliers of upstream oil and gas products and energy equipment produce a wide variety of machinery and services used in exploring for oil and gas deposits, in drilling and servicing wells and in producing and initially processing oil and gas in the field. The industry encompasses manufacturers of geophysical prospecting equipment, drilling rigs and ancillary tools, pumping, cementing and well-fracturing units, and dehydrators, separators, treaters and other field-processing components. It also includes drilling and processing equipment on offshore platforms, but does not include the platforms or sub-sea equipment. In addition, manufacturers supply custom-made equipment such as drilling rigs and field processing units, plus a wide range of standard products and high-volume production items. In the service sector, there are three basic categories: pre-drilling services, including geophysical contractors; drilling services, including mud, cement, logging, testing, coring and fishing services; and well-completion services, including perforating and stimulating services.

Canadian Position

The Canadian oil and gas products and energy equipment industry is made up of approximately 1500 small and medium-sized enterprises (SMEs) employing about 35 000 people, including many skilled workers and professionals. In 1994, the estimated value of shipments was $3.5 billion. Exports accounted for 34 percent, or $1.2 billion, of the total.

Canada's share of the world export market in 1994 was approximately 2.5 percent. Canadian imports of equipment were estimated at $250 million, of which about 97 percent originated from the United States.

- In 1994, 12 000 wells were completed in Canada with drill rig utilization at 80 percent. Drilling of 11 000 wells is forecast for 1995.
- The Canadian industry has excellent capabilities in the areas of technology, product quality and after-sales service, particularly in specialized equipment developed in response to Canada's petroleum resource characteristics, notably an abundance of sour gas, heavy oil and oil sands deposits.
- Opportunities are greatest for those firms that have the experience and technology to develop and exploit a specialized market niche, as well as those producing small, custom-designed process plants.
- Canadian firms have developed advanced technologies in drilling, specialized recovery and processing products, often in co-operation with key customers. These advanced technologies include automatic computer controls to reduce manual labour, optimize processes and performance and improve safety in operations on the rig floor. With a solid record of equipment performance, Canadian firms have gained and sustained markets based on their reputation for supplying effective, high-quality products.

Table 1
Trade Statistics ($ million)

	1986	1987	1988	1989	1990	1991	1992	1993	1994*
Exports	150	214	230	210	270	330	410	500	1200
Imports	200	250	270	210	190	170	180	210	250

**Note: The year 1994 includes oil and gas services.*

- The sector has increased its productivity over the past 10 years by rationalization, installing more automated production equipment, and making other production improvements. Due to the implementation of numerous successful cost-reduction programs, the sector has maintained its viability and increased exports despite the decline in equipment requirements. Although it holds a small share of the world market, the Canadian oil field manufacturing and servicing industry is recognized as one of the leading suppliers of advanced petroleum equipment in such niche areas as:
  - specialized equipment for extracting oil sands, and gathering and treatment facilities for sour gas, currently being exported to India, the People's Republic of China (PRC) and the Commonwealth of Independent States (CIS);
  - under-balanced and horizontal drilling technologies;
  - equipment for wells experiencing declining production rates;
  - top motor drives, winterized drilling rigs, directional and horizontal drilling techniques, computer-controlled automatic coring devices and automated pipe-handling systems; and
  - petroleum industry software products.
- Petroleum equipment manufacturers have extensive experience in providing technical expertise, training, and advanced technologies to foreign countries with difficult petroleum formations requiring advanced extraction techniques.
- Most exploration and production equipment sold abroad by Canadian firms is manufactured in Canada, but there is a trend toward manufacturing in the country of operation.
- To penetrate foreign markets, Canadian oil and gas equipment companies are establishing foreign subsidiaries and joint ventures in the U.S., Europe, Latin America, the CIS, India and Southeast Asia. In addition, manufacturers are establishing a worldwide network of agents, distributors and service companies to ensure that parts and services will be readily available to foreign customers. In general, the desire of developing countries to maintain or expand their petroleum production and increase their portion of value-added petroleum-based exports should assure growth for Canadian equipment sales.
- The major export market opportunities for Canada during the late 1990s will be in the Middle East, including Saudi Arabia and Iran, East Asia (China and Vietnam), the CIS, some Latin American countries (Argentina, Bolivia, Colombia, Mexico and Peru) and Africa.
- Canadian companies can expect to benefit from increased business opportunities in the Eastern European countries, which recently made changes to their ownership and joint-venture laws. There is potential in Poland, Hungary and Romania, all of which have indigenous oil and gas industries. Norway also presents major opportunities for Canadian companies.

The CIS is a potentially attractive market because its economy relies heavily on petroleum production. Oil and gas exports may be difficult to sustain in coming years without state-of-the-art technology. Within the CIS, four major barriers impede participation by private firms: the chaotic state of the economy; the difficulty of being paid in hard currency or of expatriating profits; laws restricting private ownership; and prohibitive levels of taxation.

Sales opportunities exist in the CIS for Canadian oil and gas machinery, equipment and services designed for northern Alberta and the Arctic.

Investment prospecting and efforts to form strategic alliances should be targeted at the United Kingdom, France, Italy, Germany and Norway, as firms in these countries are willing to establish a North American base activity. Such alliances represent a way of overcoming certain practices that hinder Canadian sales in these markets.

International Environment

The most compelling factor in favour of exploration and production equipment exports to developing countries is the rapid pace of technological change. Many developing countries need to maintain oil production to earn foreign exchange and cannot afford to wait for advances in their domestic technical expertise.

- The value of total world output for oil and gas technologies and services is estimated to be $67.5 billion per year. With capital spending by international oil and gas producers expected to approach $200 billion per year for the next five years, growth in the oil and gas equipment and service sector should remain high. Much of this business will be directed to suppliers of exploration and development drilling equipment, plants and transportation systems, and service companies.

- While oil and gas well drilling is declining in the U.S., important gains in petroleum drilling and production are taking place in Venezuela, Saudi Arabia, the CIS, Pakistan, Norway, Colombia, Argentina, the North Sea, India, China and Iran. Many of the major oil companies, and smaller Canadian firms, are increasing their exploration and production budgets for foreign operations. Changes to legal and business practices in many countries — privatization of state enterprises for example — are attracting Western participation in places such as India.

Table 2
Key Players in the Oil and Gas Equipment Market 1995

Importers	% of Total Market	Exporters	% of Total Market
Middle East	10	United States	60
North America (including Mexico)	15	United Kingdom	11
South America	10	France	9
CIS and Eastern Europe	25	Italy	7
Western Europe	10	Norway	5
Southeast Asia and India	20	Holland	4
China	10	Canada	2.5
		Germany	1
		Brazil	0.5

- A large part of the demand for petroleum equipment is from government-owned or -controlled oil and gas companies. In some countries, granting of a government petroleum exploration licence may be linked to the purchase of locally produced equipment.
- The desire of many foreign petroleum-producing countries to earn hard currency through petroleum exports should encourage them to reduce restrictions on foreign investment and imports of petroleum equipment.
- The worldwide market for oil and gas exploration and production equipment and services (excluding China and the CIS) was valued at $67.5 billion in 1994. It is expected to grow to $1.6 trillion over the next two decades ($81 billion/year on average). Canadian suppliers could potentially capture $81 billion, or 5 percent, of that market.

Main Challenges

- Small, undercapitalized firms lack the resources required to support extensive export marketing activities. Their financial vulnerability during a period of industry downturn is the principal challenge.
- Canadian firms compete against each other for the same export bids or contracts, leading to additional domestic competition.
- The lack of sufficient export financing from Canadian sources such as Export Development Corporation and the Canadian International Development Agency (CIDA).
- Difficulties in identifying reliable overseas partners for joint ventures, licensing arrangements and technology transfer agreements or strategic alliances.
- The inability of Canadian subsidiaries to obtain export mandates from foreign parents.
- The lack of access to current, precise strategic market information on international opportunities, key foreign firms, foreign markets, competitors, economic trends, technology development and trade barriers.
- Insufficient training in international marketing for industry executives.

Strategic Direction

The key to the long-term growth of the sector is to mobilize SMEs that are capable of providing both products and services, and to pursue market prospects in countries where Canadian firms can provide superior technological expertise.

The strategic priorities for the oil and gas technologies and services industry are shaped by the following bases of international competition:

- technological expertise in certain niche markets where Canadian firms have developed a superior product;
- availability of complementary services such as engineering and training;
- price competitiveness;
- physical presence in the market; and
- proven international track record.

The long-term growth of the Canadian petroleum industry will rely on its successful expansion into countries with strong and dynamic petroleum industries.

The objective is to increase Canadian export sales of technologies and services by 15 percent over the next year.

The Government, in co-operation with industry will:

- assess the potential for increased investment and technology exchanges between Canada, the U.K., Germany and the Scandinavian countries. Reports will be prepared by Industry Canada (IC), and will include identification of strategic partnering opportunities. These reports will be made available to companies and associations in the sector (IC, Department of Foreign Affairs and International Trade [DFAIT]);
- provide foreign market and project opportunity information with particular focus on the needs of exporting SMEs (IC, DFAIT);
- promote the participation of Canadian suppliers in energy sector projects financed by international financial institutions (IFIs) by:
  - identifying projects in priority markets for which Canadian suppliers and technology are well suited (DFAIT/missions, IC);
  - providing project information on a timely basis to Canadian firms and industry associations (DFAIT/missions, IC);
- promote the Program for Export Market Development (PEMD) as a source of funding for smaller firms to support increased foreign marketing efforts (DFAIT); and
- focus on value-added trade activities with SMEs (IC, DFAIT).

Contacts

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OIL AND GAS PRODUCTS AND ENERGY EQUIPMENT

Activity	Date	Location	Dept.	Contact
Africa and the Middle East				
Ethiopia Oil and Gas Sector Market Study	01-Apr-96	Addis Ababa	DFAIT	613-944-6586
NPS: Mission from Tunisia	11-Jun-96	Calgary	DFAIT	613-944-8134
NPS: Mission from Côte d'Ivoire	11-Jun-96	Calgary	DFAIT	613-944-6579
NPS: Mission from Egypt	11-Jun-96	Calgary	DFAIT	613-944-6994
NPS: Mission from Nigeria	11-Jun-96	Calgary	DFAIT	613-944-6579
NPS: Mission from Saudi Arabia	11-Jun-96	Calgary	DFAIT	613-944-5984
Oil and Gas Mission	15-Aug-96	Cameroon/ Chad	DFAIT	613-944-8133
Asia-Pacific South				
Vietnam Oil and Gas Expo '96: Info Booth	03-Apr-96	Hanoi	Alberta	403-427-6397
Offshore Southeast Asia Technology Show 1996	24-Sep-96	Singapore	Alberta	403-427-6397
Central/Eastern Europe and the Commonwealth of Independent States				
Russia Market Study	01-Apr-96	Moscow	IC	613-954-3192
NPS: Mission from Kazakhstan	11-Jun-96	Calgary	DFAIT	613-992-7001
NPS: Mission from Hungary	11-Jun-96	Calgary	DFAIT	613-992-7001
East Asia				
NPS: Mission from Bangladesh	11-Jun-96	Calgary	DFAIT	613-992-0665
15th World Petroleum Congress: National Stand	01-May-97	Beijing	DFAIT	613-996-7256
NPS: Mission from China	11-Jun-96	Calgary	DFAIT	613-996-7256
Mission to India	07-Apr-96	New Delhi/ Bombay	DFAIT	613-996-5903
Oil and Gas Mission from India	18-Aug-96	Calgary/ Edmonton	DFAIT	613-996-5903
Latin America and the Caribbean				
NPS: Mission from Trinidad and Tobago	11-Jun-96	Calgary	DFAIT	613-943-8807
Mission to Argentina	20-Oct-96	Buenos Aires	DFAIT	613-996-5549
NPS: Mission from Argentina	11-Jun-96	Calgary	DFAIT	613-996-5549
NPS: Mission from Peru	11-Jun-96	Calgary	DFAIT	613-996-4199
NPS: Mission from Venezuela	11-Jun-96	Calgary	DFAIT	613-996-5548
NPS: Mission from Mexico	11-Jun-96	Calgary	DFAIT	613-995-8742
Expetro in Mexico: Info Booth	15-May-96	Veracruz	DFAIT	613-995-8742

Note: Dates and locations are subject to change.

Activity	Date	Location	Dept.	Contact
Natural Gas Products Catalogue: Solo Show	02-Feb-97	Cali/Medellin/ Barranquilla	DFAIT	613-996-5548
Society of Petroleum Engineers (SPEA) Congress: Info Booth	05-Mar-97	Mexico TBD	DFAIT	613-995-8742
Multiple Markets				
NPS: Incoming Missions	11-Jun-96	Calgary	Alberta	403-427-6326
United States				
Offshore Technology Conference: National Stand	01-May-96	Houston	DFAIT	613-944-7486
Western Europe and the European Union				
Offshore North Sea: Info Booth	27-Aug-96	Stavanger	DFAIT	613-992-7001

For up-to-date and detailed information on the activities in this document and those contained in other sectors, you may consult the CIBS Compendium. This on-line compilation of activities planned by the federal and provincial governments is continuously revised and is accessible via the Department of Foreign Affairs and International Trade World Wide Web site, at the following address: http://www.dfait-maeci.gc.ca

Acronyms and initialisms used in Canada's International Business Strategy

(This list does not include sector-specific references.)

AAFC	Agricultur
ACOA	Atlantic C
APEC	Asia-Pacif forum
ASEAN	Associatio
BBS	electronic
BOOT	build, own
BOSS	Business System
CCC	Canadian
CIBS	Canada's Strategy
CIDA	Canadian Agency
CIS	Commonw
CSA	Canadian
DFAIT	Departme Internatio
DFO	Departme
DND	Departme
EC	Environme
EDC	Export De
EU	European
FITT	Forum for
FORDQ	Federal Office of Regional Development — Quebec
FSU	former Soviet Union
FTA	Canada-U.S. Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GNP	gross national product
HRDC	Human Resources Development Canada

	ternational Business Opportunities entre
	dustry Canada
	ternational Development Research entre
	ternational financial institution
	ternational Standards Organization
	ternational Trade Advisory ommittee
	ternational Trade Centre
	inistry of Agriculture, Fisheries and ood of Quebec
	ultilateral development bank
	ultinational enterprise
	orth American Free Trade Agreement
	orth Atlantic Treaty Organization
	ational Research Council
	atural Resources Canada
	atural Resources Canada — anadian Forest Service
	ational Sector Team
	rganization for Economic o-operation and Development
	rogram for Export Marketing evelopment
R&D	research and development
S&T	science and technology
SAGIT	Sectoral Advisory Group on International Trade
SME	small and medium-sized enterprise
UNEP	United Nations Environmental Program
WED	Western Economic Diversification
WTO	World Trade Organization

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Acronyms and i national
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AAFC	Agriculture and Agri-Food Canada
ACOA	Atlantic Canada Opportunities Agency
APEC	Asia-Pacific Economic Co-operation forum
ASEAN	Association of Southeast Asian Nations
BBS	electronic bulletin board system
BOOT	build, own/operate, transfer
BOSS	Business Opportunities Sourcing System
CCC	Canadian Commercial Corporation
CIBS	Canada's International Business Strategy
CIDA	Canadian International Development Agency
CIS	Commonwealth of Independent States
CSA	Canadian Standards Association
DFAIT	Department of Foreign Affairs and International Trade
DFO	Department of Fisheries and Oceans
DND	Department of National Defence
EC	Environment Canada
EDC	Export Development Corporation
EU	European Union
FITT	Forum for International Trade Training
FORDQ	Federal Office of Regional Development — Quebec
FSU	former Soviet Union
FTA	Canada-U.S. Free Trade Agreement
GATT	General Agreement on Tariffs and Trade
GDP	gross domestic product
GNP	gross national product
HRDC	Human Resources Development Canada
IBOC	International Business Opportunities Centre
IC	Industry Canada
IDRC	International Development Research Centre
IFI	international financial institution
ISO	International Standards Organization
ITAC	International Trade Advisory Committee
ITC	International Trade Centre
MAPAQ	Ministry of Agriculture, Fisheries and Food of Quebec
MDB	multilateral development bank
MNE	multinational enterprise
NAFTA	North American Free Trade Agreement
NATO	North Atlantic Treaty Organization
NRC	National Research Council
NRCan	Natural Resources Canada
NRCan-CFS	Natural Resources Canada — Canadian Forest Service
NST	National Sector Team
OECD	Organization for Economic Co-operation and Development
PEMD	Program for Export Marketing Development
R&D	research and development
S&T	science and technology
SAGIT	Sectoral Advisory Group on International Trade
SME	small and medium-sized enterprise
UNEP	United Nations Environmental Program
WED	Western Economic Diversification
WTO	World Trade Organization

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