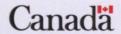
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## INVEST IN CANADA

2011 EDITION





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## **Table of Contents**



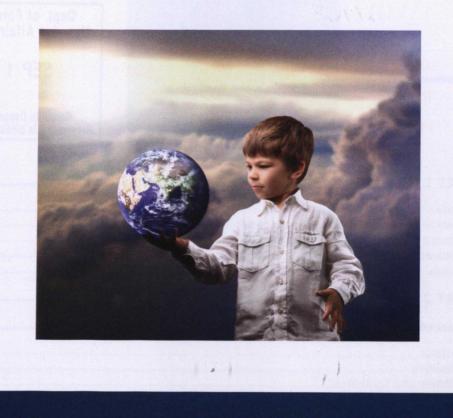
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PART 1: CANADA: A PLACE LIKE NO OTHER!2	
Canada's World-Class Economy 3 Unmatched Investment Climate for Foreign Investors 6 Advanced Research and Development Capability 11 An Educated, Diverse and Vibrant Workforce 13	
PART 2: OPPORTUNITIES	
Advanced Manufacturing	
Aerospace	
Agri-food	
Food Processing. 28	
Chemicals and Plastics	
Chemicals 34 Plastics 36	
Clean Technologies 39	
Renewable Energy	
Information and Communications Technology	
Digital Media50Software52Wireless Communications55	
Life Sciences	
Biopharmaceuticals 58 Medical Devices 61	
Services63	
Business Services 64 Financial Services 66	
PART 3: GETTING STARTED 68	



### CANADA: A PLACE LIKE NO OTHER!

PART 1



## **Canada's World-Class Economy**

Canada's economy is one of the world's most advanced and dynamic.

As a country with a long tradition of open markets offering a welcoming environment to foreign investors, Canada's economic performance regularly outpaces those of large, comparable economies in Asia, Europe and North America.

Foreign investors choose Canada because of its consistently strong economic growth performance. At US\$1.57 trillion, Canada's economy is the world's ninth largest (as measured by Gross Domestic Product (GDP) at market exchange rates)—larger than Russia, India, or South Korea.¹ With 27 *Financial Times* "Global 500" companies headquartered in Canada, it is home to a vibrant corporate community and has more top global companies than Germany, India, Brazil, Russia or Italy.²

From 2001 - 2010, Canada grew faster than any other G-7 country. This remarkable growth is the result of a diversified economy, its foundations built upon low corporate taxes, prudent fiscal management and financial regulation; a business climate that rewards innovation and entrepreneurship; and an open economy that welcomes foreign direct investors.

Canada's economy has also weathered the recent global economic recession better than most industrialized countries. While employment and real GDP remain below pre-recession levels in many other advanced economies, Canada has the distinction of being the only G-7 country to have recouped virtually all of its output and employment losses from the recent global recession.<sup>3</sup> And according to the International Monetary Fund (IMF), with the possible exception of the United States, Canada is poised to grow faster than other G-7 economies in 2011 and 2012 (see Table 1).<sup>4</sup>

## THE STRONGEST FISCAL POSITION IN THE G-7

Prior to the global economic recession, the Canadian federal government posted 11 consecutive budget surpluses totaling more than \$85 billion. Parts of these surpluses were applied to paying down Canada's national debt. As a result, Canada entered the global recession in much better shape than most other advanced economies.

<sup>&</sup>lt;sup>1</sup> International Monetary Fund. World Economic Outlook Database. October 2010.

<sup>&</sup>lt;sup>2</sup> Financial Times. "Global 500". December 2010. Prices and market values at 31 December 2010. <a href="http://media.ft.com/cms/253867ca-1a60-11e0-b003-00144feab49a.pdf">http://media.ft.com/cms/253867ca-1a60-11e0-b003-00144feab49a.pdf</a>.

<sup>&</sup>lt;sup>3</sup> Cross, Philip. "How did the 2008-2010 recession and recovery compare with previous cycles?". Statistics Canada. *Canadian Economic Observer*. January 2011. <a href="http://www.statcan.gc.ca/pub/11-010-x/2011001/part-partie3-eng.htm">http://www.statcan.gc.ca/pub/11-010-x/2011001/part-partie3-eng.htm</a>.

<sup>&</sup>lt;sup>4</sup> International Monetary Fund. *World Economic Outlook*. January 2011 update. pp. 2. <a href="http://www.imf.org/external/pubs/ft/weo/2011/update/01/pdf/0111.pdf">http://www.imf.org/external/pubs/ft/weo/2011/update/01/pdf/0111.pdf</a>>.

Table 1: G7 Real GDP Growth Rates 2008-2012F, Percent

	CANADA	ITALY	JAPAN	FRANCE	GERMANY	UNITED Kingdom	UNITED STATES	ADVANCED ECONOMIES
2008	0.4	-1.0	-1.2	0.3	1.2	0.5	0.4	0.5
2009	-2.5	-5.0	-6.3	-2.5	-4.7	-4.9	-2.6	-3.4
2010P	2.9	1.0	4.3	1.6	3.6	1.7	2.8	3.0
2011F	2.3	1.0	1.6	1.6	2.2	2.0	3.0	2.5
2012F	2.7	1.3	1.8	1.8	2.0	2.3	2.7	2.5
Average, 2001–2010	2.0%	0.1%	0.8%	1.2%	0.8%	1.4%	1.8%	1.7%

Source: International Monetary Fund. World Economic Outlook. January 2011 and archived October 2010 Database.

P: Projected, F: Forecast

With total government net debt-to-GDP ratio at 22.4 percent in 2008, Canada's debt burden was less than half that of the closest G-7 country (Germany). Despite a \$62 billion stimulus program, Canada's net debt burden is projected to increase by just 9.8 percentage points in the next five years, according to the International Monetary Fund (IMF) (see Figure 1). In 2015, the IMF expects Canada's net debt-to-GDP ratio to stand at 32.2 percent, almost half that of its closest G-7 peer.<sup>5</sup>

Given this relatively stable fiscal environment, foreign investors in Canada can expect a continuation of:

- decade-long reductions in corporate income taxes;
- multi-billion-dollar investments in infrastructure;
- research and development tax credits; and
- reductions in import tariffs.

Simply put, federal and provincial governments in Canada have more room to implement policies that make sense to foreign investors.

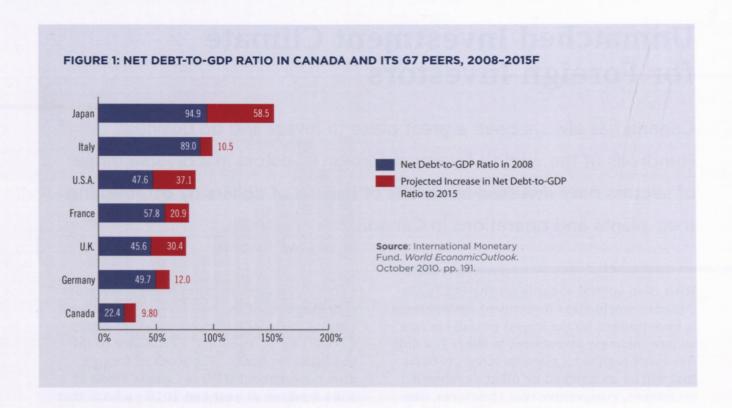
## THE SOUNDEST BANKING SECTOR IN THE WORLD

The sovereign debt crisis in Europe and renewed concerns about the global economic outlook, have once again shone a spotlight on banking safety. Therefore, it is reassuring that Canada has the soundest banking system in the world, according to the World Economic Forum.

While banks around the world collapsed and inter-bank transactions tailed off in the wake of the global financial crisis, not a single Canadian bank required a bailout. Best-in-class financial regulations and strong balance sheets have helped Canada's banks earn global recognition. For a second consecutive year, six of the world's 50 safest banks are Canadian banks, according to *Global Finance* magazine.<sup>6</sup>

International Monetary Fund. *World Economic Outlook*. October 2010. pp. 191. <a href="http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf">http://www.imf.org/external/pubs/ft/weo/2010/02/pdf/text.pdf</a>.

<sup>&</sup>lt;sup>6</sup> Global Finance Magazine. "The World's 50 Safest Banks, 2009 and 2010". <a href="http://www.gfmag.com/tools/best-banks/2341-worlds-50-safest-banks-2009.html#axzz1DOR4zQYj">http://www.gfmag.com/tools/best-banks/2341-worlds-50-safest-banks-2009.html#axzz1DOR4zQYj</a> and <a href="http://www.gfmag.com/archives/130-october-2010/10635-worlds-safest-banks-2010.html#axzz1DOR4zQYj</a>.



In fact, six of the top-10 safest banks in North America are Canadian institutions according to *Global Finance* (see Table 2).

What this means for multinational corporations is that Canadian banks and financial institutions will be more receptive to their investment and expansion plans both in Canada and globally. They can also provide financing to global investors at competitive borrowing rates. Investors can also expect a wealth of financial services expertise across the country in niche areas such as mining finance, technology and clean-tech financing, and wealth and asset management. Canadian institutions such as **Export Development Canada (EDC)** are also leading global players in trade finance and insurance.

RANK	BANK	COUNTRY	
1	Royal Bank of Canada	Canada	
2	Toronto Dominion Bank	Canada	
3	Scotiabank	Canada	
4	Caisse centrale Desjardins	Canada	
5	The Bank of New York Mellon	United States	
6	Bank of Montreal	Canada	
7	CIBC	Canada	
8	JPMorgan Chase	United States	
9	Wells Fargo	United States	
10	U.S. Bancorp	United States	



## **Unmatched Investment Climate for Foreign Investors**

Canada has always been a great place to invest and do business.

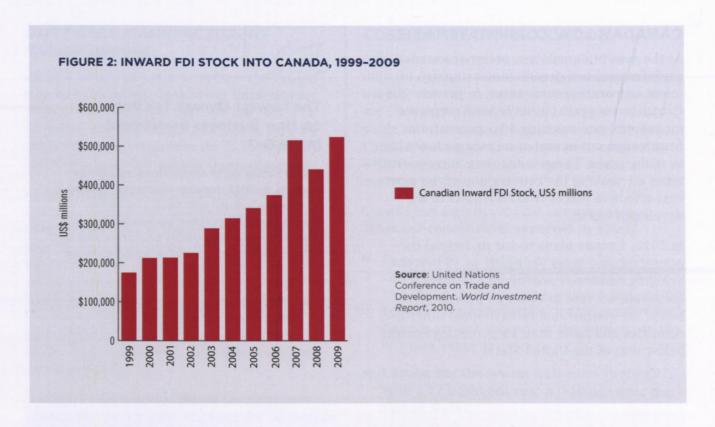
Hundreds of the world's foremost foreign investors in a diverse range of sectors have invested hundreds of billions of dollars by establishing their plants and operations in Canada.

What is so special about investing in Canada? Canada's world-class investment environment is underpinned by the lowest overall tax rate on new business investment in the G-7, a duty-free tariff regime on manufactured products that will be unmatched by other developed economies, competitive cost structures, one-day start-ups, and deep clusters of economic activity that allow investors to get on with their business.



Canada's attractiveness to foreign investors is demonstrated by their level of investment coming to Canada from overseas investors a reflection of investors' confidence in the Canadian economy. The stock of foreign direct investment (FDI) in Canada stood at \$561.6 billion at year-end 2010 - a level that has more than doubled in just over a decade (see Figure 2). On the basis of FDI data compiled from the United Nations Conference on Trade and Development (UNCTAD), Canada was the world's seventh-largest recipient of FDI inflows between 2000 and 2009, attracting about US\$39 billion a year over this period, or approximately US\$1,200 per capita per year an amount second only to the United Kingdom in the G-7 and nearly twice as much as that of the United States.

Global competitiveness rankings place Canada's business climate in the top echelon of investment destinations for foreign investors.



## GLOBALLY ATTRACTIVE TO FOREIGN INVESTORS

Global competitiveness rankings have always placed Canada's business climate in the top echelon of investment destinations for foreign investors. Here are some rankings:

- The Economist Intelligence Unit's (EIU)
  Business Environment Ranking places
  Canada No. 1 in the G-7 and No. 4 in the
  world as a country in which to conduct
  business over the 2010 2014 time period;<sup>7</sup>
- The World Bank Group's *Doing Business in* 2011 ranks Canada No. 1 in the G-7 and countries of the Organisation for Economic Co-operation and Development (OECD) for the lowest number of procedures required to establish a new business;<sup>8</sup>
- The International Institute for Management Development (IMD) has also consistently ranked Canada as a leading investment destination. In its *World Competitiveness Report 2010 2011*, IMD ranks Canada No. 1 in the G-7 and No. 2 in the OECD on the strength of its investor protection regulations.<sup>9</sup>

<sup>&</sup>lt;sup>7</sup> Economist Intelligence Unit. *Business Environment Ranking 2010.* <a href="http://country.eiu.com/article.aspx?articleid=1207440505&Country=Canada&topic=Business&subtopic=Business+environment&subsubtopic=Canada--highlights%3A+Business+environment+outlook>.">http://country.eiu.com/article.aspx?articleid=1207440505&Country=Canada&topic=Business&subtopic=Business+environment+outlook>.</a>

<sup>8</sup> World Bank Group. Doing Business in 2011. pp. 154. <a href="http://www.doingbusiness.org/~/media/FPDKM/Doing%20Business/Documents/Annual-Reports/English/DB11-FullReport.pdf">http://www.doingbusiness.org/~/media/FPDKM/Doing%20Business/Documents/Annual-Reports/English/DB11-FullReport.pdf</a>.

<sup>&</sup>lt;sup>9</sup> International Institute for Management Development. *World Competitiveness Report 2010*. pp. 1.21. <a href="http://www3.weforum.org/docs/WEF\_GlobalCompetitivenessReport\_2010-11.pdf">http://www3.weforum.org/docs/WEF\_GlobalCompetitivenessReport\_2010-11.pdf</a>>.

#### **CANADA'S LOW CORPORATE TAXES**

At the core of Canada's superior economic performance, is a decade-long campaign to lower corporate income taxes. In January 2011, Canada once again cut its federal corporate income tax rate reaching 16.5 percent, the fourth such cut in corporate income taxes in as many years. These reductions in corporate taxes are making the country one of the most cost-effective places to do business in the developed world.

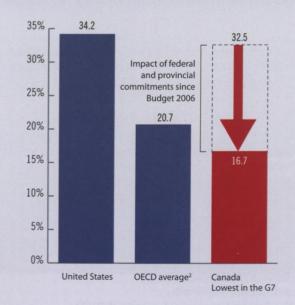
In 2012, Canada plans to cut its federal corporate income taxes yet again, to 15 percent, bringing combined provincial and federal corporate tax rate to about 26 percent, well below the comparable rates in most other G-7 countries and more than 13 percentage points below that of the United States.



## The Lowest Overall Tax Rate on New Business Investment in the G-7

When factoring in deductions and other credits, in 2012, foreign investors coming to Canada will benefit from one of the lowest overall tax rates on new business investment among OECD countries and the lowest such rate in the G-7 (see Figure 3).

### FIGURE 3: THE MARGINAL EFFECTIVE TAX RATE (METR) ON NEW BUSINESS INVESTMENT, 2012, CANADA COMPARED TO ITS PEERS



**Source**: Department of Finance Canada. *Budget 2010*.

- <sup>1</sup> The Marginal Effective Tax Rate (METR) includes measures announced as of February 1, 2010. It excludes resource and financial sectors and tax provisions related to research and development.
- <sup>2</sup> Excludes Canada.

## DUTY-FREE MANUFACTURING TARIFF REGIME

As part of its campaign to reduce the tax burden on businesses, Canada has implemented a major new initiative that will see tariffs on all manufacturing inputs reduced to zero by 2015—the first country in the G-20 to offer a tariff-free zone for industrial manufacturers.

Canada's initiative applies across the entire country, making Canada one large Free Trade Zone (FTZ) for firms importing manufacturing inputs. With most of the tariff reductions having occurred in 2010, this additional measure offers permanent and unconditional duty-free entry into Canada of products classified in Chapters 25-90 of the Harmonized System, including chemicals; fibres; manufactures of stone, glass and metals; and tools, machinery and equipment.

Investors who choose Canada for their next investment destination will have the advantage of importing advanced machinery and equipment into Canada from their parent companies free of import duties. These measures, along with an appreciating Canadian dollar offer foreign investors interesting incentives to reduce the import cost of advanced machinery and equipment, thereby realising productivity gains from efficient production.

And until December 31, 2011 investors who retool their plants and operations can take advantage of Canada's 50 percent straight-line depreciation method for investments in manufacturing or processing machinery and equipment. Manufacturers and processors were already benefiting from this measure, which was first introduced by Canada in 2007 and extended in 2008 and 2010.

#### COST-COMPETITIVE LOCATION

Canada is consistently cost competitive as indicated in independent benchmarking studies used by the site-selection community. The latest *Competitive Alternatives 2010* report—KPMG's guide to international business costs—finds Canada leading the G-7 in low business costs, with an overall cost advantage of 5 percent over the United States.

Canada has significant cost advantages over other G-7 countries, as reported by KPMG:

- In 14 of the 17 sectors analyzed by KPMG, cost structures are lowest in Canada. In the remaining three sectors (clinical trials, metal components and plastics), cost structures in Canada are the second- or third-lowest in the G-7 (see Table 3);
- Canada has the lowest R&D costs in the G-7, with a 12.9 percent cost advantage over the United States;
- For the 10 countries studied by KPMG,
   Canada has the second-lowest labour costs
   (after Mexico); and
- Facility lease costs in Canada are the third-lowest among the countries studied, after Mexico and the United States.

#### HIGH-VALUE INVESTING

Foreign direct investors coming to Canada find an economic base supported by world-leading firms engaged in high value-added activities in their specific sectors. Canadian cities consistently outrank their international counterparts when it comes to labour costs associated with high value-added positions, according to fDi Intelligence, the global site selection consulting firm.

For labour costs related to high value-added activities, Canada offers the added advantage of lower labour costs compared not only to its peers in advanced economies, but also emerging markets such as China, Mexico and India. (see Figure 4)

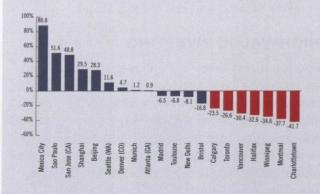
Table 3: Cost Comparisons Between Canada and Other G-7 Economies, Selected Sectors

	CANADA	FRANCE	GERMANY	ITALY	JAPAN	U.K.	U.S.
Aerospace	96.9 [1]	97.8	101.4	99.5	105.3	98.6	100
Agri-food	96.9 [1]	98.1	99.4	97.6	105.3	97.2	100
Automotive	97.1 [1]	97.7	100.7	98.8	107.1	99.4	100
Back office/Call centres	95.0 [1]	104.1	111.7	101.2	129.3	98.5	100
Biotechnology	90.9 [1]	101.4	111.3	107.2	121.4	101.7	100
Medical devices	95.2 [1]	97.6	102.7	98.6	108.4	98.4	100
Pharmaceutical	94.9 [1]	97.3	101.1	97.7	104.9	97.1	100
Product testing	84.9 [1]	95.7	107.3	105.2	112.0	95.3	100
Software design	87.9 [1]	104.4	109.2	109.4	107.0	97.7	100
Telecom equip. mfg.	95.4 [1]	98.4	102.2	99.3	105.3	98.1	100
Web and multimedia	88.8 [1]	103.8	108.6	107.2	108.5	97.2	100
Overall costs Overall results	95.0 1	98.3 3	102.6 6	100 4	107.6 7	98.2 2	100 5

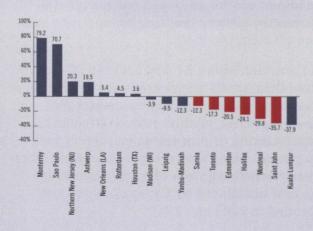
Note: [1] = Ranking among G-7 countries. Source: KPMG. *Competitive Alternatives*. 2010.

FIGURE 4: RELATIVE COMPENSATION FOR HIGH-SKILLED POSITIONS

Sector: Aerospace
Position: Head of Information Technology



Sector: Industrial Chemicals
Position: Head of Manufacturing



Each chart illustrates the relative difference in compensation in different cities, relative to the 20-city global average. The selection of cities varies.

Source: United Nations Conference on Trade and Development. World Investment Report, 2010.



## Advanced Research and Development Capability

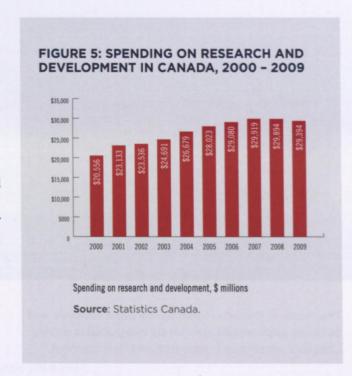
From next-generation cars to smartphone technology, Canadian innovations touch the lives of millions around the world. Every day, Canadian researchers and scientists work on the frontiers of knowledge in every field of human endeavour.

Driving Canada's excellence in research and development is a Made-in-Canada model where basic research is closely integrated with business applications. The result: Canadian companies benefit from lower research costs and an accelerated go-to-market strategy.

Canada is the place where foreign investors are undertaking leading-edge research and development to transform knowledge into profits. Canada offers some of the most lucrative R&D tax credits and accelerated deductions for research expenditures in the world. Eligible expenses include salaries, overhead, capital expenditures, materials and sub-contracted research services.

The Canadian Scientific Research & Experimental Development (SR&ED) tax credit program offers a 20-percent non-refundable tax credit for qualifying research expenditures over \$3 million and a 35-percent tax credit for qualifying research expenditures under \$3 million. Provincial governments in Canada also top up these generous tax credits with credits of their own.

With combined federal and provincial credits, foreign investors can save an average 30 cents on the dollar invested in R&D in Canada. This means an injection of non-dilutive capital into a foreign investor's balance sheet which can be used for other operational activities.



This Made-in-Canada approach has resulted in a significant increase in research and development spending in Canada. Total expenditures on research and development amounted to \$29.2 billion in 2010, a 26.3 percent increase over 2001 (see Figure 5). 10 Private-sector personnel engaged full-time in R&D activity in Canada also increased by an impressive 74.1 percent from 1999 – 2008.

Compared to other countries, the advantages of doing research and development in Canada are clear. KPMG's *Competitive Alternatives* reports that the cost of R&D in Canada is the lowest in the G-7, and the cost is as much as 12.9 percent lower than in the United States.<sup>11</sup> This is largely due to lower labour costs in Canada.

With their R&D activities, foreign investors in Canada are flourishing and driving Canada's economic success. Among the list of Canada's Top 25 corporate R&D spenders in 2009, 9 firms were foreign investors. These included such global names as IBM, Pratt & Whitney, Alcatel-Lucent, Ericsson, sanofi-aventis, GlaxoSmithKline, Norvartis, Pfizer and Merck. These nine companies invested \$2.1 billion in R&D in Canada in 2009. And at the height of the global financial crisis, they actually increased their R&D expenditures by 6.5 percent from 2008 levels.



(Downtown Montréal at dusk)

The Made-in-Canada model where basic research and business applications are closely integrated is driving Canada's excellence in research and development.

<sup>&</sup>lt;sup>10</sup> Statistics Canada. <a href="http://www40.statcan.gc.ca/l01/cst01/scte03-eng.htm">http://www40.statcan.gc.ca/l01/cst01/scte03-eng.htm</a>.

<sup>11</sup> KPMG. Competitive Alternatives 2010.

<sup>&</sup>lt;sup>12</sup> RESEARCH Infosource Inc., Canada's Top 100 Corporate R&D Spenders 2010.



## An Educated, Diverse and Vibrant Workforce

Investing in its people is a core Canadian value, and Canada's workforce has the skills and motivation needed to achieve excellence. The quality of Canada's educational system is ranked as the best among G-7 countries<sup>13</sup> and it is building the foundation for Canada's continued economic growth. Half of working-age Canadians have attained post-secondary education, the second highest level among OECD countries.<sup>14</sup> (See Figure 6) Canada is ranked No. 1 in high school science skills in the OECD.<sup>15</sup>

Canada's world-class post-secondary institutions produce skilled workers that are critical to a knowledge economy and that have the education and creativity needed to innovate. This advantage, combined with Canada's R&D incentive programs, provide a one-two punch and make the Canadian value proposition all the more compelling to foreign direct investors.

Canada's business schools are first class and produce workers with excellent management skill sets. Four Canadian business schools rank among the top 10 in *Bloomberg Businessweek's* "The Best International Business Schools 2010" ranking. These are Queen's University (2<sup>nd</sup> place), University of Western Ontario

(6<sup>th</sup> place), University of Toronto (8<sup>th</sup> place), and York University (9<sup>th</sup> place). In 2010, the University of Toronto also ranked among the top 10 universities outside the United States in *U.S. News & World Report's* "World's Best Universities in Engineering and IT." 17

The Global Competitiveness Report 2010-2011 prepared by the World Economic Forum gives Canada outstanding rankings for its investments in education, including:

- No. 1 in the G-7 in quality of its educational system (No. 5 in the world);
- No. 1 in the G-7 in quality of management schools (No. 3 in the world);

<sup>&</sup>lt;sup>13</sup> The World Economic Forum, Global Competitiveness Report 2010-2011.

<sup>&</sup>lt;sup>14</sup> OECD, Education at a Glance 2010. p. 36.

<sup>&</sup>lt;sup>15</sup> KPMG, Competitive Alternatives 2010. p. 67.

<sup>&</sup>lt;sup>16</sup> Bloomberg Businessweek. <a href="http://images.businessweek.com/slideshows/20101105/">http://images.businessweek.com/slideshows/20101105/</a> the-best-international-business-schools-2010/>

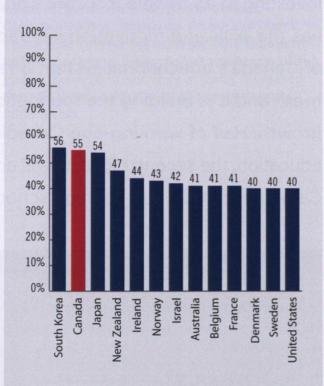
U.S.News & World Report. <a href="http://www.usnews.com/education/worlds-best-universities/">http://www.usnews.com/education/worlds-best-universities/</a> articles/2010/09/21/worlds-best-universities-engineering-and-it->

- No. 1 in the G-7 in quality of primary education (No. 9 in the world); and
- No. 1 in the G-7 in quality of math and science education (No. 10 in the world).

In addition to the very high level of education, a distinctive feature of Canadian society is its diverse population. Canada's multicultural and multilingual workforce offers unique advantages to companies seeking to serve global markets. According to the most recent Canadian Census, over 20 percent of Canada's population has a mother tongue other than English or French, 18 and these language skills are a definite asset when providing quality business and professional services to global customers.

The high quality of life that Canada offers also plays a key role in the availability of highlyskilled workers. In its well-regarded 2010 Quality of Living Survey, Mercer LLC ranked Vancouver No. 1, Ottawa No. 2, Toronto No. 3, Montréal No. 4 and Calgary No. 5 in North America when it comes to their quality of life. Canadian cities are safe and the Canadian way of life is inclusive and respectful of diversity and creativity—the ingredients knowledge workers are looking for in a global marketplace. Not only is Canada beautiful and safe, Canada is ranked first in the G-7 for offering equal opportunities to individuals, according to the IMD World Competitiveness Yearbook 2010. Canada is clearly a place where the most sought-after workers in the world want to live and work.

#### FIGURE 6: PERCENTAGE OF INDIVIDUALS 25 - 64 YEARS OF AGE ATTAINING POST-SECONDARY EDUCATION IN OECD COUNTRIES



Source: OECD, Education at a Glance 2010. p. 36.

<sup>18</sup> Statistics Canada. <a href="http://www40.statcan.gc.ca/l01/cst01/demo11a-eng.htm">http://www40.statcan.gc.ca/l01/cst01/demo11a-eng.htm</a>



### Location. Location. Location.

Canada obviously offers unparalleled proximity to the vast U.S. market.

Not as obvious however, is the fact that shipping times from Asia and

Europe to the heartland of North America are the fastest when goods

travel through Canada. With its recent multi-billion dollar investments in

transportation infrastructure, Canada offers global companies world-class

transportation infrastructure that allows them to get their goods to

markets faster and at a lower cost than other North American jurisdictions.



(Photo courtesy of Port Metro Vancouver)

The quality of Canada's port infrastructure is one of the best in the G-7, and its deep water ports can handle the world's largest vessels.

International trade is the foundation of the Canadian economy. With the North American Free Trade Agreement (NAFTA), the Canadian economy is deeply integrated with those of the United States and Mexico. The three countries together form an enormous market of 453 million consumers and a GDP of US\$17.1 trillion (PPP basis). In addition to NAFTA, Canada concluded free trade agreements with eight countries in the past five years: Colombia, Peru, Jordan, Panama and the European Free Trade Association states of Iceland, Liechtenstein, Norway and Switzerland. These provide unmatched opportunities for global companies locating to Canada.

Canada and the United States share a deep and mutually beneficial commercial relationship. More than two-thirds of Canadian goods trade was with the U.S. in 2010.<sup>20</sup> More than US\$1.7 billion in goods and services cross the Canada-U.S. border every day. Canada's population is concentrated near the border with the U.S., with

<sup>&</sup>lt;sup>19</sup> CIA World Factbook. 2010. Purchasing Power Parity (PPP) equalizes the purchasing power of consumers in their home countries for a basket of goods. <a href="https://www.cia.gov/library/publications/the-world-factbook/geos/us.html">https://www.cia.gov/library/publications/the-world-factbook/geos/us.html</a>.

<sup>&</sup>lt;sup>20</sup> Statistics Canada. <a href="http://www40.statcan.gc.ca/l01/cst01/gblec02a-eng.htm">http://www40.statcan.gc.ca/l01/cst01/gblec02a-eng.htm</a>.

17 of Canada's 20 largest cities located within a 90-minute drive of the border. All of which makes Canada an attractive location for global companies who want to do business with the U.S. but at a lower cost than if they were to locate there.

Canada is a significant part of global supply chains, and increasingly, many third-party logistics (3PL) and distribution companies are establishing operations in Canada. Canada's major international ports—Halifax, Montréal, Prince Rupert and Vancouver—connect North America with the fast-growing Asia Pacific and European markets. The World Economic Forum ranks the quality of Canada's port infrastructure as one of the best in the G-7,<sup>21</sup> and Canada's deep water ports can handle the world's largest vessels.

Canada has shorter routes to Asia and Europe than the United States. For example, Prince Rupert has a 68-hour transit time advantage over Los Angeles for product shipped from Shanghai to the continental United States, while Vancouver has a 32-hour advantage over Los Angeles. For goods shipped from Europe, Halifax offers a 52-hour transit time advantage over Savannah.

Canada shares time zones with other North American cities and Latin American countries, enabling efficient communication within the American continents and integration with parent operations in Asia or Europe.

FIGURE 7: CANADA IS A SIGNIFICANT PART OF GLOBAL SUPPLY CHAINS AT THE CROSSROADS OF ASIA, NORTH AMERICA AND EUROPE



Source: Department of Foreign Affairs and International Trade.

<sup>&</sup>lt;sup>21</sup> The World Economic Forum, *Global Competitiveness Report 2010-2011*.

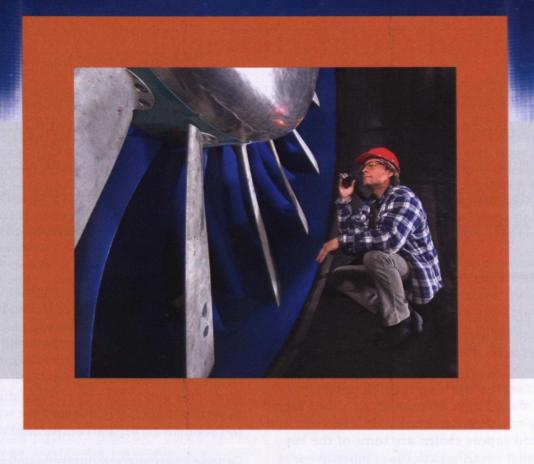


## OPPORTUNITIES

PART 2



Advanced Manufacturing	19
Aerospace Automotive	22
Agri-food	27
Food Processing	28
Chemicals and Plastics	33
Chemicals Plastics	
Clean Technologies	39
Renewable Energy  Bioenergy  Wind Energy  Solar Energy  Environmental Technologies	40 43 45
Information and Communications Technology	49
Digital Media	52
Life Sciences	57
Biopharmaceuticals	
Services	63
Business Services	



ADVANCED MANUFACTURING



## **Advanced Manufacturing**

Investors in the advanced manufacturing sector understand Canada's unique benefits: the lowest overall tax rate on new investment among G-7 countries, integration with the North American industrial and consumer markets, lucrative R&D incentives and a skilled manufacturing labour force that consistently delivers high levels of quality and productivity.

#### **AEROSPACE**

Canada has been at the forefront of global aerospace industry growth during the past few years. Its aerospace industry ranks fifth in the world, behind only the U.S., the U.K., France and Germany, despite competing in this sector against many larger economies. Canada's highly skilled workforce, generous R&D incentives and integrated supply chains are some of the key factors that contribute to the competitiveness of this sector.

With more than 400 aerospace manufacturing and services companies across the country, Canada's aerospace sector generated annual revenues of \$22.2 billion in 2009. Among these companies, the Canadian firm **Bombardier** is a global leader in regional and business aircraft.

The industry exports approximately 80 percent of its output, 57 percent of which goes to the U.S.. The aerospace sector invests heavily in research and development, with spending reaching approximately \$1.9 billion in 2010.<sup>22</sup> The bulk of production (78 percent) is non-military.

The sector employs a highly skilled workforce of 83,000 people and has a payroll of approximately \$4.6 billion. A number of Canadian universities offer excellent programs in aerospace engineering, at the undergraduate, graduate and Ph.D. levels in many centres across the country. Three-thousand students graduate each year, with specializations that include aerodynamics, propulsion, aircraft structures and flight control—building the expertise that closely matches the work done in Canadian aerospace companies.

Canada's aerospace industry supplies onethird of global demand for small gas-turbine engines and enjoys a 70 percent share of the global market for visual simulators. The industry supplies 25 percent of the market for civil helicopters, and one-third of the market for landing gear (including 60 percent of the market for large-aircraft landing gear). Canada is highly competitive in aircraft maintenance services, with more than 1,100 certified Aircraft Maintenance Organizations, 17,000 technicians and annual revenues in excess of \$3 billion.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including glass, metals, as well as tools, machinery and equipment, will be totally duty-free.

<sup>22</sup> http://www.ic.gc.ca/eic/site/ic1.nsf/eng/05716.html



#### Rolls-Royce and Pratt & Whitney

"This investment in new ice testing capabilities is essential to support the current and future growth of Rolls-Royce's civil aerospace engine portfolio whilst delivering benefits to the wider aviation industry," said David Ayton, President and Chief Operating Officer, Rolls-Royce Canada Limited.

Ayton was speaking from northern Canada, in Thompson Manitoba, at the opening of the Global Aerospace Centre for Icing and Environmental Research or GLACIER—a \$42 million research and testing facility for the aerospace industry developed with Pratt & Whitney Canada and supported by the Canadian and Manitoba governments.

The facility is being called the most advanced cold weather testing and research facility of its kind in the world. "GLACIER will be a global leader in cold weather research for the aviation industry and is well aligned with Pratt & Whitney's long-standing focus on research, development and innovation," said Walter Di Bartolomeo, Vice President, Engineering, Pratt & Whitney Canada and Chairman of the Board of GLACIER.

National Research Council Canada developed the engine icing equipment and controls for the facility where Rolls-Royce will test its new Trent XWB engine for the Airbus A350 aircraft family and where Pratt & Whitney will test its Geared Turbofan – PurePower engine.

#### Recent Foreign Investments — Aerospace



In December 2010, Pratt & Whitney Canada (PW&C), part of United Technologies Corporation announced investments of more than \$1 billion over the next five years to develop the next generation of high-performance aircraft engines at facilities across Canada.

In February 2011, **GE Aviation** and **StandardAero** announced an agreement to build a \$50 million aircraft-engine research and development centre in Winnipeg, Manitoba.

GE Canada announced an investment of \$63.5 million over six years to diversify its product line at the GE Aviation manufacturing plant in Bromont (near Montréal). The plant manufactures aircraft engine components, including fan blades, for a variety of commercial and military aircraft.

In May 2010, U.S.-based

Dornier Seaplane Company
chose St-Jean-sur-Richelieu
(near Montréal) as the site
for the final-assembly plant of
its new amphibious aircraft.
The project is valued at
\$71.5 million.

#### **AUTOMOTIVE**

Canada has been an automotive manufacturing nation for more than 100 years and remains a major regional and global player to this day.

Canada is part of a fully integrated North American market with annual sales normally of about 20 million finished vehicles and US\$260 billion in original equipment parts. Because of its strategic position within the NAFTA region, Canada is among the world's largest exporters of automotive goods, along with the United States and Japan. More than 80 percent of the vehicles produced in Canada are exported, primarily to the U.S.

Canada accounts for 17 percent of North America's vehicle production and has an installed capacity of 2.5 million units a year. Five of the world's largest automakers—Chrysler, Ford, General Motors, Honda and Toyota—along with leading truck and bus manufacturers such as Hino, Motor Coach Industries, PACCAR and Volvo Bus, operate production facilities in Canada.

The auto industry is the country's largest manufacturing sector and accounts for a sizable share of international trade and investment. In 2010, the auto sector accounted for 12 percent of Canada's manufacturing GDP, with revenues totalling \$68.5 billion and exports of \$49.7 billion. The automotive manufacturing industry includes more than 1,300 companies and directly employs 109,345 workers. Capital investment in Canada's automotive industry is also significant, averaging \$3.5 billion annually from 2001 – 2010.<sup>23</sup>

Canada boasts a substantial workforce in key automotive-related occupations. Training partners include universities, colleges and

vocational schools with auto-related programs such as engineering, machining, metal working, welding, robotics, manufacturing systems, service technicians, and tool and die making. Canadian workers are known for their strong work ethic, reliability, quality and productivity.

The Economist Intelligence Unit consistently rates Canada's business environment as the best in the world among auto-producing nations. Over the past 10 years, the auto-manufacturing sector has attracted investment primarily from Germany, Japan and the U.S.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including glass, metals, as well as tools, machinery and equipment, will be totally duty-free.

#### World-Class Supply Base

Vehicle assemblers and Tier 1 suppliers located in Canada have access to deep and fully integrated supply chains across North America. Many of the world's largest original equipment suppliers have facilities in Canada, —such as Denso, Continental, Aisin Seiki, Johnson Controls and TRW—along with steel and other material producers. In addition, several major global suppliers are based in Canada such as Magna, Martinrea, Linamar, ABC Group, Woodbridge and Wescast.

Canada has more than 1,000 establishments that produce original equipment and aftermarket auto parts, components and systems, and directly employ 60,585 people. In 2010, as the U.S. began its recovery, the value of shipments exceeded \$22 billion and exports totalled \$12.5 billion, up 30 percent over 2009.

<sup>&</sup>lt;sup>23</sup> All figures from Statistics Canada, 2009 and 2010

#### Support for Innovation

The auto sector is supported by a strong R&D base that has invested an average of half a billion dollars annually over the past decade. Core strengths in sector-related innovation include: metal processing, advanced materials, advanced design, visualization and manufacturing, as well as information and communications technology.

Canada has vibrant R&D clusters and offers generous investment tax credits and funding. In addition to the Scientific Research & Experimental Development (SR&ED) program (described in this publication on page 11) companies can partner with universities, colleges and public research centres to undertake collaborative research. Such organizations include the AUTO21 Network Centres of Excellence, the National Research Council and the metals and materials laboratories of Natural Resources Canada.

Federal funding programs include:

Automotive Innovation Fund (AIF) – Supports large-scale strategic investments in vehicle assembly, powertrain and R&D operations that focus on innovation and environmental technologies.

#### Recent Foreign Investments - Automotive



General Motors added two shifts at its assembly complex in Oshawa, Ontario, boosting employment by 1,300 jobs. GM also invested \$480 million in its St. Catharines powertrain plant to produce a new engine and a new six-speed transmission, boosting employment by 800 jobs.

Toyota added a second shift at its assembly plant in Woodstock, Ontario, increasing employment by 800 jobs and doubling capacity to 150,000 units annually. This concludes a \$1.1 billion investment project to construct Toyota's third assembly plant in Canada.

Ford completed a \$590 million investment in Windsor, Ontario to revamp its Essex Engine Plant and upgrade its advanced powertrain R&D centre.

Mexico's **Nemak** invested \$8 million in its Windsor Aluminum Plant to design and manufacture engine blocks for GM in Canada, the U.S. and Australia. Germany's Brose Automotive completed a \$20 million expansion of its plant in London, Ontario. This expansion will enable the facility to supply approximately 2.5 million car seat gearboxes to manufacturers across North America each year.

- NRC Industrial Research Assistance Program (IRAP) - Supports innovative R&D and commercialization by small and medium-sized firms.
- Automotive Partnership Canada (APC) Supports collaborative, industry-driven R&D that benefits the Canadian automotive sector. Recent examples of APC-funded projects include:
  - \$16.6 million national smart-car research network at McMaster University, in collaboration with seven other universities and three industry partners including GM and IBM.
  - □ \$10.5 million project at the University of Waterloo to develop enabling technologies for electric vehicles, in collaboration with **GM** and **Maplesoft**.
  - □ \$6.7 million project at the University of Sherbrooke to develop a hybrid electric vehicle for **Bombardier Recreational Products'** Can-Am product family.

#### A Reputation for Manufacturing Excellence

Independent studies consistently rank Canada's auto sector highly in terms of high productivity and quality. Canada is home to many of the most productive light vehicle assembly plants in North America. As a group, Canadian assembly plants consistently post stronger labour productivity scores than American and Mexican facilities in the annual *Harbour Report*. Canadian assembly plants have earned a global reputation for exceptional quality, earning a long list of awards.

Canadian assembly plants have won one third of all J.D. Power plant quality awards for North America since 1991. Six times in the past 10 years, Toyota and General Motors (GM) plants in Canada were rated the best in the western hemisphere in the annual J.D. Power and Associates Initial Quality Survey.



#### **GE Electric Canada**

"General Electric has operated successfully in Canada for over 100 years, and we continue to grow and invest in the country," said Elyse Allan, General Electric Canada's President and CEO.

"Building on a competitive corporate tax rate, a friendly business climate and great relationships with the federal and provincial governments, we have recently announced global centres of excellence and important collaborative research projects in energy, water and health care. For us, Canada is a country of enormous opportunity," said Allan.

GE Canada operates major manufacturing facilities, sales and services locations across Canada. Its headquarters building, in Meadowvale, Ontario, was the first to receive LEED-EB Certification in the province.

#### **MACHINERY AND EQUIPMENT**

Canada's machinery and equipment manufacturing sector recorded sales of \$26.8 billion in 2009 and continues to attract international investment. Among many global leaders with production facilities in Canada are France's **Alstom**, Japan's **Hitachi Ltd.**, Germany's **Siemens** and U.S.-based **Tesco**.

The industry is attracted to Canada by a skilled workforce and relatively low production costs—Canada boasts the highest proportion of engineers in the G-8 and the lowest statutory payroll costs in the G-7. Two other advantages are proximity to major customers across North America and provincial manufacturing and R&D tax credits.

Canada's expertise in machinery and equipment manufacturing spans a range of sub-sectors, including metalworking machinery, mining, oil and gas drilling equipment, and agricultural machinery. Key value-chain strengths in Canada include: R&D in advanced materials, machinery design, hybrid technologies, intelligent system design, and plant design. In addition, Canada offers product development strengths in everything from engine production in the automotive sector to forging and extrusion manufacturing.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including metals, tools, machinery and equipment, will be totally duty-free.



Canada consistently ranks among the top auto-producing nations for its high productivity and quality.

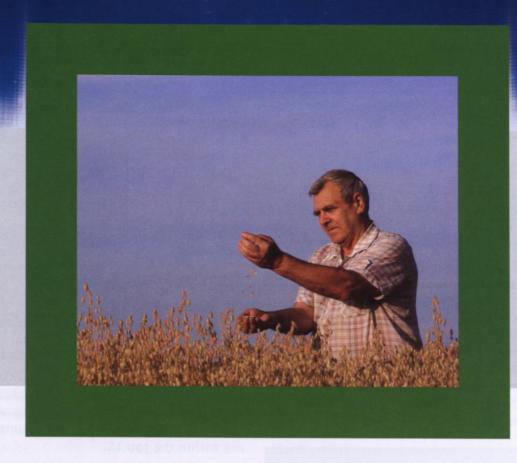
#### Recent Foreign Investments — Machinery and Equipment



Valvitalia, a world-leading manufacturer of valves and actuators for the oil and gas industry, plans to establish an assembly and testing facility in Edmonton, Alberta. The facility will handle all of the company's actuator business in North and South America.

In August 2010, **Fronius** of Austria established a production site for solar photovoltaic inverters in Mississauga, Ontario. The facility is expected to begin production at the end of the first quarter of 2011.

In August 2010, **Systemair AB** increased capacity at its facility in Bouctouche, New Brunswick. The plant produces duct fans, heat exchangers and dehumidifiers for residential and light-commercial buildings.



AGRI-FOOD



## **Agri-food**

Canada's agri-food sector offers many opportunities to foreign companies. From grains and oilseed production and processing, to functional foods and nutraceuticals, Canada's agriculture sector is one of the most innovative and globally integrated sectors in the world.

Canada is a global agri-food powerhouse with many advantages—abundant, high-quality agricultural raw materials at competitive costs; innovative research and development; and ready access to global markets. These are just a few competitive advantages that have attracted foreign investors to Canada's agricultural market for over 100 years and make Canada a global leader in this sector.



Developed in Canada, canola is the source for one of the healthiest of all commonly used cooking oils.

#### **FOOD PROCESSING**

In 2009, foreign direct investment in the industry totaled over \$23.8 billion. KPMG's *Competitive Alternatives 2010* ranks Canada No. 1 among its G-7 peers for low costs in food processing. Among 95 cities worldwide, the Canadian city of Sherbrooke is ranked fourth for lowest agri-food business costs, with the cities of Québec, Moncton, and Montréal ranking within the top 15.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including glass, metals, as well as tools, machinery and equipment, will be totally duty-free.

#### Grain and Oilseed Processing

Canada is world-renowned for its top quality and competitively priced grain and wheat products. In 2008 - 2009, Canada exported 33 million tonnes of grain and wheat flour.<sup>24</sup> The value of Canada's cereals, grains, and oilseeds exports reached approximately

<sup>&</sup>lt;sup>24</sup> Canadian Grain Commission.

<sup>&</sup>lt;a href="http://www.grainscanada.gc.ca/statistics-statistiques/cge-ecg/annual/exports-08-09-eng.pdf">http://www.grainscanada.gc.ca/statistics-statistiques/cge-ecg/annual/exports-08-09-eng.pdf</a>>. p. 6.



Canada's thriving confectionery, biscuit and bakery industries are global market leaders in exports to the United States with American imports of Canadian confectionery products rising by 89.6 percent in the past 10 years.

\$14.8 billion in 2008.25 The quality of Canadian export commodities such as wheat flour, semolina and other milled grain products is among the very best in the world due to Canada's stringent system of food quality assurance.

The industry is a leader in the development of new varieties of grain and oilseed. The best example is canola. Developed in Canada, this crop is the source for canola oil, one of the healthiest of all commonly used cooking oils and currently in great demand around the world. Valued at more than \$1.5 billion, exports of Canadian canola oil alone reached 1.8 million tonnes in 2009 - 2010, an 18 percent increase over the previous crop year.<sup>26</sup>

#### Confectionery and Bakery Products

The world's largest manufacturers of confectionery, biscuit, and bakery products got themselves a sweet deal when they chose Canada for their North American operations. The sweetener? Easy access to Canada's agricultural raw materials and the availability of packaging materials at competitive costs.

In particular, sugar users in Canada have access to a reliable supply of high-quality refined sugar at world prices. This is a distinct advantage over their U.S.-based competitors, because the United States protects its domestic sugar market, usually resulting in higher domestic sugar prices. And in Canada, thanks to five-year agreements negotiated

<sup>&</sup>lt;sup>25</sup> Canadian Grain Commission. <a href="http://www.grainscanada.gc.ca/cgc-ccg/cr-rm/rpp/2010/rpp-eng.pdf">http://www.grainscanada.gc.ca/cgc-ccg/cr-rm/rpp/2010/rpp-eng.pdf</a>. p. 12.

<sup>&</sup>lt;sup>26</sup> Canola Council of Canada. <a href="http://www.canolacouncil.org/oil\_exports\_historic.aspx">http://www.canolacouncil.org/oil\_exports\_historic.aspx</a>

<sup>&</sup>lt;sup>27</sup> Amount calculated from figures provided on <a href="http://www.canolacouncil.org/oil\_exports\_historic.aspx">historic.aspx</a> and <a href="http://www.canolacouncil.org/canolaprices\_historic.aspx">historic.aspx</a> and <a href="http://www.canolacouncil.org/canolaprices\_historic.asp

with the sector and administered by the Canadian Dairy Commission, food processing companies using sugar as a key manufacturing input can purchase dairy ingredients at highly competitive international prices.

Canada's thriving confectionery, biscuit and bakery industries are global market leaders in exports to the United States. Close to 50 percent of U.S. biscuit and bakery imports come from Canada. American imports of confectionery products from Canada have risen by 89.6 percent in the past 10 years and currently comprise 23 percent of all U.S. confectionery imports (see Table 8).<sup>28</sup>

Under the North American Free Trade
Agreement (NAFTA), manufacturers that
produce products destined for the U.S.
can import any ingredient used in the
manufacturing process duty free. Foreign
investors establishing confectionery and
bakery operations in Canada thus have
unprecedented "nearshore" opportunities
to access the large and growing U.S. market.



#### **Bunge North America**

Bunge North America, a leading global agribusiness and food company operating in 30 countries, has announced major investment plans for its western Canada operations, with expansion planned for all four of its Western Canada processing plants.

A major expansion of Bunge's canola processing plant in Altona, Manitoba will more than double the plant's capacity, enabling it to process 2,500 metric tons a day.

"We are committed to expanding our presence in Canada," said Soren Schroder, President and CEO of Bunge North America. "Canada remains a very important region to Bunge's growth strategy because of the increasing global demand for canola oil and meal and the growth potential of canola seed production in Canada," said Schroder.

Table 8: U.S. Imports of Confectionery and Bakery Products from Top 3-Ranked Countries in 2009 (in millions of dollars)

COUNTRY	BAKERY AND TORTILLA Products	SUGAR AND CONFECTIONARY Products	CHOCOLATE AND COCOA-BASED Confectionary products
Canada	1,385	1,169	647
Mexico	437	1,253	355
Italy	237	_	
Malaysia		242	242

Source: U.S. Department of Commerce and the U.S. International Trade Commission.

<sup>&</sup>lt;sup>28</sup> U.S. Department of Commerce.

#### Functional Foods and Nutraceuticals

Canada is known as a premier location when it comes to developing the latest functional foods and natural health products—products that help promote, maintain, and restore human health. These "Made in Canada" products are known worldwide for their quality, nutrition and taste. With over 680 firms<sup>29</sup> actively producing these healthy products, this sector yields annual revenues of over \$3.7 billion.<sup>30</sup> Its success stems from Canada's strength in natural resources, stringent quality and safety standards, innovative research infrastructure, and an environment of collaborative teamwork between public and private partners.

Canadian companies are making breakthroughs in developing and manufacturing healthy ingredients for natural health products and dietary supplements. These include omega-3 fatty acids from marine sources; unsaturated fatty acids from canola oil; soy protein; plant sterols and stanols from vegetable oils; and probiotics and fermented beverages. Canada has also introduced new, innovative products to the world such as flax bio-actives, fibre-based prebiotics and berry-based polyphenolic antioxidants.

#### Niche Agri-Food Products

Global consumers are embracing superior niche agri-food products from Canada. For instance, the recently developed Harovinton soybean is a great success worldwide, particularly in the Japanese tofu market where it became the industry standard. A recent innovation is the development of a fermentation process to expand the shelf life of kimchi, the Korean staple dish, from one month to a full year without pasteurization or preservatives. This Canadian technology means kimchi can now be eaten fresh year round, and that it is safer than the traditional fermented product.

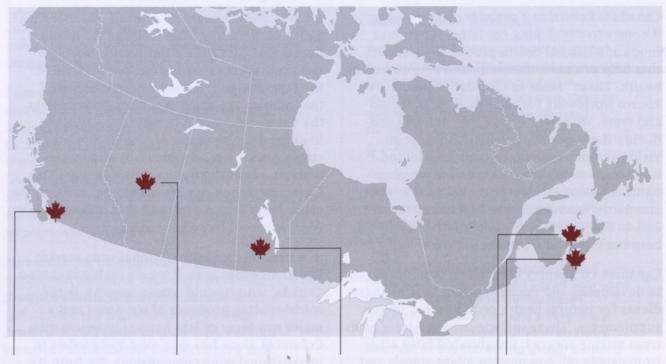
In a fiercely competitive global wine market, Canadian wines are extremely highly regarded. Canada, with its cold winter months, is the world-leading producer of ice wines and a major producer of late harvest wines. British Columbia alone has won over 950 medals in international wine competitions, for both its traditional wines and ice wines.<sup>31</sup>

<sup>&</sup>lt;sup>29</sup> Statistics Canada. <a href="http://www.statcan.gc.ca/pub/88f0006x/2009001/aftertoc-aprestdm2-eng.htm">http://www.statcan.gc.ca/pub/88f0006x/2009001/aftertoc-aprestdm2-eng.htm</a>.

<sup>&</sup>lt;sup>30</sup> Statistics Canada. <a href="http://www.statcan.gc.ca/pub/88f0006x/2009001/aftertoc-aprestdm2-eng.htm">http://www.statcan.gc.ca/pub/88f0006x/2009001/aftertoc-aprestdm2-eng.htm</a>.

<sup>&</sup>lt;sup>31</sup> Western Economic Diversification Canada. <a href="http://www.wd.gc.ca/eng/8207.asp">http://www.wd.gc.ca/eng/8207.asp</a>.

#### Recent Foreign Investments - Agri-food



In January 2011, Utah-based MonaVie Inc. opened its new distribution and pickup centre in Vancouver. MonaVie is a maker of premier acai-based nutritional products and has more than 4,000 square feet of warehouse space and 4,300 square feet of office space in Canada.

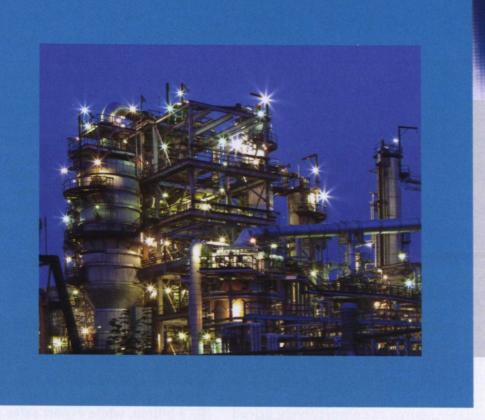
In January 2011, the Canadian subsidiary of Minneapolis-based **Cargill Inc.** announced plans to build a new crop input facility in Alberta.

In July 2010, the Canadian subsidiary of St. Louis-based Monsanto Co. invested \$14 million in expanding and upgrading its seed-manufacturing facility in Lethbridge, Alberta. This facility will have the capability to handle all of the company's hybrid canola seed production in North America.

In October 2010, the North American operating arm of New York-based **Bunge Ltd**. announced plans to more than double the capacity of its canola processing plant in Manitoba. This plan is part of the company's multi-year expansion program for its four Western Canadian processing plants.

In August 2010, Frito Lay
Canada invested \$2 million
in its operations in Nova
Scotia. A division of PepsiCo
Canada ULC, the company
upgraded its production
equipment and made its
plant more environmentally
sustainable. Recently, this
facility was recognized as the
first in Canada to send less
than 1 percent of its waste
to landfills.

In April 2010, Mazzetta Co. of Illinois purchased a fish processing plant in Prince Edward Island for \$2 million and announced the creation of 165 new jobs.



CHEMICALS AND PLASTICS



### **Chemicals and Plastics**

The strength of Canada's chemicals and plastics industry comes from a unique combination of advantages: favourable corporate income tax rates, low business set-up costs, the availability of skilled labour including scientists and engineers, competitively priced feedstocks, generous R&D incentives and close proximity to major North American industrial and consumer markets.

#### CHEMICALS

With 70,710 workers and nearly 2,900 companies, Canada's chemical industry is one of the country's largest manufacturing sectors and its third-largest manufacturing exporter. Substantial reserves of natural gas provide a readily available source of competitively priced feedstock and allow for low-cost production of ethylene and its derivatives. Large and efficient extracting plants, modern ethylene crackers, and derivative plants that are among the largest in the world allow Canada to achieve important economies of scale. Some statistics provide an important context:

- Chemicals shipments were valued at \$44.9 billion in 2010, including exports worth \$28 billion (75 percent exported to the United States);<sup>32</sup>
- Nine of the top 10 chemical companies in the world have production facilities in Canada;
- Exports of chemicals from Canada have increased by almost 41 percent in the last decade;

R&D expenditures in the sector were \$220 million in 2009.

The chemicals sector continued its strong recovery in 2010, with sales of basic chemicals and resins up 14 percent over 2009. Operating profits rose significantly, up 73 percent to \$2.3 billion, while export sales grew by 19 percent.<sup>33</sup>

In an independent 2010 survey of 100 cities in 10 countries conducted by KPMG, Canada recorded the lowest cost of doing business among established industrialized countries in the chemicals sector. Canada ranked No. 1 in the G-7 with a 3.5 percent cost advantage over the United States and a 4.7 percent cost advantage over Germany.<sup>34</sup>

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including chemicals, tools, machinery and equipment, will be totally duty-free.

<sup>32</sup> Statistics Canada, 2011. <a href="http://www40.statcan.ca/l01/cst01/manuf11-eng.htm">http://www40.statcan.ca/l01/cst01/manuf11-eng.htm</a>.

<sup>33</sup> Chemistry Industry Association of Canada. 2010 Year-End Survey of Business Conditions. p.2

<sup>&</sup>lt;sup>34</sup> KPMG Competitive Alternatives, 2010.

#### Inorganic and Organic Chemicals

With its abundant natural resources and access to large quantities of reliable, low-cost electricity, Canada offers foreign investors access to the key ingredients essential to the production of many inorganic chemicals.

Moreover, biotechnology is increasingly being used to create organic chemicals, some of which are commercially produced from biomass feedstocks such as corn and wheat. As technologies based on the use of bio-waste become more viable, Canada is well positioned to become a key global player in this area, given the resources derived from its large agricultural and forestry industries.

# Major Global Investors in Canada

**BASF** 

E.I. du Pont de Nemours and Company

ExxonMobil

Hexion

**INFOS** 

LANXESS

**NOVA Chemicals** 

Shell Chemicals

The Dow Chemical Company



#### The Mosaic Company

The world's growing population continues to spur growth in the fertilizers industry creating important opportunities for investors such as the Mosaic Company in Saskatchewan.

"There's going to be greater demand for food," said Mosaic President and CEO Jim Prokopanko, who stressed that the food supply "is going to have to come from a limited land base and that has to come with more fertilizer use. Saskatchewan is right at the centre of that (as) one of the world's largest producers of potash."

Prokopanko explained that the ongoing expansion of all three of Mosaic's potash operations in Saskatchewan is the reason for the company's planned move into new headquarters in a \$100-million, 20-story office tower slated for construction in downtown Regina. The Province of Saskatchewan helped pave the way for the expansion with tax incentives designed specifically to encourage the location of headquarters in Saskatchewan.

#### **PLASTICS**

With the estimated value of 2010 shipments at \$16.8 billion (including exports worth \$6.7 billion),<sup>35</sup> Canada boasts a sophisticated. multi-faceted plastics sector that encompasses plastics products, machinery and moulds, and synthetic resins. Canada's large pool of highly skilled machinists and technicians represents an important asset for the sector. Canadian firms have internationally-recognized expertise in high-quality injection moulding, thermoforming machinery, blown-film extrusion systems, extruders for corrugated pipe and other plastic profiles. Customer- and market-specific projects, along with relatively short delivery times, help drive innovation at Canadian plastics companies.

The industry is closely integrated with other advanced manufacturing sectors such as aerospace, automotive, medical devices and telecommunications. Canadian firms also benefit from strong relationships between mould makers and plastics processors. Many mould makers provide turnkey services, managing both mould-design and testing processes. Most companies in the sector are Canadian-owned, small- and medium-sized firms seeking partnerships and alliances to grow and share the rewards of investing in Canada.

The technical capacity to produce plastic resins from biomass is steadily improving and Canada is a leading global centre for research excellence in this area. As oil prices rise, companies that are able to make use of alternative feedstocks—which Canada has in abundance—will enjoy cost advantages and gain new markets.

# Top 10 Plastics Companies in Canada

Dow Chemicals Canada Inc.

Intertape Polymer Group Inc.

Winpak Ltd.

Sonoco Canada Corp.

Camoplast Inc.

Atlantic Packaging Products Ltd.

MAAX Bath Inc.

AirBoss of America Corp.

IPL Inc.

Richards Packaging Income Fund

Source: The Conference Board of Canada; Financial Post 500.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including chemicals, fibres, stone, glass, metals, as well as tools, machinery and equipment, will be totally duty-free.

<sup>&</sup>lt;sup>35</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/plastics-plastiques.nsf/eng/pl00312.html">http://www.ic.gc.ca/eic/site/plastics-plastiques.nsf/eng/pl00312.html</a>.

A few key statistics complete the picture:

- Canadian companies comprised the top three—and six of the top 10—North American mould makers in 2008;
- Canada was the world's sixth-largest exporter of moulds in 2007 (85 percent of plastics exports went to the United States).

#### Synthetic Resins

Canada's relatively large energy reserves, along with a skilled workforce adept in state-of-the-art technology, helps drive growth in the synthetic-resin industry. With total shipments worth approximately \$6.5 billion in 2010 (including exports of \$5.5 billion),<sup>36</sup> the industry continues to thrive. Plants based in western Canada produce commodity-grade thermoplastic resins

from raw materials derived mainly from natural gas, while those in central Canada produce both thermoplastic and thermoset resins using raw materials derived from both crude oil and natural gas.

Much of the new capacity that was recently built in Canada was designed using state-of-the-art technology. **Dow Chemical**'s new plant in Fort Saskatchewan, Alberta, uses its metallocene technology. And **NOVA Chemicals**' new plant in Joffre, Alberta, represents the first commercialization of its Advanced Sclairtech technology, which was developed in Canada. In today's environment, investors in commodity resins are attracted to Canada, primarily to Alberta, due to the raw material advantage that can be realized by locating there.





Canadian firms have internationally-recognized expertise in high-quality injection moulding, thermoforming machinery, blown-film extrusion systems, extruders for corrugated pipe and other plastic profiles.

<sup>&</sup>lt;sup>36</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/chemicals-chimiques.nsf/eng/bt01210.html">http://www.ic.gc.ca/eic/site/chemicals-chimiques.nsf/eng/bt01210.html</a>.

#### Recent Foreign Investments — Chemicals and Plastics



American fertilizer giant

Mosaic Co. is investing \$3.15
billion to expand its potash
production in Saskatchewan
by 5 million tonnes over the
next 12 years. By 2020, the
company will boost annual
production of its three
Saskatchewan sites by 50
percent to 15.5 million tonnes.

In July 2010, Germany's Sud-Chemie AG invested more than \$75 million in a facility in suburban Montréal that will produce lithium iron phosphate—a key ingredient in rechargeable batteries. The company's Canadian subsidiary, Phostech Lithium Inc., expects to begin commercial production in 2012.

In January 2011, Invista, one of the world's largest producers of polymers and fibres, began to significantly increase production at its advanced-development facility in Kingston, Ontario. The plant manufactures nylon airbags and industrial yarn, primarily for the automotive industry.

In November 2009, Jiffy
Products Ltd. doubled both
total sales and staff at its
facility in Shippagan, New
Brunswick to accommodate
demand for a new biodegradable shrink wrap developed at
the plant.



CLEAN TECHNOLOGIES



## Renewable Energy

Long one of the world's largest producers of hydroelectricity (353 Terra-Watts per year), Canada continues to aggressively develop and expand other sources of renewable power, such as wind, solar and bioenergy.

Several factors drive foreign investment in the sector: integration with the North American electrical grid ensures access to the world's largest market, while tax and R&D credits, along with federal and provincial incentives for renewable sources of power increase return on investment.

#### **BIOENERGY**

Canada leads in the development of bioenergy technologies and has more biomass resources per capita than any other nation. The combustion of biomass, primarily in the forestry sector, accounts for about 6 percent of Canada's total primary energy supply. Canadian firms are active in the development and refinement of innovative technologies, including:

- Scalable, rapid pyrolysis technology that converts various feedstocks into useful fuels, such as bio-oils and other products;
- Enzyme-based, cellulosic technology to process wood and agricultural wastes into ethanol and higher-value chemicals;
- Lower-cost, smaller footprint biogas purification technology for use in anaerobic digester and landfill gas systems;

- Sludge-disintegration technology that vastly improves the performance of anaerobic digesters at wastewater-treatment plants;
- Technology for high-efficiency conversion of secondary sludge generated by wastewater treatment plants into heat and electricity;
- Low-cost, turnkey, anaerobic-digester and power-generation systems for livestock farms.

#### **Liquid Biofuels**

Canada continues to pioneer, develop and commercialize a range of liquid biofuels, including ethanol, biodiesel, pyrolysis oil and cellulosic ethanol. More than 200 million litres of fuel ethanol are produced annually and more than 1,000 domestic retailers sell ethanol-blended gasolines. Several new large-scale ethanol plants are in construction or planning stages to meet Canada's Renewable Fuels Standard which is currently at 5 percent for ethanol in gasoline.

Biodiesel is also increasingly popular: several municipal and public-transit fleets in Canada rely on biodiesel. In July 2011, Canada will introduce a 2-percent renewable fuels requirement for diesel fuel. Canadian companies such as **Iogen Corp.** are world leaders in cellulosic ethanol.

Canada is also a recognized world leader in plant genomics and continues to develop innovative agricultural-oil-based products such as linoleum, fuels, lubricants, plastics, paints and chemical products.

#### **Wood Pellets**

Wood pellets represent an increasingly attractive fuel source for power generation, particularly in markets seeking to phase out coal and hydrocarbons. Canada's vast forest reserves, along with its modern transportation system, world-class manufacturing sector and large pool of skilled labour, make it attractive to investors in the wood-pellet industry and present ongoing opportunities for partnerships with foreign investors.

Canada's 33 wood pellet plants have a capacity of about 2 million tonnes,<sup>37</sup> and 20 new plants are in various stages of planning or in preparation for increased demand in the European market. Over the past two years, North America has become a major supplier of wood pellets to Europe. In 2010, an estimated 1.6 million tonnes of pellets were shipped from Canada and the U.S. to the Netherlands, the U.K., and Belgium.

Canada is positioning itself to become a world leader in torrefied pellet production. Torrefied pellets are seen by many as the future of the pellet industry and Canada is set to be a major player. Currently, a consortium of research, government and private-sector groups is developing a commercial-scale, state-of-the-art, pellet-torrefaction facility in British Columbia.

#### Biogas and Waste-to-Energy

Canada also generates strong opportunities in biogas and waste-to-energy processes. In 2011, the Canadian firm **Nexterra** will install North America's first combined heat-and-power gasification system at the University of British Columbia in partnership with **Jenbacher**, **General Electric**'s gas-engine division.<sup>38</sup> Once complete, the system will achieve a conversion efficiency of more than 65 percent and generate 2MW of electricity.

Montréal-based **Enerkem** has a strategy for aggressive growth, and is now completing a large commercial facility to transform Edmonton's municipal garbage into about 36 million litres of bioethanol per year. The plant, scheduled to begin operating in mid-2011, is set to become the world's first commercial operation to turn municipal solid waste (about 100,000 tonnes annually) into ethanol for fuelling vehicles. Enerkem's success, in Canada and internationally, is one example of Canadian expertise in this sector and demonstrates the demand for Canadian talent in international markets.

<sup>&</sup>lt;sup>37</sup> Wood Pellet Association of Canada.

<sup>&</sup>lt;a href="http://www.pellet.org/linked/2010-10-01%20gordon%20murray%20canbio.pdf">http://www.pellet.org/linked/2010-10-01%20gordon%20murray%20canbio.pdf</a>, p.4

<sup>&</sup>lt;sup>38</sup> Canadian Bioenergy Association.

<sup>&</sup>lt;a href="http://www.canbio.ca/documents/publications/BioenergyNow\_spring2010.pdf">http://www.canbio.ca/documents/publications/BioenergyNow\_spring2010.pdf</a>.



#### **Government of Canada Incentives for Renewable Energy**

- Accelerated capital-cost allowance of 50 percent for clean-energy generation.
- The Scientific Research and Experimental Development Program funds research and development of new, improved or technologically advanced products or processes.
- Sustainable Development Technology
   Canada (SDTC) provides financing to foster the development, demonstration and commercialization of emerging renewable-energy technologies. In particular, SDTC's NextGen Biofuels Fund and SD Tech Fund support clean-technology projects through these critical stages.
- The Canadian Clean Energy Fund is investing \$795 million over five years in research, development and demonstration projects to advance Canadian leadership in clean energy technologies. This includes large-scale carbon capture and storage demonstration projects as well as smallerscale demonstration projects of renewable and alternative energy technologies.

#### Recent Foreign Investments - Bioenergy



United Kingdom's Blue Sphere
Corporation has partnered with local biomass suppliers on a biogasification-to-renewable-energy project in northern Ontario. The project, in two locations (three 250kW units in Monteville and two 500kW units near Noelville) will supply Ontario's electricity grid under the province's feed-in-tariff program. The project will go online in 2012.

In June 2010, **Royal Dutch Shell** announced additional investments in Canada's **logen Corp**. to accelerate the commercialization of cellulosic ethanol. In 2009, logen's Ottawa facility produced more than 580,000 litres of ethanol from agricultural waste using its patented R7 technology.

#### WIND ENERGY

Canada's geography is ideal for wind power, with the world's longest coastline, large fresh-water lakes, vast interior plains and multiple mountain ranges generating unparalleled wind resources. Thanks to these favourable conditions, wind-power facilities now operate in all 10 provinces, and Canada's total installed wind-energy capacity currently is 4,155 Mega-Watts (MW)—powering over 1.2 million homes and businesses or about 2 percent of Canada's total electricity demand.

From 2005 - 2010, wind energy capacity in Canada grew by an average of 42 percent per year and Canada is on track to have a minimum of 12,000 MW of installed wind energy capacity by 2015. Over the next five years, investments in the Canadian wind energy sector will likely reach \$4 billion annually with employment levels reaching 15,000. More than 5,000 MW of additional wind energy projects have already been contracted.

Several factors help drive this remarkable growth: plans to phase out coal-fired plants that currently generate 7,000 MW of electricity, an abundance of skilled labour and manufacturing capacity, and government programs that support renewable energy. The national ecoEnergy for Renewable Power program, for example, is providing about \$1.48 billion to increase Canada's supply of clean electricity from renewable sources such as wind, biomass, hydro, geothermal, solar and ocean energy.

Currently, Canada's wind-power sector features more than 400 companies and a workforce of more than 3,000 people. More than a dozen post-secondary institutions offer wind-energy technology programs.



#### Daewoo

The world's largest shipbuilder, Daewoo Shipbuilding & Marine Engineering Ltd. (DSME), is making a major move into green technology with an investment in Canada to build a new wind turbine production plant in Trenton, Nova Scotia in partnership with the Province of Nova Scotia.

"This agreement is expected to support DSME's strategy of diversification into the wind-energy sector and expansion into the North American market," said Mr. Nam, President and CEO of the South Korean company. "We hope this announcement becomes the first milestone to establish a renewable energy cluster in Nova Scotia."

DSME will invest \$47 million in new equipment and expects to hire up to 500 employees. Nova Scotia is investing almost \$60-million and The Government of Canada is contributing \$10 million in loans and land improvement funding through the Atlantic Canada Opportunities Agency.

Much recent activity in the wind-power industry focuses on Ontario, Canada's most populous province and its manufacturing heartland. The province implemented a feed-in tariff program in 2009 that guarantees long-term premium rates for renewable sources of electricity. The private sector responded with investments of more than \$9 billion in Ontario's renewable energy sector in 2009–10. A partnership led by Samsung, for instance, invested \$7 billion to open four manufacturing plants in Ontario and to install facilities capable of generating

2,500 MW worth of wind and solar power.<sup>39</sup> Two of the manufacturing plants are located along highway 401, part of a high-speed, continental transportation corridor. In February 2011, Ontario confirmed plans to increase the province's renewable-energy capacity to

10,700 MW and to complete the necessary upgrades to the transmission system.<sup>40</sup> Quebec is another centre of recent activity, with plans to install more than 600 MW of new windenergy projects annually for each of the next five years.<sup>41</sup>

#### Recent Foreign Investments - Wind Energy



In January 2011, REpower Systems AG of Germany delivered 150 turbines to the Lac Alfred wind-farm project in Quebec under an agreement with Saint-Laurent Énergies Consortium. The turbines, which will generate 300 MW of power, will begin operation in the next two years.

In January 2011, Mortenson Construction, an affiliate of U.S.-based M.A. Mortenson Company, opened its first office in Mississauga, Ontario. The company has built nearly 100 wind-power projects across North America for a total capacity of more than 9,000 MW. In Canada, the company has been involved in wind-power projects with more than 325 turbines and a total capacity of 687 MW.

In December 2010, **Siemens** invested \$20 million to establish a wind-turbine manufacturing facility in South Central Ontario. The facility will produce all of the wind-turbine blades needed for the company's wind-energy projects in the province. Siemens has eight wind-power projects underway in Ontario with a total capacity of 950 MW.

In March 2010, Daewoo
Shipbuilding & Marine
Engineering agreed to invest
\$20 million to build a wind
turbine tower and blademanufacturing facility in Nova
Scotia. The province and the
Government of Canada have
also invested in the project.

<sup>39</sup> Government of Ontario.

<sup>&</sup>lt;a href="http://news.ontario.ca/mei/en/2010/12/new-wind-tower-plant-creates-700-jobs-in-windsor.html">http://news.ontario.ca/mei/en/2010/12/new-wind-tower-plant-creates-700-jobs-in-windsor.html</a>

<sup>40</sup> Canadian Wind Energy Association. <a href="http://www.canwea.ca/media/release/release\_e.php?newsId=110">http://www.canwea.ca/media/release/release\_e.php?newsId=110</a>>.

<sup>&</sup>lt;sup>41</sup> Canadian Wind Energy Association. <a href="http://www.canwea.ca/media/release/release\_e.php?newsId=98">http://www.canwea.ca/media/release/release\_e.php?newsId=98</a>.

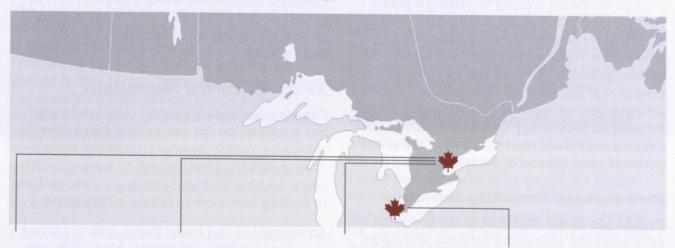
#### **SOLAR ENERGY**

Canada's solar-power industry also continues to grow quickly. The amount of heat and power generated from solar energy in Canada today is more than 10-times greater than what it was 10 years ago and demand continues to increase at an even faster rate. Nearly 350 solar-photovoltaic companies now operate in the country, providing full-time employment for approximately 3,000 people working at all stages of the photovoltaic value chain (R&D, manufacturing, distribution, sales, installation, service, consultants and developers). The country's total installed photovoltaic capacity represents more than 250 MW.

One of the world's largest solar-power projects is located in Canada and began to generate electricity in 2010. Located in Sarnia, Ontario, owned by **Enbridge** and operated by the U.S. firm, **First Solar Inc.**, the \$400 million project will eventually generate approximately 80 MW of electricity— enough to power more than 12,000 homes.<sup>42</sup>

Canada is also a world leader in solar-power research, development and commercialization. SolarWall™, the world's first transpired solar air collector—with more than 1,500 installations in 40 countries—was developed by Canada's Conserval Engineering. The National Solar Test Facility, operated by the Government of Canada, is recognized as North America's leading centre for testing and rating solar technologies.

#### Recent Foreign Investments — Solar Energy



In January 2011, Celestica Inc. and Recurrent Energy, a subsidiary of Sharp Corp., announced a joint venture to manufacture solar modules in Toronto.

In March 2011, Italian solar photovoltaic manufacturer, Silfab S.pA. invested \$15 million and began production of solar photovoltaic modules in its first North American manufacturing facility in Mississauga, Ontario.

In February 2010, India-based Solar Semiconductor Inc. announced its plan to establish its first North American manufacturing facility in Oakville, Ontario. By 2012, the company plans to create over 200 full-time and part-time jobs.

In April 2010, Schletter GmbH, a leading Germany-based manufacturing company specializing in the manufacture and distribution of solar mounting systems, expanded its manufacturing facility in Windsor, Ontario to meet the growing demand for its systems in Canada.

<sup>42</sup> RenewableEnergyWorld.com.

<sup>&</sup>lt;a href="http://www.renewableenergyworld.com/rea/news/article/2010/10/worlds-largest-solar-pv-project-complete">http://www.renewableenergyworld.com/rea/news/article/2010/10/worlds-largest-solar-pv-project-complete</a>.



## **Environmental Technologies**

Canada's globally competitive environmental-technologies sector encompasses a vast range of products, services and niche industries. Recognized world leaders in environmental engineering, Canadian firms are breaking new ground in fields such as waste management, water treatment and soil remediation. Canadian firms are also at the forefront of developing clean, environmentally sustainable solutions to global problems such as carbon capture of greenhouse gas emissions.

With sales valued at more than \$4.1 billion in 2008, the environmental goods and services market in Canada consists of some 8,500 firms. <sup>43</sup> Foreign investors seeking to establish plants and operations in Canada will find its environmental technologies sectors underpinned by a world-class regulatory system that fosters innovation, generous research and development tax credits that will support their research efforts, a strong peer network of industry associations focused on technology commercialization, and a highly skilled workforce trained to the specific needs of environmental technology firms.

#### **Environmental Consulting Services**

Canada has broad expertise in the provision of environmental consulting services, with large consulting firms offering services in domains such as air-pollution control, mining, oil and gas, geographical information systems and geomatics, environmental monitoring and impact assessment services, and contaminated site and remediation services.

Investors to Canada will find a large and growing market for their services. Canada's large mining and oil and gas industries, for example, comprise some of the world's largest firms in these sectors: companies that spend billions on environmental services both in Canada and globally.

#### Air Quality Control Technologies

Canada's air-quality control (AQC) industry has a reputation for top-quality innovative solutions. Driven by concerns about climate change and the growing risk to human health posed by air pollution, Canada is at the forefront of finding new ways to reduce air pollution.

An example of this leadership is carbon capture and storage (CCS) technology. Many CCS innovations are being developed in Canada. The world's largest CO<sub>2</sub> storage project is managed by the Petroleum Technology Research Centre in Saskatchewan. In 2009, the Government of Alberta announced support for four CCS

<sup>&</sup>lt;sup>43</sup> Statistics Canada. Survey of Environmental Goods and Services. <a href="http://www.statcan.gc.ca/daily-quotidien/100628/dq100628b-eng.htm">http://www.statcan.gc.ca/daily-quotidien/100628/dq100628b-eng.htm</a>.

projects through its \$2 billion CCS Fund. Among these projects is the Quest project, undertaken by **Shell**, **Chevron** and **Marathon Oil Canada Corp**. This \$745 million project will capture and store up to 1.2 million tonnes of CO<sub>2</sub> per year—the equivalent of taking 175,000 North American vehicles off the road—and would be the first bitumen upgrader fitted for CCS in the world.

Canada's close environmental regulatory alignment with the United States, together with leading-edge research networks such as Environment Canada's Environmental Science and Technology Centre (ESTC), which counts more than 65,000 employees working in its AQC sector—means foreign investors can look to Canada as a base for access to the entire continental North American marketplace for innovative technologies.

#### Soil Remediation

The Canadian federal government's accelerated activities in the area of soil remediation is creating many opportunities in the short-term laying the foundation for longer-term growth in this sector. Under its existing Federal Contaminated Sites Action Plan (FCSAP), \$245 million has already been allocated for federal contaminated sites in 2009 and 2010. These funds and the remaining \$547 million FCSAP funds will have contributed to the creation of close to 590 remediation projects country wide by the end of 2011.

Canada has recognized expertise in leadingedge and experimental in-situ, ex-situ and air-sparging treatment solutions and deployment of bioremediation and thermal desorption technologies. Research institutions with a focus on soil remediation, including the Centre for Environmental Analysis and Remediation (CEAR) at Saint Mary's University in Halifax, the National Research Council's Biotechnology Research Institute (BRI) and the INRS Eau Terre Environnement (ETE) research centre, contribute to advancing knowledge in this sector.

#### Waste Management

This competitive industry represents over \$5 billion in annual operating revenues. Expenditures by local governments on waste management services reached \$2.6 billion in 2008. Over 30,000 workers are employed by over 1,500 companies in Canada's waste management sector.

Foreign investors seeking to establish plants and operations in Canada will find important technological and human resource expertise in areas such as waste removal transportation, secure tanks, containers and liners for landfills, hazardous waste emergency response and containment solutions, and landfill methane and gas capture equipment and solutions.

#### Water and Waste Water Management

Canadian firms employ over 11,000 workers in the water and wastewater management sector. Canadian companies have developed highly innovative water and wastewater technologies, including: disinfection technologies (ultraviolet, chlorination, ozonation); waste-water-leak detection technologies; physical, chemical and biological treatment of waste water; energy-recovery systems; and instrumentation and monitoring equipment.

#### Recent Foreign Investments — Environmental Technologies

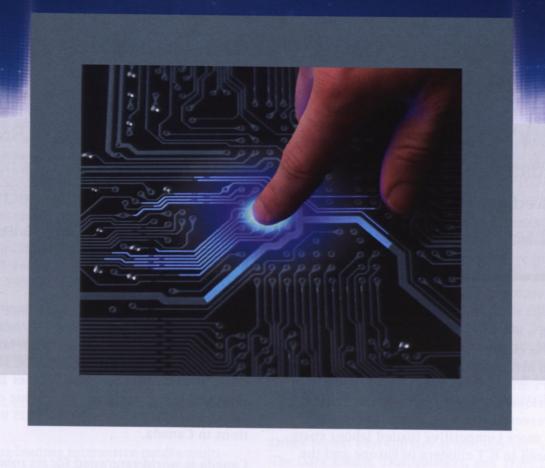


In February 2011, Houstonbased Waste Management, Inc. announced that it will deploy 20 new "clean air" trucks to collect commercial recycling, food waste and garbage throughout the Metro Vancouver area. The new trucks are part of a larger, long-term initiative to convert Waste Management's entire Metro Vancouver fleet--100 recycling and waste collection trucks in all--to compressed natural gas (CNG).

In December 2010, Chicagobased Sims Recycling Solutions, the world's largest metals and electronics recycler, opened its newest electronics recycling facility in Mississauga, Ontario. The 287,000 square foot facility is home to the most advanced technology, including a fully mechanized, cathode ray tube (CRT) recycling process that yields commodity grades of leaded and non-leaded glass from monitors and televisions; better metals recycling technologies; and the newest plastic separation technology allowing for closed-loop recycling of plastics.

In October 2010, Houston-based Waste Management, Inc. announced the start of operations at its 3.2-MW landfill-gas-to-energy project at the Petrolia landfill in southwestern Ontario. The facility turns the methane gas from decomposing waste into electricity and produces enough power to meet the needs of 2,500 households. This is Waste Management's third plant in Canada.

In June 2010, Fairfield-based Covanta Energy announced plans to develop a wasteto-energy (WTE) facility in the Durham Region, just east of Toronto. The facility will feature mass-burn. moving-grate technology, state-of-the-art air-pollution control equipment and continuous emissions monitoring (CEM). The project is expected to create over \$500 million of economic activity and 800-1,000 jobs during construction.



INFORMATION AND COMMUNICATIONS TECHNOLOGY



# Information and Communications Technology

Backed by Canada's superb technology infrastructure, ample R&D spending and competitive operating costs, foreign companies have invested heavily in Canada's information and communications technology (ICT) sector—including some of the leading global companies in digital media, software, and telecommunications.

Canada's ICT sector provides an impressive business environment that is attractive to foreign investors. The country's numerous ICT clusters offer a deep pool of highly skilled IT professionals, a strong creative culture and a solid research and development base. All of this at more competitive loaded labour costs compared to ICT clusters in Europe and the United States.

With innovation at its core, Canada's ICT sector is a leader in the global digital economy. This robust sector is a key driver of Canadian innovation, producing revenues of over \$154 billion<sup>44</sup> and exports worth over \$26.7 billion in 2009.<sup>45</sup> Over 540,000 employees work in approximately 30,000 ICT firms located across the country.<sup>46</sup>

#### **DIGITAL MEDIA**

For decades now, Canada has attracted some of the world's largest digital media companies. Canada is ranked third in the world for developing video games and is home to eight of the top

10 global video games publishers. Activision Blizzard, Autodesk, Capcom Entertainment, Electronic Arts, Facebook, Google, Microsoft Game Studios, Ubisoft, and Warner Bros. Interactive Entertainment are some of the many industry leaders that have set up operations in Canada.

Canada is world-renowned for its robust digital media clusters. Its interactive media industry consists of some 3,000 companies employing over 52,000 people. Collectively, the estimated value of their interactive digital media products is \$3.8 billion. Canada is expected to be the fastest growing entertainment and media market in North America with 5 percent annual growth in revenue for the 2010 – 2014 period. The sector's key strengths are in animation and special effects, video and computer games, education and training products, business applications, and web marketing.

With an outstanding quality of life, an excellent education system, and a highly creative independent or "indie" scene, Canada has attracted

<sup>44</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\_it05838.html">http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\_it05838.html</a>.

<sup>45</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/it05464.html">http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/it05464.html</a>.

<sup>46</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\_it05840.html">http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/h\_it05840.html</a>.

<sup>&</sup>lt;sup>47</sup> The Entertainment Software Association of Canada. <a href="http://www.theesa.ca/documents/essential\_facts\_2010.pdf">http://www.theesa.ca/documents/essential\_facts\_2010.pdf</a>.



#### **Funcom**

A low cost of living, the appeal of Canada's multicultural diversity reflected in the creative young design community of Montréal, and generous tax credits for multimedia game developers were the key factors in this new multimedia gaming firm's choice of Canada as its new home.

Funcom chose Canada to launch its products across North America thanks to the multiple advantages to be found in Montréal—a recognized world centre for the gaming industry.

CEO Miguel Caron points to Montréal's "diversity and open orientation," which, he said, "makes for a much more innovative environment to work in."

many of the leading interactive media multinationals. These international investors have access to creative and talented skilled workers trained by over 100 media-study programs offered by Canada's technical colleges and universities.

#### Digital Gaming

Industry leaders have long known that Canada is a leading international player in the digital games industry. In 2010, the Canadian studios **Electronic Arts (Canada) Inc.** and **Ubisoft Entertainment** were ranked third and fourth

respectively on *Develop 100*'s list of top 100 most bankable games development studios.<sup>48</sup> According to *Game Developer Research (GDR)*, there were 12,500 game developers in Canada in late 2009, an impressive 30 percent increase from the previous year.<sup>49</sup> Collectively, these developers have produced 20 percent of the best-selling digital games in North America.

#### Feature Film Applications

Canada's multimedia visual effects innovations have become industry favourites. Producers of high-profile Hollywood feature films regularly favour Canadian-developed multimedia technology, such as Maya® and Houdini software for creating special effects. Many of these films have been nominated for the Academy Award® for visual effects, including Avatar, Iron Man 2, the Harry Potter series, the Spider-Man series, The Pirates of the Caribbean: At World's End, Superman Returns, the Lord of the Rings trilogy, The Matrix, and Titanic.

Other recent blockbuster action movies, such as *The Dark Knight, Transformers*, and *Tron: Legacy*, were partially filmed using IMAX cameras (produced by Toronto-based **IMAX Corporation**) to boost the immersive big screen experience for movie-goers.

In October 2009, California's **Digital Domain Productions Inc.** announced the opening in early 2010 of a new 20,000-square-foot visual effects studio in Vancouver. The new facility expands the company's capacity to work on high-end feature film projects.

<sup>48</sup> Intent Media. <a href="http://www.develop100.com/">http://www.develop100.com/>.

<sup>&</sup>lt;sup>49</sup> Game Developer Research. <a href="http://www.itbusiness.ca/it/client/en/home/news.asp?id=55895">http://www.itbusiness.ca/it/client/en/home/news.asp?id=55895</a>.

#### Recent Foreign Investments - Digital Media



In January 2011, **Zoic Studios** of Los Angeles announced plans to expand their Vancouver offices due to an anticipated 60 percent increase in their workforce.

In May 2010, California-based Pixar Animation Studios, a multiple-Academy Award® winning studio, opened a 20,000-square-foot facility in Vancouver to produce its popular computer-animated short features.

In November 2010, India's

Toonz Animation established
a new production unit
in a joint venture with
Canada-based Mediabiz
International. Located in
Montréal, the new production
unit will concentrate on
producing animation and
live action of comic book
characters.

In March 2010, California's Warner Bros. Interactive Entertainment announced the establishment of a new development studio in Montréal. The studio is expected to employ over 300 people by the end of 2015.

#### **SOFTWARE**

Software Magazine lists 38 Canadian companies among the top 500 global software companies in 2010. As a national percentage, this is second only to the United States.<sup>50</sup>

Canada offers highly skilled software development professionals across a range of skill sets. For high value-added activities, Canada offers competitive loaded labour costs compared to other comparable countries such as the U.S., Japan, and Europe. This, combined with full and free access to the large U.S. software market, makes Canada an ideal nearshore destination

for undertaking high value added software development activities.

#### Enterprise Application Software (EAS)

Canada is well-positioned to tap into the global EAS market. By 2011, Gartner Group, a leading IT research firm, forecasts that the Canadian market will represent approximately 2.5 percent of the global EAS market, or US\$ 3.6 billion.<sup>51</sup> Canada also has easy access to the large U.S. market, the world's largest IT market. EAS spending there is expected to reach US\$ 17.8 billion in 2011.<sup>52</sup>

<sup>&</sup>lt;sup>50</sup> Software magazine. *The Software 500 Feature*, October 2010.

<sup>&</sup>lt;sup>51</sup> Gartner, Inc. "Worldwide Enterprise Software to surpass \$232 billion by 2010". <a href="http://enterpriseapplications.cbronline.com/news/worldwide-enterprise-software-revenue-to-surpass-232bn-in-2010-gartner\_210910">http://enterpriseapplications.cbronline.com/news/worldwide-enterprise-software-revenue-to-surpass-232bn-in-2010-gartner\_210910>.

<sup>52</sup> ibid.

Canada's EAS market comprises large projects in areas such as financial services, government, healthcare and manufacturing. Canadian firms are leaders in EAS applications for customer-relationship management, digital content creation, data, project and portfolio management, supply-chain management and web conferencing. Over half of all emerging Canadian software companies are providers of EAS services.

Canada's home-grown industry leader **Open Text Corporation** is joined by numerous EAS
multinationals in Canada, including **Autodesk Canada, Adobe Systems, IBM, Microsoft, Oracle, Sage Group** and **SAP AG**.

#### E-health

Canadian e-health companies are at the forefront of creating advanced health care provider systems that improve patient care and safety while helping to manage costs. Their expertise includes developing applications for electronic health records; creating and deploying picture archiving and communications systems; creating state-of-the-art drug information technology linking physicians and pharmacists; and advancing in-home, remote monitoring, and assessment support systems for alternative care facilities.

Canada's public funding initiatives help bolster the country's e-health industry. Canada is committing up to \$12 billion in capital investment over the next 10 years as part of the country's plan to advance its health "infostructure." In health records development and implementation, over \$2 billion has already been invested.

Many leading multinationals have set up Canadian operations to tap into the vast potential of Canada's health IT market. They include Agfa HealthCare, Canon Canada, Cerner, GE Healthcare, Hitachi Systems, Honeywell, IBM Canada Healthcare, Kodak Health Imaging, Maximus, McKesson, Microsoft, Palm Canada, Philips Healthcare and Siemens AG.

#### E-security

With the widespread use of the Internet, Canada's \$1.2 billion e-security sector is developing innovative hardware, software, and services that protect sensitive personal and business data and assets.53 E-security companies offer many key technology strengths including cryptography and encryption, mobile authentication, cyber security, biometrics, surveillance, tracking and sensors. Canada also has three of the world's best laboratories authorized to evaluate and certify security products including CGI Group's IT Security Test and Evaluation Facility, DOMUS IT Security Laboratory, and EWA-Canada's IT Security Evaluation & Test Facility.54

This sector is heavily invested in R&D. Nearly two-thirds of Canada's IT security firms are actively researching and developing new technologies. In the past decade, this private sector commissioned Canadian universities to perform over \$5.2 billion worth of IT security-related R&D services.<sup>55</sup>

Many leading multinationals that develop innovative solutions for data protection have chosen to locate their security operations in Canada. These include Blue Coat, CA Inc., Cisco Systems, EMC Corporation, Entrust, Fortinet, McAfee, Q1 Labs and Symantec Corporation.

<sup>53</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/it07125.html">http://www.ic.gc.ca/eic/site/ict-tic.nsf/eng/it07125.html</a>.

<sup>54</sup> Industry Canada. ibid.

<sup>55</sup> Industry Canada. ibid.

#### Recent Foreign Investments - Software



In January 2011, Californiabased **Google Inc**. announced plans to double the size of its existing Montréal office.

In February 2011, Wipro Technologies, the Global IT Consulting, System Integration and Outsourcing company, announced the inauguration of a new office in Mississauga, Ontario, as part of an expansion plan for its Canadian operations.

In February 2011, IBM Canada Limited unveiled its \$42 million Cloud Computing Centre in Toronto, one of the most advanced computing facilities in the world. IBM is the first top-tier multinational IT service provider to establish cloud delivery capabilities in the Canadian market.

In May 2010, the Canadian subsidiary of Massachusetts-based **Q1 Labs Inc**. announced plans to hire 70 new employees for its Fredericton and Saint John offices in New Brunswick. Q1 Labs, a global provider of security intelligence software, had already created a research and development centre in Fredericton in 2008.

#### WIRELESS COMMUNICATIONS

Canada is well-positioned to tap into the global market's tremendous appetite for wireless technology. Canada's 300 wireless technology firms are leading global players in areas such as WiFi, mesh networks, WiMAX, RFID, UWB, SDR as well as broadband, satellite, and fibre-optics applications. With the high, long-term potential of the Canadian market, deep investments of over \$1 billion are made annually by Canada's wireless carriers to improve their mobile communication infrastructure.

Canada's standing at the forefront of wireless technologies and applications has led many international players to establish their operations across the country. Looking for high returns on their investment, global wireless companies are attracted by Canada's highly educated and experienced workforce, costeffective labour-costs, world-class R&D, and favourable tax rates and benefits structure. Wired and wireless telecommunications firms dominate ICT research and development, with \$6.2 billion spent annually on R&D.<sup>56</sup>

#### Next Generation Networks (NGN)

Canada is attracting major global enterprises to undertake their NGN research and development activity. These include Alcatel-Lucent, Ericsson, Huawei, and Nokia. Canadian companies such as Bridgewater Systems and Redline Communications are also global leaders in NGN technologies. Bridgewater Systems has Long Term Evolution (LTE) solutions capable of managing the increasing performance requirements of mobile broadband while Redline Communications is recognized as one of the first companies in the world to have a complete WiMAX product offering certified by the WiMAX Forum.

In Canada, active R&D in nanomaterials and next generation power amplifiers is underway. Advances in these latest technologies will enable reductions in size, weight, and power consumption for wireless equipment as next-generation networks improve.

#### Mobile Devices and Applications

Canadian companies are global leaders in providing new and unique solutions for data communications. Home-grown companies Research In Motion Ltd. and Sierra Wireless, renowned for their Blackberry® smartphones and cellular Aircards® respectively, have captured the world's attention with their innovative mobile platforms and devices. Canada also has significant expertise in developing imaging software, multimedia chipsets, and RF components for mobile platforms. It is also a leading, world-class provider of mobile gaming applications.

QNX Software Systems and Alcatel-Lucent Canada are at the forefront of mobile broadband with their LTE Connected Car concept, demonstrating how 4G/LTE networks can bring video-on-demand, Internet radio and other wireless broadband services to the automobile. QNX software is already available on more than 200 different car models, including those from GM, BMW, and Ford.

<sup>56</sup> Bringing green solutions to life - CRC bolsters business case for next generation networks," Communications Research Centre Canada, Eye on Technology, Issue 13, Winter 2010

#### Recent Foreign Investments — Wireless Communications

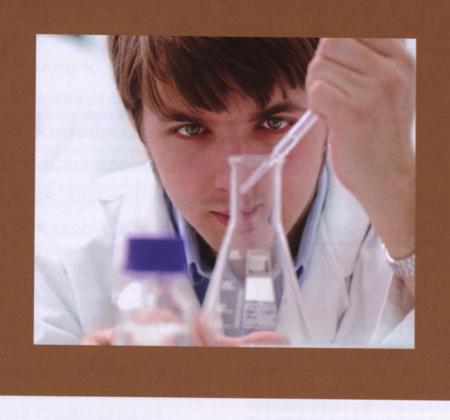


In November 2010, Illinoisbased **Tellabs** announced plans to create a new mobile internet R&D office in Vancouver.

In December 2010, New Jersey's **Avaya Inc.** announced it will invest \$165 million over three years in its two Ontario facilities that conduct work on new unified communications and collaboration technologies.

In January 2011, Huawei
Technologies Co. of China
opened its new Canadian
headquarters in Toronto
and signed joint agreements
with telecommunications
providers Bell Canada
and Telus Corp. to create
innovation centres in several
Canadian provinces.

In February 2011, the
Canadian subsidiary of
Maryland-based Ciena
Corporation announced a
\$900 million investment in
Canada, with the goal of
developing new technology
and making Ottawa the
focal point of its global R&D
telecommunications efforts.
Ciena plans to create 353 new
jobs at its Ottawa labs in the
next five years.



LIFE SCIENCES



## Life Sciences

Canada's life sciences industry is at the forefront of ground-breaking discoveries that bring wellness back into human health. The industry benefits from the country's world-leading R&D infrastructure, talented life-sciences specialists and a regulatory environment that ensures quality output and supports scientific breakthroughs. All of which makes Canada the ideal place to turn pioneering ideas into world-leading innovations.

#### **BIOPHARMACEUTICALS**

Canada's biopharmaceutical industry is a leading global player and one of the most profitable sectors in the country. Canada's pharmaceutical sector is the fourth fastest-growing market globally, after Brazil, China and Spain. From 2004 - 2008 it experienced a 7 percent average annual growth rate.<sup>57</sup> In 2009, the manufacturing portion of the sector employed over 28,000 people with two-thirds employed at brand-name pharmaceutical companies. Canadian biopharmaceutical exports have increased dramatically in recent years, and were valued at nearly \$7 billion in 2009. The majority were directed to the U.S. market.

It is no wonder that leading biopharmaceutical companies have chosen to locate in Canada. In fact, all of the top 10 pharmaceutical multinationals have established R&D and manufacturing facilities, distribution centres or offices in Canada. They are attracted by Canada's academic institutions, our collaborative research and clinical networks, government support for leading-edge innovation, and many public-private partnership opportunities.

Canada offers a highly skilled workforce, yet at lower labour costs compared to other destinations. Canada also offers top expertise in research and development, clinical trials and pharmaceutical manufacturing.

#### Research and Development

The Canadian pharmaceutical industry is renowned for its high-quality, cost-effective research and clinical development. In terms of R&D intensity, the industry is second only to the information technology sector. In 2009, drug companies in Canada spent over \$1.2 billion on R&D. *Research Infosource*'s 2010 list of the top 100 Canadian corporate R&D spenders included 28 pharmaceutical and biotechnology companies. <sup>58</sup> Canada also leads the G-7 in the growth of health-research patents.

Private biopharmaceutical firms can rely on Canada's public research infrastructure for support. They regularly collaborate and tap into the research conducted by the country's 30,000 researchers in 17 medical schools and over 100 teaching hospitals. In 2009, the Canadian Institutes of Health Research

<sup>&</sup>lt;sup>57</sup> IMS Health. <a href="http://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h\_hn00021.html">http://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h\_hn00021.html</a>.

<sup>58</sup> Research Infosource. <a href="http://www.researchinfosource.com/2010Top100List.pdf">http://www.researchinfosource.com/2010Top100List.pdf</a>.

(CIHR) provided grants and awards worth nearly \$1 billion for health research to public and private researchers.

#### Manufacturing

The competitiveness of Canada's drug manufacturing subsector is a huge draw for major name-brand and generic pharmaceutical manufacturers. Employment indicators show that pharmaceutical manufacturing is thriving in Canada, with over 28,000 people employed in 2009, a 20 percent increase over the past decade.<sup>59</sup>

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including machinery and equipment, will be totally duty-free.

Key factors in the success of Canada's manufacturing subsector:

- Low costs: In 2010, Canada had the lowest costs for establishing and operating a pharmaceutical manufacturing facility in the G-7, according to an independent report conducted by the global accounting firm KPMG.<sup>60</sup> In their *Competitive Alternatives 2010* report, KPMG ranked Moncton, Fredericton, Sherbrooke, and St. John's, third to sixth respectively, out of 95 cities worldwide in terms of low cost structures for establishing pharmaceutical manufacturing facilities;<sup>61</sup>
- Convenient and duty-free access to U.S. markets;
- Canada's expertise in small molecule and biologics manufacturing, from pilot to full scale-up applications, executed according to strict Good Manufacturing Practice (GMP) standards.

#### Pharmaceutical Services

Companies involved in developing therapeutics and diagnostics can rely on the high-quality contract pharmaceutical services provided in Canada. Canada's contract service and technology providers have deep expertise in: drug, target and biomarker discovery and design; product formulation and manufacturing; and clinical testing. Canadian clinical researchers are also the most influential in the world, according to a study conducted by the Canadian Institutes of Health Research in 2009.



#### **Eisai Limited**

"Canada is a great place to invest. Our company expanded operations into Canada to take advantage of a skilled workforce and innovative research and development facilities," said Frank Ciriello, Senior Vice-President of new markets, Eisai, Inc., a global pharmaceutical company.

The company announced the establishment of Eisai Limited in Canada, to be based in Mississauga, Ontario, home to one of the largest biopharmaceutical clusters in North America. Parent firm Eisai Inc, is a subsidiary of Eisai Co. Ltd., headquartered in Tokyo.

Eisai is a human health-care company that discovers, develops and markets pharmaceutical products throughout the world. Eisai's areas of focus will include neurology, gastrointestinal disorders and oncology/critical care in Canada – the world's ninth-largest pharmaceutical market.

<sup>59</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h\_hn00021.html">http://www.ic.gc.ca/eic/site/lsg-pdsv.nsf/eng/h\_hn00021.html</a>.

<sup>60</sup> KPMG. Competitive Alternatives 2010. p. 24.

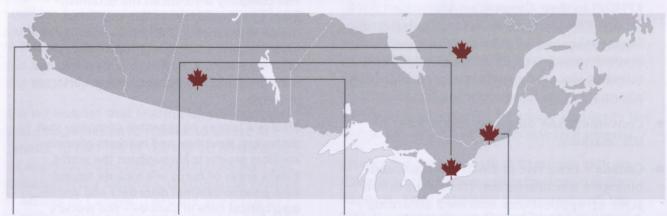
<sup>61</sup> ibid. p. 25

In the area of clinical trial sites, Canada adheres to stringent Good Clinical Practice (GCP) standards that are regularly monitored by Health Canada, the U.S. Food and Drug Administration and reputable industry sponsors. In 2009, Canada ranked second only to the U.S. for its

overall share of clinical trials hosted. Moreover, Canadian patients for clinical trials tend to yield consistent trial data. This is due to their properly managed health and the availability of their complete patient histories, thanks to the country's universal public health care system.

RANK	LEADING COMPANIES	R&D LOCATION IN CANADA	TOTAL PURCHASES (\$ BILLIONS)	MARKET SHARE (PERCENT)
1	Pfizer	Montréal	2.94	13.4
2	Apotex	Toronto	1.55	7.0
3	AstraZeneca	Montréal	1.44	6.6
9	Schering-Plough	Montréal	1.33	6.0
4	Johnson & Johnson	Toronto	1.16	5.3
6	Novopharm	Toronto	0.92	4.2
7	Novartis	Toronto	0.89	4.0
5	GlaxoSmithKline	Toronto »	0.88	4.0
8	Abbott Point-of-Care	Montréal	0.85	3.9
10	Roche	Montréal	0.68	3.1

#### Recent Foreign Investments — Biopharmaceuticals



In January 2011, the Canadian division of pharmaceutical giant Merck & Co. announced plans to invest an additional \$5 million in the Quebec Consortium for Drug Discovery over the next five years.

In May 2010, the Canadian subsidiary of **Teva Pharmaceutical Industries Ltd.**, the world's largest generic pharmaceutical company, announced it will be investing \$56 million to expand its Toronto-area production plant.

In September 2010, the bioproducts company Metabolix Inc. of Massachusetts announced plans to set up operations at the National Research Council of Canada's Industrial Partnership Facility in Saskatoon.

In October 2010, Japan's Otsuka Pharmaceutical Co., Ltd. opened its first Canadian office in a suburb of Montréal.

#### **MEDICAL DEVICES**

Canada's \$7 billion<sup>62</sup> medical devices industry is one of the largest in the world. From small start-ups to large, established firms, Canadian and foreign medical devices firms with operations in Canada are developing and manufacturing high-demand products that incorporate the latest discoveries from other industries— including biotechnology, advanced materials, microelectronics, telecommunications, software, and informatics.

The industry is comprised of over 1,000 firms that employ 26,000 quality workers. In 2009, exports reached \$2.6 billion, the majority of which are destined for the United States. 63

Canada's medical devices industry produces a wide range of diagnostic and therapeutic products. Some key specialties include cardiovascular devices, medical imaging, in vitro diagnostics, dental implants and materials, prosthetics and assistive devices/home healthcare products.

Foreign firms find Canada's medical-device clusters highly attractive. In 2010, Canada had the lowest costs for establishing and operating a medical device manufacturing facility among G-7 countries according to KPMG's *Competitive Alternatives 2010* report.<sup>64</sup>

The industry also has access to the ground-breaking, world-class research conducted in universities, research institutes, and hospitals located across the country. For example, the cities of Toronto and Montréal have a significant medical technology cluster, with expertise in developing and commercializing in vitro diagnostics and imaging equipment and technology. In addition, Canada's National Research



Council's Institute for Biodiagnostics, the country's most advanced facility for studying magnetic resonance technologies, is located in Winnipeg. The Institute for Biodiagnostics anchors a community of over 220 firms in Winnipeg alone and has many global firsts to its credit, including creating the world's first mobile MRI, which is now manufactured by a spin-off company and the world's leading brand name in this sector, IMRIS Inc.

<sup>62</sup> Industry Canada. <a href="http://www.ic.gc.ca/eic/site/md-am.nsf/eng/h\_hi00071.html">http://www.ic.gc.ca/eic/site/md-am.nsf/eng/h\_hi00071.html</a>.

<sup>63</sup> Statistics Canada. Canadian International Merchandise Trade Database.

<sup>64</sup> KPMG. Competitive Alternatives 2010, p. 24

In Canada, homegrown global leaders IMRIS, Epocal Corporation, Nordion and Novadaq Technologies are joined by numerous multinational firms. They include Abbott Point-of-Care, Agfa Healthcare, Elekta, GE Healthcare, Hologic, Johnson & Johnson Services, Medtronic, Roche, Siemens AG, Smith & Nephew, St. Jude Medical, Sorin Group and Zimmer.

Canada is the first G-20 country to eliminate tariffs on all manufacturing inputs. Most of the reductions occurred in 2010 and, by 2015, all inputs imported by Canadian manufacturers, including machinery and equipment, will be totally duty-free.

#### Recent Foreign Investments — Medical Devices



was announced to establish U.K.-based GE Healthcare's first global Pathology Imaging Centre of Excellence in Toronto. GE Healthcare and its digital pathology joint venture Omnyx in Pittsburgh will invest \$7.75 million in this new research centre.

In January 2011, an agreement In November 2009, Italy's Health Robotics S.r.l. announced the establishment of a subsidiary in Toronto which would market, install, and support the company's life-critical, intra-venous robot technology and software automation solutions to the Canadian market.

In February 2009, Belgium's Agfa Healthcare of the Agfa-Gavaert Group invested \$200 million to support the growth of two R&D centres in Ontario. The expanded facilities will meet the company's growing need for IT-enabled workflow and diagnostic imaging solutions.



SERVICES



## **Services**

Canada has much to offer international investors in services industries: a wealth of relevant expertise and experience; a large pool of skilled, educated and multi-lingual workers; a high standard of living; efficient transportation, telecommunications and legal systems; and the lowest payroll taxes among G-7 countries.

To support these dynamic industries, Canada boasts a vast and deep network of sophisticated and successful firms providing a full range of professional services: legal and accounting, financial management, architectural and specialized design, scientific, and consulting and public relations, among others. The country is also a centre of excellence for logistics and supply-chain management services.

#### **BUSINESS SERVICES**

Canada has significant expertise in business-process outsourcing, human-resources management, customer-relationship management, knowledge-process outsourcing, finance and accounting, data mining, application-development labs, business continuity and disaster-planning support. Business services such as these contribute significantly to Canada's national economy, accounting for \$60.6 billion of national GDP in 2009.65 More than 1.2 million Canadians, nearly 7 percent of the total labour force, worked in the industry in 2009.66

#### **Engineering Services**

Canada is the third-largest exporter of engineering services in the world, after the United States and the United Kingdom.<sup>67</sup> The more than 160,000 professional engineers in Canada,<sup>68</sup> many with expertise in resource extraction, energy, telecommunications, transportation, infrastructure engineering and public-private partnerships, speak to Canada's strength in this sector.

#### Nearshoring and Offshoring

Canada is a leading provider of business process outsourcing (BPO) and information technology outsourcing to U.S. firms. Thanks to a skilled workforce of more than 150,000 professionals, and its proximity to—and cultural similarities with—the United States, Canada is the world's second largest provider of BPO services. As reported by IDC forecasts, the overall Canadian IT outsourcing market is expected to reach nearly \$15 billion in 2010, an increase of nearly 4 percent over 2009.<sup>69</sup>

<sup>65</sup> Industry Canada. <a href="http://www.ic.gc.ca/cis-sic/cis-sic.nsf/IDE/cis-sic54vlae.html">http://www.ic.gc.ca/cis-sic/cis-sic.nsf/IDE/cis-sic54vlae.html</a>.

<sup>66</sup> Statistics Canada. <a href="http://www40.statcan.ca/l01/cst01/labor10a-eng.htm">http://www40.statcan.ca/l01/cst01/labor10a-eng.htm</a>.

<sup>&</sup>lt;sup>67</sup> Prism Economics and Analysis. *Canada's Consulting Engineering Sector in the International Economy*. <a href="http://etlms.engineerscanada.ca/media/Canada's%20Consulting%20Engineering%20Sector%20in%20the%20">http://etlms.engineerscanada.ca/media/Canada's%20Consulting%20Engineering%20Sector%20in%20the%20</a> International%20Economy1.pdf>.

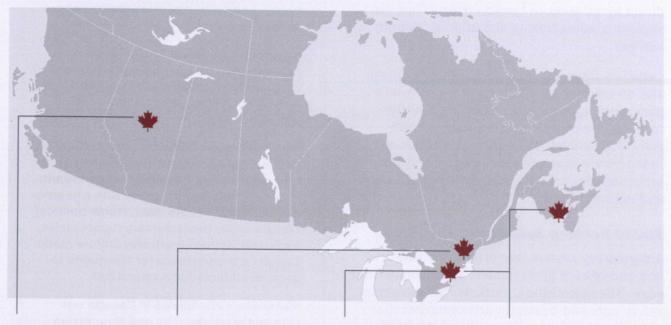
<sup>68</sup> Engineers Canada. Annual Report, 2009. <a href="http://www.engineerscanada.ca/files/w\_Annual\_Report\_2009\_en.pdf">http://www.engineerscanada.ca/files/w\_Annual\_Report\_2009\_en.pdf</a>.

<sup>&</sup>lt;sup>69</sup> International Data Corporation. <a href="http://www.itworldcanada.com/news/canadian-outsourcing-will-grow-in-2010-says-idc/139814">http://www.itworldcanada.com/news/canadian-outsourcing-will-grow-in-2010-says-idc/139814</a>.

In the field of offshoring, A.T. Kearney, the global management consulting firm, rated Canada No. 3 in the quality of its business environment in 2011.<sup>70</sup> Since 2004, Canada has been the second largest market for BPO,<sup>71</sup> significantly ahead of other large offshoring

destinations such as the Philippines, Mexico, Ireland and China. And as U.S.-based multinationals move to repatriate outsourced and captive services closer to home, Canada increasingly attracts nearshoring activities.

#### Recent Foreign Investments - Business Services



In June, 2010, U.S.-based VR Business Sales opened its first Canadian franchise market in Edmonton. The office will focus on financing, valuations and small- to midsized business transactions. The company plans to expand across the country.

In January 2011, Mortenson Construction, an affiliate of U.S.-based M.A. Mortenson Company, opened its first office in Canada to provide a complete range of construction services, including planning, project management, pre-construction, engineering, general contracting and design-build.

In late 2010 and early 2011,
Intelligent Office added three
new Canadian offices to
provide virtual, professionally
staffed space for mobile
executives and small businesses. The new facilities
in Scarborough, London
and Toronto bring the total
number of Intelligent Office
Canada locations to 10.

California-based Mitratech, a leader in Collaborative Accountability applications, announced the opening of offices in Toronto and Saint John, New Brunswick. The Toronto office will focus on business acquisition and growth, while the Saint John office will house local Canadian services and technical staff to support Mitratech's growing client community.

<sup>70</sup> A.T. Kearney. Global Services Location Index™, 2011.<a href="http://www.atkearney.com/index.php/Publications/">http://www.atkearney.com/index.php/Publications/</a> offshoring-opportunities-amid-economic-turbulence-the-at-kearney-global-services-location-index-gsli-2011.html>.

<sup>71</sup> Everest Research Institute, Global Trends in BPO, December 2008.

#### **FINANCIAL SERVICES**

Canada's financial industry enhanced its global reputation for strength, stability and robustness during the global financial crisis of 2007-2008. Its safe, regulated environment, its sophisticated financial markets and its world-class financial services professionals helped attract top firms from around the world. In 2009, the financial services sector brought more foreign-direct investment to Canada than all but two sectors: manufacturing and mining, and oil and gas.

Canada's financial services sector has grown and diversified significantly in recent years, generating sales of more than \$81.5 billion in 2009. The sector includes banks, financial co-operatives, insurance companies and independent insurance agents and brokers, securities dealers, and managers of pension and mutual funds.

#### Sound Banking System

A regulatory system that effectively balances risk and reward gives Canada a key competitive edge. The institutions, markets, infrastructure, safety nets and oversight arrangements that comprise the system are sophisticated and include a full range of financial intermediaries.

This system helped shelter Canada from the most severe effects of the global financial crisis of 2008. The World Economic Forum's *Global Competitiveness Report 2010–2011* ranked Canada's banking system as the soundest in the world for the third year in a row. Moody's Investor Service has ranked Canada's banking system first in the world for financial strength for the last two years. Six of the world's 50 safest banks and four of North America's 10 largest banks are Canadian. Due to the active mergers and acquisitions environment in Canada, the country now generates more investment-banking fees than all but three countries: the U.S., the U.K. and Japan.<sup>72</sup>



#### **Macquarie Group**

Australia's Macquarie Group is a global financial services company that came to Canada in the early '90s to set up a full range of institutional and retail banking and financial management and advisory services.

"We found remarkable similarities between the cultures and market dynamics of Australia and Canada," says Paul Donnelly, President and Chief Executive Officer (Canada).

"Both are resource-rich economies with relatively small populations, robust regulatory regimes and a shared commonwealth history. Those factors, along with a healthy and educated middle class, stable political climate under parliamentary democracies, and a welcoming investment culture made Canada a sound choice for Macquarie to grow our international operations."

Macquarie's confidence in Canada was substantiated when the global recession struck, says Donnelly. Like Australia, Canada has weathered the financial storm better than other developed countries because of a strong regulatory framework that ensured banks and other institutions were well-capitalized and not exposed to undue risk.

"These policies were essential to protecting banking firms and their clients - both institutional and retail - from the upheaval that affected so many in other countries," said Donnelly.

<sup>&</sup>lt;sup>72</sup> The Globe and Mail. <a href="http://www.theglobeandmail.com/globe-investor/investment-ideas/streetwise/canada---and-Calgary---show-investment-banking-muscle/article1906873/">http://www.theglobeandmail.com/globe-investor/investment-ideas/streetwise/canada---and-Calgary---show-investment-banking-muscle/article1906873/</a>.

### Recent Foreign Investments — Financial Services



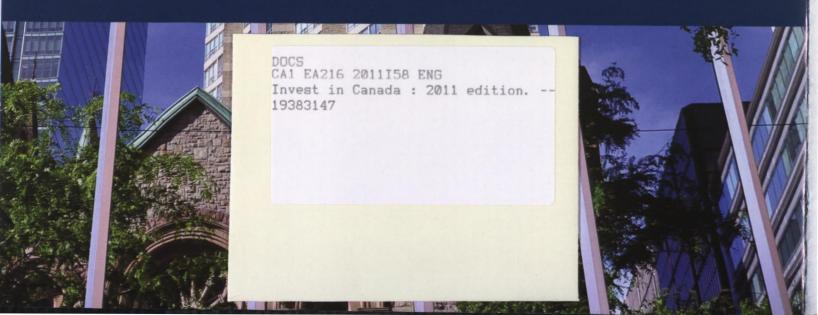
In February 2011, French bank Société Générale opened an information technology centre near its Canadian head office in Montréal. The centre, launched in partnership with CGI, is staffed by 58 developers and provides front-office software tools to traders based in the company's New York office.

In January 2011, China
Investment Corporation
opened its first overseas
representative office
in Canada. CIC chose
Toronto over other global
financial centres because of
Canada's strong economic
performance and fiscal
stability, creating many good
investment opportunities. CIC
manages over US\$332 billion
in funds.

In September 2010, Bermudabased Apex Fund Services Ltd. opened an office in Toronto as the company continues to expand its North American fund administration services and client base. In July 2010, the Industrial and Commercial Bank of China (ICBC Bank Group) began retail and corporate banking operations in Canada. ICBC (Canada) will provide a business platform for the Bank Group to expand into the Canadian market and, along with its New York branch, strengthen its North American presence.



PART 3







## **Getting Started**

Whether your company plans to establish its own operation in Canada, is looking for a Canadian partner or wants to gain a Canadian base for access to North American markets, Canada wants to do business with you – and we are in the business of making it easy.

INVEST IN CANADA partners with the provincial and territorial governments to provide you with the right support for your Canadian investment project.

Canada provides a global network of investment and trade professionals, operating in more than 150 cities worldwide, to assist you in making Canada your next investment destination. Once you have contacted our investment and trade professionals, you can count on excellent service and confidentiality. Canada's investment professionals will provide you with strategic intelligence and put you in touch with the right contacts in Canada.

Take advantage of the following services:

- strategic market intelligence about your specific sector;
- pathfinding for key government contacts engaged in supporting investment in Canada:
- referrals to investment-support professionals including lenders, lawyers, accounting firms, information specialists and industry associations;

- facilitation of site visits and assistance in identifying a strategic location;
- information and advice on how to set up a business in Canada, taxation, Canada's advantageous R&D tax credit system, regulations and financial and non-financial government programs specific to your sector; and
- assistance in developing a business case for your next investment decision.

#### Provincial and Territorial Investment Organizations:

Alberta

www.albertacanada.com

**British Columbia** 

www.trade.britishcolumbia.ca

Manitoba

www.investinmanitoba.ca

**New Brunswick** 

www.gnb.ca/0398/investment/

Newfoundland and Labrador

www.nlbusiness.ca

Northwest Territories

www.iti.gov.nt.ca

**Nova Scotia** 

www.novascotiabusiness.com

Nunavut

www.edt.gov.nu.ca

ntario

www.investinontario.com

Prince Edward Island www.investpei.com

Queher

www.investquebec.com

Saskatchewan

www.enterprisesaskatchewan.ca

rukon

www.investyukon.com

Contact the Canadian Embassy, High Commission or Consulate nearest you at: http://flagship.investincanada.com/contactus



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