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# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES



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# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES

## EXECUTIVE SUMMARY

*Building on Canada's position as a key NAFTA partner, a new investment development strategy has been produced. The aim is to attract and expand investment from the United States, the largest and most advanced industrial economy in the world, and to encourage strategic alliances with U.S.-based companies, in line with the Government's 1996 investment strategy.*

The strategy outlines the Government's plans to address challenges and opportunities in Canada's most important trade, investment and technology market, and to engage DFAIT's U.S. Posts more thoroughly in the attraction, expansion and retention of U.S. investment. An integrated marketing and sectorally-focused approach will be implemented over the next three years which will further enhance cooperation between Government and its Team Canada partners.

Field activities will be reorganized around a smaller number of key knowledge-based sectors in the United States, where corporate, high-technology, and research and development concentrations exist, and where U.S. Posts can make a difference. There will be wider and more timely reporting of intelligence gathered so that opportunities can be seized and early warning provided.

Driven by the November 1997 KPMG study\* that emphasized Canada's low business costs and high investment appeal, the strategy constitutes an aggressive advocacy of Canada's prime advantages of location, skilled human resource and high-technology assets to Corporate America, including the North American HQs of foreign multinational enterprises (MNEs), and major U.S. facilities presenting scope for research and development (R&D) in Canada. New initiatives will be developed to help put Canadian cities on the "radar screens" of prospective U.S.-based investors and investment intermediaries, particularly U.S. site selection and relocation experts.

An integrated marketing and sectorally-focused approach will be implemented over the next three years which will further enhance cooperation between Government and its Team Canada partners

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Starting in 1998, investment-related calls on U.S.-based MNEs will be increased, including outreach to technology-intensive U.S. small and medium-sized enterprises (SMEs), and major R&D facilities. Closer back-to-back liaison with the Canadian affiliates of these MNEs will be undertaken and North American investment intentions monitored to identify Canadian expansion opportunities, including scope for product mandates, R&D outsourcing and back-office operations.

A North-South corridor focus (Eastern, Midwest and Western corridors) will be adopted to exploit the synergies offered in these individual U.S. markets and to help foster greater U.S. Posts' interaction. As the program develops, cross-border outreach will be increased to promote the further development of strategic alliance activities in these regions and more linkages between high-technology and R&D clusters in both Canada and the United States.

*The purpose of the document is to inform other federal government departments, the provinces and municipalities and Canadian companies of these plans, with a view to encouraging them to increase efforts in attracting investment from U.S.-based firms. The paper provides investment objectives for the United States, main challenges and opportunities, and recommendations for implementing a federal program of investment promotion. Annexes to the main paper include backgrounders on the three main North-South United States corridors, including profiles of DFAIT Posts' activities in the U.S.; and discuss the role of international investment and its attraction.*

\* *The Competitive Alternative:  
A Comparison of Business Costs in Canada,  
Europe and the United States*  
KPMG, October 1997

# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES

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# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES

## INTRODUCTION

### The Government's 1996 Investment Strategy

The attraction of investment and technology from abroad has an important contribution to make to the Government's priorities of job creation and economic growth (Jobs & Growth). Globally, as well as in Canada, foreign direct investment (FDI) is growing faster than trade, and increasing amounts of international trade derive from investment-based flows. Today, three jobs out of ten in Canada (direct and indirect), more than 50% of total exports, and 75% of manufacturing exports are directly attributable to FDI in Canada.

Studies suggest that the attraction of one billion dollars worth of FDI into Canada will provide up to 45,000 jobs over a five year period. Canada had some success in the last two years in increasing FDI flows into Canada, and in 1996 FDI grew C\$12.4 billion to reach C\$180.4 billion, an 88% increase since 1986. Canadian direct investment abroad (CDIA) also registered strong growth in 1996, reaching C\$170.8 billion, up C\$10.3 billion from the previous year and some 164% since 1986. These figures provide a good illustration of the steady globalization of the Canadian economy.

However, in spite of these absolute increases Canada's share of global FDI has continued to decline, from 11% in the early 1980's, to 4.0% in 1996\*. The main reason for this is that, during the past decade, the stock of FDI in the world increased by over 400%, reaching US\$3,200 billion in 1996 – the pie has simply become so much bigger. There has also been increased competition for investment from the developing countries of Asia and Latin-America, and from Europe during the establishment of the common market, which has not been offset by substantial increases in investment in Canada attributable to NAFTA.

Recognizing these trends, and the importance of attracting new foreign investment as a means to create jobs in Canada, the Government adopted a

Today, three jobs out of ten in Canada (direct and indirect), more than 50% of total exports, and 75% of manufacturing exports are directly attributable to FDI in Canada

new investment strategy in June 1996, with the following objectives:

- Focus on the world's top five foreign direct investment countries - United States, United Kingdom, Japan, Germany, and France - and Canada's eight investment priority sectors - information technology, life sciences (biotechnology, medical devices and pharmaceuticals), agrifood, automotive, aerospace, forest products, mining, and chemicals & petro-chemicals;
- Emphasize proactive investment development in other smaller markets;
- Increase international investors' confidence in Canada;
- Increase awareness of the advantages of doing business in Canada to serve the NAFTA market;
- Attract new job-bearing international investments to all regions; and
- Facilitate retention and expansion of existing investments.

The June 1996 Government investment strategy identified the following five elements of an effective investment program:

- International marketing of Canada's advantages as an investment location;
- Targeting and customized servicing of specific multinational enterprises (MNEs) in priority sectors, through the formation of a new unit: Investment Partnerships Canada (IPC), jointly financed by DFAIT and Industry Canada;
- Assisting an increased number of Canadian small and medium-sized enterprises (SMEs) to grow through international investment partnerships;
- Systematically identifying and dealing with the factors in Canada's investment climate of potential concern to investors; and
- Forging new partnerships across the three levels of government, and with the private sector, to attract and retain investment in all regions of Canada.

\* United Nations, World Investment Report 1997, UNCTAD, Transnational Corporations, Market Structure and Competition Policy

### Major Government Initiatives

Government emphasis on Jobs & Growth, the creation of IPC and the involvement of more federal departments have called for a more coordinated and collegial approach to investment development at the federal level, including closer liaison with DFAIT Posts in key investment markets. As part of

this strategy, interdepartmental working groups (Agrifood, Information Technologies, Life Sciences) will be used to guide and coordinate the promotion of investment from Asia, Europe and the U.S. in a systematic way.

This approach is already taking place in some sectors such as semiconductors, where a strong campaign has been launched to define Canadian interests. Five or six regions in Canada have been encouraged to prepare suitable sites and documentation to promote the establishment of chip fabrication plants by making representations to selected firms in these markets. Similarly, working groups are being used successfully as catalysts to promote international investment and trade in agrifood, aerospace, automotive, information technologies and life sciences.

#### 1) The Corporate Liaison Program

Following the release of the KPMG study in November 1997, DFAIT launched a major campaign to disseminate the "good news" messages on Canada contained in the report. Aimed at more systematic "Canadian brand image" building with prospective international investors, the Corporate Liaison Program, which is the cornerstone of the investment development program at Canadian missions abroad, is perhaps the best vehicle to convey this important national message to international investors.

The program, supplemented by "back-to-back" visits to subsidiaries in Canada, consists of formal meetings between Heads of Mission or senior staff at Canadian posts abroad and executives of foreign companies. An effective corporate liaison program for a country like the United States, that already has many subsidiaries in Canada, includes calls on Canadian (or North American) affiliates followed by calls on the parent's head offices in the home country using the information and intelligence gathered from the subsidiaries in both countries.

The objectives of the corporate liaison program are to develop a dialogue with selected firms in order to: gather intelligence on the company's investment plans; gauge their interest in and knowledge of Canada; uncover perceived barriers to investing in and doing business with Canada; provide information on Canada and its sectoral and high-technology assets; facilitate investments and business partnerships and influence their views on Canada and important Canadian policy positions. The program also helps to develop long-term relationships with these companies before an investment decision is imminent.

## 2) Investment Partnerships Canada

These activities complement the work being done by Investment Partnerships Canada (IPC), which is focusing on corporate liaison with selected major MNEs in five countries, including the U.S. The appointment of federal Deputy Ministers as "Country Champions" for these countries (three in the U.S., one for each major North-South corridor) is also strengthening relationships with major investors and provides a mechanism for them to discuss opportunities and concerns with senior levels of Government. This refinement adds further impetus to the corporate liaison undertaken by Consul Generals in the U.S. with *Fortune 500* companies.

## 3) Investment Expertise at U.S. Posts

Another feature of the strategy is the addition in several countries of investment-related responsibilities to Trade Commissioners and Business Development Officers in sectors related to investment targets. In the case of the U.S. Business Development Program, the integration of the trade, investment and technology activities has been completed in the majority of Posts which now approach investment and technology development as part of a "business development continuum". Investment coordinators have also been appointed at U.S. Posts to facilitate this approach and the liaison with the posts' clienteles, including provincial and municipal economic development officers (EDOs).

The latter are also an essential component of the strategy and presentations on international investment opportunities by the Department at the annual meetings of the Economic Developers' Association of Canada (EDAC) have been held for the past few years. This builds on efforts undertaken to raise the profile of Canadian municipalities abroad and to develop closer linkages with the U.S. site selection and relocation professions, including major related U.S. publications such as the *Area Development* and *Site Selection* magazines. The latter often produce articles and special issues highlighting Canada's appeal (including its regions) as an investment destination.

## 4) Other Partners and Back-up Services

In addition to several joint initiatives with some provinces, other successful examples include food projects with Agriculture and Agri-Food Canada (AAFC); the development with Industry Canada and AAFC, of sector-specific investment promotion material for the U.S. (agrifood, call-centres and semiconductors); and cooperation with the Industrial Research Assistance Program (IRAP) of

the National Research Council (NRC), the Medical Research Council and other agencies. Also, a new cooperative approach with the Alliance of Manufacturers and Exporters of Canada (AMEC) emphasizing the North-South region comprised of Toronto, Hamilton, Buffalo and Rochester was initiated in 1997.

Support from the headquarters of DFAIT, Industry Canada and AAFC in the form of timely and current literature, success stories, newsletters, sectoral investment promotional kits; the servicing of investor enquiries; the development of training courses; and cooperation with other government departments, the provinces and the private sector, is another essential component of the Government's 1996 investment strategy.

The three North-South U.S. economic corridors are described in **Annex I**. Activity profiles are included for all DFAIT Posts in the United States. Emerging and priority industrial sectors are identified, and major U.S. high-technology clusters are highlighted, including key R&D players.

International investment and its attraction are covered in **Annex II**, where the importance and role of foreign investment to Canada's economic development are discussed. Marketing and promotion techniques are listed to illustrate the range of investment development activities performed at U.S. posts. Also discussed are longer term factors influencing investment attraction such as: partnering, R&D and venture capital, and the relevance of the U.S. site selection and relocation professions in North America.

*The purpose of this paper is to adapt the above strategy to the United States highlighting the challenges and opportunities offered by high corporate concentrations and high-technology clusters in key regional markets where U.S. Posts are located. These are important sources of investment and technology in both the short and long term. The U.S. states have been grouped into 12 regions within three main North-South corridors (Eastern, Midwest and Western) to reflect the reality of bilateral trade and business development between Canada and the United States, and the geographical distribution of DFAIT Posts within these U.S. corridors.*

The integration of the trade, investment and technology activities has been completed in the majority of Posts which now approach investment and technology development as part of a "business development continuum"



## THE UNITED STATES MARKET

*The United States is the largest single economy in the world, representing about 37% of the G7's total Gross Development Product (GDP) in 1996. Several U.S. regional economies have a Gross Regional Product (GRP) larger than Canada's GDP, and one region, the Southeast, is almost as big as Italy and the U.K. All 12 U.S. regions have a GRP larger than Mexico's GDP. The U.S. is both the largest international trading and investing country. It has the most technologically advanced economy with the highest R&D expenditures. As result of NAFTA, it enjoys with Canada the world's largest bilateral trade and investment relationship. While it is Canada's most important market for trade, investment and technology, the United States is also Canada's major competitor for foreign direct investment destined to North America.*

### United States' Global Influence

#### 1) Global Trade and Investment: Transnational Corporations

The United Nations' 1997 World Investment Report (UNCTAD) indicates that with an estimated US\$7 trillion in global sales in 1995 – the value of goods and services produced by some 44,000 transnational corporations (TNCs) with almost 280,000 foreign affiliates (of which 183,000 are located in developing countries, Central and Eastern Europe) – international production outweighs exports as the dominant mode of servicing foreign markets. The growth of global sales has exceeded that of exports of goods and services by a factor of 1:2 to 1:3 since 1987. The worldwide assets of foreign affiliates, valued at US\$8.4 trillion in 1994, and global FDI valued at US\$3.2 trillion in 1996 (up from US\$2 trillion in 1993), have been growing faster than world gross fixed capital formation, indicating an increasing internationalization of industrial production.

The UNCTAD study shows that the number of TNCs headquartered in the report's 23 developed countries grew over five times between 1969 and 1995, from 7,000 to 36,380. About 94,000 foreign affiliates are located in developed countries. In 1995, 3,470 TNCs and 18,608 foreign affiliates were located in the U.S. (about 20% of the total affiliates located in developed countries). The U.S. had over 21,300 affiliates located abroad in 1995. In 1996,

worldwide investment in foreign affiliates was an estimated US\$1.4 trillion and of this, only 25% or US\$350 billion were financed by FDI inflows and about 20% by foreign affiliates themselves.

Together, China and the U.S. accounted for about one-third of global inflows in 1995-96. The U.S. and U.K. drove the increase in outflows, together accounting for 40% over the period.

The growth of TNCs' international production reflects rapid changes in their corporate structure and is being pursued through a variety of equity and non-equity link-ups and investment channels. Over 40% of manufacturing sales are accounted for by intrafirm trade – between parent firms and their foreign affiliates. Similarly, on the technology side an estimated 70% of the global payments of royalties and fees constitute such intrafirm transactions. In 1995, U.S. firms received an estimated US\$27 billion in such payments, accounting for 56% of total global receipts (US\$48 billion), compared with US\$6 billion or 50% in 1983. In addition to showing the dominance of the U.S. in this area, this phenomenon underscores the close relationship between FDI and intangible technology flows, as well as the strong proprietary asset base of FDI.

#### 2) U.S. Trade and Investment

The United States has been making rapid gains in international trade and investment. With the passage of NAFTA and the new World Trade Organization (WTO), it has expanded its trade and investment with the growing economies in Asia and Latin America. The fastest growth occurred in Japan and Mexico. Growth in Canada and Europe has occurred at a slower rate. The U.S. is the leading exporter and importer in world merchandise trade\* with 11.6% of the global export and 14.9% of the import markets (respectively US\$5,033 billion and US\$5,170 billion in 1995) and the world's leading exporter of services. Total U.S. exports of goods and services account for almost 11% of the U.S. gross domestic product (GDP), while U.S. goods and services exports to Canada account for 2% of U.S. economic output.

The United States is also the world's largest investment source and destination with 25% and 20% respectively of both the global stocks of outward and inward investment (about US\$3,200 billion in 1996). The U.S. outranks all other FDI source countries by nearly two-to-one.

The United States is also the world's largest investment source and destination with 25% and 20% respectively of both the global stocks of outward and inward investment (about US\$3,200 billion in 1996)

In 1996, the top 10 destinations for U.S. foreign direct investment were (in US\$ billion):

1. United Kingdom	\$19.8
2. Canada - US	\$6.1 billion
3. Netherlands	\$5.3
4. Bermuda	\$3.8
5. Australia	\$3.8
6. Ireland	\$3.3
7. Mexico	\$2.8
8. Brazil	\$2.5
9. Panama	\$2.0
10. Hong Kong	\$1.8

The United States represents Canada's largest competitor for North American bound international investment. In 1996, developed countries invested US\$295 billion abroad and received US\$208 billion. The U.S. share of both these outward and inward flows was about US\$85 billion. In 1995 these were respectively US\$93.3 billion and US\$60.8 billion. The latter indicates a significant one-year FDI increase in the U.S. of about US\$24 billion or 40%. These investments came mostly from the European Union (67.6%), Japan (16.2%) and Canada (8.5%). This represents a doubling of Japan's share over 1995 (8.6%). The latter however was still far below its annual average share of one third of the inflows achieved during 1988-91, the period of the Japanese investment boom in the U.S. The top three sources of FDI in the U.S. during both 1995 and 1996 were Germany, U.K. and Canada. Switzerland, Sweden and Japan were the next largest investors in 1995. In 1996, these countries were respectively Japan, the Netherlands and France.

More than half of U.S. FDI outflows was financed from reinvested earnings during 1994-95, a share that has increased in recent years. This partly because the profitability of operations in the United States has reduced the need for foreign affiliates to remit earnings back to their parents and partly because foreign affiliates are using these earnings to expand their own operations abroad. The share of FDI flows from Europe into the United States accounted for by equity inflows was well below those of other major home countries. European investors relied more on intercompany loans for financing their investments in the U.S. Declining interest rates in several European countries, as well as Japan, encouraged this mode of financing. According to the 1997 UNCTAD report, FDI inflows from Canada into the U.S. over the period had the highest share of reinvested earnings.

\* Customs basis, DRI World Markets Executive Overview

## World's Largest Trading Relationship

Canada is a trading nation with an open economy that has long been geared towards active participation in international markets. Canada is the world's eight largest exporter of goods with a 3.8% share of the world's total exports and the ninth largest importer. Canada and the U.S. share the world's largest and most comprehensive trading relationship. This relationship is a partnership that generates economic prosperity. In 1997, two-way trade in goods between Canada and the U.S. reached C\$456.3 billion – C\$1.25 billion in goods cross the Canada-U.S. border each day.

The NAFTA is working and benefiting both countries. Since the implementation of the Canada - U.S. Free Trade Agreement (FTA) in 1989, two-way trade (goods and services) has almost doubled, an average annual increase of about 10%. Canada's current account balance with the U.S., which was negative between 1988 and 1993, turned positive during 1994 and recorded a C\$17.1 billion surplus in 1996. Canada's exports to the U.S. support about 2.4 million jobs here.

We are each other's largest customers and biggest suppliers. 80% of Canadian exports go to the U.S. while 22% of U.S. exports are destined for Canada. U.S. purchases of Canadian exports of goods and services directly generate 38% of Canada's gross domestic product. During 1996, Canadians bought almost twice as much merchandise from the United States as did Japan, the U.S. second largest trading partner, and remained a larger market for U.S. goods than all fifteen members of the European Union combined. The province of Ontario alone buys more from the U.S. than does Japan, and exports more cars and trucks to the U.S. than does Japan.

In 1996, merchandise exports to the U.S. (i.e. excluding services) were up 7.8% over 1995. Merchandise imports, on the other hand, increased 4.7%. Overall, the merchandise trade surplus with the U.S. stood at C\$40.6 billion, up from C\$32.1 billion the year before. To place this surplus in perspective, the value of Canada's total merchandise exports, to all other countries combined, was C\$50.1 billion. Exports of services to the U.S. increased by 8.2% in 1996 to C\$22.2 billion, while imports of services from the U.S. were up 6.6% to C\$30.3 billion. The significance of our bilateral trade in goods with the twelve U.S. geographic regions is covered in **Table 1** where DFAIT posts are located, several of these regions also have a Gross

Regional Product (GRP) higher than Canada's GDP, and all of them larger than Mexico's GDP.

Canada is also a major player in global FDI, both as a destination for investment and as a source of funds. Canada is currently the fourth largest destination of FDI and is the ninth largest source for the rest of the world. In 1996, Canadians accounted for almost 4% of the global stocks of FDI with C\$170.8 billion invested in other countries. Canada is a significant investor in the U.S. economy. Canadian direct investment (CDIA) reached C\$92.9 billion in 1996. The UNCTAD reports that at year-end 1995, Canada was home to 1,690 TNCs and host to 4,580 affiliates of foreign TNCs. There are over 1,300 affiliates of Canadian TNCs operating in the U.S.

The U.S. has historically been the main source of Canada's incoming FDI, given the large number of affiliates of U.S. companies operating here. Post NAFTA, Canada has begun to receive even more FDI from the U.S., as well as from Mexico. In 1996, the U.S. remains by far the biggest foreign investor in Canada accounting for 68% of FDI - C\$122.7 billion. However, Canada must continue to attract new U.S. investment if it is to maintain its share of total U.S. foreign direct investment at 11.5%. U.S. investment stock in Canada has increased 77% since 1986 from a total of C\$69.2 billion. For the 1991-96 period, annual overall U.S. foreign investment flows grew by 70%, while annual investment flows in Canada increased only 29%. Reinvested earnings have also been an important element of U.S. business expansion in Canada.

Over 50% of U.S. MNEs have some form of investment in Canada, second only to the UK's 65%. Canada benefits from an estimated 2,100 American subsidiaries, some of which are among Canada's largest employers. Thirty-three of the top 50 foreign multinationals operating in Canada are U.S.-owned. These firms represent the top *Fortune 500* companies in the United States. Eight of the top 10 foreign multinationals operating in Canada are U.S.-owned:

1. General Motors - United States
2. Ford - United States
3. Chrysler - United States
4. IBM - United States
5. Imperial Oil - United States
6. Amoco - United States
7. Shell Canada Ltd. - Netherlands
8. Canadian Safeway - United States
9. Sears Canada - United States
10. Total Petroleum (North America) Ltd. - France

Our close proximity also supports the tourism industry in both countries. In 1996, there were 13 million trips, overnight or longer, to Canada by U.S. residents, and 15.3 million visits by Canadians to the U.S. The number of trips by Americans showed little change from 1995, while the number of Canadian visits was up 4%. In addition, there were 23.8 million same-day trips into Canada by non-residents (mostly U.S.), and 36.3 million same-day trips into the U.S. by Canadians.

## Technology and Venture Capital

The United States, in addition to being Canada's most important source of existing FDI in Canada represents our single largest source of technology. The U.S. has the most technologically advanced economy in the world. With by far the largest R&D expenditures among the G7 countries (over US\$205 billion in 1997), the United States has achieved leadership in almost every technology, spanning well beyond the entire spectrum of Canadian industrial activity. U.S. investment in Canada covers every sector of the economy with a strong presence in the manufacturing, resource and service sectors. Not only do the large number of affiliates of U.S. corporations operating in Canada (about 2,100 in 1995, representing over 50% of *Fortune 500* companies) depend on their parent's investment for their growth, continued access to U.S. technology and innovation are essential ingredients if they are to remain North American and world competitive.

With globalization, U.S. affiliates increasingly have to compete with other parts of their parent's organization for the various product, regional and world mandates that will ensure their future retention and expansion in Canada. Canadian SMEs also benefit through their supplier or sub-contract relationships, be it as suppliers of goods or services, including R&D contracting. Access to the leading technologies in the world has taken on a dramatic new importance in recent years, to improve industrial competitiveness and as the foundation for export growth in traditional as well as advanced technology industries. Among the G7 nations, Canada is the most dependent on foreign technologies and is the only member country that imports over half its industrial technologies. This trend can only be reversed by growth in knowledge intensive industries and R&D in Canada, and an emphasis on increased strategic partnering/alliances and venture capital.

The linkage between research, development and venture capital is reinforced by the fundamental role

In 1996, the U.S. remains by far the biggest foreign investor in Canada accounting for 68% of FDI - C\$122.7 billion

Table 1 :  
Bilateral Merchandise Trade with 12 U.S.  
Regions and their GRPs

US CORRIDORS/ REGIONS	GRP (US\$thousand) 1994	Exports from Canada (Cdn\$thousand) 1996	Imports into Canada (Cdn\$thousand) 1996	Two Way Trade (Cdn\$thousand) 1996	Population 1996 estimates
<i>Eastern Corridor</i>					
Northern New England	\$278,810,000	\$14,274,216	\$7,880,130	\$22,127,346	10,077,028
New York* South/Metro and Connecticut	\$491,112,000	\$15,226,028	\$10,194,248	\$25,420,276	15,397,420
New Jersey and Delaware	\$281,642,000	\$4,832,586	\$4,547,488	\$9,380,074	8,712,775
Mid-Atlantic	\$358,439,000	\$4,149,001	\$3,094,160	\$7,243,161	12,290,268
Eastern Lakes	\$484,762,000	\$13,751,009	\$10,662,762	\$24,373,771	18,117,704
Southeast	\$1,179,780,000	\$16,612,457	\$19,242,476	\$35,854,933	51,944,051
<b>Total Eastern Corridor</b>	<b>\$3,074,545,000</b>	<b>\$68,818,297</b>	<b>\$55,581,264</b>	<b>\$124,399,561</b>	<b>116,539,246</b>
<i>Mid-West Corridor</i>					
Central States	\$534,173,000	\$17,644,824	\$25,236,263	\$42,881,087	22,722,787
Great-Lakes States	\$698,564,000	\$71,797,066	\$36,315,538	\$108,112,604	26,600,689
Mid-West	\$455,014,000	\$14,944,024	\$11,204,088	\$26,148,112	18,468,429
Southwest	\$856,030,000	\$12,519,335	\$11,394,285	\$23,913,602	35,577,531
<b>Total Mid-West Corridor</b>	<b>\$2,543,781,000</b>	<b>\$116,905,249</b>	<b>\$84,150,174</b>	<b>\$201,055,423</b>	<b>103,369,436</b>
<i>Western Corridor</i>					
California	\$875,697,000	\$8,582,276	\$9,907,418	\$18,489,694	31,878,234
Northwest	\$341,618,000	\$12,074,192	\$6,301,295	\$18,375,487	13,496,867
<b>Total Western Corridor</b>	<b>\$1,217,315,000</b>	<b>\$20,656,468</b>	<b>\$16,208,713</b>	<b>\$36,865,181</b>	<b>45,375,101</b>
<i>Others</i>					
Puerto Rico		\$366,366	\$884,732	\$1,251,098	
US Virgin Islands		\$7,031	\$1,207	\$8,238	
Others		\$2,354,171	\$667,817	\$3,021,988	
<b>Total Others</b>		<b>\$2,727,568</b>	<b>\$1,553,756</b>	<b>\$4,281,324</b>	
<b>Total United States</b>	<b>\$6,835,641,000</b>	<b>\$209,107,582</b>	<b>\$157,493,907</b>	<b>\$366,601,489</b>	<b>265,283,783</b>

Sources: GRP figures - Survey of Current Business, U.S. Department of Commerce  
Trade figures - Statistics Canada - Merchandise trade only and are on a customs basis.  
Population figures - U.S. Bureau of the Census  
\*1/3 of New York's GRP, trade figures and population estimate were attributed to  
the Eastern Lakes region, (Northern New York).

played by basic research in the virtuous cycle of growth and development opportunities. Without it, tomorrow's innovative companies will not exist. The development of breakthrough technologies today is extremely expensive and companies need the backing of investors or R&D partners to support their critical development efforts. The role played by dynamic financial markets and strategic partnering/alliances is therefore essential.

In addition, the pace of technological change is now so rapid that companies have only a narrow window within which to move from development to commercial exploitation. This is particularly true of high-technology SMEs who need venture capital in order to accelerate their ability to commercialize innovation since financing it out of internal operations will simply not be feasible or timely enough. In the early stages of technological or product development, most SMEs will neither have the track record nor the revenues to make an initial public offer (IPO) attractive.

In the case of R&D-intensive Canadian SMEs, their revenue position and the commercial viability of their technology could be further enhanced through strategic partnering and other R&D contractual arrangements. Such alliances with MNEs and other prestigious high-technology partners add both value and profile to a company seeking private placements or public offerings. While venture capital is fairly easy for start-up companies to raise in Canada, once a company has reached a certain level of capitalization (C\$100-200 million) and turns to the stock market, it gets more difficult and many successful Canadian companies often have to raise capital in the U.S. where they are less known.

One of the reasons for the rapid growth of knowledge-intensive companies in the United States in the fields of biotechnology and information technology is that America's venture capitalists put 24% of their investments into biotechnology and 46% into information technology. By contrast, European venturers funnel just 2% and 16% respectively in those sectors - which may explain the lesser degree of dynamism in these industries in Europe in spite of substantial basic research activity.

In 1996, U.S. venture capitalists reported\* investing US\$9.5 billion, a 25% increase over 1995. Over 2,000 U.S. companies received venture backing. Funds went to companies in all stages of growth from start-up to turnaround. Technology-based companies drove venture capital investing. Taken together the life sciences and information technolo-

gies sectors accounted for US\$5.88 billion, a US\$1.8 billion increase over 1995. All other sectors combined increased only US\$200 million. The most funds went to companies in the software/information and communications categories. Taken together 942 U.S. companies received over US\$4 billion.

Venture capital went to every region of the U.S., some also found its way into Canada. Silicon Valley remained the capital of venture capital with 552 companies attracting US\$2.29 billion. New England, which has an important cluster of software companies in addition to life sciences, retained the number two position with 330 companies garnering US\$1.27 billion. Geographically, over 60% went to locations outside those traditional venture capital markets. The Southeast in particular, followed by the Midwest, New York and Texas captured significant funds.

Characterized by important clusters of high-technology companies, these regions (see Table 2), are not only getting the most venture capital but are also currently attracting the largest share of foreign direct investment in the U.S. These sources, however, only partly explain the growth of U.S. high-technology clusters. One has to look at the high intensity of private sector R&D in the United States, including the large multinationals, and increasing alliances with SMEs on the cutting edge of technology as major contributors to this trend.

\* Price Waterhouse LLP - Technology Industry Group, National Venture Capital Survey, Topline Results, Full Year 1996

## R&D Investment and High-Technology Clusters

Investment in R&D\* is expected to reach US\$205.7 billion in the United States in 1997 (a 6.5% increase over 1996), broken down as follows: federal spending will grow 0.5% to US\$62.7 billion; industry will increase its R&D commitment by more than 7%, spending US\$133.3 billion; and the remainder of R&D support - US\$9.7 billion - will be provided by universities and non-profit organizations. Payroll costs now represent roughly 50% of these R&D expenditures - the largest reported share in the last 4 years - reflecting increasing shortages of qualified personnel.

Industrial research spending in 1997 (to a large extent by MNEs) will be distributed in relatively the same industries and ratios as it has been over the past 3 years: transportation (21%), telecommunications (20%), pharmaceuticals (17%), computers

The development of breakthrough technologies today is extremely expensive and companies need the backing of investors or R&D partners to support their critical development efforts

(15.5%), electronics (10.5%), software (6.8%), semiconductors (4.7%) and chemicals (4.5%), illustrating the steady impact of high-growth industries and the enormous influence of MNE financed research in the United States. Almost half of the companies surveyed contract out to other organizations. To do this work, most (84%) contract with other companies, commercial labs, and/or universities.

U.S. companies split up their contractual R&D as follows: other companies (34%), commercial labs (28%), universities (22%), federal labs (4%), foreign labs (1%) and others (10%). Preferences by sector were as follows: telecommunications devices manufacturers (other companies), aerospace firms (commercial labs), pharmaceutical and biotechnology firms (commercial labs 44%, universities 25%, other companies 18%, and non-profit organizations 11%). Industries that work with federal labs include manufacturers of computers, optics, semiconductors and telecommunications devices. The only firms indicating that they contract with foreign labs for their outside research were those working in primary metals R&D.

Overall this outward trend is expected to grow stronger with U.S. private industry continuing to seek opportunities for outsourcing of research, with an emphasis on partnering and collaboration with other industrial labs and universities

Overall this outward trend is expected to grow stronger with U.S. private industry continuing to seek opportunities for outsourcing of research, with an emphasis on partnering and collaboration with other industrial labs and universities; including:

- continuing efforts directed toward inter-industry collaboration on pre-competitive R&D; and
- further emphasis on off-shore outsourcing of research programs, especially to captive laboratories but increasingly to independent or free-standing facilities.

Recent business location trends in high-technology industries also underscore the need for certain industries to reach outside high-technology clusters – over 50 in the United States (see selected examples in **Table 3**). A large proportion of this institutional and private sector R&D is performed in these clusters. There is overheating in some longer-established areas such as Silicon Valley, Dallas and Austin, where competition for talent in fast-growing sectors such as computer networking and software development is extreme. The shortage is also showing up in more recent technology centres such as: Denver, Seattle, Washington, D.C., and Raleigh-Durham. Other sectors in the U.S. such as telecommunications, chemicals and aerospace are also experiencing significant shortages of qualified professionals and researchers.

The Information Technology Association of America (ITAA) considers that the “tech worker” shortage is a major national problem and has assembled a task force with the U.S. Commerce and Education departments to propose solutions. A recent ITAA estimate indicates that in 1998 there are at least 384,000 vacant jobs in the U.S. information-technology industry, a 70% increase over 1997. Projections of the shortage in Silicon Valley alone could be more than 60,000 jobs. This crunch is having an adverse impact, resulting in rapid salary increases (possibly in the two-digit range in some fields in 1998). There is concern in U.S. MNEs that escalating payroll costs will translate into higher technology-outsourcing services costs. Industrial firms in the U.S. increasingly contract out part of their R&D to organizations that are more likely to have the extra manpower or expertise for a specific project, thus the scope for Canadian firms, research facilities and universities to access more collaborative R&D, partnerships and alliances.

\* Battelle Institute; National Science Foundation; Science Resource Studies (SRS) Surveys, November 1997

## U.S. Market's Changing Dynamics

There are rapid and significant changes taking place in U.S. high-technology and manufacturing which are transforming the way in which most sectors will be approached in the future, including how global companies innovate, manufacture and do business. The convergence of developments in enabling technologies (such as information and biotechnologies, advanced manufacturing and materials); is influencing and benefiting industrial and manufacturing processes most.

Advances in these leading technologies and other important changes are transforming the U.S. marketplace, including the flow of capital and technology. In these extremely competitive knowledge-based industries, it has become a necessity to form strategic partnerships or alliances. It is now impossible for any single firm to possess all the skill sets and technology required in-house in order to compete effectively.

Increasingly, firms in hightech sectors are joining forces to achieve significant benefits such as tapping new markets, obtaining new technology and venture capital, extending management and operational expertise, and – as a result – improving the bottom line. Substantial growth over the last three years in the number of strategic partnerships and alliances has been reported in the U.S., going well beyond traditional outsourcing arrangements

**Table 2 :**  
**Concentration of U.S. Technology**  
**Companies by Industry Sector and Region**  
 (Source: CorpTech Database of U.S. Technology Companies, 1997)

US Corridors/ Regions	Total # of Firms	INFORMATION TECHNOLOGY				LIFE SCIENCES				ADVANCED MANUFACTURING		RESOURCE TECHNOLOGY		
		Computer Hardware	Computer Software	Telecoms	Photonics	Pharmaceuticals	Medical Devices	Environment	Biotechnology	Factory Automation	Manufacturing Equipment	Energy	Chemicals	Advanced Materials
<b>Eastern Corridor</b>	30,007	3,256	8,112	2,418	1,130	571	1,955	2,052	892	3,066	2,783	952	1,000	1,883
Northern New England	3,347	High	High	High	High	High	High	High	High	High	High	Low	Low	High
New York South/Metro and Connecticut	2,342	Low	Low	Low	High	Low	Low	High	Low	Low	Low	Low	Low	Low
New Jersey and Delaware Valley	2,372	Low	Low	Low	High	High	High	High	Low	Low	Low	High	High	High
Mid-Atlantic	1,605	Low	Low	High	Low	Low	Low	High	Low	Low	Low	Low	Low	Low
Eastern Lakes	1,464	Low	Low	Low	Low	Low	High	Low	High	High	Low	Low	Low	High
Southeast	2,931	Low	High	High	Low	High	High	High	Low	Low	Low	High	High	High
<b>Midwest Corridor</b>														
Central States	1,879	Low	High	Low	Low	Low	High	Low	High	High	High	High	High	High
Great Lakes States	2,483	Low	Low	Low	Low	Low	High	Low	High	High	Low	High	High	High
Midwest States	1,943	Low	Low	Low	Low	High	High	Low	High	High	Low	Low	Low	High
Southwest States	3,224	High	High	High	High	Low	High	Low	Low	High	Low	High	High	High
<b>Western Corridor</b>														
Southern California	2,825	High	High	High	High	Low	High	Low	High	High	Low	Low	Low	Low
Northern California	2,563	High	High	High	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low
Northwest States	1,092	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low	Low

Shading represents regional concentration. This is measured in terms of the percentage of firms operating in each region for each sector.

Approximately more than 10% of total U.S. firms are operating in the respective region and sector.

-  High Concentration - More than 10% of high-tech firms in the region are operating in the respective sector.
-  Medium Concentration - More than 5% but less than 10% of high-tech firms in each region are operating in the respective sector.
-  Low Concentration - Less than 5% of high-tech firms in each region are operating in the respective sector.

(more details below). These and other factors are responsible for the changing dynamics in these high-technology sectors.

### Information Technologies (IT)

The global information technology market is approaching US\$1.5 trillion\*, of which the telecom segment represents about 57% (equipment 14% and services 43%) and the computer segment 43% (software 8%, hardware 17% and services 18%). Few industries can boast the explosive growth being experienced by U.S. information technology companies. These companies have pioneered many of the technologies that are now an integral part of modern communications networks around the world. Worldwide markets for their products and services are growing as well. The global market for telecom equipment was estimated at US\$180 billion in 1996 and expected to grow to US\$208 billion in 1998.

There is no industry in the U.S. which moves at the speed of the information technologies' marketplace. As these converging industries are re-making themselves virtually every six months the opportunities for Canadian information technologies continue to grow at an almost exponential rate. The U.S. presents a tremendous market for computer hardware, software, telecoms equipment and related services. The installed base of computers in the U.S. has now reached 40 million units, and is expected to grow to 64 million by year 2000. Over 45% of the computers purchased are for business applications. Many of the fastest growing *Fortune 500* and smaller U.S. high-technology companies are in those sectors and several have affiliates in Canada.

The market research firm Dataquest projects a five-year compound annual growth rate (CAGR) of nearly 8% for the worldwide electronics equipment production market with the Americas expected to lead the world in production revenue through the rest of this decade. The firm anticipates revenues of more than US\$335 billion for the Americas in 1997, accounting for a third of the global market of US\$930.5 billion. Dataquest also reports that worldwide personal computer (PC) shipments will surpass 84.3 million units in 1997, and post double-digit growth through the year 2000, with shipments reaching 151.6 million units. Network equipment is also in the middle of a worldwide boom.

According to market researcher International Data Corporation (IDC), the CAGR for network equipment will be 31% to year 2000, reaching US\$10.3 billion for products and services combined. Good

news for the international PC market also bodes well for the U.S. semiconductor market. Dataquest expects growth of about 12% and is predicting US\$158.7 billion for the semiconductor industry in 1997. Growth in consumer electronics and internet/intranet products and services is expected to be 37% (currently US\$70 billion) and 50% (forecasted over US\$92 billion) to 2000 respectively. The biggest growth areas include network computers, servers and network equipment. Communications Industry Researchers (CIR) expects the Internet to drive the market for high-speed access equipment for business to almost US\$4 billion by 1999.

Similarly, the U.S. wireless industry is on the same historic growth curve that marked the above high-tech consumer industries. Wireless operators are expected to increase their annual investment by 20% a year, from about US\$30 billion in 1996 to US\$86 billion by year 2002. The market for sub-assemblies and components is also booming. Before the Asian crisis, it was estimated that the world market for semiconductors alone could grow to US\$316 billion by year 2001 and there was a potential for 40-50 more semiconductor fabrication (fab) facilities world-wide by year 2002. Over 25 of these were to be new North American facilities, half would have been "greenfield" sites. Sophisticated chip fabs can require an investment ranging between US\$500 million and US\$1 billion.

With the emergence and popularity of the Internet, it is clear that these new technologies will remain "hot" opportunities in the foreseeable future and should translate into increased commercial and investment activities. There is also tremendous synergy in the sector, in that innovation or rapid expansion in one area often spawns major development and investment in related sectors. The increasing use of computers and demand for Internet access is having an accelerating impact on telecommunications development and services throughout North America and worldwide.

With the increasing availability of alternative carriers (e.g., Internet telephony, global calling at local rates), a new paradigm for international telephony has emerged. Increasingly, international telecommunications is viewed as a traded service rather than a jointly-provided service - where telephone charges are becoming more independent of distance and usage charges - enticing smaller and mid-size telephone companies to enter into alliances and diversify their traffic and revenue base. Since deregulation started 13 years ago in the U.S., the long-distance market share lost by monopoly carriers reached 47% by year-end 1996, and

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Table 3 :  
Selected Examples of U.S. High-Technology  
and R&D Clusters

REGION	HIGH-TECH CLUSTERS	SECTORS	UNIVERSITIES	OTHER FACILITIES
<i>Eastern Corridor</i>				
Northern New England	Boston/Cambridge- "Route 128"	Life Sciences-Biotechnology IT-Optoelectronics, Software, Telecommunications, Semiconductors	MIT, Harvard, U of Massachusetts, Boston Optoelectronics Center	BASF Biotech Lab, Massachusetts Biotech Research Institute, CENTech Park
New York South/Metro and Connecticut	New York Metro	IT-Telecoms, Multimedia	Rockefeller U, Rensselaer Polytechnic Institute	Bell Labs, David Sarnoff Lab
New Jersey and Delaware	Wilmington/Newark, Princeton	IT Life Sciences-Environment	Purdue U, U of Delaware	Dupont Facilities
Mid-Atlantic	Baltimore/Washington	Life Sciences-Bioscience IT-Telecoms	U of Maryland, Johns Hopkins	NASA Langley Research Center, Center for Advanced Research in Biotech, Biocon (Biomedical Research Lab)
Eastern Lakes	Rochester	IT-Optoelectronics	U of Rochester, Rochester Institute of Technology	Ben Franklin Technology Center, Bausch & Lomb Labs, Eastman Kodak
Southeast	Research Triangle Park, Atlanta/Gwinnet County	Life Sciences-Biotechnology, Pharmaceutical, Agbio, Environment IT-Telecommunications, Semiconductors	Duke, UNC, NCSU, U of Georgia, Medical College of Georgia, Georgia Center for Advanced Telecoms Technology	NC Biotechnology Center, MCNC Microelectronic, Research Triangle Institute, National Institute of Environmental Health Sciences, Manufacturing Research Center
<i>Mid-West Corridor</i>				
Central States	Chicago	IT Advanced Manufacturing Life Sciences	U of Wisconsin, U of Missouri, U of Illinois Biotech Center, U of Chicago	Chicago Manufacturing Centre, Illinois Hazardous Waste Research & Info Center, Argonne National Lab, Fermi Lab, Battelle Institute
Great Lakes States	Detroit/Ann Arbor	Automotive Advanced Manufacturing	U of Michigan	National Center for Manufacturing Sciences, Detroit Testing Lab, Inc
Mid-West	Minneapolis/StPaul/ Rochester (Medical Alley)	Life Sciences	U of Minnesota, U of Iowa	Mayo Clinic
Southwest	Dallas/Austin/Fort Worth, Houston/San Antonio, Richardson-Plano "Telecom Corridor"	IT-Telecommunications, Aerospace Life Sciences Chemicals	U of Texas, U of Texas Southwestern Medical School	Texas Healthcare & Bioscience Institute, Texas Medical Center, Southwest Research Center, Houston Advanced Research Center
<i>Western Corridor</i>				
California	San Francisco/Bay Area, San Jose/Silicon Valley, Los Angeles/Orange County/San Diego/Santa Barbara	IT-Software, Hardware, Semiconductors Life Sciences-Biotechnology	Stanford, Berkeley, Cal Tech, UCSD, UCSD Center for Wireless Communications	Science Applications Int. Corp, Bell Communications Research, Linkabit-Qualcom
Northwest	Portland/Seattle	IT-Software, Telecommunications Life Sciences-Biotechnology	U of Washington, Washington State U	Pacific NW National Lab, Fred Hutchinson Cancer Research Center

prices had declined by 48% at year-end 1995\*\*. The telephone industry is now deregulating worldwide, creating a need for specialty products, such as customer billing systems and software, that monitor and measure the performance of entire systems. U.S. telephone companies are realizing that the only way they can keep their customers is to create a portfolio of attractive and competitive new services.

Another rapidly developing IT area is "electronic commerce" which could fundamentally change the way everyone does business in future

As an illustration, Ameritech (the Regional Bell Operating Company in the Midwest) is betting on the home computer as the multi-media vehicle, and has announced a US\$4 billion infrastructure project to bring fibre optic to every home in their seven state service area. Such developments explain the growth in niche markets such as "telecommunications management software" that allows telephone companies to quickly set up new services such as video-on-demand or Internet connections. According to New York-based Gerard Klauer Mattison Inc., this niche sector is already generating US\$1 billion in sales and will expand to US\$4.4 billion by year 2003, with annual growth averaging nearly 30%.

Another rapidly developing IT area is "electronic commerce" which could fundamentally change the way everyone does business in future. According to IDC, "on-line" business now worth about US\$1.5 billion will skyrocket in 1998 and is expected to reach US\$223 billion by 2001 (the U.S. accounting for two-thirds of the market). There are similar implications for a wide array of information technologies, presenting growth and investment opportunities for Canadian high-technology companies involved in telecommunications, cable, hardware, software, electronics and instrumentation.

\*ITU, EITO, Morgan Stanley Capital Information;  
\*\* McKinsey & Co. Other sources: EETimes; Consumer Electronics Manufacturers Association (CEMA); Area Development, September 1997

The U.S. market for health and medical services is the largest in the world, accounting for 40% of global demand

#### Life Sciences (LS)

Fundamental changes are taking place in the approaches to health and medical care in the U.S., including its delivery. The latter are also impacting on Canada as both countries are undergoing similar demographic and cost conscious trends. U.S. national health care expenditures will be approaching US\$1 trillion in 1998 up from US\$942.5 billion in 1993-94. The U.S. market for health and medical services is the largest in the world, accounting for 40% of global demand.

Two sectors likely to continue to be transformed by rapid development in advanced technologies are health care (pharmaceutical and medical devices) and bio-industries (agriculture, environment and certain aspects of natural resources). The three most potent forces influencing the flow of investment and technology in the U.S. pharmaceutical and medical devices industries in recent years have been:

- the Federal Drugs Administration (FDA)'s toughened and lengthened regulatory approval process;
- fundamental changes in health and medical care in the U.S.; and
- the rapid growth of knowledge-intensive SMEs at the leading-edge of medical technologies.

The FDA's backlogged process in the early 1990s is being blamed for a significant drop by U.S.-based companies in the global market share in the medical technology field - from a 70% share in the early 1980s to 40% in 1997. Although the U.S. leads the world in discovering and developing new medicines, 67% of the 207 drugs approved by the FDA between 1990 and 1996 were first marketed abroad. Many U.S.-based pharmaceutical and medical devices companies have moved critical operations (clinical testing, manufacturing and early marketing of new products) outside the U.S., where the approval process is shorter and where they can start earning money on their innovations, while they await approval in the United States.

Some of the major health care companies' recent business activities reveal a pattern of engaging foreign partners - through outright acquisitions, joint R&D ventures or technology licensing - to develop and market products overseas. R&D expenditures by U.S. research-based pharmaceutical companies are projected to reach US\$18.9 billion in 1997, an 11.5% increase over 1996 (more than doubled since 1990). This includes US\$3.8 billion spent abroad by U.S.-owned pharmaceutical firms (about two-thirds in Europe, one fifth in Japan, and the rest in Canada, Latin-America, Australia, Central and Eastern Europe).

The Pharmaceutical Research and Manufacturers of America (PhRMA) reports that these companies are pooling resources in order to have enough money to do R&D. The PhRMA also indicates that the U.S. pharmaceutical industry is being changed by the revolution in health care. The pharmaceutical industry faces intense competition driven by a number of converging forces, including advances in

the drug discovery process, which have led to multiple patented drugs competing in the same therapeutic categories. Generic drugs are gaining market shares. Price competition, driven by large buyers and health plans, has intensified.

Significant consolidations in the manufacturing end of the global pharmaceutical industry and strategic research alliances between start-up biotechnology and genetic engineering companies and established manufacturers are driving job creation in the research-based pharmaceutical industry. Merger and acquisition activity has increased significantly in the past decade and accelerated in the last two years (23 major mergers since 1983 – about half in the past several years).

Despite this, the U.S. remains a centre of innovation in new drugs and device research and development. In pharmaceuticals, U.S. companies account for over one-third of the R&D conducted worldwide. Japan is in second place with 19% of global pharmaceutical R&D. Of 152 major global drugs launched between 1975 and 1994, almost half were of U.S. origin. The second leading contender, the U.K. developed only 14% of the globally important drugs launched during the period. In the emerging field of biotechnology, the U.S. has a commanding lead. Of the 150 genetic engineering health care patents issued by the U.S. Patent and Trademark Office in 1995, 122 went to U.S. applicants.

Perhaps the hottest area of economic development in the pharmaceutical industry both inside and outside the U.S., is in the biotechnical research and development and genetic engineering of new pharmaceutical products. Increasingly, the major pharmaceutical manufacturers are forging equity partnerships with start-up, cutting-edge companies to bring innovative products to market. For most major companies, strategic alliances are created with small R&D-based firms. Increasingly, much like the situation with start-ups in other high-technology sectors, these R&D partnerships, involving in many cases foreign companies, are located in clusters surrounding or in corridors linking major research universities and centres of excellence.

The major medical enclaves in the U.S. are located near the homes of the industry's pioneers, which typically are located near large academic hospitals and medical schools. The Northeast, home to Harvard, MIT and other Massachusetts and Pennsylvania research institutions, is also home to diversified medical technology companies such as Johnson & Johnson and Merck. The University of

Maryland and Johns Hopkins University play a similar role for the Baltimore-Washington corridor. Stanford, the University of California at Berkeley, the University of California campuses at San Diego and San Francisco, and Silicon Valley are draws for both medical devices and pharmaceutical companies that want to be on the cutting edge. The Upper Midwest boasts the Mayo Clinic in Rochester (MN), as well as prestigious medical schools in Indiana, Ohio and Illinois.

Drug and medical device discoveries are driving the industry, and access to core research capabilities, service and equipment is the big advantage these companies have in locating in high-technology clusters. As biotechnology and electronics companies increasingly work together, microelectronics and medical technology companies are also discovering the advantages of clustering. For these and other industries as well it is advantageous to locate near a high concentration of competitors; best industry practices spill over and generate innovation and continuous improvements. This once again demonstrates the dynamic role of high-technology clusters as incubators for both emerging knowledge-intensive firms and innovation. Such clusters have also become important magnets to attract both domestic and foreign investment, including strategic partnerships with major North American and global players.

As North American trade becomes increasingly integrated over the next ten years, regulatory differences could replace tariff and other trade oriented measures that historically have protected national business interests. Harmonization of regulatory guidelines, which are currently being negotiated, could, in turn, facilitate new opportunities for Canadian health care product suppliers. Each trend suggests that Canadian SMEs that focus on the high priority therapeutic areas; that provide services to both the providers (computer-aided medicine, generics, "orphan and off-label drugs") and the manufacturers (clinical research organizations and site management, diagnostic tool kits, genomics, bio-informatics, manufacturing processes and dosage development, and other related services); and SMEs that are truly U.S. "market entry ready", could find significant opportunity for both exporting to the U.S., as well as attracting investment into Canada. Other life sciences' areas presenting scope include: ag-bio and tele-health.

Sources: The Pharmaceutical Research and Manufacturers of America (PhRMA); Area Development, November 1997

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### Advanced Manufacturing Production Technologies (AMT)\*

The United States is both the single largest producer of such technologies and the largest market. The U.S. AMT market is currently worth US\$60 billion (53% of world total) and is forecasted to increase to over US\$100 billion by year 2000. Technological development in manufacturing has been accelerating throughout the 1990s. Early in the new millennium, U.S. manufacturers will be able to build new and better products and install new production systems using technologies that will not have been available to their competitors only a few weeks or months before.

A new management paradigm has emerged based on "mass customization", the antithesis of "mass production" whose focus is on efficiency through stability and control in order to deliver goods and services at prices low enough that nearly everyone can afford them. Mass customization's goal is to deliver affordable goods and services with enough variety and customization that nearly everyone finds exactly what he wants. Through application of technology and management methods, U.S. companies will increasingly compete by creating variety and customization through flexibility and quick responsiveness to specific market needs and niches.

This involves dramatic changes in production techniques and manufacturing processes in order to produce a number of different, high-quality products via short production runs, short changeover times and low work-in-process. This also requires general-purpose machinery and highly skilled workers. Leading technologies such as information technologies and advanced materials will, of course, play a key role but it is continued access to advanced manufacturing production technologies and related investment from the United States that will prove the most crucial for Canadian industry to adapt and remain North American and world competitive in the future.

In manufacturing, numerical control, robots, flexible manufacturing systems, CAD/CAM, computer-integrated manufacturing all go together to provide a single integrated system that is fast, responsive, flexible and very low cost at high volumes. These manufacturing technologies can yield simultaneously economies of scale and scope. Instant application of information throughout a firm's value chain allows it to respond quickly to changes in demand and designs. Manufacturers that can offer or use AMT products that will increase flexibility and responsiveness while reduc-

ing costs will be the winners in an ever-changing and demanding global marketplace. In addition to offering scope for increased partnerships and technology transfers, this underscores the need for Canadian affiliates of MNEs to remain innovative and persistent with their parents in their quest for technology and productivity enhancements, and expansion via product and regional mandates.

Finally, in addition to stressing the importance of increased foreign investment for Canada, a 1997 Conference Board of Canada report underlined Canadian manufacturers' need to more quickly adopt new technologies in order to improve their productivity which has been slipping in recent years compared to the U.S. and some other key competitors (i.e., Sweden, U.K.). In 1993 for instance, 30% of U.S. factories used five or more advanced manufacturing technologies (such as computer-aided design, computer numerically-controlled machinery and artificial intelligence) compared with only 20% of their Canadian counterparts. The Conference Board found that the latter need to introduce complementary innovation such as new management systems and employee training that fully exploits these new technologies. Also needed is access to skills in fields such as: dies/molds, micro-machining, photonics and virtual reality modelling.

\* Sources: various U.S. industry and intelligence sources, including U.S. Posts; The Conference Board of Canada

*The objectives of the U.S. Investment Strategy follow closely the objectives and elements of the Government's 1996 Strategy. The most relevant objectives are re-stated; background on the salient features of the U.S. market is provided; followed by a summary of the main challenges and opportunities in developing investment linkages with the U.S.; then recommendations on the implementation of a suitable investment development program over the next three years.*

# A STRATEGY TO PROMOTE INVESTMENT, STRATEGIC PARTNERING AND ALLIANCES WITH U.S.-BASED COMPANIES

*A growing number of countries are vying for foreign direct investment (FDI). There is a mounting sense of urgency to have transnational corporations (TNCs) set-up shop locally to enhance a region's access to state of the art technologies and all the other accompanying benefits. These "spillovers" can be significant: the creation of quality jobs and valuable human capital development; physical capital formation which also boosts domestic investment; transfers of technology which enhance regional productivity, competition and economic growth; and the establishment of two-way trade and other bilateral connections between home and host countries. Canada's relative share of global U.S. investment has diminished in the past twenty years and is not keeping pace with that of growing U.S. global FDI. With anticipated slowing North American expansion by U.S. MNEs, and increased competition from the U.S. and Mexico; it is critical for Canada to retain and expand existing foreign investment, and pursue opportunities generated by second-tier U.S. companies and other U.S.-based international investors' further expansion in North America, including opportunities for partnering and R&D outsourcing.*

## Objectives

The objectives of the U.S. Investment Strategy over the next three years, following closely the objectives and elements of the Government's 1996 Investment Strategy, are to:

- Increase U.S.-based investors' and investment intermediaries' awareness of the advantages of doing business and investing in Canada;
- Attract direct investment into Canada from U.S.-based companies, including U.S. owned and foreign MNEs operating in the U.S. in strategic sectors;
- Facilitate the retention and expansion of major existing investment, including back-to-back corporate liaison/company outreach in Canada aimed at existing investors;

- Encourage strategic alliances between high-technology SMEs in Canada and the U.S., including new product development and cooperation in third countries;
- Promote Canada's high-technology and R&D excellence in key sectors and entice U.S. R&D intensive firms to invest, conduct and sub-contract research in Canada; and
- Encourage the development of further linkages between "high-technology clusters" in Canada and the U.S. in key sectors of Canadian knowledge-intensive SME interest.

## Background

### The U.S. Market Potential

Research by Arthur Andersen - Business Location Services (New York) in 1997 indicates that by the end of 1996 Canada had received approximately 11% of the US\$800 billion in U.S. FDI, which they considered was much higher than one might anticipate when comparing the size of the Canadian economy with those of some of its main competitors in attracting U.S. investment. Also, over 50% of U.S. MNEs have some form of investment in Canada, second only to the UK's 65%. Of the roughly 21,300 U.S. affiliates abroad, about 10% are located in Canada. Conversely, of Canada's total affiliates abroad, about 30% are located in the U.S. For many Canadian and U.S.-based companies, interest in enhancing their competitive position in the Americas via further strategic partnering and investment is of vital importance and thus not expected to ebb soon.

Major U.S. firms have been undergoing massive restructuring and rationalization in the last decade, and have emerged, in most cases, as leaner, more decentralized organizations with a greater tendency to seek out specialized partners to complement or complete organizational and project requirements. This represents a cornucopia of opportunities for Canadian SMEs with niche technologies. Deregulation in the transportation, telecommunication and financial sectors, coupled with further deregulation in the energy and environmental sectors, have considerably enhanced the scope for such strategic partnering activities with U.S.-based firms.

According to Coopers & Lybrand's Trendsetter Barometer, America's fastest-growing companies use 48% more strategic alliances than just three years ago. Of the total, 74% of the high-tech growth firms interviewed reported being involved in such partnerships, and 61% of firms currently engaged

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in strategic alliances rate them as either "critically important" (22%) or "very important" (39%). Firms active in strategic alliances also achieve higher productivity levels with revenue-per-employee 38% higher than non-participants. About 61% averaged four different strategic alliances, a substantial increase over previous survey results. Joint marketing/promotion ranks as the most popular type of strategic alliance (54% of participants). Other popular forms of arrangements include: production (26%), design collaboration (23%), licensing (22%), R&D and other outsourcing forms (19% each).

#### **Sectoral Interests and Linkages**

Not only is the United States by far the most important source of existing FDI in Canada, U.S. companies represent the most numerous, conducive complementary and pragmatic opportunities for joint equity venturing and technology partnerships for Canadian SMEs seeking to form strategic alliances. In addition, tremendous opportunities exist for Canadian and American firms to build upon established relationships in accessing emerging markets in Latin America and elsewhere.

Canada continues to offer numerous competitive advantages for U.S.-based international investors and excellent opportunities for prospective strategic alliance partners with Canadian SMEs. Canada is home to many world-class corporations (over 1,690 Canadian TNCs in 1995) with global operations and state-of-the-art technology. Equally important, the Canadian business community spawns numerous smaller, emerging players on the cutting edge of niche technologies – especially in the micro-electronics, telecommunications, biotechnology, medical devices, advanced manufacturing and materials, environmental technologies and software/informatics industries. Many of these newer companies grow out of, and continue to have strong links with, an equally impressive network of world-renowned private and university research facilities – an added inducement for establishing R&D operations in Canada, either on a solo basis, or as part of a strategic partnership.

Canada's dozen established or emerging high-technology clusters present a collaborative local culture, private-public partnerships, informal networks, supportive government and venture capital. Compared to many such U.S. clusters, most present much lower housing and labour costs, less serious skill shortages, comparable corporate taxes and outstanding quality of life. Other Canadian advan-

tages include a highly skilled pool of scientific-technical labour; a modern, extensive and integrated transport and communications network; a comprehensive social and public infrastructure; and world-recognized strengths in particular industries, such as agrifood, telecommunications, transportation, information technologies, energy, mining, health care, biotechnology and environmental technologies.

#### **Outlook to Year 2000**

##### **1) Global Outlook**

The U.S. today is trading and investing more. With increasing focus on emerging markets and Hemispheric Free Trade, the above trends are not likely to abate and might continue to attract major U.S. FDI, possibly yielding further reduced U.S. MNEs' North American expansion. The United Nations - World Investment Report 1996 (UNCTAD) indicated that, based on a 1995 survey of the top 100 MNEs, the share of total U.S.-based MNEs' investment abroad could grow from 42% in 1995 to 55% by year 2000. This trend could be offset by increased Asian and European N.A. investment (DEAIT's sponsored survey of 700 European companies by Goldfarb Consultants, June 1997). The above UNCTAD report indicated that the share of European and Japanese investment abroad could grow from 59% and 48% respectively in 1995, to 63% by year 2000.

The recent UNCTAD 1997 report provides further indication and forecasts between now and year 2001 (1996 survey of TNC managers):

- (i) a rapid rise in the proportion of total sales generated from production abroad, as well as the proportion of production carried out overseas;
- (ii) a greater reliance on mergers, acquisitions, alliances and joint-ventures as vehicles for international expansion;
- (iii) continued emphasis on developing countries; market access remaining the most important motive for TNC's choice\* of foreign locations (higher priority on average than access to resources, especially low-cost labour);
- (iv) all corporate functions will experience greater internationalization;
- (v) the scope for internationalization will remain correlated with the size of the company (although smaller European and U.S. firms with sales below US\$1 billion will be stepping up foreign investment); and,
- (vi) dramatic FDI increases are expected in infrastructure (telecoms), distribution, non-financial services (media, retailing) and automobiles.

Less dramatic FDI increases might take place in industries where internationalization may have progressed to a point at which the scope for further expansion is limited (all forms of manufacturing, including those involving advanced technology), and industries where obstacles to internationalization remain (i.e., regulatory constraints, such as in health care). The UNCTAD report further indicates that foreign expansion by U.S. firms will be driven by renewed competitiveness and sound finances, as well as the desire to increase the contribution of sales abroad.

\* Top criteria were market growth and size, and earnings prospects, followed by business environment factors such as, political and social stability, legal framework, quality of workforce and infrastructure, and availability of goods and services.

## 2) North American Outlook

There is a question whether these global trends will translate into reduced North American expansion by U.S. and foreign TNCs. A U.S. trends' survey by the Area Development magazine (September '97) confirms a three-year trend indicating that the number of plant expansion and new plant development in the U.S. is down from the high recorded in 1994. High-technology industries had a 30% drop in such projects compared to each of the previous two years. The key sectors remain information-technologies, bio-pharma and medical devices. Based on an analysis of 2,434 such projects in the U.S. in 1996, the survey indicates that the East-North-Central and South-Atlantic Regions generated 50% of the projects. Ten states had 60% of the projects (Ohio, Michigan, Indiana, Illinois, New York, Pennsylvania - North Carolina, South Carolina, Texas, Kentucky). Three Northern states (Ohio, Michigan and Indiana) accounted for 25% of the total.

Looking to the future, based on the above Arthur Andersen's 1997 survey, China (30%) and Mexico (18%) topped the list of locations where the U.S. companies surveyed expect to expand their investments between now and the year 2000. Canada was not among the top 10 countries cited as a location for such increased investment. Most were developing countries, where U.S. FDI has already increased from US\$25 billion in 1990 to US\$110 billion in 1996. Finally, Arthur Andersen found that 68% of all U.S. manufacturing companies surveyed plan to establish a manufacturing, distribution or R&D location outside the U.S. by the year 2000.

Similar results were also conveyed in a 1996 survey of 250 top executives of large U.S. multinationals by Cushman & Wakefield Worldwide, the world's lead-

ing provider of real estate services. In addition, the survey indicated the following as important factors in site selection: 83% of executives cited proximity to markets and customers (including serviceability) as the most important factor; 79% cited stable social and political environment as important; labour costs were cited by 37%, compared with 60% who cited skilled labour availability as important factors. Of the U.S. multinationals surveyed, 45% were considering relocating company-wide or regional responsibilities for specific non-manufacturing functions outside corporate headquarters. In this context it is anticipated telecommunications will take an even greater importance. A major implication is that foreign countries and cities should emphasize their infrastructure, business environment and modern telecommunications - or their commitment to building them.

With respect to Mexico's growing international attraction since NAFTA, the U.S. industrial database and marketing research firm Cimtek-Thomas reports that U.S. companies' investment in new Mexican facilities was in excess of US\$5.8 billion between 1993 and mid-1997, for a total number of 136 facilities. In addition Mexico has invested more than US\$13 billion in new plant facilities since 1993. Over the period, Mexico has attracted significant foreign investment from countries such as Germany (US\$1.7 billion), South Korea (US\$1.4 billion), Japan (US\$923 million) and Spain (US\$754 million). Canadian total investment more than doubled to reach C\$1.3 billion by year-end 1996. According to KPMG Peat Marwick's NAFTA Center in Houston, Texas, the automotive and electronics industries, which already possessed a significant Mexican presence prior to NAFTA, have continued to expand in Mexico. Both industries have bolstered their Mexican manufacturing capabilities and made the move to relocate suppliers in order to complete the entire manufacturing cycle within Mexico.

## Challenges and Opportunities

*The United States represents Canada's largest competitor for international investment destined to the North American market. The size and wealth of the U.S. market, both commercial and industrial, is an irresistible attraction for the world's leading companies. And growing global competition and ever higher standards of quality make the U.S. labour market with its higher productivity and excellent commitment to training, particularly attractive relative to other developed countries. Technology advances also*

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*favour U.S. locations because of superior management of advanced processes, the efficient use of information, and a highly technical work force. In addition, emphasis on innovation puts pressure on global firms to reach all markets to maximize their return on R&D. Access to efficient transportation and communication infrastructures is also crucial for these companies to be able to serve global markets.*

With NAFTA's likely expansion into Latin America, the business centre of gravity will shift southward and Canada risks being marginalized as an investment target

Foreign MNE investment in the U.S. has been unprecedented in recent years with many having established regional or divisional HQs with substantial delegation of authority to scout for new North American locations and/or make investments

#### **Brand Image Advocacy**

There are strong indications that since NAFTA, U.S. MNE expansion and other foreign investment (Europe, Japan) are bypassing Canada with the largest influx taking place in the northern and southern U.S., and Mexico. French, German, Japanese, Spanish and U.K. investment in Mexico have been growing. Well articulated and funded Mexican and U.S. states promotion, and a lack of effective Canadian response have also been contributing factors. Investment promotion by individual U.S. states at the county and municipal levels has become particularly aggressive and is taking place in a very competitive environment fuelled by all kinds of financial and other incentives. Apart from these factors, with NAFTA's likely expansion into Latin America, the business centre of gravity will shift southward and Canada risks being marginalized as an investment target. Canada cannot afford to be complacent nor to take traditional FDI countries, such as the United States for granted in the future.

More comprehensive and better targeted investment advocacy efforts, including important awareness building and fulfilment are required in order to address these threats and to enhance Canada's attractiveness as an investment and business destination with U.S.-based investors and intermediaries, including U.S. site locators. An aggressive federal "brand image" building strategy is needed for Canada to more effectively position itself vis-à-vis the U.S. and Mexico. Situated at the apex of investment development in Canada, the federal government is a key "niche player" in terms of promoting Canada as an investment destination and in helping pave the way for more effective promotion by other Team Canada players.

The "Invest in Canada" message is not being heard by international investors against the fanfares of the southeastern and northern U.S., and Mexico. A bigger and better-tuned federal instrument appears to be needed to back up the "Team Canada orchestra", including a higher profile for Investment Partnerships Canada. Federal investment promo-

tion ought also to put greater emphasis on the presence of the large number of foreign affiliates in Canada (4,580 affiliates of TNCs in 1995) as a major drawing card. Many use Canada as a base of operations to export to the NAFTA market, perform substantial R&D or have back-office operations here. Foreign firms have also found Canada to be an excellent platform from which to export to the world. Half of Canada's exports, and three-quarters of its manufactured exports, are produced by affiliates of foreign companies operating in Canada\*. In addition, Coopers & Lybrand found that there were over 5,000 call-centres (with 10 or more employees) in operation across the country in 1996.

However, more aggressive Canadian promotion will have limited impact if Canadian constituencies are not in a position to respond adequately or timely to any increase in prospective international investors' interest to include Canadian cities in their North American site location process. There appears to be a need for more reliable and complete Canadian municipal data to help facilitate direct cross-border comparisons by U.S. site selection experts. Without it, the reported lack of pertinent and timely municipal response to the sophisticated information requirements of U.S. site location firms might continue and produce municipal disqualifications and missed investment opportunities for Canada. In conjunction with the Federation of Canadian Municipalities and the Economic Developers' Association of Canada, a concerted "Team Canada" approach appears to be needed to support current efforts aimed at better preparing and equipping the economic development profession in Canada.

\* Industry Canada's Strategis Website, 1997

#### **U.S.-Based Foreign Investors**

With globalization and resulting re-structurations, TNCs have grown increasingly borderless. Foreign MNE investment in the U.S. has been unprecedented in recent years with many having established regional or divisional HQs with substantial delegation of authority to scout for new North American locations and/or make investments. The total number of foreign TNC affiliates operating in the U.S. was over 18,600 (Europe 5,400, Japan 3,300 and Canada 1,300) in 1995, compared to about 94,000 and 183,000 affiliates in developed and developing countries respectively.

The key issues are whether: most foreign TNC migrations to North America have already taken

place; the number of foreign affiliates will keep growing much faster in developing countries; major greenfield investment will grow fewer and further apart in North America as this worldwide expansion trend unfolds; and finally, whether the economic meltdown in Southeast Asia will have a mitigating impact. In terms of Canadian investment promotion, the implications are that: "retention and expansion" of existing investment in Canada and the attraction of further North American expansions by U.S.-based foreign investors and smaller U.S. owned companies, will become paramount.

Better adapted sectoral strategies are thus needed to respond to the North American strategic location and investment decision making requirements of European and Asian MNEs if Canada is to capitalize on their second and third rounds of North American manufacturing investment. A more integrated and coordinated approach than currently exists on a geographic basis is also needed to optimize government networking and corporate intelligence. These North American HQs may represent, short of working directly with the Asian or European parents, the next best opportunity in terms of influencing future North American retention, expansion and location decisions. The U.S. Investment Strategy should refocus and expand DFAIT's corporate liaison/company outreach programs in the U.S., to include North American HQs of foreign MNEs and key U.S. firms beyond the *Fortune 500* list of companies.

#### **R&D Investment and Outsourcing**

U.S. investment has in the past been the largest single contributor to manufacturing jobs and technology in Canada. Conversely rapid economic and high-technology growth in the U.S. is fuelling the "brain drain" and may represent the biggest threat to retaining R&D talents and to the continuing expansion of an indigenous high-technology industry in Canada. With an overheating U.S. economy and increasing skills' shortages in several strategic sectors, there is an urgent need to inject a strong technology development element in our trade and investment strategies: building on opportunities generated by a dynamic North American community of high-technology clusters, vibrant financial and venture capital markets, and U.S.-based MNEs' expanding R&D requirements.

To illustrate the magnitude of the U.S. market, R&D spending by U.S. industry in 1996 equalled the total accumulated book value of FDI in Canada at the end of 1995 (US\$120 billion) and is expected to

grow to over US\$133 billion in 1997. In 1996, about 10% of Canadian R&D (about C\$1 billion) came from foreign sources and this could be increased. U.S. industry's foreign outsourcing of R&D is in its infancy and could represent a major growth opportunity for Canadian knowledge-based companies, universities and research organizations, including increased scope for R&D investment, strategic partnering, technology licensing and transfers. This approach would also support one of the seven principles of the 1996 Government review - Science and Technology For a New Century: A Federal Strategy - aimed at extending science and technology linkages internationally, as it would proactively attempt to link U.S. technology and investment opportunities to Canadian needs.

MNE outsourcing of R&D is an emerging market presenting substantial scope to expand R&D sub-contracting in Canada, including opportunities for new graduates and experienced researchers. R&D investment, partnering and outsourcing promotion, including high-technology clusters' networking and linkages on both sides of the border which are likely to benefit R&D intensive Canadian SMEs and research organizations, should be increased within the three major North-South corridors. Furthermore, Canadian promotion of its high-technology assets abroad should further emphasize the lower cost of performing R&D in Canada as a means to alleviate the mitigating impact of the brain drain to the U.S. Comparatively lower salaries paid to engineers and scientists in Canada and generous R&D tax incentives should provide attractive R&D investment and outsourcing opportunities in Canada by offering U.S. corporations a cheaper alternative than bringing Canadians to the U.S. to perform similar jobs.

#### **U.S. Shortage of Qualified Labour**

Skills shortages in the U.S. are not only happening in the high-technology sectors. Management Recruitment International (MRI), a U.S. employment firm that recently surveyed 4,300 executives about their hiring plans, found that middle to upper management and professional jobs will continue to be in demand in just about every major industry in the first half of 1998. According to another recent survey of 4,500 U.S. manufacturers of all sizes, conducted by the National Association of Manufacturers (NAM) and Grant Thornton LLP, 88% of manufacturers reported a shortage of qualified workers in at least one job category. In addition, 60% said that their current work force lacked basic mathematical skills and more than half (55%) reported serious deficiencies in employees' basic

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writing and comprehension skills. Other unsettling findings for the U.S. were that workers lacked basic job skills, including arriving on time and staying at work all day (63%), and that skill gaps and deficiencies are causing difficulties in improving productivity (37%) and upgrading technology (36%). In an effort to reduce their workers' skills deficiencies, about 96% of manufacturers provide some education and training for hourly paid employees; 47% spend 2% or more of payroll costs to train shop-floor and other hourly paid employees.

This is a significant increase over the 1991 NAM survey which found that member companies spent an average of less than 0.5% of payroll costs on training. With unemployment in the U.S. at a 24-year low (seasonally adjusted rate of 4.7% in October 1997) - the lowest level since 1973 - and a surge in manufacturing employment (half the gains in industrial machinery and transportation equipment) -- the best showing in the last seven years -- it is feared in the U.S. that sustained economic growth could further escalate pressures on labour supplies and costs. With a rate of unemployment in Canada at least double the U.S., this could represent a window of opportunity if it could be demonstrated that the pool of unemployed labour in Canada may present, to some extent, the skill mixes and characteristics currently lacking in the U.S.; or at least shown that basic skills' deficiencies are far less serious here (i.e., high percentage of unemployed with secondary education). In addition Canadian workers have a reputation for low absenteeism and turnover.

### **A Refocused and Enhanced U.S. Program**

*Investment promotion at U.S. Posts has been emphasized in recent years with the recognition that foreign direct investment, technology transfers and strategic partnering/alliances can provide Canadian SMEs with the know-how, advanced technologies, manufacturing processes, venture capital and foreign partners necessary for their business development. In addition, knowledge-intensive foreign investment most often results in higher-quality paying jobs, manpower training, enhanced commercialization of Canadian technology/innovation, industrial expansion, increased productivity and exports, R&D outsourcing and other forms of procurement with Canadian suppliers of goods and services.*

### **Current Program**

The U.S. Investment Development Program (IDP) objectives over the last three years have been: "to maximize investment opportunities for Canadian industry by integrating government trade, investment and technology programs and by focusing DFAIT's U.S. posts' proactive investment efforts on the priority sectors in their territory which offer the most potential for investment and partnering opportunities for Canadian knowledge-intensive SMEs".

The IDP's main priority sectors were initially information-technologies, environment, health products/services and biotechnology. More recent refinements included medical devices, semiconductors, multi-media, agrifood, aerospace and R&D investment. Investment promotion was later expanded to include U.S. site selectors and other investment intermediaries, including closer cooperation with Canadian EDOs. More recently, further integration has taken place at some U.S. posts highlighting core activities (strategic alliances, venture capital) and sector-specific campaigns or efforts (semiconductors, agrifood, advanced manufacturing).

The main goals of the U.S. Investment Development Program (IDP) have been to:

- 1) Promote with U.S.-based investors and site locators the concept of Canada as a competitive location for "greenfield" and R&D investment. This includes the retention and expansion of existing Canadian facilities through regional and world product mandates. Activities include the development and promotion of the KPMG study, sector campaigns, thematic Canada/U.S. investment bulletins, the Canadian Business Executive Speakers' Program, and promotional material.
- 2) Foster the formation of strategic alliances between Canadian and U.S. firms in priority sectors of each Post via the matchmaking of Canadian and U.S. sponsor/anchor groups interested in partnering. This resulted in the creation of five Strategic Alliances Centres in Chicago, Washington, Seattle, Detroit and Minneapolis.
- 3) Work more closely with U.S. investment intermediaries to publicize Canadian high-tech assets (including R&D clusters), manufacturing and services capabilities; promote Canadian locational and other comparative advantages; and help put Canadian cities on the "radar screens" of U.S.-based investors and site locators. This was done mostly

through the promotion of the KPMG study, specific Canada/U.S. Investment Bulletins (agrifood, site selection, R&D investment, semiconductor and call centres), the development of "50 Profiles of Canadian Locations" and information on Canadian R&D clusters.

#### Future Program

Based on the above U.S. Investment Strategy objectives for the next three years; earlier identified challenges and opportunities; and building on existing activities; U.S. Posts will adapt current action plans and develop future programs around the following six main investment and technology development goals:

- 1) To aggressively build Canada's "Brand Image" in the U.S. and undertake special efforts to help put Canadian cities on the "radar screens" of U.S.-based investors and site locators. Emphasis will be put on the dissemination of KPMG's "good news" and other positive, sector-specific messages about Canada.
- 2) To increase U.S.-based investors' awareness of Canada's sectoral capabilities and locational advantages through corporate liaison, company and investment intermediaries outreach programs, including the integration of Investment Partnerships Canada (IPC) MNE targeting, sector campaigns and U.S. Country Champion DMs' activities. The agrifood, information technology/telecoms and life sciences sectors will be targeted, including specific campaigns in cooperation with IPC, Industry Canada, AAFC and the provinces.
- 3) To encourage strategic alliances between SMEs in both countries through an expansion of the activities of U.S. Strategic Alliance Centres and the promotion of linkages between Canadian and U.S. high-technology clusters, including R&D outsourcing. Specific attention will be given to sectors such as IT/telecoms and life sciences with further consideration given to sectors such as: aerospace, value added agrifood and forestry, environmental technologies, resource technologies, technology supported learning, tele-health and intelligent transportation.
- 4) To redeploy resources to implement these investment development goals within the three major U.S. North-South markets, and progressively reorganize activities around a smaller number of knowledge-intensive sectors and sector-specific campaigns where high-technology and R&D con-

centrations exist, and where U.S. Posts can make a difference.

5) To undertake more intensive efforts aimed at gathering intelligence on targeted U.S. companies, industries and high-technology clusters through market research and business outreach activities. This will be done mostly through the Corporate Liaison/Company Outreach Programs, IPC's MNE targeting, and IPC and U.S. Posts initiated Market Intelligence/Information (MI/I) studies.

6) To promote greater linkages between high-technology clusters on both sides of the border with a view to increase the commercial application of Canadian technology. This will be done through incoming/outgoing missions, participation in venture capital fora and high-technology seminars, and other outreach activities in both the U.S. and Canada.

#### Implementation

Over the next three years, a major benefit of a pertinent U.S. Investment Strategy will be the ability to refocus the U.S. Investment Development Program (IDP) on fewer priority sectors and selected activities where U.S. Posts can make a difference - more specifically, better intelligence and information on U.S. knowledge-intensive sectors of interest to Canadian SMEs (agrifood, life sciences, information, transportation, resource and manufacturing technologies).

Implementation involves fulfilling the goals and meeting the key challenges that have been identified for the U.S. through a systematic program of selected events and activities. A North-South corridor focus will help better identify and exploit the synergies offered by these individual U.S. markets and foster greater U.S. Posts' interaction, including better use of limited in-Canada and U.S. Posts' resources. High priority will also be put on the promotion of a "Brand Image" for Canada based on its qualified labour, high technology assets and sector capabilities.

While partnering and venture capital seminars should be organized periodically in these sectors, an active, targeted corporate liaison program with renewed emphasis on existing and potential investors identified as a result of past initiatives and ongoing research and market intelligence gathering, will remain the cornerstone of the program. This program will be supplemented by systematic "back-to-back" corporate liaison in Canada aimed at

Targeted corporate liaison program with renewed emphasis on existing and potential investors identified as a result of past initiatives and ongoing research and market intelligence gathering, will remain the cornerstone of the program

existing investors. Such investment promotion is primarily aimed at direct investment in production and service facilities (manufacturing, R&D, design, back-office) as opposed to investment in real estate, M&A and portfolio investment which require a different set of skills and do not have the same job creation impact. In addition to *Fortune 500* companies, corporate liaison and company outreach will pay increasing attention to North American expansion opportunities presented by second-tier U.S.- owned companies.

Ongoing restructuring in an increasing number of large European and Japanese corporations has translated into greater empowerment of their North American-based operations. Corporate liaison can therefore be effectively carried out with the North American HQs of European and Japanese companies based in New York or elsewhere in the U.S. It will also be important to analyze the export and investment patterns of smaller existing or prospective U.S.-based exporters to Canada; to identify firms with skills shortages or those with energy, other natural resources or technology intensive projects; and to explore additional investment possibilities in these targeted sectors.

# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES

## ANNEX I

### PROFILES OF THE THREE NORTH-SOUTH U.S. CORRIDORS

The following are profiles of each DFAIT Post's territory (including satellite offices) within the three North-South U.S. corridors. Some of the key economic and trade activities are outlined, as well as the industrial sectors considered important to Canada's industrial and commercial development.

#### EASTERN CORRIDOR

##### ATLANTA and MIAMI

(Alabama, Florida, Georgia, Mississippi, North/South Carolina, Tennessee and Puerto Rico)

With a population of over 47 million, the Southeastern United States (SEUSA) has been the fastest growing U.S. region over the past six years, posting some of the U.S.' greatest gains in new jobs, housing starts and per capita income. SEUSA's GRP is greater than that of all but five industrial nations, and leads U.S. Posts' territories in the six major segments of retail sales: food, apparel, automotive, furnishings, drugs and leisure. In 1996, Canada's merchandise trade with SEUSA was valued at C\$33.9 billion, with exports to the territory up 4.7% to C\$15.6 billion. Flourishing high technology hubs (Atlanta, Huntsville, Oak Ridge, North Carolina Research Triangle Park) combined with a growing base of 43 *Fortune 500* company HQs and rapid expansion of professional service industries (health care, transportation, communications) make the region a prime target for investment attraction and technology transfer. SEUSA has the greatest growth potential of any U.S. region, based on the impact of Open Skies and expansion of business, population and economic activity.

As part of the *Business Development Program*, the Consulate General in Atlanta and the Consulate in Miami oversee some 50 promotional activities annually – including missions, national and regional exhibitions, and market opportunity studies – to give Canadian SMEs the key market intelligence and contacts they need to develop successful, sustainable business in SEUSA. Post priority sectors include telecommunications, software, environmental technologies, construction materials and furniture, healthcare, biotechnology, food products, simulation, and a wide range of services (e.g. financial, transportation and design). In addition, the Miami Consulate helps Canadian firms capitalize on south Florida's role as an important financial, entrepot and services hub for Latin America and the Caribbean. The focus of the investment development program is on investment retention and expansion; strategic alliances in high-tech niches, such as telecoms, biotechnology, pharmaceuticals, site remediation and service industries (call centres). The Post maintains an active corporate liaison and company outreach program. SEUSA also has a significant community of investment intermediaries such as venture capital and site location firms.

#### **BOSTON**

(Massachusetts, Vermont, New Hampshire, Maine and Rhode Island)

The Consulate General in Boston is responsible for a region with strong historical ties to Canada, particularly Québec and Atlantic Canada. It encompasses a market of 10 million people and is home to 23 of the *Fortune 500* companies. New England is a vital tourism market for Canada, generating over 1 million visitors yearly representing between 10 and 15% of all U.S. visitors to Canada per year. Merchandise trade between New England and Canada is on the upswing. In 1996, it reached C\$22.1 billion, with Canadian goods' exports to New England reaching C\$14.2 billion. The region is emerging from the economic recession at a somewhat slower pace than the rest of the U.S., but trade in services is increasing rapidly; as is interest in strategic alliances, technology transfers, intellectual property and investment. New England continues to be at the forefront of many emerging technologies including software, biotechnology, medical and environmental technology, instrumentation and telecommunications. A sophisticated university and research infrastructure strongly supports the growth of innovative, technology-based companies, including the second largest concentration of venture capital firms in the U.S. after California's Silicon Valley.

The *Business Development Program* seeks to increase Canadian companies' share of the regional market and to help them become more competitive, to exploit opportunities created by NAFTA, and to attract technology and investment to Canada. These aims are achieved by means of the New Exporters to Border States (NEBS) program, and other activities, which include conferences and seminars focusing on strategic alliances, trade and investment opportunities, as well as missions and trade fairs. Key industry sectors of importance to Canada are services, environment, ocean technology, information technologies, medical products, biotechnology, defence, transportation, building materials, consumer products, and fish and food products. Emphasis is also being placed on market intelligence and publication of reports on business opportunities for key industry sectors.

#### **BUFFALO**

(Northwestern New York, Pennsylvania, excluding the Philadelphia area, and West Virginia)

The territory of the Consulate General in Buffalo covers a market of nearly 16 million people and is home to 33 of the *Fortune 500* companies including eight in upstate New York. Bilateral trade with New York State itself surpassed C\$32 billion in 1996 including C\$20.3 billion in exports, a third of which go to the upstate area. In 1996, Canada's bilateral trade with Pennsylvania was C\$13 billion and roughly balanced, while bilateral trade with West Virginia was C\$1.4 billion with a small Canadian export surplus. Over 20 million vehicles cross the border through the territory annually. The region is a vital Canada-U.S. economic corridor, with Buffalo, Rochester, Hamilton and Toronto as the anchors. Significant sectors are information technology, including telecommunications, medical products, services and tourism industries. Important District Customs offices and key customs brokers are located along the border in the territory. The Buffalo area is the first cross-border stop for a majority of new Canadian exporters.

The *Business Development Program* is therefore working to expand its export education initiatives with small business clients in Ontario and Québec. The New Exporters to Border States (NEBS) program hosts over 20 educational missions a year, and makes presentations at about 20 sites in Canada. The program also concentrates on market access issues. The legal, brokerage and shipping communities and U.S. government regulators resident in the territory are invaluable to Canada in taking stock of these issues. Investment development, corporate

liaison/company outreach and strategic partnering activities also include the Pittsburgh area which has a concentration of manufacturing equipment and services firms, particularly in the environmental and computer sectors; and the Rochester area which has a concentration of IT/optoelectronics companies, including major corporations with large R&D facilities such as Bausch & Lomb, Kodak and Xerox.

#### **NEW YORK and PRINCETON**

(Eastern New York, New Jersey and Connecticut)

The territory covered by the Consulate General in New York has a market of 30 million people. In 1996, these states accounted for C\$22 billion of Canada's C\$206 billion in merchandise exports to the U.S. The region is the largest source of tourism with some 9 million person-trips from the territory spending close to C\$1 billion in Canada in 1996. The territory is home to almost 25 percent of major U.S. corporate HQs (including 115 of the *Fortune 500* companies) and to large R&D budgets. The area includes several important North American HQs of European and Japanese MNEs. There are also significant high-tech and R&D facilities in the information technologies and life sciences sectors clustered in the N.Y. and Princeton areas. As an international business and financial centre, and the home of three major U.S. television networks and large media-entertainment conglomerates, as well as top academic and cultural institutions; the region is vitally important to Canada. Many influential U.S. private sector organizations, like the Business Round Table, the Business Council on International Issues and the American Association of Exporters and Importers are headquartered in New York. In addition, tourism agencies from over 90 countries are located there.

The *Business Development Program* provides market assessments, arranges trade missions, organizes participation in world-class trade shows, responds to inquiries and monitors new regulations and market developments in specific sector areas. Emphasis is placed on value-added products, niche markets and hi-tech sector exports. As part of this program, investment development is encouraged through corporate liaison/company outreach activities, partnering seminars and roundtable events. Direct investment is attracted by servicing investors' needs and by alerting large corporations and venture capitalists to investment opportunities. Program activity is directed toward the pharmaceutical, biotechnology, medical devices, chemicals, information technology (telecoms, software, multimedia) and environmental industries. Outreach

activities also include investment bankers, venture capitalists, site selection, relocation and real estate firms.

#### **WASHINGTON**

(District of Columbia, Delaware Valley, Eastern Pennsylvania, Maryland and Virginia)

The Canadian Embassy in Washington covers a region with a population of about 20 million and contains some of the fastest-growing metropolitan areas in the U.S. Bilateral trade with the region reached about C\$16 billion in 1996. The region's growth and high per capita income have sustained a strong retail sector, with mid-Atlantic retail sales equalling some 10% of the national total. HQs of 60 of the *Fortune 500* companies are located in the territory, some with significant R&D budgets. Major corporations include: Mobil Oil, MCI Communications, Lockheed-Martin, US Airways, Unisys, Marriott International, Hershey Foods and Dupont. The key industry sectors are information technology (including telecoms), life sciences, agri-food, aerospace and defence. Greater Washington is also headquarters for the majority of some 7,500 U.S. national trade, professional, technical and other business associations - these provide numerous networking opportunities and business leads. Major markets offered by international organizations, such as the World Bank, Inter-American Development Bank, and U.S. Government procurement in both the defence and civilian sectors, present numerous untapped sub-contract and joint-venture opportunities. Strong niche agrifood product and consumer goods sectors, developed through the region's high per capita income, also hold notable commercial and investment opportunities for Canadians.

The *Business Development Program*, through its investment promotion and prospecting activities, seeks to exploit the investment and technology partnership opportunities offered by the region's significant high technology clusters in the IT and life sciences sectors. There are also networking opportunities for Canadian high-tech clusters with similar R&D interests. Many of the U.S.' important IT/telecommunications, space and geomatics firms and technology centres are clustered in the region. These value-added sectors present numerous science and technology (S&T) collaboration opportunities by virtue of the number of institutions and universities (such as NASA and Johns Hopkins), private sector research, government labs and advanced technology centres of excellence in the area. Biotechnology, healthcare and pharma-

ceutical firms hold potential for R&D investment, through the development of joint ventures and collaborative research and product development opportunities with Canadian firms. The Post also maintains active corporate liaison, company and R&D facility outreach programs.

## MIDWEST CORRIDOR

### CHICAGO

(Illinois, Wisconsin, Missouri, and 5 counties in Indiana)

While the Consulate General in Chicago is responsible for a region with a land mass about half the size of Ontario, its population stands at 22 million. The region's location in the manufacturing Heartland of America has undergone a dramatic turnaround in the last 10 years, fuelled by corporate downsizing and aggressive marketing. Chicago stands at the heart of the Growth Belt, a centre of professional services and advanced manufacturing technology. The region's political and economic importance, and extensive trade, investment and tourism flows make it particularly relevant to Canada. Last year, the region was responsible for nearly 1 million visits to Canada and for an estimated C\$800 million additional tourism revenue to the Canadian economy. Two-way trade with Canada reached C\$37 billion in 1996, making the Midwest one of the largest world markets for Canadian products. Future sales opportunities for Canada are significant: annual purchasing requirements for 22,000 manufacturing firms in Illinois alone exceed US\$125 billion; one third of the U.S. GNP is produced within 300 miles of Chicago. The Post's territory is headquarters to 61 *Fortune 500* firms, many of which have substantial trade/investment potential. It is also an important financial centre: home to the Chicago Mercantile Exchange, the Chicago Board of Trade, major venture capital companies, international banks and site selection firms.

The *Business Development Program* delivers a wide range of services to clients on both sides of the border, including market intelligence/information (MI/I), business advocacy, and targeted partnering. Priority sectors include advanced manufacturing; information technology; agriculture/food products; environmental products and services; medical and health care; consumer products and transportation. Considerable emphasis is placed on assisting and developing new Canadian exporters. Promoting strategic alliances is a key component of the investment development program. By working with partner organizations on both sides of the bor-

der, the Post's Strategic Alliance Centre facilitates strategic partnering/alliances between Canadian and U.S. firms. The Post operates an active corporate liaison and company outreach program aimed at promoting greenfield investment and expansion in Canada by major U.S. corporations. Outreach activities also include firms such as site selectors, relocation experts, investment bankers and venture capitalists.

### DALLAS

(Texas, Oklahoma, Arkansas, Louisiana, Kansas and New Mexico)

The territory of the Consulate General in Dallas encompasses a fast growing market of almost 36 million people. Texas surpasses New York as the second most populous state, with Dallas/Fort Worth being one of the fastest growing urban regions in the U.S. Since 1988, more than 300 companies, including Exxon, J.C. Penney, Quaker State, Blockbuster, Union Pacific, GTE and Pizza Hut have moved their HQs to the region, which is now home to 48 of the *Fortune 500* companies. In 1996, bilateral trade with the region reached C\$24 billion and exceeds trade with the U.K., France and Germany combined. From cotton and cattle to oil and gas, the region enjoys a strong economic base. It contains the world's largest concentration of oil, natural gas and pipeline companies and is the primary natural gas production region of the U.S. The region has important military installations; prosperous world-class high-tech industries in the information technology, lifesciences and aerospace sectors; internationally renowned medical institutions and highprofile R&D capacities clustered in the Dallas/Austin/Forth Worth, Houston/San Antonio and Richardson/Plano corridors.

The *Business Development Program* provides support to Canadian SMEs, through trade fairs and missions, as well as corporate liaison and company outreach activities aimed at encouraging technology and investment flows and new job creation in Canada. The program focuses on promotion of advanced technologies and newly emerging services in industrial sectors such as information technology, advanced manufacturing, environmental industries, biotechnology, medical and health care products. As well, the Post emphasizes market intelligence gathering and reporting for Canadian industry, the development of marketing strategies to capitalize on NAFTA, and the sale and acquisition of new technology through strategic partnerships.

## DETROIT

(Michigan, Ohio, Indiana and Kentucky)

The territory of the Consulate General in Detroit accounted for roughly 33 percent (C\$118.9 billion) of Canada's bilateral merchandise trade with the U.S. in 1996. The region encompasses a market of 30.5 million people and is home to 54 of the *Fortune 500* companies, including three of the top ten major foreign investors in Canada. Three of the four states border on the Great Lakes, and cross-border movements between Ontario and Michigan account for the largest share of Canada-U.S. bilateral trade and tourism. The automotive sector is the major industry and is of vital importance to the Canadian economy. The Consulate General monitors this industry extensively and reports on trends or changes in markets, sourcing, manufacturing and investment decisions. Other key sectors include primary metals, rubber and plastics, chemicals and pharmaceuticals, agrifood products, building products, advanced manufacturing technologies, information technology (telecoms, computers), environmental products and services, a full range of consumer products, and wide application of professional services. In 1996, some 1.2 million people visited Canada from the territory, spending an estimated C\$1 billion.

The *Business Development Program* is multifaceted, promoting the export of Canadian goods and services into the U.S., emphasising strategic alliances between companies, technology transfers, and offering a full range of investment promotion activities. The Post also maintains active corporate liaison and company outreach activities in the territory. Due to the location, there is active cooperation with U.S. Customs Services and U.S. Immigration and Naturalization Services under the NAFTA treaty. Corporate advocacy activities complement the above services and help solve trade disputes affecting international business.

## MINNEAPOLIS

(Colorado, Iowa, Minnesota, Montana, Nebraska, North/South Dakota and Wyoming)

The territory covered by the Consulate General in Minneapolis accounts for 20% of the total area of the U.S. with a population equal to half that of Canada. The region borders on five Canadian provinces (Eastern B.C. to northwest Ontario). Minnesota, the region's most populous state (4.5 million people, half in the Minneapolis-St. Paul metropolitan area), has strong links with Canada. The region ranks third, immediately behind Japan,

among Canada's trading partners. In 1996, the State of Minnesota traded C\$7.7 billion worth of goods with Canada, up 6% over 1995. Tourism to Canada from the region contributes significantly to the Canadian economy. High-technology based enterprises have joined traditional areas, such as agriculture and manufacturing, as drivers of both the state and regional economies. Minnesota, home to 32 *Fortune 500* companies, includes some of the nation's leading high-tech firms in information technology and life sciences (medical devices) with firms such as Honeywell, Unisys, Cray Research, Control Data and Medtronic (all of which have Canadian operations), and most of the major agrifood giants (Cargill, Pillsbury, General Mills, International Multifoods, Hormel, Land O'Lakes). Other major corporate HQs include 3M and the Carlson Companies, the world's largest hospitality, travel and marketing firm. The area also includes an important cluster of insurance companies and other financial intermediaries.

The *Business Development Program* has recently refocused its operations to meet the goals of the Jobs & Growth trade and investment initiatives. Current priority sectors include: agri-food, consumer products, medical/biotechnology and environmental industries. The Post has close working relationships with its federal and provincial partners in the Prairies and N.W. Ontario, is involved in the export training program and places considerable emphasis on assisting and developing new Canadian exporters (NEBs). Corporate liaison, company outreach and partnering activities, including the maintenance of a Strategic Alliance Centre, are integral elements of the Post's active investment development program. Important corporate advocacy includes participation in the Canada-Minnesota Business Council which has a growing membership of over 75 companies, and is the pre-eminent bilateral networking forum for Minnesota and Canadian business interests.

## WESTERN CORRIDOR

### LOS ANGELES, SAN FRANCISCO and SAN JOSE

(Southern/Northern California, Arizona, Utah, Nevada and Hawaii)

Canadian interests in the territory of the Consulate General in Los Angeles are concentrated in California, a state with 31 million people and the world's seventh largest economy. The Post's territory is also home to 55 of the *Fortune 500* companies. Two-way trade with California in 1996 amounted

to C\$18.5 billion. California is also by far the largest market for Canadian natural gas in the U.S. California's economy accounts for a disproportionately large share of U.S. national output in areas of strategic interest for Canada such as information technologies, biotechnology, aerospace and defence, and its dominant entertainment and cultural industries. California is also home to the largest concentration of venture capital firms in the U.S. catering mostly to knowledge intensive firms located in the State's high-tech clusters. Importantly, California remains the main U.S. window onto the Orient and has strong economic and human ties with Mexico. In 1995, some 900,000 visitors from the Los Angeles post territory spent about C\$450 million in Canada. In 1996, Southern California was targeted by the Canadian Tourism Commission as the focal point of its multi-million dollar promotional campaign.

The *Business Development Program* priorities at the Los Angeles Consulate General and the two satellites target the following sectors: transportation, environmental technologies, medical devices, processed foods, communications, computer software, aerospace, building design and materials, film and TV production, biotechnology (San Diego, San Francisco Bay areas), information technologies (San Jose, San Diego areas), multimedia and environmental (San Francisco area). Investment promotion seeks to dovetail its "matchmaking" and "corporate liaison" activities with these sectors and provide support from all offices to Canadian firms seeking alliances and joint ventures in the territory.

#### SEATTLE

(Washington, Idaho, Oregon and Alaska)

The territory of the Consulate General in Seattle covers a market of 10 million people with bilateral trade amounting to C\$16.1 billion in 1996, and is home to 11 of the *Fortune 500* companies. The economies of Washington, Oregon and Idaho continue to outperform national averages and there is a steady movement of business to the Pacific Northwest from California and other parts of the U.S.. The future growth of the region, especially Washington State, is still determined to a significant extent by the success of Boeing -- though this is lessening with the growth of Microsoft and other high-tech companies in the territory, including some 2,000 firms in software and more than 600 firms in electronics. The area also ranks high in many areas of agricultural production and Washington state ranks 6th nationally in terms of the concentration of biotechnology firms.

Environmental management offers significant new potential for niche technologies. The Pacific Northwest is Western Canada's most important international tourism market. Washington ranks third of all U.S. states in sending visitors to Canada.

The *Business Development Program* concentrates on trade promotion and market development of intelligence in the high priority sectors of aerospace, health and medical, informatics, building products and construction, and the agriculture and food products industries. In addition to the high priority given new Canadian exporters to the region, the Post has an active investment development program. The development of a Strategic Alliance Centre will enhance partnering opportunities for Canadian high-technology SMEs. Corporate liaison and outreach activities also include the networking of centres of hightech excellence and R&D organizations on both sides of the border.

# A STRATEGY TO ATTRACT INVESTMENT FROM THE UNITED STATES

## ANNEX II

### INTERNATIONAL INVESTMENT AND ITS ATTRACTION

#### INTERNATIONAL INVESTMENT

##### The role of International Investment

- Historically, firms only invested after they had established a trading relationship.
- Today, trade follows investment; companies invest in order to facilitate trade. Investment has become critical in positioning a firm to conduct trade.
- Subsidiaries are established to get past barriers and establish a firm inside a market. This allows it to trade into that market more easily (for example, by supplying the subsidiary with parts or technology), but if the subsidiary is successful, it may then re-export to other markets and even to the home market.
- Investment today involves more than just the flow of cash: it also involves partnerships, technology transfer, and the commitment of expertise.
- Investment in a partnership is increasingly becoming a way of penetrating overseas markets. Joint ventures with partners in a target market can provide a firm with the foothold it needs to get into that market successfully.
- Investment in international partnerships can be critical for smaller businesses seeking to export. Such partnerships provide them with the expertise and resources they need for success. For example, it is becoming increasingly common for smaller firms to develop a supplier relationship with larger corporations. When the large corporation moves into a market, it will take its small suppliers with it.

### Canada's Need for Investment

- Our smaller market does not generate enough capital to support the major investments required to maintain our international competitiveness. This is not only true in manufacturing and resource development but also in areas of technological innovation. The development of breakthrough technologies today is extremely expensive, and companies need the backing of investors to finance critical development efforts and share R&D costs (i.e., pharmaceuticals).
- In some cases, capital investment must be supplemented by investment in research partnerships. For example, the development of the next generation of microprocessors is a multi-billion dollar project that lies beyond the financial capabilities of any one firm, let alone any Canadian firm. Northern Telecom has abandoned its efforts to develop semi-conductors in-house and is pursuing partnerships with Motorola to develop the chips that it needs. Canadian companies will need to attract international research partners to keep abreast of developments in leading edge technologies.
- In addition, the pace of technological change is now so fast that companies have only a narrow window within which to move from development to commercial exploitation. They need investment in order to accelerate their ability to commercialize innovation, since financing it out of internal operations will be impossible or will simply take too long.
- Canada also needs a healthy inflow of investment to balance its investment outflow. As Canadian companies have grown and prospered, they are investing some of their earnings abroad to support international trade and development activities. Again, Northern Telecom is an excellent example.  
The Canadian market will not support a world-class telecommunications giant on its own, so Northern Telecom has moved more of its marketing and manufacturing abroad (while retaining much of its high value-added R&D activity in Canada). This outflow of investment by Northern Telecom is a natural consequence of becoming a successful global firm but the Canadian economy must then attract corresponding inward-bound investment if it is to maintain a healthy and balanced relationship with the global economy.
- Investment can be especially important to Canadian SMEs which need additional capital to develop the production capacity they need to serve competitive foreign markets.

### Competing for Investment

- The global pool of investment capital is under increasing demand; international competition for investment has been intensifying over the past decade.
- Governments at all levels are competing for international investment to develop local capabilities and support job creation. There are now literally thousands of jurisdictions competing to attract investors.
- The recent entrance of Soviet bloc economies has dramatically increased the number of countries looking for foreign investment.
- Canada cannot afford to stand still in this contest. Apart from other factors, with NAFTA's likely expansion into Latin America, the business centre of gravity will shift southward and Canada risks being marginalized as an investment target.

### What Investors Want

- International investors search for whatever factors will contribute to their company's competitive advantage.
- The definition of what constitutes competitive advantage varies from company to company and depends on the nature of the business. For some firms, access to markets, low labour or energy costs are critical. For others, a favourable tax regime, access to a highly skilled workforce or to sophisticated transportation and telecoms infrastructures is decisive. Each company will have a different mix of features that it considers as vital to its own success.
- Beyond that, investors want stability, a welcoming environment, and a political, legal, social and economic structure that promotes competitive and profitable business.

### INVESTMENT MARKETING AND PROMOTION

General marketing and promotion techniques are listed, outlining a wide range of investment development activities, many of them performed at DFAIT's U.S. posts. The techniques cover broadly based or generic promotion, targeted campaigns, partnering and match-making services and servicing of investment enquiries. Also underscored are longer term factors influencing investment such as: research and development and a closer working relationship with the U.S. site selection, relocation and real estate professions.

The following investment development techniques cover activities geared to any general investment

promotion or prospecting campaign. These techniques can be tailored to fit geographic and business circumstances or the various development stages of foreign investment opportunities, and are designed to fulfil the following objectives:

- increase awareness of the advantages of investing/doing business in Canada;
- increase international investors' knowledge of and confidence in Canada;
- attract new job and technology-bearing international investments; and
- retain and expand existing international investments.

Promotion activities normally performed to achieve these objectives can be classified as:

**Generic Promotion:**

proactive activities that are broadly aimed at business, financial and investment communities in order to increase awareness of Canada's favourable investment climate and to change attitudes towards investment opportunities.

**Targeted Promotion:**

proactive activities also designed to increase international investor confidence in Canada and to increase awareness of the advantages of doing business and expanding in Canada under the NAFTA. However, the promotion is aimed at a group of investors already selected because of the sectors they are in, or because they are already doing business in Canada. As the approach is targeted and smaller than that of generic promotion activities, the return per client reached will likely be high as the target group may already be disposed towards overseas investments or alliances, although not necessarily in Canada.

**Services to foreign investors:**

a reactive activity, responding to specific enquiries and information requests, often as a result of generic and targeted promotion; and

**Partnering and match-making services:**

either proactive or reactive – a "find me a partner" request. These services are particularly relevant for attracting investments in advanced technology and in venture capital activities.

**Increasing Awareness**

Canada has much to boast about and needs to do just that on every possible occasion, especially in the wake of KPMG's 1997 findings and "good news" messages about Canada's business costs advantages (see item 12 below). Some of the reasons most often cited by international investors about Canada's locational advantages are as follows:

1. High standard of education and quality of labour
2. Political stability as a mature democracy
3. Low crime rate
4. National healthcare system
5. Well established infrastructure
6. Preferential fiscal policy encouraging investment and free trade
7. Abundance of natural resources and low energy costs
8. Proximity to the United States and easy access to this huge market thanks to NAFTA
9. Competitiveness provided by a weak Canadian dollar
10. Support of foreign expatriates; in other words, the presence of many U.S. business executives and citizens, and other expatriates in Canada helps to smooth the way of foreign investment. The ready acceptance of and respect for people from other lands is an advantage often quoted by foreign companies in Canada, many of which also have North American HQs in the U.S. run by expatriates.

There are several other well recognized Canadian advantages:

11. Solid research and development community
12. Competitive wages and business costs, as documented in the 1997 KPMG study\* comparing business location costs between Canada, the USA and Europe in eight sectors
13. A less litigious environment than in the United States
14. One of the highest qualities of life in the world

\*The Competitive Alternative: A Comparison of Business Costs in Canada, Europe and the United States, KPMG, October 1997

**Increasing International Investor Confidence in Canada**

Confidence in Canada as a place in which to invest has to be instilled by constant reference to the "reasons to invest" described above. Equal emphasis should be placed on the strong performance of the Canadian economy, low inflation, growth in business investment, strengths in knowledge intensive manufacturing and services and government policies which consistently welcome foreign investment.

The investment climate is a key factor influencing investment decisions. While advantages to investing in Canada far outweigh disadvantages, some impediments have been pointed out by investors. These include: high taxation, training and skills development, business immigration and visa difficulties, market access, regulatory issues such as drug

approvals and R&D tax credits and disallowances. These and other issues are being systematically addressed where possible so that Canada can continue to offer an investment climate second to none.

#### **Attracting New International Investments**

Timing can be crucial in attracting new investment to Canada and sectors chosen must suit not only the needs of Canadians but the needs of foreign investors according to their stage of development or expansion overseas. In the United States corporate concentration is huge and diversified. For example, the investment promotion sections of our Embassy and Consulates (including satellite offices) have covered under their corporate liaison and company outreach programs, major U.S. based firms involved in life sciences (including pharmaceuticals, ag-bio, environment), communications (including arts, publishing, media), information technologies (telecoms, semi conductors, software and hardware), food processing, aerospace, energy, petrochemicals, mining and forest and building products.

The criteria for selecting U.S. based firms (including North American HQs of European and Japanese MNEs) to approach in these sectors are supported by company outreach and analyses done by the Department of Foreign Affairs and International Trade (including posts in Asia, Europe and the U.S.), Industry Canada and Agriculture and Agrifood Canada.

This is also supported by additional complementary research by *Investment Partnerships Canada* (IPC) that indicates that these MNEs have:

- aggressive North American investment strategy; strong R&D performance; significant exports to Canada, North America or third markets
- leadership and innovation in their respective industries, including complementary technologies or processes; and
- reasonable size and sustained growth record.

IPC will be focusing on a targeted number of multinational enterprises (MNEs) that have the greatest potential for investing in Canada. The appointment of three Deputy Ministers as "Country Champions" for the U.S. (one each for the three main North South corridors) to visit leading MNE investors will enhance this program. This will be complemented with sector-specific campaigns in agrifood, information technologies (i.e., semiconductors) and life sciences, including participation from "Team Canada" partners.

#### **Retaining and Expanding Existing Investments**

Reinvested earnings account for some 60% of capital accumulation, a fact that highlights the importance of encouraging firms to expand their operations in Canada. The findings of the 1997 KPMG study underscore the fact that competitive business costs in Canada are indeed contributing to higher returns and healthy bottom lines.

One of the strongest arguments Canada has to entice new international investors to consider Canada, are the over 4,580 affiliates of foreign MNEs (including 2,100 U.S. affiliates from over 50% of *Fortune 500* companies) already serving the North American and other world markets from Canada. Half of Canada's exports, and three-quarters of its manufactured exports, are produced by affiliates of foreign companies operating in Canada.

The Department of Foreign Affairs and International Trade, Industry Canada, Agriculture and Agrifood Canada, Investment Partnerships Canada, provincial and municipal governments maintain regular contact with Canadian subsidiaries and North American headquarters of foreign and U.S. firms. As U.S. Posts conduct regular corporate liaison and outreach visits to U.S. and other international investors that already have operations in North America, parallel "back-to-back" visits to their subsidiaries in Canada and North American headquarters in the U.S. are also being increased.

Alternately, efforts are made to reach them with encouraging messages that confirm the industrial and economic strength of Canada so that they can bolster the confidence of their parent companies in their investments and potential for expansion in Canada. This helps pave the way for more effective action by individual Team Canada partners. Also increasing are important complementary retention and expansion efforts by several provinces and municipalities to help senior executives of Canadian affiliates build their investment case with their parents (N.A. headquarters and/or home base).

#### **R&D and Venture Capital**

The linkage between research, development and venture capital is well illustrated by the attached chart, taken from a presentation by the Medical Research Council of Canada. It emphasizes the fundamental role played by basic research in the "virtuous cycle of growth and development opportunities". Without it, tomorrow's innovative

companies will not exist; but the chart also illustrates the essential role of venture capital. One of the reasons for the growth of dynamic companies in the United States in the fields of biotechnology and information technology is that America's venture capitalists put about 24% of their investments into biotechnology and 46% into information technology\*. By contrast, European venturers funnelled just 2% of their investment into biotechnology and 16% into information technologies - which may explain the lesser degree of dynamism in these industries in Europe in spite of substantial basic research activity.

\* The Economist, January 25, 1997

### Site Selection, Relocation and Real Estate Firms

Development Counsellors International (DCI) of New York conducted a survey in Fall 1996 based on a random selection of 1,000 companies in the U.S. with annual revenues of over US\$100 million and/or more than 250 employees (selected from D&B list of companies), including interviews with 173 senior corporate executives.

The survey asked corporate executives to select the "three leading sources of information" influencing their perceptions of a state's or region's business climate. "Dialogue with industry peers" was the number one source, indicated by 68% of the respondents. The corporate grapevine, it appears, is still a potent image maker/breaker. Also highly influential with U.S. corporate decision-makers are articles in newspapers and magazines (trade, economic development, business), with 60% of the respondents citing news stories as a leading information source. Somewhat surprising was that 52% of executives ranked business travel (and 21% personal travel) among the top three information sources - ahead of national surveys (34% of respondents) such as those conducted by *Fortune* or *Money* magazines.

With respect to techniques frequently used in economic development marketing, respondents most valued the opportunity for one-on-one conversations with industry peers. More than 53% gave top marks to "planned visits to corporate executives". "Public relations/publicity", hosting "special events" and "trade shows" were in a three-way tie (39%) for the second most effective technique. Notably absent from the most influential list were "direct mail" (25%), "print advertising" (19%) and "telemarketing" (6%). The use of "Computer / Internet Web Page" is gaining ground.

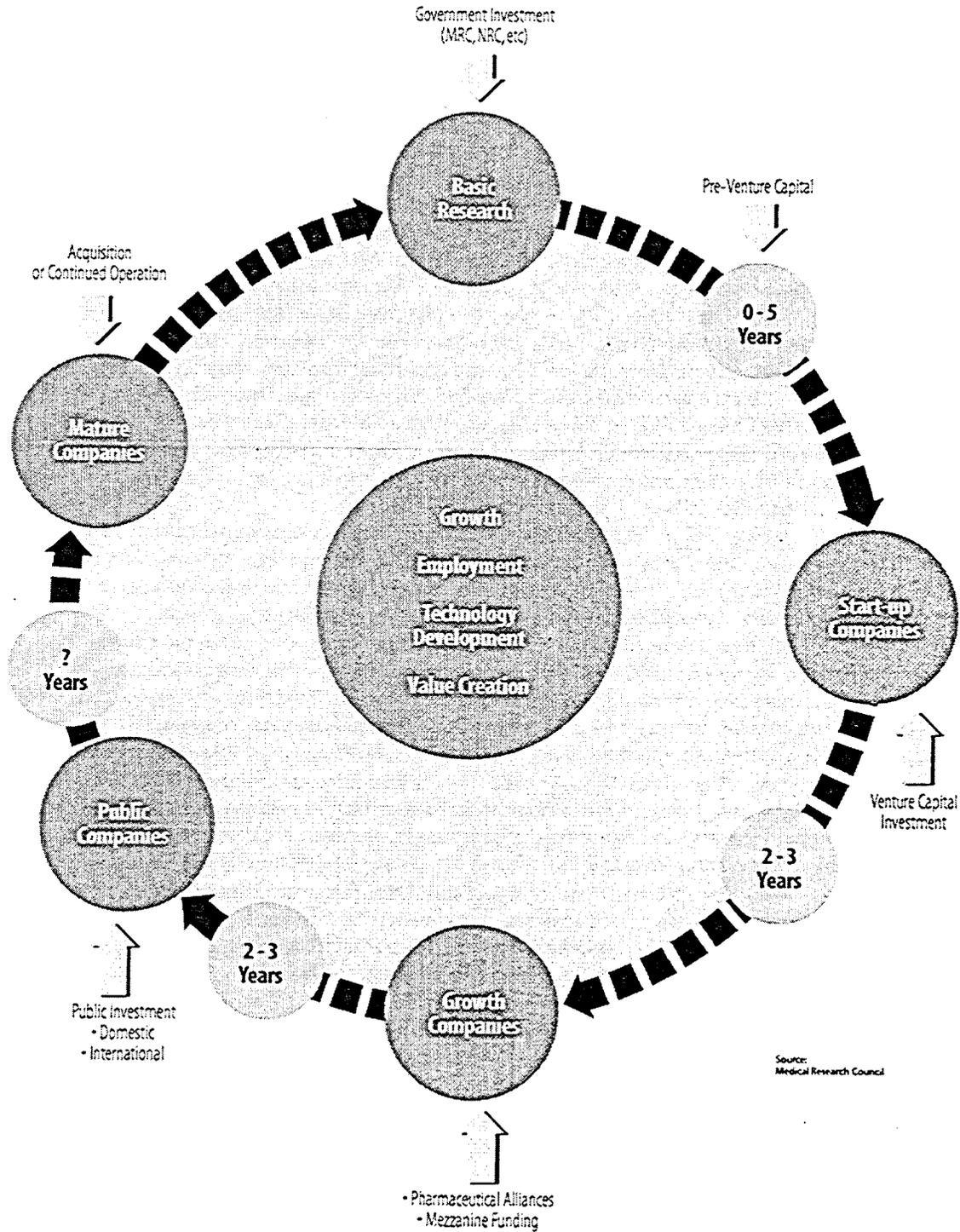
The survey also pinpointed who the key decision-makers are in creating a "shortlist" of states or communities to be considered for a new or "greenfield" facility. From a list of six positions, 84% of the respondents selected corporate real estate executives as being most involved in narrowing the field to a shortlist. Vice Presidents were a close second at 80%, followed by CEOs (56%), site selection consultants (56%), CFOs (55%) and human resource executives (33%). When it came to assessing the degree of involvement in making the actual site location decision, the order changed only slightly. Vice Presidents (83%) and corporate real estate executives (82%) once again ranked highest.

Presidents/CEOs also ranked high at 69%. Next in line came CFOs (52%), site selection consultants (41%) and human resource executives (36%). However, in smaller companies (with less than US\$500 million in revenues) representing 42% of the survey, the President/CEO appears to have a much greater involvement in creating the shortlist and in making the final decision.

The above supports other sources indicating that the U.S. site selection profession (almost non-existent in Canada) is significantly involved in the roughly 1,500 new facilities locations in the U.S. every year, suggesting that these firms should be an important element of any investment promotion campaign. According to the *Area Development Magazine*\*, professional location consultants have come to play an increasingly active part in the selection of a site for a company's new facility. There are many advantages for a company to enlist the assistance of such professionals. The company with limited knowledge of North America or Canada, or with limited experience in the location process is able to draw on the talent and expertise that the professional consultant can provide.

\* *Area Development Magazine*, September 1997

Chart  
 Basic Research Investments Create a  
 Virtuous Cycle of Growth and  
 Development Opportunities







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