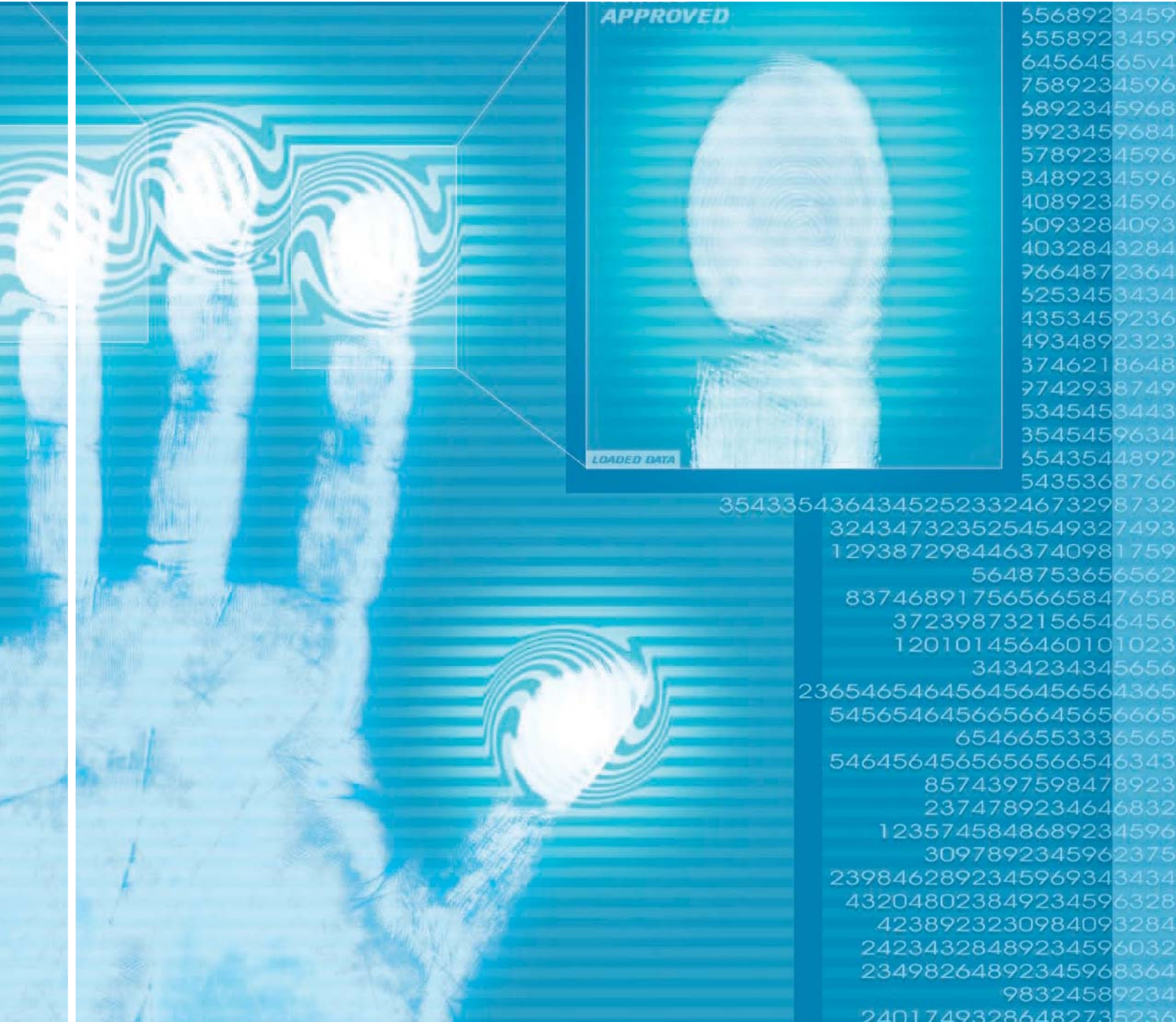


2009

Invest in Canada SOFTWARE



RECENT INVESTMENTS IN CANADA

- » **The Citco Group** announced in 2008 a large IT investment in Nova Scotia for 325 new jobs in application development to support the hedge fund industry.
- » **Microsoft Corporation** of Washington opened a new greenfield facility in British Columbia with 200 new jobs created in 2007.
- » California-based **Paragon Global Resources Inc.** expanded its operations in Nova Scotia by 150 jobs in 2007.
- » **Sage Software Inc.** of California, created 130 new jobs in Ontario with its 2007 greenfield investment.
- » **SAP AG** of Germany opened a new greenfield facility in Quebec with 750 new jobs created in 2007.

MAJOR GLOBAL INVESTORS IN CANADA

Adobe
Corel Corporation
Fujitsu Consulting
IBM Corporation
Microsoft Corporation
Oracle Corporation
SAP AG

LEADING CANADIAN COMPANIES

CGI Group Inc.
Constellation Software Inc.
Enghouse Systems Ltd.
Matrikon
Open Text Corporation
Platform Computing Corporation

The Canadian software industry employs some 262,100 people and consists of 52,926 firms. Most of these companies are involved in systems design and related services, while about 2,000 firms operate in software publishing. Canada's software industry, including software publishing, computer systems design and related services was valued at \$32.2 billion in 2007. Twenty of Software Magazine's Top 500 global software companies originate from Canada, the second-highest national percentage in the world after the United States.

Canada's software strengths are evident in various fields, including enterprise application, e-Security, health, imaging, and financial services. In the past five years, Canada's software industry has received significant foreign investment, the majority of which has originated from U.S.-based firms.

Key Capabilities

Research and development (R&D): Canada's total R&D spending in the information and communication technologies (ICT) sector amounted to nearly \$6 billion in 2006, 34.1 percent of which was related to software and computer services R&D.¹ This investment in software R&D has experienced tremendous growth, up 298 percent from 1997 levels and 9.2 percent higher than in 2005.

Canada's innovative drive: Canada's culture of innovation has produced global leaders in the enterprise application software (EAS) sector, such as Cognos (now part of IBM) and Open Text, and has driven investment by leading firms in the international EAS sector. Some of these investments include: IBM's Toronto software lab, with over 2,000 developers, the third-largest IBM software lab in the world; Microsoft's major development centre in Richmond, British Columbia; and Sage Group's global R&D facility also in British Columbia.

Enterprise application software growth in Canada: Canada has developed strengths in software-as-a-service applications and collaborative applications because of the presence of global leaders such as IBM, Microsoft, SAP and Oracle in Canada. The Canadian customer relationship management (CRM) market is anticipated to be the fastest growing with a compound annual growth rate (CAGR) of 11.7 percent, while the Canadian enterprise relationship management (ERM) market, having recorded vendor revenues of \$840.5 million in 2007, will generate the largest share of the EAS market revenue.²

Canadian information and communications technology infrastructure: Canada possesses the second-highest ranking technology infrastructure in the world, providing the necessary backbone for all types of technology businesses. In 2007, the Government of Canada committed \$120 million for the continued design, deployment and operation of CA*net 4, the world's premier, advanced, all-optical research network.

Canada's software strengths are also evident in fields such as e-Security, health, imaging and financial services.



Valued at \$32.2 billion in 2007,
Canada's software sector
consists of 52,926 firms
and employs approximately
262,100 people.

Ontario

Ontario's software and systems development sector has many world-leading firms, including subsidiaries of large multinationals like IBM, Microsoft, Adobe, Cisco Systems, HP, EDS, and Satyam, as well as world-leading Canadian firms such as Research in Motion. Most of these companies operate in the clusters of the [Greater Toronto Area \(GTA\)](#), [Waterloo Region](#), and [Ottawa](#), with sector strengths in network application and connectivity, business intelligence, content and information management, enterprise planning solutions, CRM tools, security, IT services, and graphics and multimedia.

British Columbia

There are more than 32,500 employees in British Columbia who specialize in software and services, including active server pages, Web hosting, business intelligence, CRM, e-commerce, graphics and publishing management, and supply chain management. In the Vancouver cluster, seven multinational corporations have developed unique approaches within the applications area. Areas of market strength include content management, software-as-a-service (SaaS), e-commerce, security, wireless, digital video, and Web 2.0.

Alberta

Alberta's software industry employs roughly 16,600 people and generates revenues in excess of \$3 billion annually. Alberta's software industry, particularly in [Edmonton](#), has highly specialized and widely recognized expertise in a broad range of business areas, including custom programming, digital content creation, e-learning, energy and resource industry software and financial and process management software.

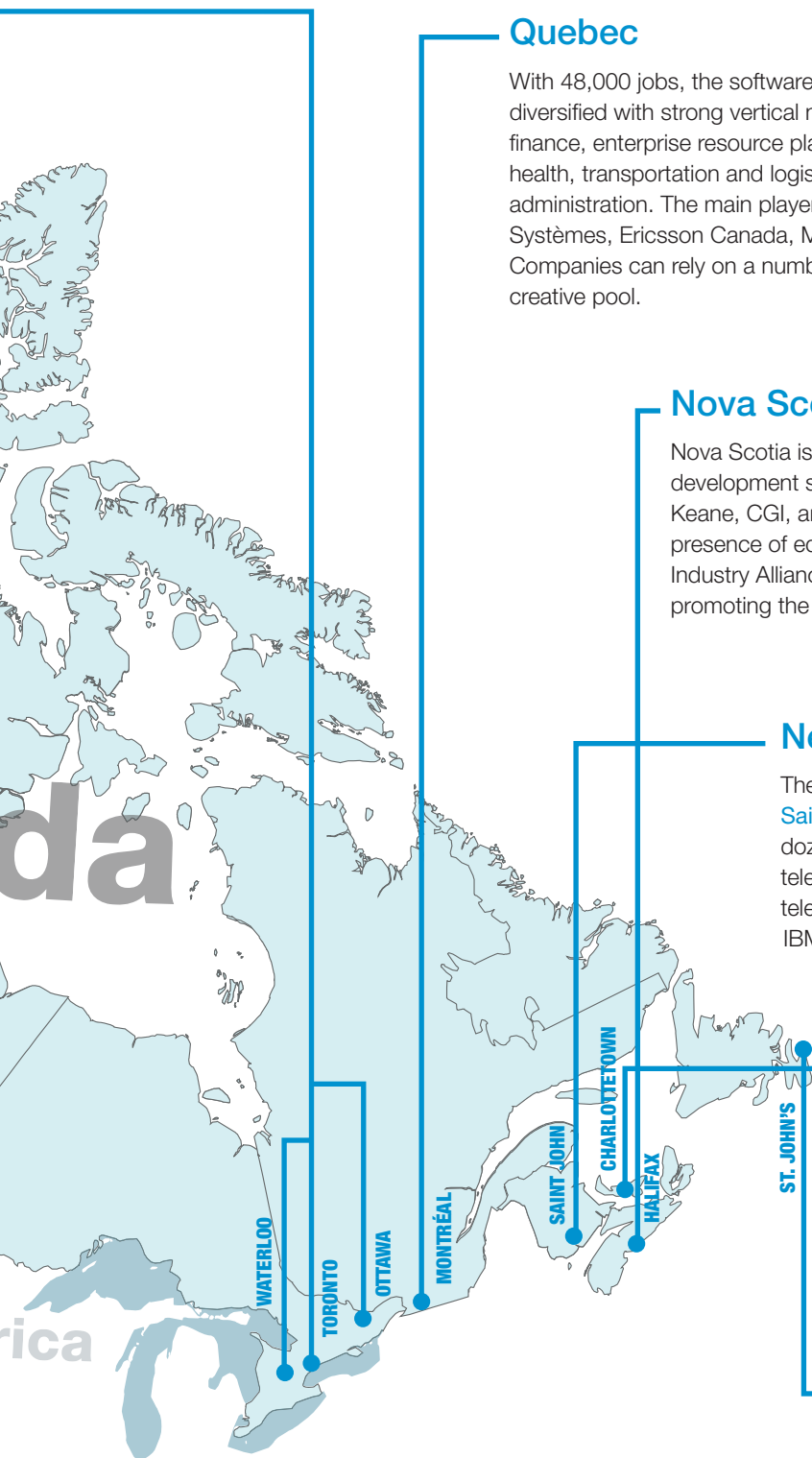
Manitoba

[Winnipeg](#) is home to approximately 80 percent of Manitoba's 1,500 ICT companies. The cluster employs over 15,000 people at leading ICT firms such as EDS, IBM Canada, IDERS, ImagiNET Resources Corp., Momentum Healthware, Online Business Systems, Protegra Technology Group and Emerging Information Systems Inc. (EISI). In fact, EISI is the largest financial planning software developer and vendor in North America. R&D facilities that support the industry include the University of Manitoba's new \$52 million state-of-the-art Engineering and Information Technology Complex and Red River College's new downtown campus.

Saskatchewan

Saskatchewan's ICT sector employs an estimated 14,000 people in some 300 companies. The province's expertise in computer software and digital media content, health care management systems, computerized banking and embedded real-time systems is exported around the world. Companies include IBM, EDS, Vecima, CGI, GE Healthcare and ISM, Canada's largest provider of information systems management services.





Quebec

With 48,000 jobs, the software sector of **Greater Montréal** is highly diversified with strong vertical niches in electronic commerce, CRM, finance, enterprise resource planning (ERP), manufacturing processes, health, transportation and logistics, training, imaging, and public administration. The main players in Greater Montréal include Dassault Systèmes, Ericsson Canada, MediSolution, SAP and Société GRICS. Companies can rely on a number of research centres to feed the creative pool.

Nova Scotia

Nova Scotia is home to more than 8,000 skilled workers in the software development sector. Leading firms include Research In Motion (RIM), Keane, CGI, and IBM Canada. The industry is supported by a strong presence of educational institutions and the Information Technology Industry Alliance of Nova Scotia, a non-profit organization committed to promoting the growth and development of the province's IT industry.

New Brunswick

The enterprise software and development sector in the **Saint John** area employs approximately 1,000 people in over a dozen companies. Areas of expertise are in e-learning and the telecommunications industry, more specifically in Internet Protocol television. Firms operating in and around Saint John include IBM Canada, Innovatia, Mariner Partners, T4G and xwave.

Prince Edward Island

Charlottetown offers many specializations, including advanced software development projects, health imaging applications, database development for the financial and human resources sectors, and innovative proprietary learning applications. Some of the major firms include CGI, Delta Ware, CareStream Health and Timeless Technologies.

Newfoundland and Labrador

There are over 550 small to medium-sized ICT companies with expertise across multiple sectors, including oil and gas, marine and ocean technology, mining, manufacturing, and education. Concentrated in **St. John's**, these companies employ more than 5,000 highly trained and innovative professionals with expertise in virtually all software applications including .Net, C++, Java, ASP and Oracle.



INVESTMENT LOCATION BENCHMARKING


METHODOLOGY

This benchmarking study assesses the competitiveness of a number of Canadian clusters against competing international business locations. Based on an investor's perspective, the research and analysis uses a representative investment project prototype (an operation involving the development of enterprise software—see profile on page 5) to assess criteria that corporate decision makers typically examine when evaluating location alternatives for foreign investment.

This international location benchmarking exercise was conducted by IBM-Plant Location International (IBM-PLI), a renowned global location consultancy. IBM-PLI performed objective research to assess the comparative cost and quality of doing business in various locations, simulating the approach used by investors when screening candidates for corporate investment projects. The benchmarking study examined 250 to 300 financial and qualitative location indicators in the assessment of each industry subsector.

To assess the quality of a location's operating business environment, data were collected from a variety of sources for the different subfactors in each of the categories featured in the operating environment table (page 5). Data for the qualitative assessment were translated into comparable scorings (zero to 10) for each category and subfactor using a weighted scoreboard approach. Weights were assigned to each location category and subfactor to demonstrate their relative importance in the location selection process. These weights are specific to each industry subsector and are based on IBM-PLI's experience in helping investors make strategic decisions when choosing locations.

A high-level financial analysis was also conducted to take into account major location-sensitive operating costs for each representative project profile. Operating cost projections have been calculated and discounted over a 10-year period, incorporating anticipated inflation rates, to determine their net present value.



benchmarking the comparative
cost and quality of doing
business in global locations



INVESTMENT LOCATIONS

INVESTMENT LOCATION BENCHMARKING

REPRESENTATIVE PROJECT PROFILE



GENERAL DESCRIPTION OF OPERATIONS

Enterprise software application development.

KEY PROJECT DRIVERS

- » Presence of experienced software professionals
- » Presence of software related student population
- » Availability of office space
- » Software research and development base
- » Presence of software industry cluster
- » Attractiveness for young international recruits

OPERATING COST ANALYSIS PROJECT REQUIREMENTS FOR FINANCIAL MODELLING

LABOUR

(HEADCOUNT = 150)

Analyst Programmers: 107

Senior Analyst

Programmers: 27

Team Leaders: 10

Project Managers: 6

PROPERTY

Building: 50,000 sq. ft.

OPERATING ENVIRONMENT

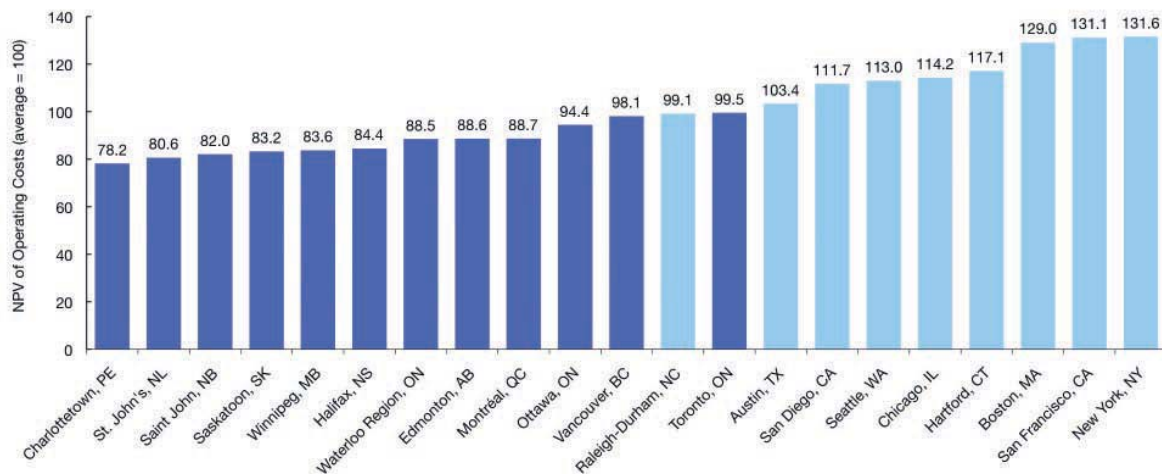
GENERAL BUSINESS ENVIRONMENT » 10%*	» Availability of financial support for setting up (incentives); » Compliance with protection of privacy regulations, information security, IP rights; » Quality of support from local government & development agencies; » Business permitting procedures; » Economic and financial stability; » Political stability
LOCAL POTENTIAL TO RECRUIT SKILLED STAFF » 30%*	» Presence of experienced software development employees; » Presence of student population; » Overall size of labor pool; » Overall tightness in the labour market (unemployment)
PRESENCE OF INDUSTRY/CLUSTER » 15%*	» Importance of R&D; » Presence of industry base
FLEXIBILITY OF LABOUR & REGULATIONS » 10%*	» Hiring & firing flexibility; » Working time regulations; » Work permits; » Industrial relations/attitude of unions
INFRASTRUCTURE & COMMUNICATIONS » 15%*	» Air access; » Highway network & congestion; » Quality & reliability of IT & telecommunications; » Reliability of power supply; » Public transport
REAL ESTATE » 10%*	» Availability of office space
LIVING ENVIRONMENT » 10%*	» Attractiveness for young international recruits; » Cost of living; » Attractiveness for expatriates

CANADA'S VALUE PROPOSITION

Canada offers some of the world's most competitive software development hubs. Canadian locations combine excellent operating environments with cost structures unmatched in the G7.

COST ASSESSMENT*

■ Canadian
■ Non-Canadian
CS\$1 = US\$0.862



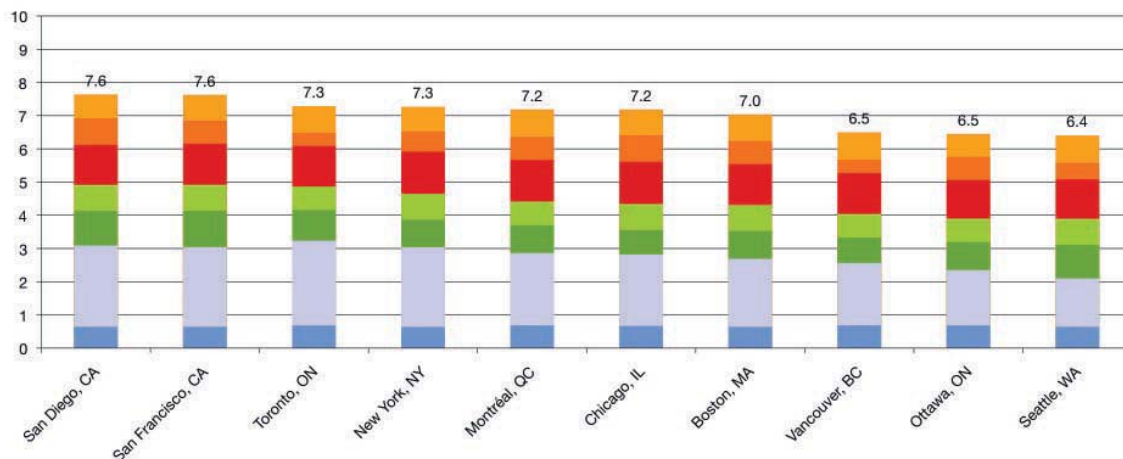
Favourable operating costs

Benchmarked Canadian cities offer attractive operating cost structures compared to other locations in North America. Emerging and medium-sized Canadian clusters together with some of Canada's larger, more established software clusters, rank well

ahead of U.S. and European locations. Canada's cost advantage can be attributed to favourable labour costs, corporate tax rates and property costs.

QUALITATIVE ASSESSMENT OF OPERATING ENVIRONMENT*

■ Living environment
■ Real estate
■ Infrastructure & communications
■ Flexibility of labour & regulations
■ Presence of industry/cluster
■ Local potential to recruit skilled staff
■ General business environment



Strong clusters with a wealth of expertise

Large and medium-sized Canadian locations provide attractive operating environments, mostly due to the size and/or concentration of the specialized staff for the software sector. Taking into account the combined location factors, which contribute to the overall quality ranking of locations, Toronto, Montréal, Vancouver and Ottawa are

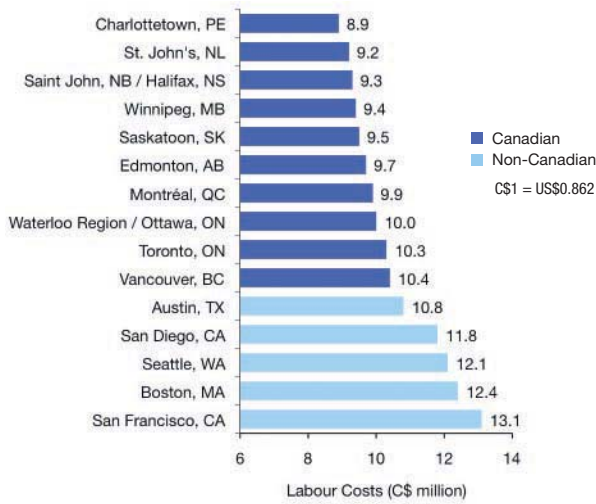
positioned in the top 10 North American locations analyzed in the IBM-PLI study. When looking at the pool of experienced software professionals, size of the specialized student population, and absence of competition for specialized software skills, Toronto ranks highest among compared locations, while Montréal is in the top five.

*Unless otherwise noted, graphs represent IBM-PLI assessment scores.

CANADA'S VALUE PROPOSITION



Estimated annual labour costs (selected cities)**



Advantageous labour costs

Availability and cost of labour are important considerations for software development firms that require skilled programmers and project managers.

A calculation of the estimated annual labour costs for a large-scale enterprise software design centre shows the significant cost-saving potential of Canadian locations over prominent U.S. alternatives.

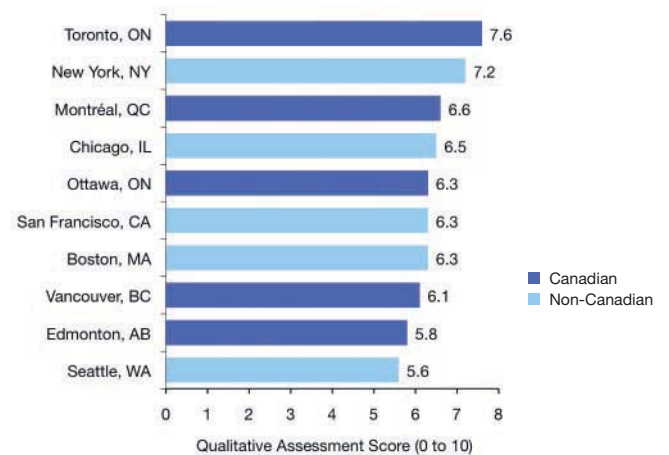
An important component of Canada's labour cost advantage relative to the United States stems from its lower costs of providing employee benefits. Canada's national healthcare system implies that many medical insurance costs are publicly funded rather than paid by the employer, resulting in significant savings.

Thriving software clusters

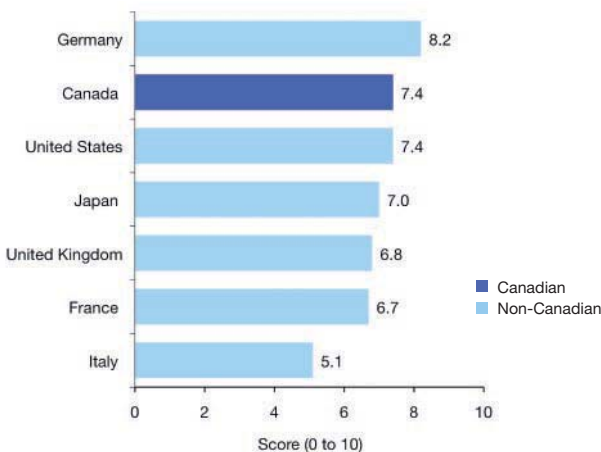
Dynamic software clusters can be found across Canada. Toronto and Montréal boast the largest Canadian software clusters, while other cities host clusters that are smaller in absolute numbers but that can still provide top-quality talent.

Ottawa, in particular, has a strong concentration of both specialized EAS resources and firms, which makes it an attractive location for investment. Vancouver, Edmonton and other Canadian cities also provide specialized skills and firms.

Presence of industry cluster (highest-ranking cities)*



Protection of intellectual property rights (G7 countries)***



Respecting intellectual property rights

The protection of intellectual property is essential for software companies that regularly depend on innovative use of technology to create new products. According to the 2007 IMD World Competitiveness Yearbook, Canada ranks second in the G7 for patent and copyright protection.

World-class infrastructure

Transportation and communication infrastructure is a key consideration in the overall evaluation of the operating environment. The assessment of a location's infrastructure includes a consideration of highway and road access, road congestion, airport and port access, public transportation and power and telecommunications reliability.

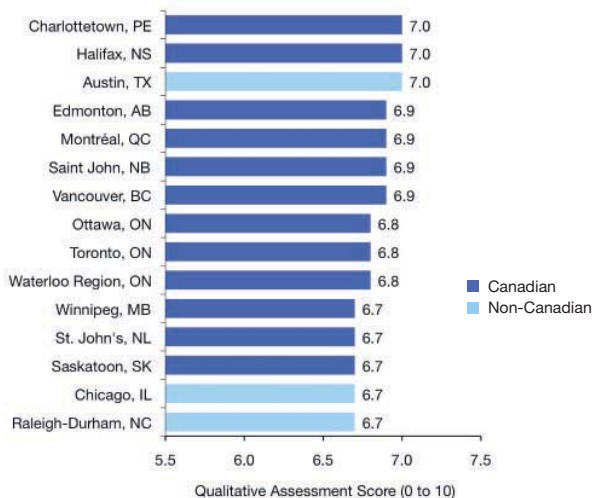
Canada offers unparalleled connectivity with reliable, high-quality telecommunications and broadband infrastructure, as well as one of the lowest business telephone charge rates among G7 economies.

Canadian cities also offer the very best in transportation infrastructure. Montréal ranks high among the North American locations due to its strong public transport network and accessibility and connectivity to the region by air and water.

Infrastructure and communications (highest-ranking cities)*



General business environment (highest-ranking cities)*



A conducive business environment

Thanks to its solid and dynamic economy, low corporate tax rates, generous R&D incentives, quality support from local governments and development agencies, and protection of intellectual property rights, Canada has fostered a business environment that allows companies to invest and grow.

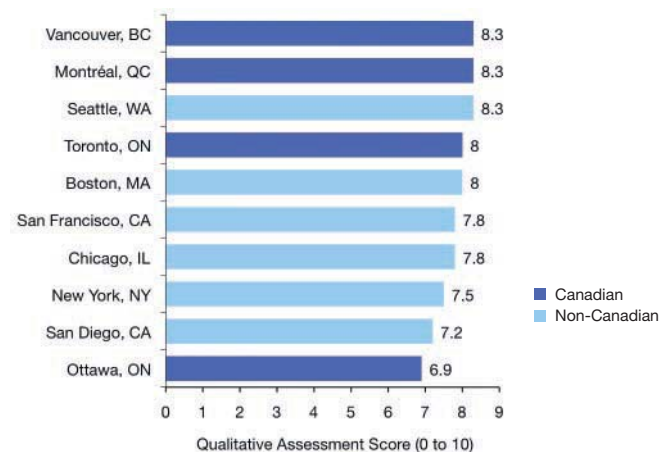
As the leader in GDP growth among G7 countries over the last decade, and with the world's strongest banking system,³ Canada provides a stable and strong business environment that offers tremendous growth potential and peace of mind for business investment. In fact, all Canadian cities evaluated offer a strong business environment, as based on measures published by the IMD, the Economist Intelligence Unit and the World Economic Forum. Charlottetown and Halifax rank particularly well because of their very supportive local development network.

Outstanding quality of life

Canada's highly rated living environment plays a significant part in the competition to attract international talent. With its natural beauty, comparatively low cost of living, quality of life and values, Canada is globally regarded as being one of the best places in the world to live. This explains why Canadian cities attract young international recruits and talented expatriates from around the globe.

International measures such as the Mercer Cost of Living Survey, Sperling's Cities Ranked & Rated and Economist Intelligence Unit's quality of life index consistently place Canadian cities near the top of the rankings.

Living environment (highest-ranking cities)*



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- help in identifying a suitable place in which to invest
- assistance in developing a business case for your next investment decision

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