

# Creative. Competitive. Canada

**INVEST IN CANADA** 

**GO FOR GOLD** 



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Canada's strong economy has achieved performance excellence thanks to its highly competitive business environment, its world-class R&D infrastructure and a talented and determined workforce. Regardless of whether conditions are favourable or adverse, Canada exerts long-term endurance and control to remain a powerful, triumphant force on the global market.

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### Creative. Competitive. Canada



#### THE BRIEF

NAMF Stockwell Day

WINS 1986-2000: Member of the Legislative Assembly, Red Deer North, Alberta

2000-present: Member of Parliament, Okanagan-Coquihalla, British Columbia

An interview with the Honourable Stockwell Day, Canada's Minister of International Trade and Minister for the Asia-Pacific Gateway

Why should foreign investors consider Canada as their top investment destination?

There are many reasons. Canada boasts multiple advantages and unparalleled potential—a place where businesses can compete on a global scale.

- We have a people advantage: Canada is a nation of highly skilled workers, ranking #1 in the OECD in higher education achievement.
- We have a business environment advantage: The Economic Intelligence Unit forecasts Canada as the #1 place to do business in the G7 for the next
- We have a tax advantage: Canada offers businesses low tax rates, boasting the lowest payroll taxes among the G7 countries.
- We have a **financial advantage**: The World Economic Forum rates Canada's banking system as the soundest in the world. No bank bailouts needed.
- We have an **economic advantage**: The International Monetary Fund concluded, in 2009, that Canada is better placed than most to weather the current global financial turbulence.
- We have the North American Free Trade Agreement advantage: NAFTA gives investors access to more than 444 million consumers in North America—a combined GDP of more than US\$16.9 trillion.
- We have the transportation advantage: Canada has a highly developed and sophisticated transportation network.
- We have the **lifestyle advantage**: World-class universities, a universally acclaimed healthcare system and clean, friendly cities make Canada a great place to invest, work, live and raise a family.
- We have a strong focus on sustainable development: Our Budget 2009 includes new measures, totaling almost \$2.4 billion, to support a cleaner and more sustainable environment. Specifically, the budget provides \$1 billion over five years for a new Green Infrastructure Fund to

support green infrastructure projects and another \$1 billion over five years for clean energy research and demonstration projects.

Simply put, Canada is an island of stability in tough economic times.

### And how will Canada weather the economic recession gripping the world?

We are not immune from what's happening in the world, but Canada is in much better shape to face this downturn.

- Economists forecast that our economy will continue to outperform other G7 economies over the next two years.
- We've just passed legislation for a massive stimulus package of almost \$30 billion, which is unprecedented in Canadian history.
- The Government is also ensuring that the complementary forms of credit provided through its Crown agencies, Export Development Canada (EDC) and the Business Development Bank of Canada (BDC), are available to counter the effects of the credit crunch.
- Most importantly, Canada has registered 11 years of budget surpluses between 1997-2007 and its debt-to-GDP ratio will remain the lowest among G7 economies.
- As the world economy recovers, other G7 countries will face longer periods of deficits and higher borrowing costs. That situation will not happen in Canada. We will emerge earlier and stronger from the global recession.

What advantages do foreign investors get by undertaking research and development in Canada? Canada is a world leader when it comes to investing in R&D:

 Our Scientific Research and Experimental Development tax incentives program is the largest single source of federal government support for industrial research and development. Based on taxes, it provides immediate relief for companies that invest in R&D.

- When added to provincial tax credits, Canada offers one of the most favourable tax treatments for R&D activities in the G7.
- Canada also invests billions of public dollars each year in cutting-edge research institutes across the country, through agencies like the Canada Foundation for Innovation.

There is a lot of buzz in Canada about the Asia-Pacific Gateway. How do the various initiatives related to this Gateway, undertaken by the Government of Canada, enhance Canada's investment objectives?

Asia is an extremely important and dynamic part of the global economy, and Canada is at the crossroads of North America and Asia.

- Governments and the private sector have invested over \$15 billion to ensure a strong, integrated transportation network that links Asia with North America.
- Canada's Pacific Gateway offers a solution to firms looking to reduce costs, by providing a fast and reliable means of shipping goods between Asia and North America.
- Shipping through Prince Rupert is a great example, reducing steaming time by 2-3 days between Asia and North America, and another 1-2 days off dwell time at the container port. Results: a 3- to 5- day time savings (over a normal 17-day trip) from China to Central North America.
- Coupled with consistent and reliable transit times from Canada's west coast to Chicago, in under 100 hours, you have a speedy and competitive alternative.
- Beyond moving goods, we can leverage our investment in transportation infrastructure to develop a Business Gateway that will serve as an entry into North America for Asian firms.
- In particular, I see opportunities for Metro Vancouver to become Asia's Business Gateway to North America in sectors such as Resource Development, Energy Development and Software Design.
- I also see the opportunity to become an international service centre for professions such as international law and accounting, logistics management, software and mining engineering, with excellent access to

the U.S. and Asia from the outstanding Vancouver International Airport.

### How is Canada leveraging the profile of the 2010 Vancouver Winter Olympic and Paralympic Games?

The 2010 Vancouver Winter Olympic and Paralympic Games will enhance Canada's image as a business and investment destination. The Games provide a unique opportunity to showcase the skills and capabilities of Canadian businesses to the rest of the world. The benefits, in terms of developing contacts, international awareness, partnering and investment, will be an enduring economic legacy of the 2010 Winter Games.

There are three main program elements of DFAIT's 2010 investment strategy:

- An Olympics visitors program for prospective investors seeking to identify high-level decisionmakers attending the Games.
- A media outreach program to reach key international broadcasters and publishers who can transmit the story of a creative, competitive Canada to the world
- And we have the "2010 Reasons to Do Business in Canada" marketing campaign, aimed at strengthening Canada's image as a modern and innovative trade and investment partner. This will include hosting signature events in key commercial markets through our network of Missions abroad.

### What services can foreign investors expect from the Canadian government?

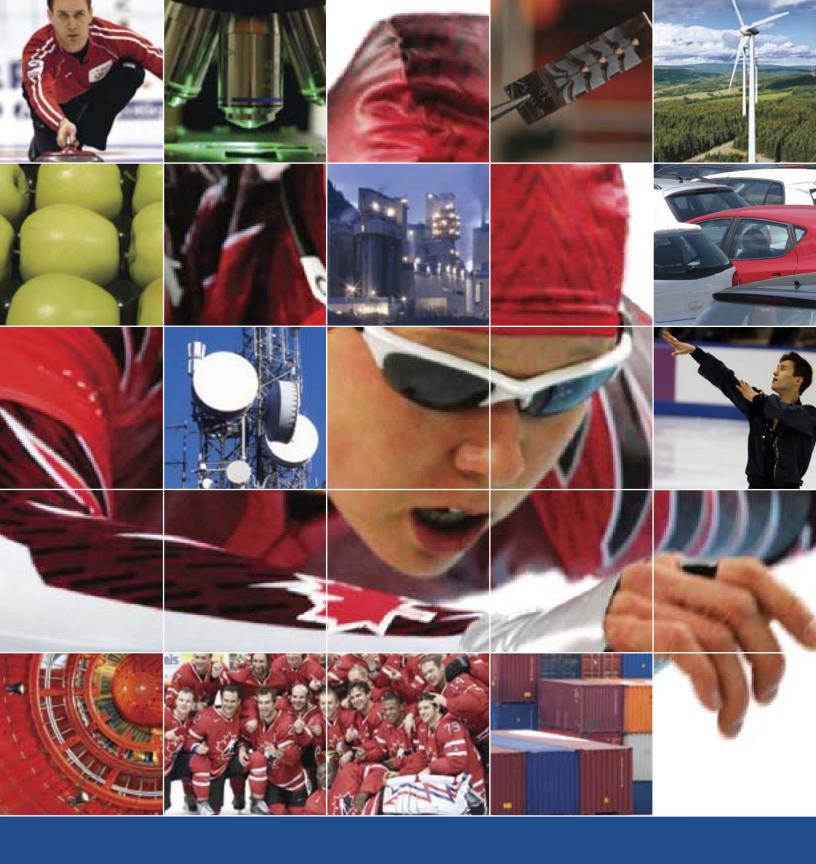
Canada has a global network of trade and investment professionals in more than 150 cities worldwide. They can help investors get the conversation started with a creative, competitive Canada. They help companies make their investment decisions, by providing everything from strategic market intelligence to organizing site selection visits.

### Any final advice to companies that are looking to invest globally?

I would ask companies to really do their homework. Read this report. My department's officials have some really great analysis of Canada's competitive advantages for foreign investors. All of this analysis shows that Canada is one of the most competitive investment destinations in the world, in a variety of sectors. Canada should definitely be at the top of their investment short list.

"Canada has a global network of trade and investment professionals in more than 150 cities worldwide. They can help investors get the conversation started with a creative, competitive Canada."

> The Honourable Stockwell Dav. Minister of International Trade and Minister for the Asia-Pacific Gateway



STRENGTH = COMPETITIVE = EXCELLENCE = FLEXIBILITY





## STRENGTH

Canada Wins Gold for Economic Growth Performance—Again



### THE BRIEF

**ATHLETE** Jeremy Wotherspoon

**SPORT** 

Long-track speed

skating

WINS

69 World Cup Wins

Silver 1998, Nagano Games, 500 metres

### CANADA'S ECONOMY STANDS STRONG

For foreign investors seeking shelter in a turbulent global economy, Canada offers stability and growth prospects that no other G7 nation can match.

With its strong, stable and dynamic economy, Canada is the ideal place to do business. From aerospace to software to life sciences, many of the world's most innovative and successful companies are already here. Join them by making Canada your next investment destination.

To help firms like yours flourish, Canada offers a competitive tax regime and generous researchand-development (R&D) incentives. Its well-educated, talented and diverse workforce is another draw. Canada also delivers unparalleled access to the North American marketplace—along with high living standards and a safe business environment.

### The IMF ranks Canada as the top performer among the G7 countries for forecasted GDP growth during the 2009-2010 period . . .



### REAL GDP GROWTH PROJECTIONS FOR 2009-2010 BY THE IMF (PERCENT)

Source: IMF. World Economic Outlook. April 2009.

### ... Confirming these growth forecasts are the world's top private-sector economists, who also predict that Canada will outperform other G7 countries over the 2009-2010 period . . .



REAL GDP GROWTH PROJECTIONS BY THE WORLD'S LEADING PRIVATE-SECTOR ECONOMISTS (PERCENT)

Source: Consensus Forecast, Consensus Economics Inc. March 2009.

nderpinning these advantages are sound economic fundamentals. The world's eleventh largest consumer market, Canada sports a \$1.6-trillion Gross Domestic Product (GDP) thanks to the second-longest economic expansion in its history. Over the past 10 years, it has taken first place among the G7 countries in GDP growth and employment growth.

Even in these uncertain times, the future looks promising. According to the Economist Intelligence Unit (EIU), Canada will lead the G7 in real economic growth from 2009 to 2013. The EIU also ranks Canada as the best place in the G7 to invest and do business during the next five years.

The most recent growth projections by some of the world's leading economic institutions show that Canada is an island of strength in a sea of global uncertainty. In its April 2009 *World Economic Outlook*, the International Monetary Fund (IMF) forecasts the Canadian economy will contract by -2.5 percent in 2009 (the slowest rate of contraction among G7 economies) and in 2010, Canada's economy will expand by +1.2 percent (the fastest rate of recovery in the G7).

These growth forecasts are confirmed by the world's leading private-sector economists. According to Consensus Economics, Canada's economy will contract by 1.8 percent in 2009—less than any other G7 country's. Also, it will rebound much faster than

any other G7 economy, registering 2.3-percent growth in 2010. (See inset above.)

In short, whichever forecast you take, the Canadian economy will perform better than its G7 peers in the foreseeable future.

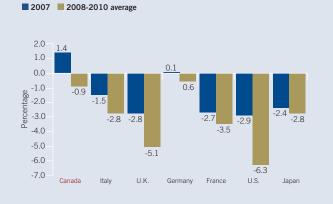
### SOUND AND FLEXIBLE FISCAL POLICIES— AND AN ECONOMIC ACTION PLAN THAT GOES THE DISTANCE

Canada is better prepared than most countries to withstand the global economic downturn. The 2009 federal budget builds on this enviable position to ensure that Canada emerges from the economic crisis even stronger.

For more than a decade, Canada has taken aggressive steps to put its financial house in order. While most other industrialized countries were racking up deficits, up to 2007 Canada posted 11 budget surpluses and slashed its debt. In the mid-1990s, Canada's total net debt-to-GDP ratio was the second-highest in the G7. Today, it is the lowest.

A testament to prudent fiscal policies at all levels of government, this shift from deficits to surpluses was also accompanied by sustained current account surpluses. As a result, Canada is far less vulnerable than the United States, where current account deficits and net foreign debt are ballooning.





TOTAL GOVERNMENT BUDGET BALANCE IN THE G7, 2007-2010 (PERCENT OF GDP, NATIONAL ACCOUNTS BASIS)

Source: OECD Economic Outlook, Number 84. December 2008.

Likewise, Canadian inflation is low and stable. The EIU projects an annual 2.1-percent increase over the next five years—well within Canada's own inflationcontrol target of between 1 and 3 percent. Foreign investors can also take comfort in the fact that Canada has enjoyed an AAA international credit rating since 2002.

Like other open economies, Canada is not immune to downward pressure from the ongoing market turmoil. But because it did the right things to shore up its public finances, it now has the strength and flexibility to fight back with a timely fiscal stimulus. Even better, Canada can do so without jeopardizing its budget and inflation targets.

### A ROBUST FINANCIAL AND CORPORATE SECTOR

Canada's banking system is the soundest in the world. Already strong in the balance sheet, Canadian corporations are reaping the rewards of this financial stability.

The global economic crisis may be deepening, but Canadian financial institutions remain resilient. According to the World Economic Forum's 2008-2009 Global Competitiveness Report, Canada has the soundest banking system anywhere. Foreign investors should note that with an average asset-to-capital multiple of just 18, Canadian banks are much less leveraged than U.S. investment banks (which have an

asset-to-capital multiple of 25), European banks (30) and major global banks (40).

As their international counterparts scramble to reduce leverage, Canadian banks can modestly increase lending. No wonder countries hardest-hit by the crisis—from the United States to Ireland—are looking to Canada for guidance as they rebuild their troubled financial systems.

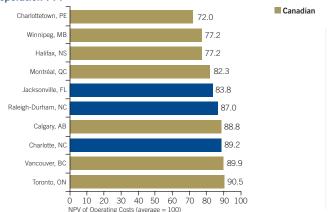
Canadian banks can also borrow at lower rates than many foreign institutions can. As well, the Bank of Canada has eased its overnight rate substantially since the onset of the crisis. All of this financial flexibility gives the Canadian economy a competitive edge. While the U.S. and several European countries have clawed back credit for business investments, businesses in Canada are not facing unusual credit restrictions.

Like Canadian banks, Canada's corporate sector is ready for the economic challenges that lie ahead. Canadian corporate profit margins (the ratio of operating profits divided by operating revenues) remain high by historical standards. Strong levels of profitability have allowed Canadian firms to strengthen their balance sheets, resulting in all-time low debtto-equity ratios. Going forward, foreign and domestic companies established in Canada can expect to benefit from the lower Canadian dollar, which will create more demand for Canadian-made goods and services.

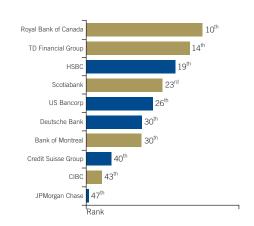
"Canada is better placed than many countries to weather the global financial turbulence and worldwide recession. Its resilience can be attributed to three factors: First, a track record of sound macroeconomic policy management has left the country in prime form at the beginning of the global turmoil ... Second, the authorities responded proactively to the crisis ...Third. the focus on financial stability."

> Charles Kramer, Division Chief. Western Hemisphere Department, International Monetary Fund.

Canadian cities rank well ahead of other North American cities when it comes to the costs of operating a transaction processing and custodial services operation . .



. . and Canada's five biggest banks are ranked among the safest in the world by Global Finance magazine.



INDEX\* OF NET PRESENT VALUE OF OPERATING COSTS OF A REPRESENTATIVE TRANSACTION PROCESSING AND CUSTODIAL **SERVICES OPERATION IN NORTH AMERICA** 

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of operating costs of a representative project in the transaction processing and custodial services sector, and is benchmarked to the global industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

RANK OF CANADIAN BANKS IN GLOBAL FINANCE MAGAZINE'S "WORLD'S 50 SAFEST BANKS 2009"

Source: Global Finance magazine. February 2009.

Non-Canadian

### A Contender in Global Finance

Canada stands out as a destination for international financial firms with expansion plans.

Firms such as New York-based Goldman, Sachs & Co., London's HSBC Group and Amsterdam-based ING Group have set up shop in Canada because its financial services industry ranks among the most sophisticated on the planet. One of the biggest contributors to the Canadian economy, the financial sector employs some 750,000 people. In 2007, it accounted for \$78 billion or more than 6 percent of national GDP.

This success story rests on a rock-solid foundation: The Canadian banking system is rated as the world's soundest by the World Economic Forum. Whether measured by market value, balance-sheet strength or profitability, Canada's financial institutions are rising to the top. In fact, since the credit crunch began in the summer of 2007, Canada's five biggest banks have booked a total of \$18.9 billion in profits. By comparison, the five biggest U.S. banks have lost more than US\$37 billion during the same period.

At the heart of Canada's financial system are the fundamental prudence of its financial institutions and a watertight regulatory system. From lending practices to mergers and acquisitions to derivatives trading, Canada's financial institutions have always been more careful than their global peers. As a result, Canada's banks today are stable, diversified and well-funded. They, and other financial institutions, also benefit from a national regulatory oversight and reporting framework that is second to none.

In its World Competitiveness Yearbook 2008, the International Institute for Management Development (IMD) ranked Canada #3 in the G7 (after the United States and the United Kingdom) and #9 in the world for financial efficiency. Look for this ranking to change drastically in 2009, given the lessons of the global credit crisis and the example that Canada sets for the world.

Canada's strong financial services sector consists of well-trained financial professionals. Toronto, Canada's finance and business capital, is North America's third-largest financial centre. In Toronto, where



\$55 million. Illinois, U.S.-based State Farm Insurance invested more than \$55 million in a new facility in the Greater Toronto Area.

250 jobs. Merrill Lynch & Co. of New York created 250 jobs by opening a Toronto research and innovation centre.

200 jobs. U.K.-based Invesco brought 200 jobs to Charlottetown, Prince Edward Island, when it opened an enterprise

205,000 people work in the financial sector, the clustering of services has drawn knowledge workers and a multilingual labour force.

Toronto and other Canadian centres are also frontrunners in a recent study by IBM-Plant Location International. This study found that Canadian cities represented seven of the 10 North American locations with the lowest business operating costs for transaction processing and custodial services projects, with operating costs between 10 and 28 percent below the North American industry average. (See inset above, previous page.)

### CANADA'S FINANCIAL SECTOR WELCOMES **EFG INTERNATIONAL**

When Swiss wealth-management firm EFG International launched a Canadian subsidiary in 2007, it knew it had found a rich opportunity. EFG International is a member of Geneva-based EFG Group, Switzerland's third-largest bank by Tier 1 capital. A worldwide success with US\$67 billion in assets at the end of 2008, it specializes in private banking and asset management for wealthy individuals and families. At EFG, each client develops a close and long-lasting relationship with a single Customer Relationship Officer or CRO. "Before we arrived, this level of private-banking service was not really available

in Canada," says EFG Wealth Management Canada Chairman Steve Mackey.

Under the distinctive EFG model, CROs have considerable autonomy. Understanding and representing the client's best interests is paramount. For example, CROs are under no obligation to sell in-house products and services. Because each CRO essentially runs his or her own business, Mackey explains, EFG's expansion plans depend on recruiting exceptional talent. He says Canada is home to a growing number of financial professionals with the skills, knowledge and experience to become CROs. "The catalyst that precipitated the decision to open in Canada was the availability of the right people."

With offices in Montréal, Toronto, St. Catharines and Vancouver, EFG Canada also plans to open Ottawa and Alberta locations. It has set up a Canadian mutual-fund operation, and in 2009 it expects to establish a federally chartered deposit-taking trust company. At this rapid pace, EFG Canada could triple in size within a few years.

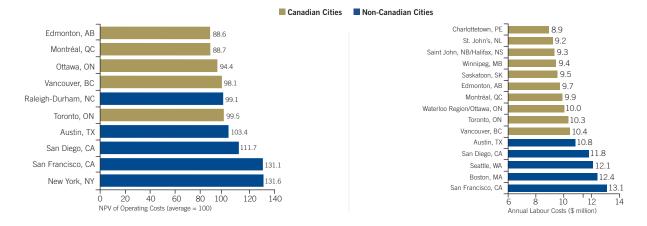
"The demand for our services is clearly there, and Canada's financial sector has matured enough to produce people with the calibre of skills needed to fill the CRO role," Mackey says. "I'm confident that EFG Canada will continue to grow, despite the current challenging economic environment."

"I think Canada has shown itself to be a pretty good manager of the financial system in the economy in ways that we haven't always been here in the United States."

> Barack Obama, President of the United States of America

Canadian cities have low operating costs for developing software . . .

. . . and low labour costs for skilled software developers.



### INDEX\* OF NET PRESENT VALUE OF OPERATING COSTS OF A REPRESENTATIVE SOFTWARE PROJECT

Source: IBM-Plant Location International 2009.

\* This index measures the projected operating cash flow of a typical project in the software sector. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyxes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

ESTIMATED ANNUAL LABOUR COSTS OF A 150 FULL-TIME EQUIVALENTS SOFTWARE DEVELOPMENT CENTRE, IN NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

## Canada's Software Sector Stays Ahead of the Pack

Backed by superb technology infrastructure, ample R&D spending and competitive operating costs, foreign companies developing applications in Canada are servicing global clients.

The software industry is a cornerstone of Canada's Information and Communications Technology (ICT) sector. In 2007, Canada's software industry generated over \$32.2 billion in revenues, and employed over 262,000 people in software publishing, computer systems design and related services. According to Software Magazine's *The Software* 500 ranking, twenty of the top 500 global software companies originate in Canada—the second-highest number after the United States.

Whether it's business intelligence, supply chain management (SCM) or customer relationship management (CRM), 57 percent of Canada's software firms focus on enterprise application software (EAS). The Canadian software industry generates revenues from licences, subscriptions and software sales. Canadian software developers are equally adept in

fields such as Web solutions, e-security and green IT.

In EAS, Canadian innovation has produced global leaders such as business intelligence pioneer Cognos (now part of IBM) and enterprise content management (ECM) powerhouse Open Text Corp. Other homegrown EAS names include Brainhunter (human resource management), Constellation Software (public- and private-sector applications), Descartes Systems Group (SCM), Enghouse Systems (enterprise systems) and Matrikon (SCM).

This creative ferment also continues to drive Canadian investment by topflight international EAS firms like IBM, Microsoft, Oracle and SAP. With their help, Canada has developed strengths in software-as-a-service (SaaS) and collaborative applications. Notable



200 jobs. Microsoft Corporation of Washington opened a new greenfield facility in British Columbia, with 200 new jobs created in 2007.

130 jobs. Sage Software Inc. of California created 130 new jobs in Ontario with its 2007 greenfield investment.

750 jobs. SAP AG of Germany opened a new greenfield facility in Quebec with 750 new jobs created in 2007.

325 jobs. Citco Group announced, in 2008, a large IT investment in Nova Scotia for 325 new jobs in application development to support the financial industry

150 jobs. California-based Paragon Global Resources Inc. expanded its operations in Nova Scotia by 150 jobs in 2007

investments include the IBM Toronto Software Lab, whose 2,000-plus developers make it the U.S. giant's third-largest such facility; Microsoft's development centre in Richmond, British Columbia; and CRM vendor Sage Software's global R&D facility in the same city.

In the Web solutions space, 3,200 Canadian firms are active across all market segments. Most of these companies are small and medium-sized, but many of them operate at the cutting edge of emerging technologies.

Canada excels at tackling technology security, from antivirus software and cryptography to mobile authentication and intrusion detection. Besides breeding world-leading e-security developers like Certicom, Radialpoint and Third Brigade, Canada hosts global heavyweights such as CA, Cisco Systems, McAfee and Symantec.

As Canadian firms can attest, green IT is another growth area. To capitalize on explosive worldwide demand, one goal of Canada's long-term economic strategy is to make the country a leader in clean technology. This effort is already underway in the software sector in Canada. Canadian companies and universities, including Research in Motion (RIM), McGill University and the University of Toronto, are part of a \$50-million research consortium for the Next Generation Internet, an initiative to reduce global warming. IBM and the University of Toronto's SciNet Consortium are building Canada's most powerful and energy-efficient supercomputer.

Across Canada, software research consortia and industry clusters spur business growth by encouraging collaboration and inspiring innovation. Partnerships that bring together government, universities and industry flourish in urban centres throughout the country. Montréal, Ottawa, Toronto, Vancouver and Waterloo are hotbeds of software development. In particular, Ottawa has a strong concentration of EAS firms and resources that makes it an appealing investment location.

Another Canadian advantage for domestic and international software developers is the unbeatable combination of low costs and high quality of life. Canada's major cities consistently win top marks in living environment surveys by Mercer, the EIU and others. And in a recent IBM-Plant Location International study of operating costs for large-scale enterprise software operations, Canadian cities were some of the most cost-competitive locations in North America. (See inset above, previous page.)

### Microsoft Finds Perfect N

#### THE BRIEF

NAME Phil Sorgen

**COMPANY** Microsoft Corporation

WINS Brought Microsoft's first software development centre to Canada in Richmond B.C.



In 2008, the world's leading software, services and Internet-technologies company chose Metro Vancouver as the site for its newest development centre. Microsoft Corp. considers the British Columbia city an ideal match for the company's progressive strategy of establishing such centres around the world.

### **Natch** in Metro Vancouver

"Success in the modern era increasingly depends on what's known as distributed development," says Phil Sorgen, President of Microsoft Canada. Global companies such as ours must create the conditions needed for innovation to emanate from points around the world. This is part of the rationale behind the decision to set up a development centre in suburban Vancouver."

The new facility lies in Richmond, part of Metro Vancouver, one of the most ethnically diverse regions on the planet. Vancouver is a major North American gateway to Asia, and its 2.2 million residents include immigrants from dozens of countries.

At the centre, 300-plus staff work on about half of Microsoft's many offerings, including well-known software applications such as Windows, Microsoft Office and Windows Mobile, along with new business areas such as Zune Media Player and Xbox 360. And while Microsoft maintains major development centres in more than 10 countries, including India, China, Denmark, Ireland and the U.S., the Vancouver office is its most ethnically diverse. Many of the centre's employees emigrated from Asia, South America and Europe. Every working day, more than 15 languages can be heard in the office—the common one being English.

### Diversity: a valuable corporate asset

Mr. Sorgen believes that this diversity benefits Microsoft Canada in two principal ways: by accelerating the development of products and services that appeal to markets around the world, and by fostering innovation.

A staff comprised of people from different countries is a tremendous asset for our development centre," he says. Products that reflect the cultural characteristics of a particular market are more likely to sell well in that market. And bringing together such a diversity of world views generates opportunities and inspires fresh ways to interpret and solve global challenges."

When Microsoft began to scout locations for a new development centre staffed with experts from around the world, Vancouver's unique attributes made it an obvious choice. The city's many ethnic communities help immigrant employees feel at home, while a temperate climate, a thriving arts scene and a

wonderful quality of life facilitate recruitment. Vancouver also boasts excellent public healthcare, education and transportation systems. A short drive south leads to Microsoft headquarters in Redmond, Washington; a short drive north leads to Whistler Blackcomb, one of the world's top ski destinations. Thanks to this unusual combination of qualities, independent studies regularly rank Vancouver among the best cities in the world.

### Canadian immigration policy brings out the best

According to Mr. Sorgen, Canada's commitment to attracting skilled workers to this country also played a role in Microsoft's decision.

Canada recognizes that having a more skilled workforce, made up of people from Canada and from abroad, helps to develop the national economy," he says. Microsoft and Canada also recognize the value that a globally diverse talent pool can spawn; new and innovative ideas and approaches are naturally going to emerge. There's no doubt that recruiting highly skilled developers from around the world builds Canada's workforce and keeps us competitive as a nation, and allows Microsoft to stay at the cutting edge of new ideas."

Microsoft established a Canadian subsidiary in 1985 and maintains offices in Vancouver, Toronto and eight regional centres across the country. Microsoft Canada's approximately 1,000 workers provide national sales, marketing, consulting and support services in both French and English. The new facility may be the company's first development centre in this country, but Phil Sorgen hopes it will not be the last.

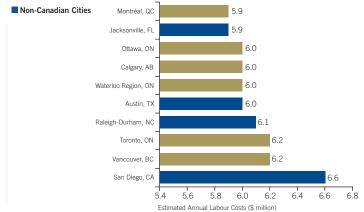
Microsoft considers Canada to be a relatively large and untapped pool of exceptional talent," he says. A great deal of cutting-edge research goes on in Canadian universities and within Canadian industry. It's no wonder that global technology companies such as Microsoft are keen to expand in this country."

"A great deal of cutting-edge research goes on in Canadian universities and within Canadian industry. It's no wonder that global technology companies such as Microsoft are keen to expand in this country."

> Phil Sorgen, President of Microsoft Canada



. . . and have some of the lowest labour costs for employees such as assemblers, technicians and engineers, when compared with other cities in North America.



INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE WIRELESS EQUIPMENT MANUFACTURING OPERATION IN NORTH AMERICA

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of project cash flows of a representative project in the vireless equipment manufacturing sector, and is benchmarked to the global industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

ESTIMATED ANNUAL LABOUR COSTS OF A 105 FULL-TIME EMPLOYEE WIRELESS TELECOMMUNICATIONS EQUIPMENT MANUFACTURING FACILITY, IN NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

## Canada is a World Leader in Wireless Technology

From BlackBerry to WiMAX, the Canadian wireless sector's drive to innovate captures the imagination of global telecommunications firms.

Canada's ICT is one of its most innovative sectors, representing almost 40 percent of the country's 2006 private investment in research and development. Telecommunications firms—both wired and wireless—dominate R&D in Canadian ICT. And in its wireless space, Canada offers many cost-competitive locations that yield greater profit potential than do foreign jurisdictions.

Several multinational telecom companies have significant R&D investments in Canada. For example, manufacturer Ericsson chose Montréal as the site of its largest Centre of Excellence outside its home base of Sweden. Alcatel-Lucent, Motorola, Nokia and Siemens have all established Canadian R&D operations.

The Canadian government encourages telecom R&D through generous tax credits that help drive innovation. It also supports its own research arms, such as Communications Research Centre Canada, the National Institute for Information Technology and the National Institute for Nanotechnology.

Canada's communications R&D consortia include TRLabs and the Telecom Application Research Alliance (TARA); academic centres like the Emerging Communications Technology Institute at the University of Toronto; and several university-based nanotechnology centres. The latter have done groundbreaking work in the application of quantum computing to cryptography, document securitization and data security.



60 jobs. Ericsson of Sweden more than doubled its research and development operations in British Columbia, by adding 60 jobs in 2008.

\$20 million. The venture-capital arm of South Korea's Samsung invested \$20 million in Canada-based SiGe Semiconductor in 2007. SiGe Semiconductor designs and delivers radio frequency (RF) solutions for next-generation wireless applications, including voice, data and video. Samsung's investment funded expansion of SiGe's product lines supporting the Wi-Fi, WiMAX and GPS markets.

#### CANADIAN FIRMS RULE THE WIRELESS SPACE

Canada's wireless companies excel in all market segments. In cellular equipment, industry leaders include Nortel Networks, Radian Communications and Sinclair Technologies.

In mobile devices and customer-premises equipment (CPE), Canadian companies have developed cuttingedge, end-to-end solutions for e-mail and data communications. The most visible result is Research in Motion's BlackBerry smartphone. In the fourth quarter of 2008, RIM commanded almost 20 percent of the worldwide smartphone market—an 85-percent year-over-year increase.

Thanks to WiMAX innovations by Canadian firms such as BelAir Networks, Bridgewater Systems, Dragonwave, Redline Communications, Vecima Networks and Wavesat, the world is growing more connected. In 2008, Wavesat won Frost & Sullivan's Technology Excellence Award for research on its Orthogonal Frequency Division Multiplexing chip set. In addition, Redline Communications became one of the first companies to have a complete WiMAX product line certified by the influential WiMAX Forum.

Canada is also active in software-defined radio (SDR) solutions. The country is home to the world-renowned SCARI Software Suite, an integrated development environment for SDR technology. Well-established in

the military sector as the radio technology of the future, SDR can accommodate any communications protocol or frequency band. SCARI software enables manufacturers to leverage SDR for just about any industry or product. The 2007 suite has already been adopted by major radio manufacturers and commercial platform providers, including ISR Technologies, Lyrtech, Pentek and Spectrum Signal Processing.

From Vancouver to Montréal, clusters of creativity keep the Canadian wireless industry at the forefront. One of the most remarkable is the Waterloo region, known as Canada's Technology Triangle. Much of Waterloo's reputation rests on its exceptional educational institutions, which include facilities such as the Communitech Research Accelerator and the University of Waterloo Research and Technology Park. In addition to its nanotechnology research centre and engineering program, the University of Waterloo hosts the Institute for Quantum Computing. These strengths have enticed leading firms, including RIM and Sirific Wireless to invest in this region.

Foreign investors can enjoy the benefits of this brainpower, while turning a healthy profit. Along with five other Canadian centres, the Waterloo region beat comparable U.S. wireless industry locations in a recent profitability study by IBM-Plant Location International. (See inset above, previous page.)

### Canadian Facilities Drive N

#### THE BRIEF

NAME Brad Lowe

COMPANY Nokia Oyj

WINS Heads Nokia's R&D Facility, Burnaby, B.C., which is at the centre of the cell phone company's global strategy



Nokia, a company with a remarkable knack for reinventing itself, is once again in mid-evolution. The company that has manufactured and sold more than a billion cellular telephones is now determined to become the world's leading Internet-services company. To realize this vision, the company continues to expand its Canadian operations.

### Nokia's Wireless Revolution

#### Canada and Nokia's wireless revolution

Given this success, it comes as no surprise that Nokia conducts a great deal of its research and development in Canada. In fact, the company spends more on services R&D in Canada than in any other country aside from Finland and the United States.

"Nokia and Canada go back a long way," says Brad Lowe, Director of Research and Development at Nokia's facility in Burnaby, a suburb of Vancouver. "Canada is where the company opened its first sales office outside Finland, back when we manufactured boots and safety equipment."

The company established the subsidiary Nokia Canada in the 1970s; in 1995, Nokia and the University of Sherbrooke (Quebec) partnered to develop the EFR Voice Codec, a major advancement in sound quality for mobile telephones.

"Canada has a long history of innovation in communications," Mr. Lowe says. "Part of the reason for this is probably the nature of the country itself given its huge landmass and widely dispersed population. Canada needs reliable, efficient ways to communicate. From Nortel and Anik satellites, to R esearch in Motion's BlackBerry and Flickr, this country is an important developer of new technologies."

In addition to OZ, a recent acquisition in Montréal, Nokia currently maintains facilities in Ottawa, Toronto and Burnaby. The Burnaby office focuses on the development of the next generation of wireless devices and services. Many of the staff members once worked for Vienna Systems, an Internet Protocol company Nokia acquired in 1998.

### Vancouver's flourishing IT sector

"The work done here in Burnaby is critical to Nokia's ability to evolve successfully into an Internet-services company," continues Mr. Lowe.

Burnaby is a natural choice for Nokia, for several reasons.

"This region has a large pool of exceptionally talented people," says Mr. Lowe. "Electronic Arts, one of the world's largest gaming studios, is just one of many companies located here. Several top-quality universities and colleges, from University of British Columbia and University of Victoria to Simon Fraser University, are keen to partner with us on developing the next generation of programmers and engineers."

Vancouver's international reputation as a safe, comfortable and cosmopolitan city also helps to fuel growth in the IT sector. The region's high quality of life, along with Canada's welcoming immigration policies, makes it easier for companies such as Nokia to recruit and retain talented workers from abroad. Canada's R&D tax credits and other public incentives make the region even more attractive.

"There's no doubt that the Lower Mainland of British Columbia is home to a great deal of increasingly sophisticated research," Mr. Lowe underscores. "Nokia is proud to be a part of it and the Burnaby office will help us usher in a new era in mobile communications."

### Nokia's remarkable evolution

Nokia was born in the 1800s as a series of pulp mills in southern Finland. The company later moved into the chemical and rubber industries, and by the 1970s Nokia manufactured boots and safety equipment for markets around the world. At that time, the company began to recognize the potential of an emerging technology: mobile communications. In 1981, Nokia helped found the world's first international cellular network—Scandinavia's Nordic Mobile Telephone service. The company soon began to focus almost exclusively on telecommunications and became the world's largest manufacturer of mobile telephones in 1998. By the time Nokia had sold its billionth cell phone in 2005, the company's evolution into Internet services was already well underway.

As the world leader in mobility, Nokia continues to drive the convergence of Internet and wireless communications. The company makes a wide range of mobile devices, along with the services and software that enable people to access everything from e-mail and music to games and business applications.

"The market for sophisticated mobile devices will only continue to grow," Mr. Lowe remarks. "Consumers continue to demand increased functionality from their wireless devices. The phrase 'cell phone' is pretty much outdated today, because people now rely on mobile devices for so much more than telephony. Today, people use these devices to work, listen to music, access the Internet, send and receive e-mail, play games, take pictures...the list will just continue to grow."

"Nokia and Canada go back a long way. Canada is where the company opened its first sales office outside Finland. back when we manufactured boots and safety equipment."

> Brad Lowe. Director of Research and Development, Nokia R&D Facility, Burnaby, Canada





## COMPETITIVE

**Business Environment, Bar None** 

**Canada's Welcoming Investment Climate Helps Your Firm Compete Globally** 



### CANADA IS OPEN FOR BUSINESS

By any measure—competitive business costs, low corporate taxes and lack of red tape—Canada makes it easy for foreign companies to invest and compete at the global level.

In today's highly competitive global economy, multinational companies need powerful incentives for choosing one jurisdiction over another. With the goal of boosting foreign direct investment (FDI), Canada has created one of the world's most hospitable business environments. Low operating costs are just the beginning. Canada also earns top marks for removing bureaucratic barriers to FDI—and for adapting government policy to changing economic circumstances.

To show its flexibility, Canada has introduced improvements to the tax regime that will make it the country of choice for international business investment. These tax reductions are part of a far-reaching Economic Action Plan designed to create an investment climate for foreign investors that is stronger than ever.

Looking ahead, Canada ranks fifth in the world and first among G7 countries for its business environment, as measured by the Economist Intelligence Unit . . .



... and in 2008, it offered the G7's lowest business costs for the seventh consecutive time according to KPMG's Competitive Alternatives (2008) study. . .



### PROJECTED QUALITY OF BUSINESS ENVIRONMENT OF TOP TEN COUNTRIES IN THE WORLD, 2009-2013

Source: The Economist Intelligence Unit. February 2009.

#### **OVERALL BUSINESS COSTS IN THE G7, 2008**

Source: KPMG. Competitive Alternatives 2008.

s a key player in the global economy, Canada recognizes that FDI is crucial to its future growth. And, like never before, foreign investors are making the country a top destination. In 2008, FDI holdings in Canada reached \$504.9 billion—up 2.8 percent from the previous year. Despite the explosion of FDI in Asia, international companies in search of a secure home for their money still find Canada one of the safest havens.

It's easy to see why foreign investors are so bullish on Canada. According to the 2008 IMD *World*Competitiveness Yearbook, it leads all G7 countries in ease of doing business. In a KPMG study from the same year, Canada was the lowest-cost G7 country for 11 of 17 industries analyzed: aerospace, agri-food, biotechnology, chemicals, medical devices, pharmaceuticals, precision manufacturing, product testing, software design, telecommunications, and Web and multimedia. And in the World Bank's estimation, it takes first place among G7 and OECD countries for the lowest number of procedures required to open a new business.

It also helps that the Canadian economy is so open. The World Economic Forum recently ranked Canada first in the G7 for overall market access through low, non-tariff barriers and the high number of duty-free imports allowed into the country. In 2008, IMD put Canada first in the G7 for the openness of its business

legislation with respect to international transactions with foreign partners. Those partners will find that Canada is flexible, too. Among G7 nations, it is the best at tailoring government policies to changes in the economy—and ensuring that such policies are effectively implemented.

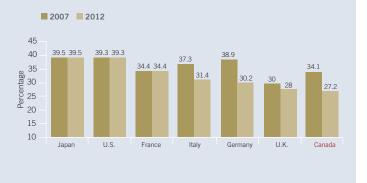
#### A NEW ERA OF TAXATION

Canada's future prosperity rests on its openness to trade and investment, especially during tough economic times. The nation's investment-friendly business environment includes a competitive tax system that encourages new FDI.

Introduced with the 2009 budget, Canada's Economic Action Plan will stimulate the economy in a timely fashion and in ways that are sustainable over the long term. This could turn the worldwide slowdown into a major opportunity for foreign investors in Canada.

Under the plan, Canada is moving ahead with a host of corporate tax reductions that will further strengthen its investment climate. In doing so, it builds on a solid foundation. Canada already has the lowest effective corporate income tax rate in the G7 for manufacturing operations, and the second-lowest for non-manufacturing operations. As well, it has the lowest G7 tax costs for businesses, with advantages

#### . By 2010, Canada will have the lowest overall tax rate on new business investment in the G7. And by 2012, it will offer the G7's lowest statutory tax rate.



STATUTORY GENERAL CORPORATE INCOME TAX RATES IN **G7 COUNTRIES, 2007 AND 2012** 

Source: Finance Canada. Budget 2009.

when it comes to income tax, capital tax, sales tax, property tax, local business taxes and statutory labour costs.

The 2009 federal budget goes much further. Among the G7, Canada will have the lowest overall tax rate on new business investments (marginal effective tax rate or METR) by 2010 and the lowest statutory tax rate by 2012. When 2012 arrives, the result will be a 9.1-percent METR advantage over the U.S.

As for the general federal corporate income tax rate, it will fall to 19 percent in 2009 and to 15 percent by 2012. The budget also renews Canada's commitment to its Scientific Research and Experimental Development (SR&ED) initiative, one of the world's richest tax-credit programs in support of research and development (R&D).

#### STIMULATING FOREIGN BUSINESS INVESTMENT

Foreign investors will benefit from Canada's comprehensive plan to tackle the economic downturn and better position companies for recovery.

To guard against immediate threats while investing in long-term growth and prosperity, the budget includes an almost \$30-billion economic stimulus package for 2009 alone. Besides reducing corporate income tax, the measures outlined in the budget will accelerate

infrastructure spending, remove restrictions for credit to qualified businesses, strengthen training programs for skilled workers and encourage FDI through changes to Canadian investment policy and legislation.

The spending initiatives announced in the 2009 budget include establishing a two-year \$4-billion Infrastructure Stimulus Fund, and a \$1-billion (over five years) Green Infrastructure Fund to support projects in sustainable energy and dedicating up to \$2 billion to retrofit and expand facilities at Canadian post-secondary institutions.

The 2009 budget also delivers significant financial support aimed at the recovery of specific Canadian industries. It earmarks \$7.5 billion for foreign and domestic companies in the manufacturing, clean energy, agri-food, forestry, fishing and financial services sectors.

Given the dire consequences of the downturn for Canadian-based automotive manufacturers, the Canadian government will-in conjunction with stakeholders-financially support adjustments to Canada's auto sector.

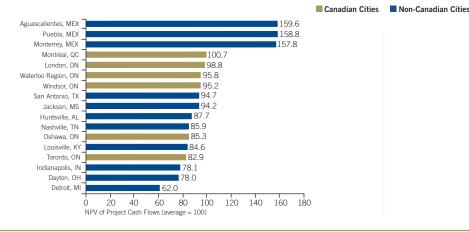
Among other measures, Canada will permanently eliminate tariffs on a range of machinery and equipment. During the next five years, this move will provide more than \$440 million in savings to companies operating in Canada, and modernize operations for firms in a variety of sectors, such as forestry, energy and food processing.

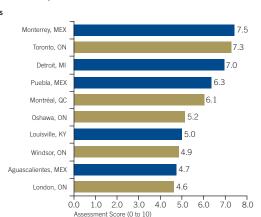
"Trade and budget surpluses, tax relief from the current administration and conservative lending practices of its banks have left the U.S.' northern neighbor in an enviable position amid global tumult."

> Forbes magazine, placing Canada third on its Best Countries for Business 2009 ranking.

Canadian automotive hubs are among the most cost-competitive in North America . . .

... and surpass many U.S. and Mexican locations for their local potential to recruit experienced staff.





INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE AUTOMOTIVE COMPONENTS MANUFACTURING OPERATION IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of cash flows of a representative automotive components producer and assembler, and is benchmarked to the industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

### LOCAL POTENTIAL FOR RECRUITING AUTOMOTIVE STAFF: HIGHEST-RANKING NORTH AMERICAN CITIES\*

Source: IBM-Plant Location International 2009.

\* Based on the size of the overall labour pool, the manufacturing worker pool, the number of employees with motor vehicle manufacturing-related experience, the size of the student population and the tightness of the labour market.

## Canada's Automotive Sector: An Engine of Economic Growth

The world's third-largest exporter of automotive products, Canada leads the industry in quality and productivity.

The automotive industry is Canada's biggest manufacturing sector, accounting for 16.7 percent of North American vehicle production. As the third-largest exporter of auto products, after Japan and the United States, Canada ships out more than 84 percent of the cars it builds. Most of those vehicles go to the U.S. In 2007, revenues for the Canadian auto industry were \$96.7 billion, while export revenues reached \$70.5 billion.

Canada's auto sector employs almost 153,000 Canadians in manufacturing at 1,300 facilities, and more than 340,000 in distribution and aftermarket. During the past decade, annual capital investment in Canadian auto manufacturing has averaged \$3.5 billion. The sector has attracted investment primarily from Germany, Japan and the U.S. Employment and investment are largely concentrated in Ontario, but

foreign investors have also been active in Quebec and British Columbia.

Canada hosts six global automakers—Chrysler, Ford, General Motors, Honda, Suzuki and Toyota—and truck and bus manufacturers such as Hino, MCI, Navistar and PACCAR. Leading domestic auto-parts companies include Linamar Corp. and Magna International. Since 1991, Canadian auto assembly plants have won one-third of all J.D. Power plant quality awards. And in five of the past seven years, the J.D. Power initial quality survey rated Canadian GM and Toyota plants the best in the Western Hemisphere.

Among auto-producing nations, Canada's business environment is the best, according to the EIU. Canada is home to the second-, third- and fifth-most-productive light vehicle assembly plants in North America. Overall,



100 jobs. Aisin Seiki opened its second auto parts plant in Ontario, creating another 100 jobs.

\$64 million. Denso invested \$64 million to expand its auto parts plant in Guelph in 2007.

\$730 million. Ford announced a \$730-million investment in 2008, to upgrade its engine plant and establish an advanced powertrain R&D centre in Windsor

45 jobs. Hino Motors opened a diesel truck assembly plant in Woodstock, creating 45 new jobs.

\$154 million. Honda opened a new \$154-million engine manufacturing plant in Alliston, Ontario.

100 jobs. Takagi Manufacturing created nearly 100 new jobs with a new stamping plant in Ontario in 2007.

\$1.1 billion. Toyota opened a new \$1.1-billion vehicle assembly plant in 2008, creating 1,200 jobs in Woodstock,

\$87 million. Toyota Boshoku invested \$87 million to open a new seating and interior trim plant in Ontario.

Canadian auto plants enjoy higher labour productivity scores than do American and Mexican facilities, and a 6.4-percent cost advantage over their U.S. counterparts. Canada also has the second-lowest corporate tax rate of the world's top ten automotive countries. By 2012, Canada's corporate income tax rate will fall from 19 percent to 15 percent—less than half the U.S. rate. Recent federal budgets have provided more than \$1 billion in tax cuts to the Canadian auto sector.

Then there's the smart factor. R&D spending in the Canadian motor vehicle and auto parts industries has more than doubled in the past decade, thanks to federal tax credits. In 2007, car companies operating in Canada committed \$524 million to automotive R&D. Canada's core strengths in auto innovation include metal processing, advanced materials, advanced design, visualization and manufacturing, and information and communications technology.

In addition to conducting private R&D, auto firms collaborate with Canadian universities, colleges and public research centres to hasten new discoveries from the laboratory to the marketplace. Such organizations include the AUTO21 Network of Centres of Excellence, the National Research Council, and the metals and materials laboratories of Natural Resources Canada.

With many of its universities offering automotiverelated programs, Canada has no shortage of skilled autoworkers. Among the top ten automotive countries, it ranks first for percentage of the population with a post-secondary education and second for availability of qualified engineers. It also comes in second for knowledge transfer and commercialization systems between companies and universities, and third for technological infrastructure.

### HEADWINDS IN THE AUTOMOTIVE SECTOR MET WITH INCREASED STIMULUS

The recent adverse events affecting the global auto sector are being met by Canada with effective policies and programs. In December 2008, the Canadian federal government and the provincial Ontario government announced up to \$4 billion to General Motors and Chrysler in short-term repayable loans, in addition to a \$12-billion Canadian Secured Credit Facility to kickstart credit availability for consumers in Canada to purchase and lease new vehicles.

These measures, together with significant investments in Canada by North American and international car companies, will help ensure that this country's automotive sector continues to be an important part of the North American automotive industry.

### Canadians Power Honda's In

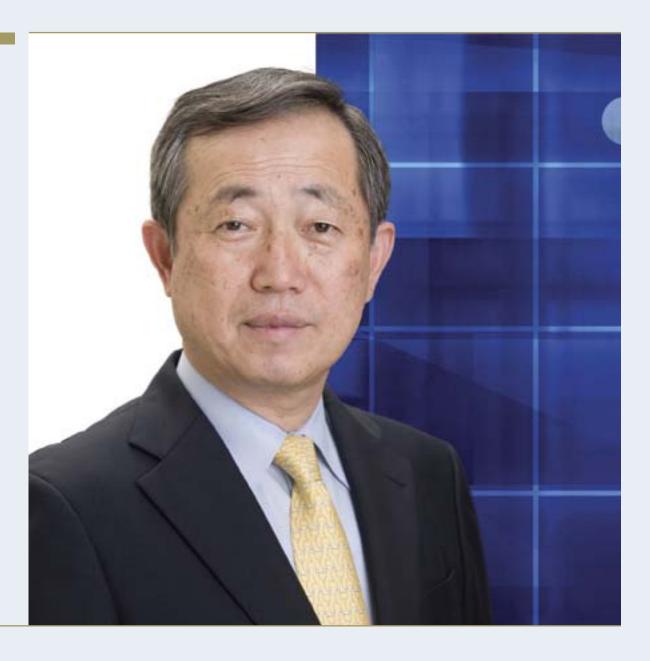
#### THE BRIEF

NAME Satoshi Aoki

COMPANY Honda Motor Company

WINS

Chairman of one of the largest car companies in the world



By expanding its Ontario operations, Honda of Canada Manufacturing (HCM) has brought state-of-theart green technology to Canadian manufacturing. HCM's new plant in Alliston, 80 kilometres north of Toronto, opened in September 2008. It produces fuel-efficient four-cylinder engines for the Honda Civic, using 100-percent recycled aluminium—much of it sourced from nearby communities. Sitting alongside two existing assembly facilities, the 28,000-square-metre plant reflects not only the growing economic partnership between Honda and Canada, but also the advancement of their shared environmental priorities.

### novative Green Engine Plant

As Canada seeks opportunities for its skilled workforce while simultaneously preserving the environment. Honda continues to provide solutions through innovation and new technologies. "At the same time that we increase our economic footprint in Canada, we have been working hard to reduce our environmental impact," says Honda Motor Company Chairman Satoshi Aoki.

The expansion of the Alliston operation is the latest chapter in Honda's long and successful partnership with Canada. In 1986, HCM became the first Japanese automobile manufacturer to establish a Canadian plant. One of Honda's premier manufacturing centres, the Alliston complex, represents a total investment of more than \$2.6 billion. The site employs some 4,300 people, produces approximately 390,000 vehicles each year, sources close to \$1.4 billion in goods annually from Canadian suppliers and manufactures parts for Honda plants across North America. In 2008, 48 percent of all Honda vehicles sold in Canada were produced at HCM in Alliston.

Proximity to markets and suppliers, a highly educated and skilled workforce, a stable investment climate and modern infrastructure have all supported the growth of HCM operations in Canada. "I really appreciate the strong relationship between our company and Canadian society, both through the levels of government and our many customers," says Manabu Nishimae, president and CEO of Honda Canada. "Through

investments like this engine plant, Honda hopes that we will continue to grow as a company that Canadians want to exist, now and into the future."

In 1946, Honda began as a small local company with a global dream. Today, it maps its future as a global company with a local vision—a concept it calls "glocalization". The Alliston engine plant is an excellent example of this philosophy. The fuel-efficient, lowemissions engine that powers the Honda Civic is manufactured and assembled in energy-efficient, low-emissions facilities. Both product and process reflect the environmental priorities not only of the manufacturer, but also of the community. This win-win situation may well contribute to the Civic's record as Canada's number-one selling vehicle in 2008 and number-one selling passenger car for the past 11 years.

From Nova Scotia to British Columbia, Honda's deep investment in Canada generates \$12.5 billion in annual sales and has served to employ more than 21,000 people. The HCM plant in Alliston marks another milestone in the company's Canadian success story.

"Strong support has come from so many directions, including the federal and provincial governments, the local community, our suppliers in Canada, our associates, our dealers and, of course, our customers," Mr. Aoki says. "Based on this partnership and through our continued investment, Honda believes in Canada as a great place to do business."

"Strong support has come from so many directions. including the federal and provincial governments, the local community, our suppliers in Canada, our associates, our dealers and, of course, our customers."

> Satoshi Aoki, Chairman. Honda Motor Company

### **Driving Innovation: A Snapshot of Canada's Auto Sector**

**Manufacturing** The Canadian automotive industry manufactures light-duty vehicles such as cars, vans and pickup trucks. Heavy-duty vehicle production in Canada include trucks, transit buses, school buses and military vehicles. All of the light-vehicle assembly plants are located in Southern Ontario, while commercial truck and bus plants are found in Ontario, Quebec and Manitoba. As Canada's largest manufacturing sector, automotive was responsible for 14 percent of the country's manufacturing GDP in 2007.

Vehicle Assembly Canada's 22 passenger and commercial vehicle plants produce 2.6 million units annually. With its main hubs in Ontario and Quebec, the Canadian auto sector is at the centre of the North American auto industry. There are 36 high-volume assembly plants within a 500-kilometre radius of the Windsor-Detroit border. In total, this region turned out 6.98 million vehicles in 2007. Canada is also close to all major American auto R&D centres, and its vehicle assemblers have access to supply chains in the U.S. and Mexico.

Automotive Components The 650-plus companies in Canada's auto parts sector employ more than 92,000 people and shipped \$32.7 billion worth of product in 2006. Besides providing components for new vehicle manufacturing, the industry supplies replacement parts and accessories to Canada's well-developed vehicle dealer network, which is recognized for its aftermarket sales and service.

Canada is at the forefront of automotive product development and the commercialization of new technologies. Car companies operating here benefit financially from R&D investment tax credits and funding and intellectually from these vibrant auto R&D clusters

AUTO21 Canada's national network of centres of excellence for automotive R&D. Some 120 industry, government and institutional partners support more than 230 top researchers at 35-plus academic institutions. government research facilities and private-sector research labs across the country.

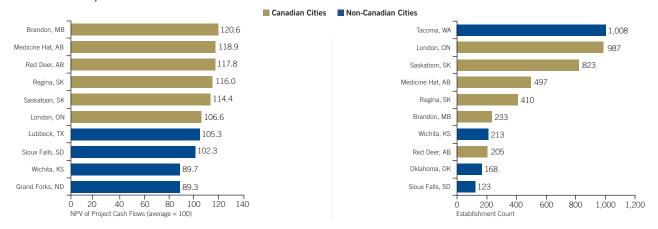
Automotive Innovation Fund This \$250-million program supports strategic, large-scale R&D projects to develop innovative, greener and more fuel-efficient vehicles.

Automotive Research and Development Centre A \$500-million R&D program focused on alternative fuel, mechanical engineering design, engine and transmission design, advanced materials, emissions, biomechanics and vehicle safety, among other areas.

Automotive R&D Partnership Initiative A \$145-million collaboration designed to foster an innovative and competitive auto sector through industry-driven research.

Partnership for the Advancement of Collaborative Engineering Education With \$240 million in funding, this initiative focuses on R&D in computer-aided design manufacturing, engineering software, hardware and training. In grain processing, Canadian locations are more profitable than their U.S. and other international competitors . . .

. . . and Canadian firms are important end-users of processed grain.



### INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE WHEAT FRACTIONATION FACILITY IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of cash flows of a representative facility producing bakery flour, livestock feed, ethanol and other co-products though the fractionation of wheat, and is benchmarked to the industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

### NUMBER OF ESTABLISHMENTS CLASSIFIED AS PART OF THE MARKET FOR GRAIN FRACTIONATION MATERIALS

Source: IBM-Plant Location International 2009.

## Canada's Food Processing Industry Feeds the World

Mixing cost advantages with advanced technologies and access to quality raw materials, Canada offers global investors all the right ingredients for success in the food and beverage processing sector.

Canada's second-largest manufacturing sector, food and beverage processing, accounts for about 14 percent of the country's manufacturing shipments. This industry also supplies approximately 78 percent of all processed food and beverage products available in Canada. In 2007, it employed 286,000 Canadians and produced shipments worth \$83.7 billion. That same year, Canada exported \$18.4 billion in processed food and beverage products to some 180 countries. During 2006-2007, investment projects in the Canadian food processing sector created an estimated 3,700 jobs.

The Canadian food-processing advantage starts with access to a vast supply of exceptional ingredients grown on home soil. Canada's farmers produce nutrient-rich crops, using water conservation and other earth-friendly methods. Canadian food and beverage products are safe—from farm to plate, the

country has one of the world's best food inspection systems. It is also at the leading edge of agricultural biotechnology.

In most Canadian provinces, food processing is the biggest industry. Ontario and Quebec comprise the bulk of production with 63 percent of sales, the Western Provinces make up 27 percent and the Atlantic Provinces claim the remaining 10 percent. The #2 manufacturing employer in rural areas, the Canadian processed food and beverage industry is also the largest buyer of domestic agricultural production, using approximately 44 percent of its output.

Canada's largest food processing industry is meat processing, which in 2007 accounted for 25 percent of all shipments, or \$21.2 billion in sales. Dairy product manufacturing is the second-largest, with 2007 sales



\$97 million. Kellogg Co. of Michigan opened a \$97-million Ontario plant and an estimated headcount of 100 employees will be hired.

\$50 million. Puratos of Belgium has expanded its Ontario manufacturing operations and is developing mixes and ingredients for the bakery, pastry and chocolate industries from its new 75,400-square-foot facility.

\$90 million. Louis Dreyfus Mitsui Foods is building a \$90-million canola crushing plant in Saskatchewan, with a full production target of fall 2009.

\$100 million. James Richardson International is constructing a \$100-million canola crushing plant in Saskatchewan, with summer 2010 as a full production target.

\$150 million. Massachusetts-based Twin River Technologies invested more than \$150 million in a Quebec canola seed and soybean crushing plant.

of \$12.5 billion, followed by the \$9.5-billion beverage manufacturing industry. Other Canadian food and beverage industries include bakeries and tortilla manufacturing (\$7.4 billion), fruit and vegetable preserving and specialty food manufacturing (\$7 billion), grain and oilseed milling (\$6 billion), animal food manufacturing (\$5.6 billion), sugar and confectionary product manufacturing (\$4.3 billion), and seafood preparation and packaging (\$3.8 billion).

Thanks to its abundant, diverse and high-quality supply of grain commodities, Canada is a powerhouse of grain and oilseed processing. Each year, Canadian mills grind more than 3.5 million tonnes of wheat, oats, corn and barley, and export commodities such as wheat flour, semolina and other milled grain products to some 30 countries. In 2006, the Canadian grain fractionation sector—including flour milling, starch manufacturing and corn wet milling—employed almost 5,000 people and generated roughly \$1.4 billion in revenues from shipments.

In agricultural production, including grains and livestock, the Prairie provinces represent three key industry clusters. Alberta accounts for 25 percent of Canada's total agricultural production and yields about one-third of the nation's wheat, barley and canola. In Manitoba, annual food processing shipments exceed \$3.5 billion. The province is home to significant operations in wheat, oat and feed milling, and oilseed crushing, as well as smaller flax milling facilities.

Saskatchewan's \$2-billion food and beverage processing industry includes more than 250 processors and almost 7,000 employees. In 2007, the province's exports of grain, oilseed and other agricultural products exceeded \$6.5 billion.

Ontario is also an important Canadian centre for grain and oilseed milling. Every year, its producers grow more than 1 million acres of wheat, 1.9 million acres of corn and 2.2 million acres of soybeans. Coupled with a strong manufacturing infrastructure and a skilled workforce, this wealth of raw materials yields \$3.2 billion in shipments annually—54 percent of the total for the entire Canadian grain and oilseed milling sector.

With access to various types of grains and cereals, Canada's grain fractionation industry produces many innovative food ingredients and natural health products, as well as general and performance animal feed, flour, ethanol and increasingly popular end-product ingredients such as wheat gluten, bioactive compounds and bio-based industrial applications.

To this end, Canada knows that R&D is a vital component of any food processing industry. It provides many partnership opportunities with both public and private research centres that foster R&D in areas including primary breeding, processing technologies and health and wellness product development.

### Puratos Savours Success in Canada



Although few consumers recognize the Puratos name, people around the world eat the company's products on a regular basis. A Belgian multinational, Puratos is the leading international producer of mixes and ingredients for the bakery, pastry and chocolate industries. In Canada, the firm operates from a new facility near Toronto, where it develops the recipes and techniques that delight taste buds and drive profits for food companies across the country.

"The country produces many of the raw ingredients, such as top-quality grains, that we use in our mixes. Our business also relies on access to a reliable transportation network, and Canada's is first-rate."

> Benoît Keppenne, General Manager, Puratos Canada

Launched in Brussels in 1919, Puratos now employs more than 5,500 people at dozens of facilities in more than 50 countries. It chose the Toronto area as the site of its first Canadian manufacturing centre in the late 1980s. In 2006, the company moved into a \$50-million, 75,400-square-foot facility in Mississauga, Ontario. In 2009, Puratos plans to add another silo to the site, to increase storage capacity.

"We've expanded in Canada for several reasons," says Benoît Keppenne, General Manager of Puratos Canada. "With 30 million people, the market is lucrative and well developed. The country produces many of the raw ingredients, such as top-quality grains, that we use in our mixes. Our business also relies on access to a reliable transportation network, and Canada's is first-rate."

The location of Puratos' Canadian plant is ideally suited to exploit these advantages. Major highways, rail lines and an international airport are all minutes away. Most of the company's largest Canadian customers, such as businesses that supply food items to supermarket chains, are also close at hand. In turn, many of these customers export to the nearby United States.

In 2007, Puratos' global sales exceeded \$1.4 billion. The company's success is built on a remarkable business model, according to Mr. Keppenne. "Although we sell mixes and ingredients, we're really in the solutions business," he says. "We develop products that enable food companies to succeed, by studying consumer tastes and the production facilities of our customers. We work closely with bakers, pastry makers and chocolatiers, to help them respond to shifts in consumer demand."

The humble baguette provides a good example. A decade ago, Canadians who wanted fresh, tasty baguettes had little choice but to visit independent bakeries and specialty food shops. Some supermarket chains baked baguettes in-house, but few managed to make a profit on them.

"Baguettes present a daunting challenge," Mr. Keppenne says. "They don't remain fresh for very long, so they must be sold soon after baking. Yet demand can be inconsistent—a supermarket may sell 200 one day and only 50 the next. It's nearly impossible for a supermarket bakery to produce the right number of good-quality baguettes at the right time."

Puratos came up with a solution: a technique and recipe that enable large numbers of baguettes to be produced in a central location, flash-frozen and shipped to supermarkets, where they can be reheated on-site in existing facilities. This helps to restore the crunchy freshness that make baguettes appealing to consumers—and enables supermarkets to respond quickly to shifts in demand. Today, Canadians buy tens of thousands of pre-frozen, reheated baguettes from supermarket chains every day.

"Consumer tastes and preferences change continually," Mr. Keppenne says. "Ethnic breads such as focaccia, ciabatta and naan have now gone mainstream in many parts of Canada. Puratos identifies emerging trends and helps our customers stay ahead of them, by developing new recipes and methods."

Canada is all revved up to showcase the best of what it has to offer through the Vancouver 2010 Olympic and Paralympic Winter Games. "With glowing hearts", Canadians invite the world to witness their rich culture, diversity, global connections, creativity and competitive spirit.

## let the

### Vancouver will be hosting:

- 17 days of Olympic Games events: February 12-28, 2010
- 10 days of Paralympic Games events: March 12-21, 2010
- 86 Olympic Winter Games medal events
- 64 Paralympic Winter Games medal events
- a projected 5,500 Olympic Games athletes and team officials
- a projected 1,350 Paralympic Games athletes and team officials
- 80+ countries participating in the Olympic Winter Games
- 40+ countries participating in the Paralympic Winter Games
- 10,000 media representatives
- 3 billion television viewers worldwide

#### HERE ARE THE WORLD-CLASS VENUES THAT WILL STAGE THE SPECTACULAR OLYMPIC EVENTS:



#### COMPETITION VENUES

#### Canada Hockey Place

Canada Hockey Place is one of two venues that will stage the 2010 Olympic Winter Games ice hockey tournaments. In addition to being home to the National Hockey League's Vancouver Canucks, the facility is one of the busiest entertainment venues in North America. It hosts approximately 100 events each year, attracting the biggest names in show business to its stage. Canada Hockey Place has welcomed more than 10 million visitors, including world-renowned personalities such as former U.S. President Bill Clinton and Her Royal Highness Queen Elizabeth II.

#### Vancouver Olympic/Paralympic Centre

The location for curling events, this venue is located in a lively Vancouver community that includes the beautiful Queen Elizabeth Park and views of the local mountains.

After the 2010 Winter Games, the curling venue will become a multipurpose community recreation centre that includes an ice hockey rink, a gymnasium, a library and six to eight sheets of curling ice. Attached to the building will be a new aquatic centre, with a 50-metre pool and a leisure pool.

#### Pacific Coliseum

The Pacific Coliseum will host figure skating and short-track speed skating events. Located in Hastings Park, it is also home to one of Vancouver's major events—an annual fair that attracts up to 60,000 people a day.

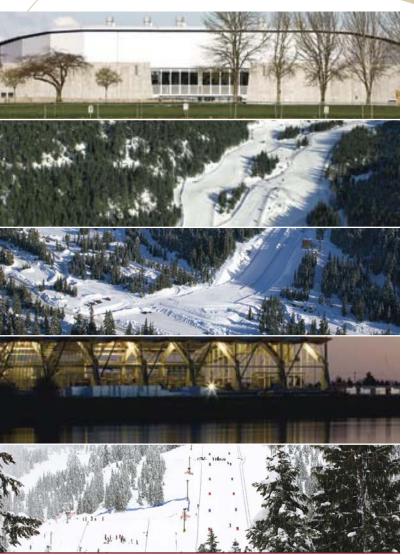
After the Olympics, this venue will continue to serve as a site for diverse events such as ice shows, boxing, basketball, hockey, concerts, large assemblies, and trade and consumer shows.

#### Whistler Sliding Centre

Situated on Blackcomb Mountain, the Whistler Sliding Centre will host the bobsleigh, luge and skeleton competitions at the Vancouver 2010 Olympic Winter Games.

After the Games, the facility will build on its legacy by operating as a centre for high-performance development, youth and recreational club programming, and tourism.





## **UBC Thunderbird Winter Sports Centre**

The UBC Thunderbird Winter Sports Centre is the second venue that will stage ice-hockey tournaments. The arena is located on the campus of the University of British Columbia (UBC), one of Canada's most prestigious universities. Consistently ranked among the world's 40 best universities, UBC boasts Canada's largest sports programs.

Following the 2010 Winter Games, the UBC Thunderbird Arena will become a recreational and high-performance multisport legacy facility.

# Whistler Creekside

Alpine skiing events will take place at Whistler Creekside. With more than two million visitors a year, Whistler Blackcomb is consistently ranked as the #1 ski resort in North America. The resort has extensive experience hosting International Ski Federation (FIS) World Cup competitions.

After the 2010 Olympic Winter Games, Whistler Creekside will offer ski areas to recreational skiers and will be a site for international competitions and Canadian team training.

# Whistler Olympic/Paralympic Park

For the first time in Olympic history, all four Nordic disciplines (biathlon, ski jumping, Nordic combined, cross-country skiing) are occurring at the same venue—the Whistler Olympic/Paralympic Park.

# **Richmond Olympic Oval**

Home to all speed skating events, the Richmond Olympic Oval is located across the river from the Vancouver International Airport. After the 2010 Winter Games, the venue will become an international centre of excellence for sports and wellness. With two international-sized ice rinks, eight gymnasiums, a 200-metre running track and a 23,000-square-foot fitness centre, the facility's flexible design will allow it to be used for a variety of sport and community functions.

# **Cypress Mountain**

One of the most popular skiing areas in British Columbia, Cypress Mountain is the site for freestyle skiing and snowboard events. The mountain is served by an excellent highway, offers spectacular views of Vancouver and attracts hundreds of thousands of visitors each year.

In aerospace components manufacturing, Canadian locations are more profitable than their U.S. counterparts . . .

Canadian Cities Queretaro, MEX Saskatoon, Sk 120.7 Winnipeg, ME 120.4 1168 Calgary, AB Montréal, QC 1113.0 Vancouver, BC 105.2 Austin, TX Toronto, ON 99.5 Wichita, KS 99 N Tulsa, Ok 97.8 Huntsville, AL 96.2 91.6 Atlanta, GA 90.0

100 120

140 160

180

. . . and are among the North American leaders in competitive labour costs for skilled aerospace employees.



# INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE AEROSPACE COMPONENT MANUFACTURING FACILITY IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009

20 40 60 80

\* This index measures the NPV of cash flows of a representative facility producing aerospace components, and is benchmarked to the industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyses the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

# ESTIMATED ANNUAL LABOUR COST OF 200 FULL-TIME EQUIVALENTS (LEAST EXPENSIVE CITIES)

Source: IBM-Plant Location International 2009

# Canada's Aerospace Sector Soars

Civil aircraft, flight simulators, defence systems—Canadian aerospace firms are winging their way to unprecedented profitability.

The future looks bright for Canada's aerospace sector. In the past 20 years, the country's global market share has tripled, making Canada the world's fifth-largest aerospace producer.

Canadian aerospace firms are renowned for their civil and military aircraft, flight simulators, airborne defence systems and aftermarket and engineering services. They have earned loyal customers around the world for delivering leading-edge technology solutions on time and at a competitive cost.

Currently, Canada's aerospace sector exports about 80 percent of its production, 60 percent of which goes to the United States. Of its total output, 80 percent is for non-military use. The industry also benefits directly from low business costs and a sophisticated research and development infrastructure that includes a

national Institute for Aerospace Research, and a variety of government initiatives such as Defence Research and Development Canada.

Canada enjoys a knowledge advantage too. The aerospace sector's 400 firms employ a highly skilled workforce of 82,000 people. Across the country, 20 universities offer advanced degrees in aerospace and aerospace engineering, with about 3,000 students graduating from these programs every year.

And don't forget a business-friendly regulatory environment, 20-year patent protection and a wide range of industry clusters in cosmopolitan urban centres that offer an exceptionally high quality of life. Given these many strengths, the sky is the limit for Canada's next generation of aerospace innovators.



expanded its Manitoba production in 2008, creating an estimated 200 new jobs.

North Carolina announced a new \$33.5-million R&D project in Ontario in 2007.

state-based Esterline/CMC Electronics announced that it would invest nearly \$150 million over the next five years in a Quebec R&D initiative

\$545 million. In 2008, Pratt & Whitney Canada committed more than \$500 million over five years to establish an aerospace centre in Quebec. The company also expanded its Nova Scotia operations, with investment totaling \$45 million in 2008.

# CANADIAN AEROSPACE EXCELLENCE EXTENDS TO ALMOST ALL MARKET VERTICALS:

Regional and Corporate Aircraft Canada's Bombardier is a global leader in regional and business aircraft. Its CRJ Regional Jet is used by some 60 airlines worldwide, with more than 1,500 in service.

Gas Turbine Engines Canadian firms satisfy one-third of global demand for small gas turbine engines.

# Commercial Flight Simulators/Visual Simulation

Canadian-made products hold a 70-percent world market share for visual simulators. Canadian firms are global leaders in the design and manufacture of large flight simulators, visual systems and flight training devices.

Commercial Helicopters Canada produces over 20 percent of global civil turbine helicopters. Bell Helicopter Textron, based in Montréal, is the world's leading producer of rotary-wing aircraft. Eurocopter Canada Ltd., a division of EADS, has been manufacturing helicopters at Fort Erie, Ontario, since 1984.

Landing Gear Manufacturing With nearly one-third of the global market for landing gear supplied by Canadian firms, Canada manufactures 60 percent of new large-aircraft landing gear. One of the biggest in

the world, its landing gear sector consists of Canadian, foreign-owned and multinational companies. These firms export the vast majority of their products and services.

Aircraft, Engine and Component Maintenance, Repair and Overhaul (MRO) In Canada, more than 1,100 certified aircraft maintenance organizations generate some \$3 billion in annual revenues and employ 17,000 workers. Canadian firms have developed a comprehensive array of MRO service capabilities for rotary-wing aircraft, spanning virtually all helicopters produced in North America and Europe. Major MRO facilities in Canada include Magellan Aerospace and Standard Aero.

# **Lockheed Martin Keeps Strength**

# THE BRIEF

NAME

Tom Digan

**COMPANY** 

Lockheed Martin, Canada

WINS

Led a team of contractors that won \$2 billion worth of contracts from the Canadian government



Headquartered in the Ottawa suburb of Kanata, Lockheed Martin Canada is enhancing its Canadian presence. With major projects from the Canadian Navy in hand, the company will create 200 new hi-tech jobs across the country.

In November 2008, Lockheed Martin Canada led a team of contractors that won \$2 billion worth of contracts for the installation, integration and long-term in-service support of a new combat system for Canada's Halifax-Class Frigates.

# ening Its Commitment to Canada

"Building on its 25-year legacy as the Canadian Navy's systems integrator, Lockheed Martin Canada's Halifax-Class Modernization (Combat Systems Integration) effort will result in an increase in the hiring of skilled engineering, technical and manufacturing employees at Lockheed Martin facilities in Montréal, Ottawa, Esquimalt and Halifax," says Tom Digan, president of Lockheed Martin Canada.

The company runs a diversified business that includes aeronautics, space systems, electronic systems, integrated systems and global services. In Canada, Lockheed Martin employs more than 550 highly specialized workers at 10 locations in six provinces. Lockheed Martin has shown its longstanding commitment to Canada by remaining active in the country since 1939.

# Why Canada?

Canada is a centre of excellence in the defence and security sector. The Canadian defence and security industries generate more than \$10 billion a year in sales, with 50 percent coming from international customers. The sector supports 70,000 highly-skilled jobs at facilities in each of Canada's ten provinces. With a long history of being at the forefront of technological innovation, Canadian defence and security firms compete successfully with some of the world's largest defence companies.

For Lockheed Martin, Canada is a launch pad for integrated systems using open architecture. The company uses its global reach to market Canadianmade products, technologies and services worldwide.

"Lockheed Martin's investment will provide the Canadian Navy with the most advanced technology in the world today and create excellent export opportunities for Canadian industry," Mr. Digan says. System development and maintenance will be performed at Lockheed Martin facilities in Montréal and Halifax.

Software-based systems offered by Lockheed Martin perform a vast range of tasks and functions, including:

- Performance and management of safety-critical and security-sensitive functions on board aircraft and ships, in an increasingly integrated systems environment.
- Intelligent and knowledge-based systems that convert data into information and decision-making. Examples include onboard sensor systems, prognostics and health management.
- Increased adoption of Commercial off-the-Shelf (COTS) or COTS-derived protocols and systems for high-bandwidth data communications networks and wireless functionality.
- Systems used to perform various simulation functions, notably in training, modeling of operational scenarios and product development.

"Lockheed Martin's investment will provide the Canadian Navy with the most advanced technology in the world today and create excellent export opportunities for Canadian industry."

> Tom Digan, CEO. Lockheed Martin, Canada



# How Canada Supports the Aerospace Industry

There are many reasons why Canada is fertile ground for companies like Lockheed Martin. For one thing, the federal government takes a sophisticated approach to technology and procurement policies in the defence industry. Other benefits include the availability of specialized personnel, the company's advanced research, systems and IT operations; and its effective collaboration with Canadian universities and other educational institutions. Canada's competitive corporate tax rates and R&D tax incentives help, too—as does the country's favourable image worldwide.

In the fall of 2008, the federal government made it clear that Canada will leverage increases in defence procurement to ensure that the country creates new high-technology jobs. It will achieve this through a combination of buying Canadian-made defence equipment and securing high-value industrial benefits when purchasing equipment abroad. Through the Canada First Defence Strategy, the government has committed to investing \$240 billion in capital and non-personnel-related defence materials over

the next 20 years. These policies will ensure that the Canadian defence and security industry continues to be a leader worldwide

Government programs also favour the establishment of hi-tech defence and security companies. They include the Industrial and Regional Benefits Program, the Strategic Aerospace and Defence Initiative, the Federal Science and Technology Strategy, Defence Research and Development Canada, the Defence Development Sharing Agreement and the Canadian Foundation for Innovation

There are also many coordinating agencies and mechanisms that help support the Canadian aerospace industry. These include:

The Institute for Information Technology of the National Research Council (NRC-IIT) The Institute's areas of expertise include software engineering, knowledge management, intelligent systems, high-performance computing, 3D digitizing and visualization, humancomputer interaction and e-learning.

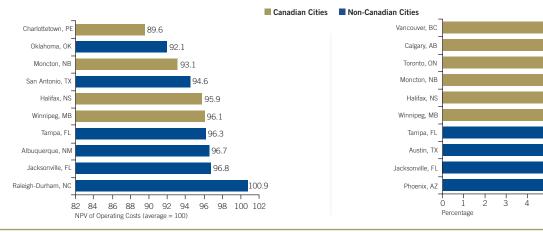
Communications Research Centre Canada (CRC) An agency of Industry Canada, CRC is one of Canada's Centres of Excellence specializing in communications and related technologies.

Strategic Aerospace and Defence Initiative (SADI) Launched in 2007, SADI supports private-sector industrial research and pre-competitive development (R&D) through repayable project contributions.

Scientific Research and Experimental Development (SR&ED) Canada offers one of the most favourable tax treatments for R&D in the G7. SR&ED includes a system of tax credits and accelerated tax deductions for a wide variety of expenditures including salaries, overhead, capital equipment and materials. Competitive corporate income tax rates complement this program.

Canada is a North American leader in business services, with Canadian cities showing significant cost advantages over other centres . . .

... Canadian cities also have larger clusters of business services activity than do their North American counterparts.



# INDEX\* OF NET PRESENT VALUE OF OPERATING COSTS OF A REPRESENTATIVE HUMAN RESOURCE OUTSOURCING PROJECT

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of operating costs of a representative facility delivering outsourced Human Resource Management services, and is benchmarked to the industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyses the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

SIZE OF ESTIMATED CLUSTER AS PERCENTAGE OF TOTAL COMPANIES (HIGHEST-RANKING CITIES IN NORTH AMERICA)

Source: IBM-Plant Location International 2009

# Better Business Service: Why Canada is Good for Your Bottom Line

Businesses in search of better ways to manage their finances, employees and technology need look no further than Canada.

The rapid growth of Canada's open, stable and vibrant business services sector is highly appealing to international firms. A key hub in today's multinational, multivalue chain model, Canada's business services industry accounted for \$57 billion of the 2007 national GDP and employed more than 1.1 million Canadians.

Canada has developed significant business process operations in business process outsourcing (BPO), human resources management (HRM), customer relationship management (CRM), finance and accounting, data mining, application development labs, business continuity and disaster-planning support. In 2006, this fast-growing business support services industry reported over \$5.7 billion in revenues. This growth has resulted in a dramatic increase in job creation in Canada, with employment in this industry jumping by 190 percent between 1991 and 2005.

Canada is a favourite nearshoring/outsourcing destination for investors. Besides ranking as the second-most-attractive global centre for information technology/business process outsourcing, it possesses seven of the top 10 international locations for low operating costs. Canada's business services firms are also renowned for their prowess in engineering, logistics and supply chain management. The country also offers unparalleled connectivity—a high-quality telecommunications and broadband infrastructure, and some of the lowest business telephone charge rates in the G7. With advantages like these, it's no surprise that Canada is among the top 10 countries in attracting business service investment projects.

An important customer of the business services sector is Canada's financial services industry. Canada's financial services industry is dynamic, growing,



150,000 sq. ft. In 2008, American giant UPS announced that it was building a new 150,000-square-foot consolidated distribution facility in Calgary.

1,000 jobs. Texas-based EDS has chosen Winnipeg as the location for a new \$18-million hi-tech service centre that will create 1,000 new jobs over the next five years.

100 jobs. AMESYS of France set up its North American operations in Montréal in 2008, with plans to hire 100 engineers during the next few years.

375 jobs. In 2008, U.S.-based IT firm Keane announced plans to create up to 375 jobs over the next five years, by expanding its Halifax operations.

innovative and globally competitive. Canada is home to North America's third-largest financial centre, and the World Economic Forum has acknowledged the strength and stability of the country's banking sector.

# CANADA'S CORE STRENGTHS IN BUSINESS **SERVICES**

Engineering Services is an area of exceptional strength for Canada, where many major international engineering firms are headquartered. This industry segment employs more than 85,000 workers and has annual operating revenues of more than \$13 billion.

Canada has an excellent international reputation for the quality of its engineering services, with particular strengths in resource extraction, energy, telecommunications, transportation and infrastructure engineering.

Nearshoring/Offshoring represents a massive business services field for Canada, which has a strong presence in both business process outsourcing (BPO) and information technology outsourcing (ITO) services.

Canada is a major service provider of business process outsourcing (BPO) and information technology outsourcing (ITO) to U.S. firms. Thanks to a skilled workforce of 150,000, proximity to and cultural similarities with the United States, as well as innovative business practices, Canada remains the

world's second-largest provider of BPO services. Canada's nearshore/offshore industry earns US\$14 billion in annual revenues, representing 30 percent of the U.S. market.

Management Services is a fast-growing industry segment in Canada. A major source of expansion in recent years, internationally controlled firms now represent nearly 35 percent of Canadian head office and management operations. Combined with the exceptional quality of life offered in Canadian cities, the high quality of available staff makes Canada a global magnet for management services.

**Shared Services** is a major market in Canada, because its cities have high concentrations of shared servicerelated establishments. Canadian cities benefit from the strong presence of office administrative, employment service, and business support service companies, which provide employees with skill profiles suitable to operate in a shared services organization. Clusters of shared service companies also allow close links with buyers, suppliers and other institutions. The result: greater efficiency and faster innovation.

**EXCELLENCE IN R&D** 



PHOTO: GETTY IMAGES/NICK LAHAM

# EXCELLENCE in Research and Development

Canada's R&D Infrastructure Integrates
Basic Research with Practical Business Applications



# THE BRIEF

ATHLETE Billy Bridges, holding off Stig Tore Svee of Norway

**SPORT** Paralympic Games, sledge hockey

WINS Queen's Jubilee Medal,

# CANADA'S RESEARCH AND DEVELOPMENT POTENTIAL IS SECOND TO NONE

Canada's R&D infrastructure, its world-class research and its tax incentive programs make it one of the best places in the world to develop new products.

From the light bulb to smartphone technology, from the heart pacemaker to DNA profiling, Canadian innovations have touched the lives of billions. Every day, Canadian researchers and scientists work on the frontiers of knowledge in every field of human endeavour.

Driving Canada's excellence in R&D activity is a made-in-Canada model, where basic research by Canadian scientists and researchers is closely integrated with business applications. The result is a significantly shorter go-to-market process than in other advanced economies.



### Sid Altman, Molecular Biology

Discovered catalytic RNA, for which he won the Nobel Prize in 1989. Because viruses responsible for the common cold are made of RNA, the work of this Canadian scientist may lead to a catalytic RNA-based vaccine that will be the cure for the common cold.

"Don't worry if things change. Just do what you do best."



## Bert Brockhouse, Physics

Won the 1994 Nobel Prize in Physics for designing the Triple-Axis Neutron Spectroscope and his use of it to investigate condensed matter. Brockhouse's pioneering work laid the foundations for the immensely powerful field of neutron inelastic scattering, which has a wide range of applications in condensed matter physics, materials science, geology, biology, ceramics, polymer science and industrial manufacturing.

"Your mind is your most valuable survival organ. Learn to tune your mind like a radio, filtering out all the noise and other channels, focusing on one thing."



## Rudolph Marcus, Physical Chemistry

Nobel Prize winner in Chemistry in 1992 for Electron Transfer Reactions. Marcus' work is now being applied in areas such as photosynthesis, electrically conducting polymers, chemi-luminescence and corrosion.

"Being exposed to theory, stimulated by a basic love of concepts and mathematics, was a marvelous experience."



## Michael Smith, Organic Chemistry

Won the Nobel Prize in Chemistry in 1993 for discovering site-directed mutagenesis, a technique that allows the DNA sequence of any gene to be altered in a designated manner. With continued research in this area, it may be possible in the future for scientists to correct bad mutations caused by disease.

"In research, you really have to love and be committed to your work, because things have more of a chance of going wrong than right. But when things go right, there is nothing more exciting."



### Willard S. Boyle, Physics

Co-inventor of the charge-coupled device (CCD). The CCD is used in numerous applications, including digital photography, digital photogrammetry, photometry, sensors, electron microscopy, medical fluoroscopy, and optical and UV spectroscopy.

"Know how to judge when to persevere and when to quit. If you're going to do something, do it well. You don't have to be better than everyone else, but you ought to do your personal best."

# Canada: A Fertile Ground for Research and Development

nderpinning this integrated R&D model is Canada's R&D tax incentive program. Canada's Scientific Research and Experimental Development (SR&ED) program is the largest single source of federal government support for industrial research and development, providing open-ended access to upward of \$5 billion in tax credits each year.

Unlike most OECD countries, Canada delivers this incentive program through the tax system, not through budgetary appropriations. Thus, there is no pre-determined budget for the SR&ED program, because it depends on the value of tax credits earned by the companies in Canada. All companies based in Canada that invest in R&D can qualify, irrespective of

their size, or industry sector or the technology area they represent—as long as they perform qualified R&D. Generally, in addition to tax deductions for SR&ED expenditures, a tax credit is also available based on qualifying SR&ED expenditures carried out in Canada.

When combined with provincial incentives, these R&D tax benefits are substantial. According to a 2008 study by JPW Innovation Associates Inc., the net after-tax cost of R&D expenditures undertaken in Canada is well below 50 cents per dollar spent—one of the lowest levels anywhere.

Another pillar of Canadian support for R&D is the Canada Foundation for Innovation. An independent corporation created by the Government of Canada,

## Henri Darmon, Pure and Applied Mathematics

One of the world's leading number theorists. Darmon's mathematical discoveries involving elliptic curves have the potential to provide a very efficient way to encode and decode information. Among other applications, this could lead to faster transactions with credit cards, ATMs and online shopping.

> "Somewhere out there is a theory that would explain my empirical observations, and this theory has yet to be discovered. Mathematics thrives on such mysteries."

# Julia Levy, Microbiology, Immunology

Co-discovered photodynamic anticancer and ophthalmology drugs.

Levy is the co-founder of QLT Inc., one of Canada's most successful biopharmaceutical companies.

"The most important thing: Never shut off your options. You never know what the next year is going to bring. If you leave your options open, then when something happens you know, 'That's where I want to go.' And you do it! Never box yourself in.'

## Walter Lewis, Botany

World expert on airborne and allergenic pollen, and famous for targeting medicinal plants in the tropical rain forest. Lewis has worked with chemists and pharmacologists to develop new medicines from the indigenous plants he had discovered.

"Do what you enjoy and go where your heart takes you."

### Louis Taillefer, Physics

World expert on superconductivity. Taillefer's work contributes to making superconductors useful for practical purposes such as power transmission, levitating trains, magnetic medical imaging, wireless communications and much more.

"Follow your intuition. In my own experience, this has always paid off."

### Mike Lazaridis, Engineering

Co-invented the BlackBerry, which revolutionized the wireless industry. Lazaridis is president and co-CEO of Research in Motion (RIM), a world leader in smartphone technology.

"What drove us was solving some really tough problems—all the challenges of producing a small device that can do a lot without complicating the user's life. '







Source: Photographs and research by Barry Shell, www.science.ca

the CFI has a mandate to strengthen the capacity of Canadian universities, colleges, research hospitals and non-profit research institutes to carry out world-class research. Since its creation in 1997, the CFI has committed almost \$4.5 billion to more than 6,000 projects at 129 research institutions in 64 municipalities across the country. 10 Also, in its 2009 budget the Canadian government announced a \$750-million commitment to the CFI, with \$600 million going toward its core operations.

Over the years, the CFI has funded infrastructure projects that include everything from cancer research to digital media and design studios. The result? More than \$11 billion in research funding from both the public and private sectors. Foreign investors and Canadian companies alike have been able to leverage their own R&D capital with publicly-funded R&D infrastructure, and form collaborative relationships with some of the world's leading researchers.

Canada's multibillion-dollar investments in research facilities have given the country a competitive edge

internationally—and have won worldwide admiration for its science and technology enterprises. These include the Canadian Light Source Synchrotron at the University of Saskatchewan; the Sudbury Neutrino Observatory Laboratory; the Amundsen icebreaker based at Laval University; the sea-based research observatories VENUS and NEPTUNE, coordinated by the University of Victoria; the Diabetes Research Centre at the University of Alberta; and the National Site Licensing Project at the University of Ottawa.

Finally, as part of the Government of Canada's stimulus program to fight the global recession, the federal government announced further dedicated funding of up to \$2 billion in capital investments to retrofit and expand facilities at Canada's universities and other post-secondary institutions. These capital investments represent some of the largest infrastructure spending on Canadian educational institutions.

10 Canada Foundation for Innovation. http://www.innovation.ca/en/ news?news\_id=126

# HIGH-PERFORMANCE COMPUTING THE CANADIAN WAY

During the past few years, rapid technological developments have revolutionized the way research is done. Once used by a small number of researchers in a handful of fields, high-performance computing (HPC) is now an essential tool.

Canada is the first country to create a nationwide HPC network. This network builds upon seven regional HPC consortia and takes advantage of the exceptional capabilities provided by CANARIE, the world's first national optical Internet research and education network. The transcontinental HPC system links virtually all of Canada's research-intensive institutions. Foreign investors participating in Canada's HPC network include Cray, Sun Microsystems, Hewlett-Packard, IBM and SGI.

Source: Canada Foundation for Innovation.

# THE ANSWER IS BLOWING IN THE WIND

Harnessing the wind to produce electricity is no easy task. That's because wind, like the rest of the weather, changes by the minute. There are gale-force winds, dead calms, bursts, gusts and breezes to deal with—not to mention constantly shifting wind directions. For researchers at the University of New Brunswick's Energy Research Laboratory, this constant change is one of their biggest challenges and opportunities.

Researchers at the lab are developing novel "black boxes" or Wind Power Inverters, that can take a wildly fluctuating electrical current and transform it into a steady and controlled one—stable enough for any household appliance to use.

As a result of this energy research, the self-sufficient home of the future could have solar panels on the roof, a wind turbine in the backyard, and a mini hydro generator producing power from a nearby stream. Tying it all together would be the Energy Research Laboratory's Wind Power Inverter.

# TEACHING THE WORLD A LESSON

At Concordia University's Centre for the Study of Learning and Performance (Montréal), researchers are harnessing the latest technology to get students reading, and to prevent the failures that result from poor literacy. Along the way, they're hoping to provide students around the world with the tools they need for a lifetime of success.

Researchers at the Centre are developing multifaceted software that will help students, teachers and tutors evaluate children's current reading levels, and then customize activities for the areas that need improvement. The software functions as an intelligent tutor—providing vignettes that pop up as teachers conduct a lesson. It then demonstrates best practices to help students attain particular skills.

Called ABRACADABRA, the software allows children to read and hear stories and fables, spell and sound words, and follow along with underlined text, all with a click of the mouse. It will be particularly useful for schools in rural areas, because teachers can access the materials via the Internet.

# UNDER THE SEA, AROUND THE WORLD

Researchers at Dalhousie University in Halifax, Nova Scotia are delving deep into our oceans to find solutions for some of Earth's most critical environmental and conservation challenges. The international Ocean Tracking Network unites 70 of the world's finest marine scientists from 16 countries in the most comprehensive and revolutionary examination of marine life and ocean conditions ever undertaken.

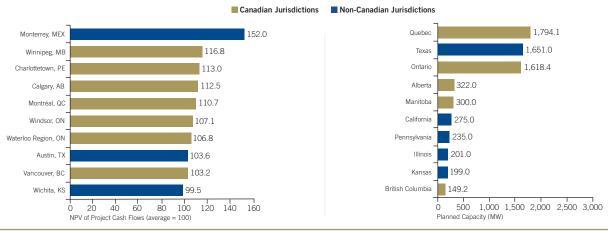
Cutting-edge Canadian sensor technology installed at strategic locations in 14 ocean regions will allow researchers to record the movement and behaviour of fish and other marine life, as well as monitor ocean characteristics such as water depth, temperature and chemistry.

This international project will change how scientists and world leaders understand our underwater ecosystems, and help them to better manage the ocean's resources in the face of climate change.



Canadian cities rank well ahead of other North American centres when it comes to the profitability of manufacturing equipment for wind energy . . .

. . and among North American jurisdictions, Canadian provinces have some of the most ambitious plans for wind-generated capacity.



INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE MANUFACTURING FACILITY FOR WIND TURBINES OR COMPONENTS FOR ON- AND OFFSHORE WIND FARMS IN CANADIAN CITIES, COMPARED WITH OTHER NORTH **AMERICAN CITIES** 

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of cash flows of a representative manufacturing facility for wind turbines or components for on- and offshore wind farms. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PL1), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

# WIND-GENERATED PLANNED CAPACITY IN NORTH AMERICAN JURISDICTIONS, MEGAWATTS

Sources: Canadian Wind Energy Association, American Wind Energy Association.

# Canada is a Natural in Wind Energy

Backed by superb technology infrastructure, ample R&D spending and competitive operating costs, foreign companies developing applications in Canada are servicing global clients.

With its huge landmass and lengthy coastlines, Canada has enormous potential as a generator of wind energy. It is also one of the world's largest exporters of electricity, and its electricity generation and distribution network is integrated into the North American grid. For foreign investors, this means that investments in Canadian wind power generation will result in a direct connection to the world's largest electricity consumer market: the United States.

Also, recent legislative changes underway in the U.S. have given Canada's next-door neighbour a growing appetite for wind power. Foreign investors in Canada's wind energy sector can take advantage of the country's lower costs to supply electricity to the U.S. market.

# GLOBAL WIND TURBINE MANUFACTURER SEES GREEN IN CANADA

These were only some of the factors that caused ENERCON GmbH of Germany to invest in Canada. With more than 14,000 of its turbines in action around the world, ENERCON has a 14-percent share of the international wind power market. The company exclusively manufactures its turbines in six countries: Germany, Turkey, India, Brazil, Portugal and Sweden. It has a total production area, worldwide, of 435,000 square metres—about the size of 47 football

In May 2008, ENERCON's Canadian subsidiary ENERCON Canada Inc. won a tender in Quebec to supply wind-energy converters to projects approved by the provincial utility, Hydro-Québec. The agreement calls for the installation of approximately 500 wind



\$840 million. Mainstream Renewable Power of Ireland announced an \$840-million deal with Canadian wind farm developer Alberta Wind Energy Corporation (AWEC), to build over 400 MW of wind-generated capacity.

\$165 million. ACCIONA Wind Energy of Spain, in partnership with Suncor Energy Products, invested \$165 million in the construction of a 78-MW wind farm in Ontario in 2007.

Enel SpA of Italy, in partnership with Newfoundland and Labrador Hydro, signed an agreement to build, sell and operate a 27-MW wind project.

turbines throughout southeastern Quebec, over a period of five years beginning in 2011. "This is a huge contract," says Marcus Scheele, Service Manager for ENERCON Services Nova Scotia.

Canada's wind energy sector consists of more than 430 companies, with a combined workforce of 4,000.

Wind power development—which includes project development, project operation and independent power generation—is the largest segment of Canada's wind energy industry. More than 40 percent of wind energy companies are active in this industry segment. Leading domestic companies include Brookfield Renewable Power, Invenergy Canada, SkyPower and TransAlta Wind.

Manufacturing is the focus of 16 percent of Canadian wind energy firms. The main products manufactured in Canada are wind-related components such as rotor blades, control systems, turbines, inverters, nacelles, towers and meteorological towers. In this industry segment, major firms active in Canada include AAER, Composites VCI, DMI Industries, GE Wind Energy, Hitachi Canadian Industries and LM Glassfiber.

Canadian cities offer strong value propositions for manufacturing wind energy equipment. All Canadian locations benchmarked by IBM-Plant Location International rank highly among North American options, with Winnipeg, Charlottetown, Calgary and Montréal finishing in the top five for costcompetitiveness. Although Monterrey, Mexico, may

beat Canada on costs, Canadian wind energy manufacturing locations offer far better qualitative advantages.

# WIND POWER IS NOW A HIGHLY COMPETITIVE FORM OF ENERGY

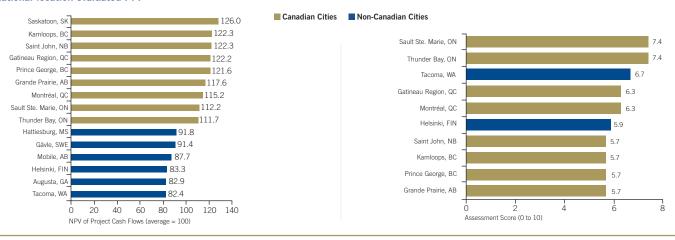
The type of contract won by ENERCON from Hydro-Québec is just an example of Canada's potential as a major producer of wind energy. In North America, the Canadian provinces of Quebec and Ontario have the first-largest and third-largest planned wind generated capacity, compared to other jurisdictions.

Quebec, particularly, is on the leading edge of wind power development in North America. To diversify its energy sources, Hydro-Québec hopes to add 10 percent wind power to its energy mix by 2015. ENERCON will supply wind energy converters for an aggregate of 1,050 megawatts—enough to power a small city. Hydro-Québec calculates that the cost of electricity produced by any one of the 15 huge wind farms that are planned will be "highly competitive".

"The Quebec project is a great initiative and shows a real commitment to wind energy initiatives-and these are the reasons why ENERCON is investing in Canada," Mr. Scheele says. "While there is a good feeling about going green from the people of Canada, we also need these types of strong political incentives and signals."

Canadian locations offer profitability levels that are higher than any other international location evaluated . . .

. . . and a business environment conducive to biomass co-generation.



# INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE BIOMASS CO-GENERATON OPERATION IN NORTH AMERICA

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of project cash flows of a representative project in the biomass co-generation sector, and is benchmarked to the global industry average = 100. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyses the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

# QUALITATIVE ASSESSMENT OF GENERAL BUSINESS ENVIRONMENT: HIGHEST RANKING CITIES

Source: IBM-Plant Location International 2009.

# Canada is a Leader in Biomass Co-Generation

Canada's biomass co-generation sector is naturally fueled by its strong forest products sector.

As one of the world's largest exporters of wood products, it is no wonder that Canada is also a leader in biomass co-generation. With a large, well-developed forest sector and 417 million hectares of forestland, Canada easily leverages its abundant biomass resources to create clean, renewable energy.

The country has the world's third-largest forest area, with 44 percent of the land area forested. Tapping into this vast resource is the forest industry, which exported \$25.6 billion in paper, pulp, lumber, board and other forest products in 2008. Producing such commercial products has led to many potential sources of forest biomass, including residues from harvest, silviculture activity, natural disturbances, non-merchantable wood and unmarketable pulp chips.

Canadian forest products companies are committed to sustainable forest management and renewable energy. Members of the Forest Products Association of Canada (FPAC) have the target of becoming carbon-neutral along the supply chain by 2015, without the purchase of carbon offset credits. FPAC also aims to be entirely energy–self-sufficient, and even a net exporter of energy during the same period. The increased adoption of biomass use and the development of new technologies are important strategies to achieve these goals.

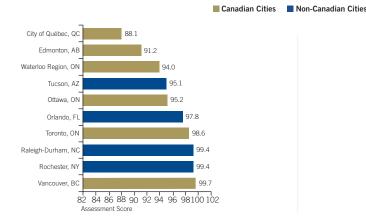
Some investments in biomass renewable energy include:

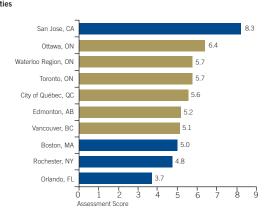
- The Canadian government unveiled the ecoEnergy Renewable Initiative in 2007, which pays one cent per kilowatt-hour for up to 10 years to eligible renewable electricity projects constructed before March 31, 2011. As a result of this, 12 biomass co-generation projects are underway in Canada.
- British Columbia, the largest bioenergy-producing region in North America, became the first Canadian province to announce a bioenergy strategy in 2008. British Columbia aims to reduce its electricity impact by setting a goal of 90 percent of its power coming from clean, renewable sources.
- In Alberta, the company Canfor, in partnership with Canadian Hydro Power Developers, is supplying products like bark for power generation in a 25-MW plant at Canfor's Grande Prairie Eco-Power Centre.
- In Saskatchewan, the company Meadow Lake Mechanical Pulp operates a BCTMP (bleached-chemi-thermal-mechanical pulp) mill, which is the world's first successful zero-liquid-effluent pulp mill. The province is also home to the Saskatchewan Research Council's Biofuels Test Centre, which has a full suite of tests for ethanol and biodiesel producers.

<sup>&</sup>lt;sup>11</sup>Statistics Canada. http://www40.statcan.gc.ca/ l01/cst01/gblec04-eng.htm

Canadian locations offer very competitive costs, compared to other North American cities . . .

. and have made quality R&D investments that are critical to fostering the growth of photonics firms.





# INDEX\* OF NET PRESENT VALUE OF OPERATING COSTS FOR A REPRESENTATIVE PHOTONICS EQUIPMENT MANUFACTURING **OPERATION IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES**

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of project cash flows of a representative project in the photonics equipment manufacturing sector, and is benchmarked to the global industry average = 100. This international location benchmarking exercise. conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

# **QUALITATIVE ASSESSMENT OF R&D (HIGHEST-RANKING CITIES)**

Source: IBM-Plant Location International 2009

# Canada is at the Leading Edge of the Photonics Sector

It's no optical illusion—Canada doesn't take its prowess in photonics lightly.

Canada is a worldwide leader in photonics, a \$710-billion global industry that is pushing the boundaries of diverse fields such as ICT, life sciences, manufacturing, defence, efficient lighting and aerospace. Comprised of about 370 companies, the photonics sector in Canada generates roughly \$4.5 billion annually in revenues and exports 85% of its photonic goods.

# CANADIAN STRENGTH IN PHOTONICS R&D

Canada is serious about photonics R&D, investing about \$150 million annually in this sector. Of the roughly 20,000 highly skilled employees who work in Canada's photonics industry, 40 percent are involved in R&D.

Canada is at the forefront of photonics R&D. At the Advanced Laser Light Source in Montréal, one of only two femtosecond laser facilities in the world, Canadian scientists partner with international researchers on projects such as molecular imaging. The City of Québec's National Optics Institute, one of North America's most prominent optics centres, has generated almost 100 patents and over 20 spin-off companies since its establishment in 1985. Alberta's nanotechnology research centres are actively exploring photonic applications in nanotechnology.

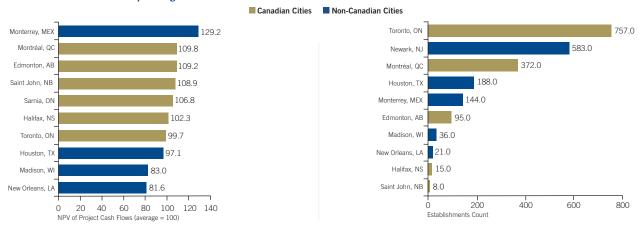
# COMMERCIALIZING DISCOVERIES IN PHOTONICS

Canadian-based companies are successfully commercializing photonics research and innovation. For example, during the 1970s, the company Optech was spun off from York University's groundbreaking project to map weather patterns on Mars with an innovative Light Detection and Ranging (LIDAR) optical remote sensing system. Optech has become a global market leader in the development, manufacture, and support of advanced laser-based surveying, mapping and imaging instruments. TeraXion, a technology leader in supplying products related to light signals for telecommunications, defence and aerospace markets, commercialized and shipped units of the University of Laval's 40-gigabit-per-second tuneable dispersion slope compensator, which was developed by the university in 2007.

The Canadian Photonics Fabrication Centre (CPFC) helps bridge the gap from innovation to product commercialization. Companies can drive innovation and reduce the risk of investing in new technologies by taking advantage of the CPFC's prototyping services, offered at its world-class industrial-grade facility.

In the industrial chemicals sector, Canadian cities offer strong qualitative operating environments and attractive operating costs . . .

. . . and some of the largest plastics clusters in North America.



INDEX\* OF NET PRESENT VALUE OF PROJECT CASH FLOW OF A REPRESENTATIVE MANUFACTURING FACILITY OF POLYPROPYLENE PRODUCTS IN CANADIAN CITIES, COMPARED WITH OTHER NORTH **AMERICAN CITIES** 

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of cash flows of a representative manufacturing facility of polypropylene products. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

**COUNT OF ESTABLISHMENTS CLASSIFIED UNDER PLASTIC** PRODUCT MANUFACTURING (CITIES WITH AVAILABLE NORTH AMERICAN INDUSTRY CLASSIFICATION SYSTEM DATA)

Sources: Statistics Canada and U.S. Census Bureau.

# The New Alchemy: Canada's Plastics and Chemicals Sector Transforms Innovation

Nine of the world's 10 largest plastics and chemicals companies have a production or R&D facility in Canada. These industry titans include BASF AG. Dow Chemical. DuPont, ExxonMobil, Mitsubishi Chemical and Shell Chemicals.

Canada is a vital link in the global chemicals and plastics value chain. From cellulose derivatives used in building materials and pharmaceuticals to vegetable-based plastics to long-fibre-reinforced thermoplastics, foreign investors have found Canada indispensable to their R&D efforts.

With more than 5,700 companies employing 198,000 workers, Canada's \$81-billion chemicals and plastics industry is a sophisticated and multifaceted sector encompassing plastics products, machinery and moulds, synthetic resins, petrochemicals, adhesives and sealants, and paints and coatings.12

In the plastics sector, Canadian machinery manufacturers have gained an international reputation for high-quality injection moulding, thermoforming machinery, blown-film extrusion systems, extruders for corrugated pipe and other plastic profiles.

Canada's plastics industry is also closely integrated with other advanced manufacturing sectors, such as aerospace, automotive, medical devices and telecommunications.

Plastics manufacturing firms based in Canada can derive scale advantages because of Canada's integration into North American supply chains across these industry verticals. For example, Canada produces nearly 17 percent of the vehicles manufactured in North America, and the average new car contains 120 kilograms of plastic material. As a result of this

12 Industry Canada. http://www.ic.gc.ca/eic/site/ chemicals-chimiques.nsf/ eng/home

http://www.ic.gc.ca/eic/site/ plastics-plastiques.nsf/eng/home



its multibillion-dollar manufacturing operations in Alberta in 2007.

invested more than \$28 million in Ontario in its 2007 manufacturing expansion.

\$100 million. In 2007, Lanxess of Germany expanded its butyl rubber manufacturing operations in Ontario, investing \$100 million and increasing capacity by more than 40 percent.

Renewable Energy Corp. announced the construction of a \$1.2-billion Quebec plant to produce polysilicon.

integration of Canada's automotive sector into the North American auto sector, Canada is the sixthlargest global exporter of moulds. In 2008, the top three—and six of the top 10—North American mould makers were Canadian companies.

On the chemicals side, Canada has ready reserves of competitively-priced feedstock, large and efficient extracting plants, and modern ethylene crackers, along with some the world's biggest derivative plants. These assets give foreign investors economies of scale and lower-cost production. With Northern natural gas pipelines and offshore resource developments in the offing, the Canadian petrochemical sector promises even greater rewards for those who get in on the ground floor.

Investor opportunities exist in a number of upstream and downstream clusters of excellence in the Canadian chemicals industry. For example, Alberta is North America's low-cost ethylene producer and is one of the best places in North America to invest in petrochemicals derived from oil sands and ethane from natural gas. Investing in Nova Scotia's and Newfoundland's ethylene-based petrochemical industry shows promise as well, given the growth in gas development taking place in eastern Canada.

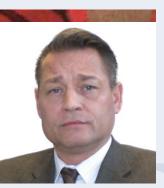
Because Canada has such a diverse manufacturing base, its chemicals industry appeals to investors attracted by cross-sector advantages not available in competing economies. In addition to providing critical components for other sectors such as aerospace,

biopharmaceuticals and automotive, the Canadian chemicals industry serves export-oriented subsectors such as petrochemicals, industrial gases, pigments, organic and inorganic chemicals, resins and synthetic fibres.

In both the plastics and chemicals industries, global supply chains are becoming increasingly complex and sophisticated. Supply procurement, distribution networks, logistics and supply chain management are important issues for foreign investors. Canada offers one of the most sophisticated logistics and transportation systems in the world, with all of the major logistics and specialty transportation companies located inside its borders.

In both the chemicals and plastics industries, Canada offers foreign investors sector-specific training and research infrastructure. This includes the Industrial Research and Development Institute, the National Research Council, the Institute for Chemical Process and Environment Technology, and the Institute for Research in Construction.

# German Manufacturer Expands in Windsor



The North American subsidiary of Dieffenbacher, a global leader in manufacturing processes and machinery, continues to expand its facility in Windsor, Ontario. Dieffenbacher develops and manufactures machine presses and production systems for the wood panel, automotive and components industries. In 2008, Dieffenbacher North America invested \$8 million to boost production capacity at the Windsor plant and in 2009, it will install a \$4-million boring drill.

"As a major manufacturing centre, [Windsor is] close to many of our major clients and partners. Its location on the border with the United States is also an advantage for us."

> Peter McCormack, Sales Manager. Dieffenbacher North America

Established in Germany in 1833, Deiffenbacher now operates manufacturing facilities in Germany along with Canada, China and the Czech Republic. The company opened its first facility in the Windsor area in 1983. In 1998, it built a new plant in the city's east-end automotive manufacturing centre. The 2008 investment added a series of computer-controlled and gun-drill machining centres, and is expected to boost employment to approximately 65 full-time workers.

"Windsor is an ideal location for us, for a number of reasons," says Peter McCormack, sales manager for Dieffenbacher North America. "As a major manufacturing centre, there's a highly skilled workforce, for instance, and we're close to many of our major clients and partners. Its location on the border with the United States is also an advantage for us. Setting up here is a strategic decision that our company has not regretted."

# New materials, new processes

The Windsor plant will also acquire the technology needed to meet the rapidly growing demand for long-fibre-reinforced thermoplastics (LFT). Lightweight and exceptionally strong, LFT is ideal for a wide range of products, particularly auto components such as underbody panels, wheel covers, carriers and instrument panels. Ford recently announced that its 2010 Taurus and Fusion will feature modules made of LFT.

# Rooted in research and development

To produce LFT, Dieffenbacher uses a unique and highly efficient method known as LFT-D. Developed in partnership with Germany's Fraunhofer Institute, LFT-D reflects Dieffenbacher's commitment to R&D. "The company invests approximately 5 percent of its

gross sales into R&D," Mr. McCormack says. "This is the main reason that we've been able to stay well ahead of the competition."

Mr. McCormack believes that another contributor to Dieffenbacher's success is the company's capacity to adapt research done in a laboratory into industrial processes and machines that can manufacture marketable products cost-effectively.

"It's crucial to consider not only how much investment it takes to develop a product or process, but also the price it would eventually sell at and how many you'll need to sell to cover production costs, recoup the initial investment and finance the innovative work needed to create the next one," he says. "I call it the piece-price performance cost ratio; and given that we specialize in production equipment and processes, these calculations must always inform our investment decisions. They certainly influenced the company to expand here in Windsor."

# Dieffenbacher poised for further growth

There's no doubt that the company has made a string of sound decisions. While Dieffenbacher may not be a familiar brand, most people in North America and Europe own products manufactured with a machine or process created by the company.

"Nearly all of the metal sinks sold in North America are made using one of our machines, for instance," Mr. McCormack says. "Our machines also make about 70 percent of North America's particleboard, a basic construction material."

Once manufacturers fully appreciate the advantages of LFT and LFT-D, Mr. McCormack believes that the Windsor plant will see another wave of growth.

# **European Chemo-Technical Products Company Chooses Waterloo**

Home to more than 1,000 manufacturers, Canada's Technology Triangle in Waterloo, Ontario, continues to attract new foreign investors. The latest addition is WEICON, a German manufacturer of specialty products used in industrial production, maintenance and repair that currently exports to 71 countries worldwide.



"We chose Canada over the United States because the Canadian government provides a great deal of support to investors and makes the whole process so much easier," explains Kevin Jüngel, WEICON's North American vice-president. "We had contacts in the Waterloo region already, so we were aware of its close proximity to the Greater Toronto Area and its position as one of the most important manufacturing corridors in Ontario."

"Another critical factor in choosing our North American headquarters was the high quality of life that it would offer to future employees," Mr. Jüngel notes. The region offers six conservation areas and more than 3,000 acres of parkland, an attractive cost of living index and short commutes to work.

# **Getting grounded**

WEICON was founded in 1949 in Germany, and has been distributing its products to the North American market for decades. "To really expand into the North American market, though, we recognized that we needed to be on the ground," Mr. Jüngel says. "Only then could we offer the flexibility that our customers were looking for in their suppliers."

The Canadian WEICON facility opened on September 2008, and provided 1,500 square feet of office and warehouse space. Since then, Mr. Jüngel has recruited two colleagues to join him. As of April 2009, he is looking forward to expanding into a 4,000-squarefoot space.

"I foresee that the North American headquarters will follow in the same footsteps as our other international office in Dubai, United Arab Emirates," Mr. Jüngel says. "We opened the Dubai office only four years ago, and already it has expanded to 10 employees."

John Jung, CEO of Canada's Technology Triangle Inc., also sees growth potential. "WEICON is strategically positioned for growth in this region, with access to a strong manufacturing cluster, industry networks and business support," he says.

# Hard times bring opportunities

While some businesses might find the current economic climate a tough time to invest, WEICON sees it as the perfect opportunity. "When times are good, people just don't have the time or willingness to explore new products and ways of doing things," Mr. Jüngel says. "But now that everyone is trying to tighten their belts, they are more interested in learning about alternatives and to hear how our products can optimize productivity."

One of WEICON's newest products is an example of how a company can wring the most out of every dollar. The Alu Grinding Protection spray improves grinding results by up to 350 percent, because it prevents clogging. This increase in performance reduces the per-piece wage cost by up to 70 percent.

WEICON also works to continually enhance its existing products. In its latest offering, the company has created a new dispenser for its popular one-component anaerobic sealant. This product, called WEICONLOCK, is unique to the market because it handles like a pen, which not only makes it easier to apply but also allows for better and more accurate dosing.

"Our experience has shown that North American manufacturers appreciate our high-quality European products, and we're looking forward to building strong partnerships with Canadian industrial wholesalers," Mr. Jüngel says. 🔌

"We chose Canada over the United States because the Canadian government provides a great deal of support to investors and makes the whole process so much easier."

> Kevin Jüngel, Vice President, WEICON, North America



PHOTO: GETTY IMAGES/GARY M. PRIOR

# FLEXIBILITY of Canada's Workforce

Workers You Can Rely On

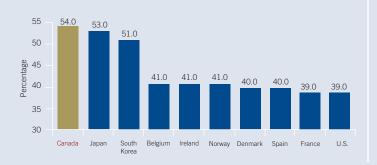


# CANADA'S WORKFORCE COMPETES WITH THE WORLD'S BEST

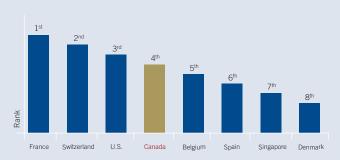
An exceptionally well-educated, talented and diverse workforce is the engine behind Canada's competitive knowledge-based economy.

A country's greatest asset in a knowledge-based economy is a smart workforce, and Canada is rich in talented human resources. While investing in its people, Canada is also providing over \$3.1 billion over two years in knowledge infrastructure. Its reward: the most highly-educated population in the OECD. Because its world-class schools and institutions train workers to such a high standard, Canada attracts the attention of businesses looking to expand and succeed globally.

# The IMD ranks Canada #1 in the OECD when it comes to educational achievement . . .



# ... and the World Bank ranks Canadian management education #4 in the world . . .



# PERCENTAGE OF INDIVIDUALS ACHIEVING AT LEAST COLLEGE OR UNIVERSITY EDUCATION, AMONG OECD MEMBER COUNTRIES

## Source: IMD. World Competitiveness Yearbook 2008.

# RANKING BASED ON AN INDEX OF QUALITY OF MANAGEMENT EDUCATION IN FIRST-CLASS BUSINESS SCHOOLS

Source: World Bank. Global Competitiveness Report 2008-2009.

anada is at the head of the class in university education—a key indicator of a competitive economy. The IMD's *World Competitiveness Yearbook* ranks Canada first among OECD countries for the number of young adults with post-secondary education credentials.

To provide an exceptional learning environment for these students, the Canadian government continues to make investments in education. In the 2008 federal budget, it committed an additional \$1.3 billion per year to post-secondary funding.

In business education, Canadian schools excel by any measure. The IMD ranks Canada first in the G7 for its finance programs. In *Business Week* magazine's 2008 MBA survey, three Canadian business schools finished among the top 10 outside the United States: Queen's (first), Western Ontario (fourth), Toronto (eighth). The World Economic Forum also placed Canada in the top 10 in a 125-country study of management education available locally in first-class business schools. And according to the *Financial Times*' Global MBA rankings for 2009, five Canadian management schools rank among the top 100 worldwide.

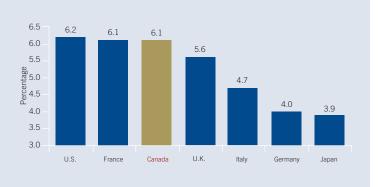
# CANADA'S TALENTED AND DIVERSE WORKFORCE

With its justly-deserved international reputation for a high quality of life, Canada also attracts the best and the brightest from every corner of the globe. In 2008, the IMD ranked Canada first among G7 countries for its ability to attract and retain talented workers to strengthen its workforce. Business-friendly immigration policies enable highly-qualified newcomers to contribute their skills and talents, ensuring a consistent supply of new knowledge workers.

Businesses looking for success will find a motivated and diverse workforce. As a multicultural country, Canada is no stranger to accepting new ways of thinking. In fact, the IMD ranked it first among the G7 nations for its openness to foreign ideas. This is not surprising, given that immigrants currently make up more than 70 percent of Canada's labour force growth. Canada also places first in the G7 for its ability to recognize when economic and social reforms are required to ensure higher levels of business efficiency, according to the IMD.

Companies profit from the multilingual abilities of the Canadian workforce. In Canada's 2006 census, Canadians reported speaking more than 200 languages as mother tongues. One-fifth of Canada's population has a mother tongue other than English or French.

# . Canada ranks third among G7 countries with respect to the share of GDP that is invested in public education.



SHARE OF GDP INVESTED IN PUBLIC EDUCATION, AMONG **G7 COUNTRIES** 

Source: IMD. World Competitiveness Yearbook 2008.

# ENHANCING CANADIANS' SKILLS

Over the last decade, Canada has undertaken several initiatives to improve the number of Canadians employed in skilled trades across the country. Changing demographics and economics have resulted in shortages of skilled labour in certain parts of the country, presenting a challenge to maintaining productivity and economic growth.

To meet these labour shortages, which were common in many industrialized countries, the Canadian government has put in place key initiatives to begin addressing this challenge. The Apprenticeship Job Creation Tax Credit encourages employers to hire new apprentices, and the Apprenticeship Incentive Grant encourages young people to pursue careers in skilled trades.

To build on these measures and further respond to skilled labour shortages, Budget 2009 also provided \$40 million a year to launch the Apprenticeship Completion Grant. Apprentices who complete their certifications in skilled trades will be entitled to receive a taxable grant of \$2,000. This grant provides an additional incentive for Canadians to finish their training and launch rewarding careers in the skilled trades. It is expected that this program alone will benefit an estimated 20,000 apprentices each year.

# NEW MEASURES TO INTEGRATE NEW CANADIANS INTO THE LABOUR MARKET

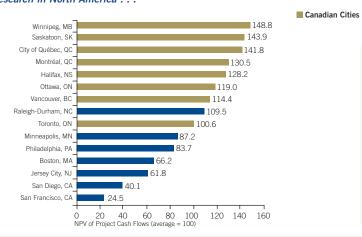
To better respond to its labour-market needs, the Canadian government has announced new measures that will improve its immigration system's capacity and flexibility in order to accelerate the processing of skilled immigrants. Besides establishing immigration regulations that focus on education and skills, the government has formed the Foreign Credentials Referral Office. This new agency has one objective to attract talented people to Canada and expedite the foreign assessment and recognition process.

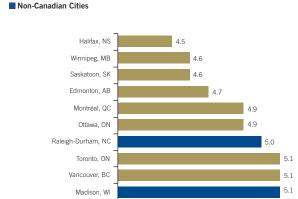
Budget 2009 provides \$50 million over the next two years to support the work of the Foreign Credentials Referral Office and Canada's Foreign Credential Recognition program. This additional funding will support the efforts of both federal and provincial governments in the development of a common approach to foreign credential assessment and ensure that immigrants are better integrated into the Canadian labour force.

"Waterloo is a special relationship for us. Most years, we hire more students out of Waterloo than any university in the world. typically fifty or more."

> Bill Gates. Chairman. Microsoft Corporation

... and have some of the lowest labour costs for skilled biotech workers among North American biotech hubs.





INDEX\* OF NET PRESENT VALUE OF CASH FLOWS OF A REPRESENTATIVE R&D FACILITY FOCUSED ON DRUG DISCOVERY AND CLINICAL TRIALS IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

This index measures the NPV of cash flows of representative R&D and clinical trial facilities in the biopharmaceutical sector. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

ESTIMATED ANNUAL LABOUR COSTS OF A 96 FULL-TIME EQUIVALENTS BIOTECHNOLOGY OPERATION, IN NORTH AMERICAN BIOTECH HUBS

Annual Labour Costs (\$ million)

Source: IBM-PLI calculations, based on Watson Wyatt 2007/2008 and Economic Research Institute (ERI) 2008. \$1 = US\$0.862 = MXN 10.9

# The Art of Innovation in Life Sciences

From the identification of the muscular dystrophy gene to discovering new ways of creating stem cells, Canadian life-sciences innovators are at the forefront of discovery. Industry leaders are carving out global niches in biopharmaceuticals, medical devices and contract services—thanks to Canada's world-renowned research institutes and biotechnology clusters. Add Canada's 20-year patent protection and its large pool of post-graduate and post-doctoral researchers, and the potential for innovation is limited only by our imagination.

With a significant and profitable healthcare market, Canada is very attractive to life sciences companies. It is home to more than 390 pharmaceutical and 400 biotech companies that employed nearly 29,000 highly-skilled workers in 2007, making Canada the country with the third-largest number of biopharma firms in the world. In 2007, biopharma companies in Canada had sales of \$19 billion and over \$6.3 billion in exports. Canada's biopharmaceutical firms have nearly 500 products under development or on the market. Canada also leads the G7 countries in the growth of health-related research patents.

# THE CANADIAN ADVANTAGE

Canada boasts numerous advantages that are beneficial to the life sciences sector. Canada has several world-leading centres of excellence in science and technology, and one of the most generous R&D tax incentives to be found in the OECD. In 2007, over \$1.3 billion was spent on biopharmaceutical-related R&D in Canada, much of it underwritten by the federal SR&ED tax credits and accelerated tax deductions for a wide variety of R&D expenditures.

In addition to the private sector, Canada's life sciences sector benefits from world-leading post-secondary institutions and research centres, producing highly-skilled biotech workers. Demonstrating innovation excellence, Canada's academic research community boasts more than 30,000 investigators in over 17 medical schools and 100 teaching hospitals.

As a result of these factors, Canada has the highest rate of increase in the G7, in biotech R&D workers, external patent applications and business expenditures on R&D, and the lowest biotech labour costs.



\$100 million. French firm Sanofi Pasteur invested \$100 million in a new R&D facility in Ontario in 2008.

\$140 million. Charles River Laboratories International, of Massachusetts, will open a pre-clinical services facility in Quebec in 2009, employing an estimated 1,000 people.

\$178 million. GlaxoSmithKline invested more than \$178 million in Canadian R&D in 2007 alone, ranking it among the top 15 contributors to R&D in Canada, across all industries. GSK has operations throughout Canada, with facilities in Nova Scotia, Quebec, Ontario, Alberta and British Columbia.

\$80 million. In 2007, Sandoz, a member of Switzerland's Novartis Group. announced an \$80-million investment to expand its operations in Quebec.

# CANADA'S LIFE SCIENCES LEADERSHIP

Canada is internationally recognized for its numerous contributions and expertise in the following Life Science areas:

Biopharmaceuticals Human health represents over half of all life science companies, 70 percent of all revenues and close to 90 percent of all R&D. Canada is globally recognized for Discovery & characterization of therapeutic molecules, Genomics & proteomics platforms, Vaccines & immunotherapeutics, Regenerative medicine & stem cell research and Drug formulation & delivery systems.

Medical Devices Some 1,000 small and medium-sized firms employ 26,000 people in this sector in Canada. In 2007, Canadian medical devices companies generated total revenues of \$4 billion and exports of \$2.4 billion. Canadian firms benefit from this country's strengths in related sectors such as advanced materials, microelectronics, telecommunications, etc. Canada has proven expertise in In-vitro diagnostics, Medical imaging & analysis, Nuclear medicine, Surgical & implant devices, Advanced materials & nanotechnology, and Cardiovascular devices.

Life Sciences Services Canada is home to high-quality contract research and manufacturing services utilized by the world's top pharmaceutical companies. Canada is recognized for its advanced services in Drug formulation & delivery systems, Clinical trials, Manufacturing & packaging, Design & manufacture of high-value medical devices, and Analytical services.

# EMPOWERING EXCELLENCE

At their core, Canada's biotechnology clusters all have major research institutes and universities that provide access to publicly-funded equipment, services and expertise. These networks also promote cooperation across sectors, to take innovations quickly from the lab to the marketplace.

The Government of Canada's leading research institutes and funding agencies foster innovation. They include the Canadian Institutes of Health Research, Genome Canada, the Canada Foundation for Innovation, Canada Research Chairs, the National Research Council's six research institutes and the Canadian Bioinformatics Resource.

Canadian governments also support the Networks of Centres of Excellence program, a Canada-wide consortium of researchers engaged in a variety of research disciplines. These include the Bacterial Diseases Network, the Genetic Diseases Network, the Protein Engineering Network and the Health Evidence Application and Linkage Network (HEALNET).

# **Leading Pharmaceutical Con**

# THE BRIEF

NAME

Paul Lucas

**COMPANY** 

GlaxoSmithKline, Inc.

WINS

Head of Canada's

largest biopharma company



GlaxoSmithKline Inc. (GSK), one of the world's leading pharmaceutical companies, has a 100-year history in Canada of helping people do more, feel better and live longer. The company has an ongoing commitment to leadership in research and development, community investment and manufacturing.

The first legacy company, Allen and Hanbury's Company Limited, opened its headquarters in Toronto in 1902. Today, GSK employs over 3,000 people across the country, who work to discover, develop, manufacture and market medicines and vaccines.

# mpany Committed to Canada

GSK continues to invest heavily in Canada. Most recently, it has made significant investments to enhance facilities and manufacturing capacity in the provinces of Ontario and Quebec. Since 2005, GSK has invested \$250 million to upgrade vaccine manufacturing facilities in Laval and City of Québec. As a result, the company can now produce 75 million doses of seasonal flu vaccine per year.

GSK now produces the majority of Canada's seasonal influenza vaccine, in addition to holding the Canadian government contract to supply a pandemic influenza vaccine, if required. Further, these investments now make the City of Québec facility a key global influenza vaccine manufacturing site, supporting public health strategies in Canada, the United States and worldwide.

"These Canadian investments have helped put GSK at the forefront of vaccine and medicines development and production in this country," says Paul Lucas, President and CEO of GSK Inc. "The results of investing in Canada include securing supply of innovative products, more local jobs and quality patient care."

The company has also been expanding capacity at its \$120-million, 250,000-square-foot pharmaceutical manufacturing and development facility in Mississauga, Ontario. The facility recently went through a \$55-million expansion and now produces more than 35 million units annually, with more than 80% of products exported to over 120 markets worldwide.

# A Canadian partner in research and development

Given its commitment to Canada, it is no wonder that GSK invested more than \$178 million in Canadian R&D in 2007 alone. This investment contributed to GSK's ranking among the top 15 contributors to R&D in Canada, across all industries. As part of that research, \$45 million is spent on clinical trials in Canada, comprising more than 80 clinical trials and enrolling close to 3,000 patients. This represents approximately 6 percent of the company's worldwide clinical trial program, which is significant given that GSK in Canada represents less than 2% of global sales.

GSK's Pathfinders Fund for Leaders in Canadian Health Science Research was established to help Canada become a world leader in R&D. The Fund encourages health sciences research and fosters innovation in Canadian medical schools.

Most recently, GSK used this fund, in partnership with the Canadian Institute of Health Research (CIHR), to

establish Research Chairs in Chronic Obstructive Pulmonary Disease and Immunobiology of Infectious Diseases, in Quebec and Manitoba universities respectively. Over the past five years, GSK has endowed 20 similar positions at Canadian universities, for a total investment of nearly \$22 million.

"We are extremely proud to support scientific research at Canadian universities," says Mr. Lucas. "This research is essential to the development of new and more effective therapies. Improving patient outcomes and reducing the burden of disease on society requires the collaboration of researchers, healthcare professionals, regulators and companies like GSK."

# Business environment continues to evolve, to support the biopharmaceutical sector

GSK and all levels of government continue to partner to look for new ways to strengthen Canada's competitiveness and create jobs in the innovative biopharmaceutical industry. Tax credits for Canadian R&D contributions have most definitely contributed to the success of GSK in this country.

"GSK remains committed to working with all levels of government, to create an environment that will continue to define Canada's role as a global life sciences leader," says Mr. Lucas. "We continue to accomplish a great deal at our Canadian facilities, and we believe that innovation is the key to our collaborative success."

This commitment to Canada has helped GSK to attract some of Canada's best-trained researchers, resulting in a highly-skilled and innovative workforce. The company offers employees a motivating and meaningful work experience, and this has contributed to GSK being recognized as one of The Globe and Mail's 50 Best Employers in Canada for the past eight consecutive years.

# GSK and Canada: a strong relationship

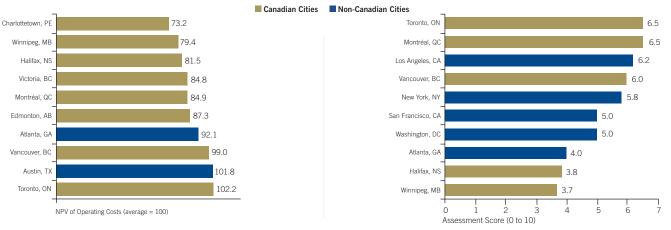
GSK remains committed to strengthening Canada's reputation as a leader in the development of innovative pharmaceuticals and vaccines for Canadians and people all around the world. Through continued investment, collaboration and innovative local R&D, the company and its Canadian employees will continue to strive to help Canadians do more, feel better and live longer.

"We are extremely proud to support scientific research at Canadian universities. This research is essential to the development of new and more effective therapies."

Paul Lucas, President and CEO. GlaxoSmithKline Inc.



# ... and have some of the North American sector's most experienced creative artists and software and hardware developers.



INDEX\* OF NET PRESENT VALUE OF OPERATING COSTS OF A REPRESENTATIVE GAME AND MULTIMEDIA DEVELOPMENT STUDIO IN CANADIAN CITIES, COMPARED TO OTHER NORTH AMERICAN CITIES

Source: IBM-Plant Location International 2009.

\* This index measures the NPV of operating costs of representative projects in the Digital Media Games sector. This international location benchmarking exercise, conducted by IBM-Plant Location International (IBM-PLI), analyzes the comparative cost and qualitative factors of doing business in various locations, applying the approach that is used when screening candidates for corporate investment projects. The benchmarking study examines 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

PRESENCE OF EXPERIENCED GAMING-RELATED EMPLOYEES (HIGHEST-RANKING CITIES IN NORTH AMERICA)\*

Source: IBM-Plant Location International 2009.

\* Based on evaluation of the overall size of the labour pool, the number of gaming employees such as programmers, film and video industry staff, the size of the student population and the tightness of the labour market.

# In the Canadian Digital Media Games Sector, Creativity is Child's Play

The digital media games industry is a vital contributor to Canada's knowledge economy. As one of the fastest-growing sectors in the Canadian technology market, digital media games present a lucrative opportunity for investors. In 2008, approximately 250 game development companies employed 14,000 people and posted over \$2.2 billion in revenues. Some 500 firms work across the entire digital games value chain: hardware, development tools, supporting tools and services, developers and publishers.

The digital media games industry is a magnet for inward direct investment, attracting many of the industry's largest players. Activision, Disney, Electronic Arts (EA), Eidos, Koei, Microsoft Games, THQ, Ubisoft—these are just a few of the firms that have established or expanded Canadian operations.

Digital media companies choose Canada for many reasons. With the country's high quality of life, solid industry credentials and large creative-talent base as well as access to 60 universities offering gaming studies, these multinationals feel right at home. They recruit

well-trained staff from Canadian schools such as the Centre for Digital Media, Simon Fraser University, the University of British Columbia, Sheridan, Seneca and Centennial colleges, CEGEP de Matane, Université de Sherbrooke, the National Animation Design Centre and the University of New Brunswick. Canada's proximity to the United States and its central location relative to Asia, Europe and the growing South American market also make it an ideal business location.

The advantages don't end there. The Canadian government is actively growing the digital media games industry, through programs and partnerships that encourage many of the largest game developers to come to Canada. For example, the Scientific Research and Experimental Development (SR&ED) initiative and the National Research Council's Industrial Research Assistance Program (IRAP) enable Canadian-based companies to reduce their development costs by providing rebates for money spent on wages and infrastructure. The government also offers other programs that provide tax benefits, grants, industry knowledge and expertise.





1,000 jobs. In 2007, Ubisoft Entertainment SA of France expanded its Canadian production facility, creating approximately 1,000 jobs in Montréal.

350 jobs. U.K.-based Eidos Interactive Ltd. created 350 jobs, by establishing a new Montréal studio in 2007.

Between 2007 and 2009, California-based Activision brought several hundred jobs to City of Québec when it expanded its Beenox facility

Longtail Studios of New York continued its Canadian expansion, by opening a new studio in Charlottetown, Prince Edward Island, in 2008.

# INVESTING IN CANADA'S GAMING SECTOR IS A **NO-BRAINER**

Canadian companies have won international recognition for developing a wide range of quality digital gaming products. Some 20 percent of the top-selling games in North America hail from Canadian studios.

Console Games Category-leading console games developed in Canada include Too Human by Silicon Knights, Unreal Tournament by Digital Extremes, Crash of the Titans by Radical Entertainment (Activision Blizzard), Neverwinter Nights by Bioware (EA), Super Mario Strikers by Next Level Games and Bee Movie by Beenox (Activision).

Casual Games Canadian companies are important players in the casual games market. Calgary-based Games Café created a game that was the top seller on Real Network's "RealGames" family of sites. Torontobased Ganz is the creator of the popular Webkinz toys and website for children.

Serious Games Canada is a world leader in the "serious games" market, which uses gamelike technology for training and simulation. CMLabs and CFB Gagetown undertake defence simulations, while Artifact Software, Coole Immersive and Xpan Interactive specialize in industrial training. Spongelab Interactive and Project Whitecard are working on math and science games. Canadian companies such as CAE and Presagis build highly accurate simulators for military and commercial airlines, space agencies and other hi-tech clients.

Mobile Games Canada is home to numerous mobile game developers. France's Ubisoft has a substantial presence in Montréal. Canadian mobile developers have produced titles such as *Emily Yeung* by Marblemedia, A2M's Spiderman: Friend or Foe and Super Monkey Ball by Other Ocean Interactive.

Online Games Popular online games created in Canada include Warhammer by Relic (THQ), Club Penguin by New Horizon Interactive (Disney Interactive), NHL 09 SPORTS™ by HB Studios, Need for Speed by EA and Assassin's Creed by Ubisoft.

Tools Development Canadian companies are leaders in the development of innovative animation tools, digital models and artificial intelligence. Game developers increasingly turn to Canada for graphics software developed by Autodesk's Alias and Softimage to make their games more lifelike. Companies such as Side Effects and Rainmaker are also producing 3D animation and visual effects that are customized and integrated into games, to provide a more exciting experience.

Other players in the value chain include motion effects specialists like D-BOX, GestureTek Technologies, Mgestyk Technologies and XYZ RGB; multiplayer middleware developers such as Quazal Technologies; and hardware developers like AMD, which manufactures its ATI graphic chips in Canada.

# Ubisoft Plays for Keeps in Montréal's **Gaming Sector**



Nearly 12 years after it opened, Ubisoft's Montréal location is one of the world's largest video game development studios. Since 1997, the French giant's biggest Canadian studio has created more than 55 titles that have sold in the tens of millions worldwide, generating hundreds of millions of dollars in revenue.

"Ubisoft continues to expand its presence in Canada, thanks to a very favourable business climate and the availability of a skilled workforce."

> Yannis Mallat. President and CEO, Uhisoft Montréal

Initially developing games for children such as Donald Duck: Goin' Quackers and titles based on the Playmobil toy series, the studio helped position Montréal as a video game capital by launching Tom Clancy's Splinter Cell series in 2002. Many of its titles, such as Assassin's Creed, Rainbow Six Vegas and Prince of Persia have since been successful.

The Montréal studio, which had fewer than 100 people on staff when it was created, now employs almost 2,000 creative personnel. Ubisoft is pursuing its development strategy, with the objective of creating 1,000 jobs by 2013.

"Ubisoft continues to expand its presence in Canada, thanks to a very favourable business climate and the availability of a skilled workforce," says Yannis Mallat, President and CEO of Ubisoft Montréal. "Thus far, this expansion has materialized thanks to the establishment of a studio in Quebec in 2005, the creation of Ubisoft Digital Arts (UDA) in 2007 and the acquisition of Hybride Technologies, a specialist in creating visual effects for film, television and advertising, in 2008. We also recently set up operations on Canada's West Coast, with the acquisition of developer Action Pants Inc. in Vancouver. This studio, which presently has a staff of 110, specializes in sports games adapted for the Wii console."

# An army of highly-trained workers

Ubisoft has been actively involved in developing genuine creative and technological know-how that has enabled Canada to establish its presence in a booming market. The studio can benefit from some 7,000 IT and multimedia graduates from leading Quebec universities.

Ubisoft also recruits from specialized educational colleges, such as the National Animation and Design Centre, Collège Bois de Boulogne for 3D training, Inter-Dec College for 2D/3D imaging and the Institut national de l'image et du son for music training.

In addition, since 2005 the Ubisoft Campus—created in collaboration with CEGEP du Vieux-Montréal, CEGEP de Matane, Dawson College, Université de Sherbrooke and Université de Montréal—has been offering college- and university-level training in programming, 3D animation, modeling and game design. Ubisoft Campus is the first Quebec initiative to combine college- and university-level curricula, leading to diplomas recognized by the Quebec Ministry of Education, Recreation and Sport (MELS). Students are required to collaborate on common study projects simulating the creation of a video game production, thus preparing them to enter the interactive entertainment industry.

# A promising future for a dynamic and expanding industry

Even accounting for the current economic downturn, worldwide video game industry sales are expected to reach US\$68.3 billion annually by 2012, according to PricewaterhouseCoopers. Ubisoft intends to stay at the forefront of independent publishers, by hiring the most qualified employees to develop truly innovative games that redefine industry standards. Its Canadian presence will help it attain that goal.



INVEST IN CANADA BUREAU, FOREIGN AFFAIRS AND INTERNATIONAL TRADE CANADA, **OTTAWA** 

# **Our Services to Foreign Investors**

Whether you are considering your own Canadian operation, working with a Canadian partner, or gaining a Canadian base for access to North American markets, Canada is where you have to do business.

Invest in Canada and the provincial and territorial governments partner to provide you with the right support for your Canadian investment project. The following list outlines provincial and territorial investment promotional organizations throughout Canada.

Canada has a global network of investment and trade professionals, present 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 and confidential service. Canada's investment professionals will provide you with strategic intelligence and put you in touch with the right decision-makers in Canada.

We offer the following services to our clients:

- Strategic market intelligence on your specific sector
- Direct contact with key decision-makers in Canada
- Referrals to a variety of contacts with private-sector industry associations and with professionals such as bankers, lawyers, accounting firms and information specialists
- Information and advice on how to set up a business in Canada, taxation, R&D incentives, regulations and financial and non-financial government programs specific to your sector
- Facilitation of site visits to support you in the identification of a strategic location
- Assistance in developing a business case for your next investment decision.

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