

Invest in Canada

2012

Medical Devices

Canada's competitive advantages

Canada 

Unless otherwise noted, all values in this publication are in Canadian dollars.

Foreign direct investment in Canada's medical devices sector

- Canada is one of the top ten countries in the world for attracting Greenfield foreign direct investment (FDI) (Greenfield FDI is defined as overseas investment in a new physical project or expansion of an existing project which creates new jobs and capital investment and with majority-ownership by the foreign investor. Mergers & acquisitions (M&A) and other equity investments are not included) in the life sciences industry. (Source: fDi Markets database, fDi Intelligence from the Financial Times Ltd, 2012)
- The medical device sector is the second largest in Canada's life sciences industry, accounting for 13.5% of total life science greenfield FDI. (Source: fDi Markets database, fDi Intelligence from the Financial Times Ltd, 2012)

Breakdown of life science FDI projects by sector in Canada (%)

Sector	Percentage
Pharmaceuticals	56.8%
Medical devices	13.5%
Biotechnology	9.9%
Software & IT services	8.1%
Business services	3.6%
Healthcare	2.7%
Plastics	1.8%
Transportation	1.8%
Other	1.8%

Source: fDi Markets database, fDi Intelligence from the Financial Times Ltd (2003 - 2011)

RECENT INVESTMENT EXAMPLES

AgfaHealthCare

In 2012, AgfaHealthCare opened a new research and development (R & D) facility and global data centre in Waterloo, Ontario. The facility is a centre of excellence for design innovative solutions across radiology, pathology, and healthcare delivery as a whole; including developing products to allow image sharing and shared access of the complete patient record across healthcare facilities, their clinicians, and patients around the world.

Medtronic CryoCath

In 2012, Medtronic CryoCath, a subsidiary of U.S. based Medtronic, announced a \$50 million investment to expand its research, training and manufacturing operations in Montréal, Quebec. The investment will create more than 200 new jobs and is being supported by a \$15 million grant from the Quebec government.

Genadyne Biotechnologies

Genadyne Biotechnologies, a U.S. based medical devices company, established a new subsidiary in Mississauga, Ontario in 2011. Genadyne Canada is distributing the company's negative pressure wound therapy devices throughout the country from the newly opened logistics facility. It is the company's first presence in the country.

FOREIGN INVESTORS IN CANADA

3M
Abbott Point of Care
Agfa HealthCare
Alere
Baxter International
Becton, Dickinson and Company
Covidien
Elekta
GE Healthcare
Genadyne Biotechnologies
Hologic
Johnson & Johnson
Luminex
McKesson
Medtronic
OraSure Technologies
Philips Medical Systems
Roche Diagnostics
Siemens
Smith & Nephew
Sonosite
Sorin Group
Thermo Fisher Scientific
Zimmer

Medical devices innovation in Canada

INNOVATION SNAPSHOT

- Several federally funded research programs and councils support health-related research across Canada, including the Canadian Institutes for Health Research; Networks of Centres of Excellence; National Research Council of Canada; and the Natural Sciences and Engineering Research Council.
- The National Research Council of Canada Industrial Research Assistance Program (NRC-IRAP) provided \$1 billion in funding to approximately 5,000 firms in the last five years. (Source: National Research Council, Evaluation of the NRC Industrial Research Assistance Programme, 2012) The program supports the development of new technologies across all sectors for small and medium sized enterprises in Canada through funding and business advisory services.
- In the 2012 Federal Budget, \$110 million per year was allocated to the NRC to double the support to innovative start-up companies through the Industrial Research Assistance Program (IRAP). (Source: Budget 2012, Chapter 3.1: Supporting Entrepreneurs, Innovators and World-Class Research, 2012)
- The Natural Sciences and Engineering Research Council of Canada (NSERC) invested \$168.7 million in health and related life sciences and technologies research between 2010 and 2011. NSERC is Canada's largest federal funding agency for university and college-based research in the natural sciences and engineering.
- Between 2003 and 2011, 290 medical device related patents were granted by the United States Patent and Trademark Office to inventors based in Canada – ranking fourth globally. (Source: fDi Intelligence estimates based on United States Patent and Trademark Office, 2012)

Case Study: Injury Simulator

In 2012, Dr. Naveen Chandrashekar at the University of Waterloo developed a unique knee injury simulator; the first in the world, to understand how to prevent anterior cruciate ligament (ACL) tears, one of the most common sports-related injuries. Every year, more than 100,000 young athletes tear the ligament surrounding the knee and require surgery. Half of them go on to develop osteoarthritis, resulting in more than \$1 billion in health care costs overall.

Until now, little has been known about the cause of these injuries. Researchers developed a robotic system that applies pressure to the knees of cadavers in the same way that athletes move when running or jumping. The system captures and digitizes the data to understand the anatomic factors, muscle forces and knee kinematics that predispose it to ACL injury.

Case Study: iDAPT – Intelligent Design for Adaptation, Participation and Technology Centre for Rehabilitation Research

The iDAPT Centre is Toronto Rehab's \$36 million initiative offering the most sophisticated testing environment in the world to stimulate real-world challenges for groundbreaking assistive technologies. The centre consists of 15 cutting-edge labs, workshops, and other research spaces based in Toronto, Ontario. iDAPT's advanced studio and workshops provide a unique collaborative research environment where products such as assistive devices can be designed, prototyped, studied and tested with patients.

Case Study: Natrix Separations

FedDev (Source: Federal Economic Development Agency for Southern Ontario) Ontario's "Investing in Business Innovation" initiative provided Natrix Separations with almost \$1 million in funding to develop innovative products for use in biopharmaceuticals and vaccines development and manufacturing. Natrix is a leading supplier of unique chromatography technologies to the life science, food, beverage and water sectors. These new techniques and products will improve the manufacturing process for biopharmaceuticals, helping to reduce processing costs and increase productivity for the sector.

LEADING CANADIAN COMPANIES

Angiotech
Axela
Baylis Medical
BioMedica Diagnostics
Canica Design
emd Technologies
GeneNews
Interface Biologics
Kent Imaging
MedMira
Monteris Medical
Natrix Separations
Neovasc
Nordion
Novadaq Technologies
Noveko International
Profound Medical
Pyng Medical
Spectral Diagnostics
SQI Diagnostics
Theralase Technologies
Titan Medical
Trudell Medical International
Ultrasonix Medical

Canada's medical devices sector

Canada's medical device exports have increased at an annual growth rate of 5.5% from 2000 to 2009. (Source: Industry Canada, Medical Device Industry Profile, accessed October 2012)

Canada's highly diversified medical device manufacturing and development sector encompasses more than 1,500 firms employing 35,000 people. (MEDEC, The Medical Device Industry in Canada, accessed November 2012) In 2011, Canada exported more than \$1.8 billion of medical devices. (Source: Global Trade Information Services, Global Trade Atlas, 2011) Demographic trends, developments in science and engineering, and health care delivery changes are expected to contribute to the sector's growth in the years ahead.

The industry's many leading-edge firms produce a broad range of products, including cardiovascular devices, medical imaging, in vitro diagnostics, and assistive devices for home health care. Notable products developed in Canada include:

- The NeovascReducer™ for refractory angina and PeriPatch™ surgical tissue (developed and manufactured in Vancouver by Neovasc);
- The NeuroBlate™ System, a neurosurgical ablation system providing controlled therapy for difficult-to-treat brain tumours (developed by Monteris Medical in Winnipeg);
- Catheter-based products for the cryotherapeutic treatment of cardiovascular disease, now used in more than 500 medical centres around the world (developed in Montréal and manufactured by Medtronic CryoCath);
- A high-quality, low-cost digital-radiography-imaging system used in nearly 40 countries (developed by Imaging Dynamics in Calgary);
- Epoc™, the world's first hand held point of care blood analysis system combining wireless bedside testing with Smart Card biochip technology (developed and manufactured in Ottawa by Epocal, an Alere company).
- Rapid point-of-care diagnostics for infectious diseases such as HIV and Hepatitis that provide instant results to patients and their healthcare providers. (developed by MedMira in Halifax)

Canada's medical device sector benefits from associated Canadian industries in biotechnology, advanced materials, aerospace, microelectronics, telecommunications, software, and informatics. It is also well positioned to leverage world-class innovative research being conducted in Canadian universities, research institutes and hospitals.

Testimonial

“Medtronic remains committed to Canada and looks forward to the evolution of its medical technology strategies and to becoming a trusted partner in delivering innovative health system solutions.”

Neil Fraser, President of Medtronic of Canada

CANADA'S KEY STRENGTHS IN MEDICAL DEVICES

Research and development (R & D)

Canada offers a favourable R & D environment for the medical device sector through its innovative research facilities, and tax incentive programs such as the Scientific Research and Experimental Development (SR & ED) program and provincial R & D tax support. Businesses in Canada are anticipated to spend \$15.5 billion on industrial research and development (R & D) in 2012. (Source: Statistics Canada Industrial R&D Spending Intentions forward analysis; accessed Oct 2012)

Country-wide foreign trade zone benefits

Enjoy the benefits of foreign trade zones anywhere in Canada. Canada is the first G-20 country to offer duty deferral and other export-related programs for industrial manufacturers, a major initiative that will see tariffs on all manufacturing inputs reduced to zero by 2015. Unlike traditional free trade zones, Canada's duty and tax relief can be used anywhere in Canada to suit the needs of business.

A low cost manufacturing and research base

In KPMG's 2012's Competitive Alternatives Report, Canada ranks third among G-7 countries for its cost-effectiveness in establishing and operating a medical device manufacturing facility. Canada offers the second lowest clinical trials costs in the G-7, including offering significant cost savings over the U.S. (Source: KPMG, Competitive Alternatives: KPMG's Guide to International Business Location Costs, 2012) In fact, Canada ranks 3rd in the world for number of active medical device clinical trial sites. (Source: Clinicaltrials.gov; based on number of active sites for medical devices, Aug 2012)

Logistics and market access

According to the World Bank, Canada has one of the world's best infrastructures for logistics. (Source: World Bank, International Logistics Performance Index, 2010) Canada has a highly developed transport infrastructure and duty-free access to Mexico and the U.S., a leading consumer of medical technology.

SKILLS AND RESEARCH

Canada has a deep and diverse pool of talent with the right skills for the medical device sector, including capabilities in biotechnology, advanced materials, microelectronics, Telecommunications, and software and informatics. The Canadian medical device sector employs 35,000 people. (Source: MEDEC, The Medical Device Industry in Canada, accessed November 2012)

Canada has a world-class higher education system with 22 Canadian universities appearing in the top 500 universities of the world. (Source: Shanghai Jiao Tong University, Academic Ranking of World Universities, 2011)

Canadian universities offer a range of specialized programs in the fields of engineering and biomedical related sciences at undergraduate, masters and PhD levels. Research in the sector is led by a number of specialized centres, institutes and business incubators including:

- National Research Council of Canada medical technology research facilities across Canada
- Centre for Imaging Technology and Commercialization (CImTeC) (London, ON)
- Advanced Technology Information Processing Systems (University of Calgary - Calgary, AB)
- Biomaterials and Medical Devices Research Group (University of Western Ontario - London, ON)
- The Brain Repair Centre (Halifax, NS)
- Biomedical Commercialization Canada (BCC) Business Incubation Program(Winnipeg,

MB)

- iDAPT – Intelligent Design for Adaptation, Participation and Technology Centre for Rehabilitation Research (Toronto, ON)

Medical devices clusters

BRITISH COLUMBIA

Key strengths:

Vancouver is the hub of British Columbia's life sciences industry, which employs approximately 2,700 people and generates annual revenues of \$800 million. (Source: British Columbia Government: Premier's Technology Council - 12th Report April 2009) British Columbia is home to 90 medical manufacturing and diagnostic companies, with key capabilities in medical imaging, cardiovascular, diagnostics, orthopaedic and homecare adaptations. (Source: Trade and Invest British Columbia: Growing Canada's Bio Economy - Life Sciences British Columbia, 2011) In 2011, the province exported \$235 million of medical device related products. (Source: Global Trade Information Services, Global Trade Atlas, 2011) The province is home to Simon Fraser University's Centre for Integrative Bioengineering Research Laboratory (CiBER), which focuses on biosensors and medical devices and the Medical Image Analysis Laboratory (MIAL), which engages in computational anatomy research.

Leading companies

Angiotech, McKesson Medical Imaging, Ultrasonix Medical, Haemonetics, Response Biomedical, Sorin Group, Innovative Bioceramix, Med BioGene, Pyng Medical, Zymeworks, Verisante Technology, Neovasc, and Kardium.

ALBERTA

Key strengths:

Alberta's medical device sector has recognized strengths in medical imaging technologies, medical diagnostics, assistive devices, nanotechnology and wound care. More than 90 medical device and technology companies operate in the province, most of which are located in Edmonton and Calgary. The sector employs over 1,600 people and generates revenues of \$195 million per year. (Source: Alberta Canada, Alberta's Medical Devices & Technologies Fast Facts, 2009) In 2011, the province exported \$67 million worth of medical devices. (Source: Global Trade Information Services, Global Trade Atlas, 2011) R & D and commercialization in Alberta's medical device sector is led by a number of academic institutions and leading centres including the University of Alberta, the University of Calgary, the Alberta Centre for Advanced Micro Nanotechnology Products, Biovantage, Zymetrix, Clinexus, the National Institute for Nanotechnology and the National Research Council of Canada.

Leading companies:

Kent Imaging, IMBiotechnologies, Imaging Dynamics, SciMed Technologies, Innervision Medical Technologies, Innovotech, Calgary Scientific, Smith & Nephew, Exciton, XSENSOR, Innovative Trauma Care, and dXRAD.

MANITOBA

Key strengths:

Winnipeg's medical device sector is comprised of almost 70 companies employing approximately 800 people. (Source: Economic Development Winnipeg: Winnipeg Life Sciences, 2011) Winnipeg has strengths in magnetic resonance imaging (MRI), devices for cancer treatment, joint replacement and technologies to remove biofilms. In 2011, medical device companies operating in the province exported \$66 million in medical devices, an increase of 17% from 2010. (Source: Global Trade Information Services, Global Trade Atlas, 2011)

Manitoba is home to a National Research Council of Canada laboratory focused on studying and developing non-invasive diagnostic tools such as MRI technologies. Other leading centres involved in the development and commercialization of medical technologies include the University of Manitoba's Health Sciences Centre and the business incubator, Biomedical Commercialization Canada (BCC).

Leading companies:

Monteris Medical, Intelligent Hospital Systems, Vista Medical, and Miraculins.

ONTARIO**Key strengths:**

Ontario's medical device sector is based primarily in Ottawa and the Greater Toronto Area; principal areas of expertise include diagnostics, imaging, medical treatment and assistive technologies. Ontario is home to 900 medical device companies employing 18,000 people and generating revenues of \$3.6 billion annually. (Source: Invest in Ontario, Life Sciences in Ontario, accessed Oct 2012) The province is the leading exporter of medical devices in Canada; in 2011 the province exported \$996 million of medical devices, accounting for 56% of Canada's total domestic medical device exports. (Source: Global Trade Information Services, Global Trade Atlas, 2011) With 24 colleges and 20 universities, Ontario graduates approximately 30,000 students each year in mathematics, engineering and sciences, thereby ensuring a steady supply of new talent in medical device professions.

Ontario also offers some clear advantages in the Medical Technologies sector:

- Clinical Trials Ontario (CTO) was created to make Ontario a more attractive clinical trials destination. CTO will implement a streamlined approach to ethics review and contracting for multicentre clinical trials while ensuring the highest ethical standards for patient safety.
- Excellence in Clinical Innovation Technology Evaluation (EXCITE) is a groundbreaking partnership to help companies do pre-market assessment of their medical technology in a clinical setting. The feedback will result in major cost savings for companies, produce improved, more relevant technologies, and streamline adoption by the health system. Ontario is the only jurisdiction offering this advantage.
- Publicly funded research institutes are investigating promising new technologies, training young scientists and working with industry partners across the province. Research institutes include the University Health Network's Centre for Global eHealth Innovation, the London Health Sciences Centre and the University of Waterloo's School of Optometry and Vision Research.

Leading companies:

Abbott Point of Care, Agfa Healthcare, GE Healthcare, Genadyne Biotechnologies, Johnson & Johnson, Nordion, Philips Health Care, Hologic, OraSure Technologies, Alere, IDEAL Life, and Siemens.

QUEBEC**Key strengths:**

Quebec's medical technologies sector is comprised of more than 600 companies employing 15,000 people. More than 75% of the sector is concentrated in the Montréal metropolitan area. (Source: Montréal Invivo, Excellence in Medical Technologies Industry, 2012) In 2011, medical device related exports were valued at \$443 million. (Source: Global Trade Information Services, Global Trade Atlas, 2011) Sector strengths include assistive devices, IT, imaging, biomaterials, diagnostics and therapeutic devices.

The province's optic-photonics sector and leading research centres support Quebec's medical device sector. The building of two world-class teaching hospitals, McGill University Health Centre (MUHC) and Centre Hospitalier de l'Université de Montréal (CHUM), will strengthen its life sciences research and health care industries, providing integrated healthcare research and delivery.

Leading companies:

Baylis Medical, Roche Diagnostics, Illumina, Prognomix, Covidien, CAE Healthcare, Emovi, CORONEO, Telus Health, Zimmer, and Medtronic.

NOVA SCOTIA

Key strengths:

Nova Scotia's life sciences industry includes 50 companies and employs 1,100 people in the fields of neuroscience, medical robotics, biodiagnostics and microbial genomics. (Source: BioNova: Nova Scotia Life Sciences Asset Map, 2010) Life science companies located within Nova Scotia have more than 500 products on the market. Exports of medical devices totalled \$7 million in 2011. (Source: Global Trade Information Services, Global Trade Atlas, 2011)

Nova Scotia is home to a significant research community including universities, community colleges, hospitals and government labs including the Brain Repair Centre (Halifax) which specializes in neurosurgical technology and neuroimaging.

Leading companies:

BioMedica Diagnostics, BlueLight analytics, EastMed, Impetus Innovations, MedMira, Mindful Scientific, Elekta, and Precision BioLogic.

Canada's cost advantages

Advantage:

COMPETITIVE SALARY COSTS

Canada has some of the most competitive salary costs in the G-8. The cost of salaries paid to laboratory specialists in Canada is lower than the U.S. and Germany, and comparable to France and the Netherlands. For higher skilled jobs, such as biomedical engineers, Canada also offers cost savings when compared to Germany, Mexico, the Netherlands and the U.S.

Biomedical engineer and laboratory specialist annual labour costs (\$)

This chart shows the annual labour costs for a laboratory specialist and biomedical engineer among leading medical device clusters. Labour costs include employee salary plus statutory employer social security contributions. Private healthcare costs are also included for U.S. and Canadian cities.

Location	Biomedical engineer (\$)	Laboratory specialist (\$)
Bangalore	40,883	22,205
Galway	87,488	62,615
Cambridge (U.K.)	93,744	64,780
Singapore	96,746	58,491
Lyon	98,488	70,860
Rotterdam	102,762	70,022
Montréal	102,933	73,434
Winnipeg	109,805	76,597
Halifax	112,057	76,857
Mexico City	114,605	49,920
Vancouver	115,662	78,485
Edmonton	117,347	79,244
Indianapolis	121,294	84,531
Toronto	121,994	81,684
Kitchener-Waterloo	129,328	84,993
Munich	131,374	94,579
Minneapolis	141,789	93,833
Chicago	141,881	93,908
Los Angeles	143,044	93,840
Boston	172,415	108,298

Source: fDi Benchmark Database, fDi Intelligence from the Financial Times Ltd (2012)

Advantage:

COMPETITIVE COSTS FOR MEDICAL DEVICES MANUFACTURING

Total annual costs to establish and operate a medical device manufacturing facility in Canada are competitive when compared to other G-7 countries. Canada offers a cost advantage over Japan, Germany, the U.S. and Italy.

G-7 Medical Device Business Costs (Index: U.S. = 100)

The chart below shows the index of overall costs to establish and operate a medical device manufacturing facility. Cost components include labour, facilities, transportation, utilities and taxes.

Location	Unit value
U.K.	94.8
France	96
Canada	96.2
Italy	97
U.S.	100
Germany	101.2
Japan	111.9

Source: KPMG, Competitive Alternatives: KPMG's Guide to International Business Location Costs (2012)

Canada's competitive advantages

Advantage:

MAJOR EXPORTER OF MEDICAL DEVICES

In 2011, Canadian exports of medical devices totalled \$1.8 billion. Leading medical device commodities include composite diagnostic or laboratory reagents, and radioactive elements, isotopes, residues and compounds. The U.S. remains the primary market for Canadian medical device exports, accounting for over 60% of Canada's total domestic medical device exports in 2011. However, there is an increasing diversification of destination markets for Canadian medical devices. Between 2010 and 2011 exports to China increased by 20% and more than doubled to Russia. (Source: Global Trade Information Services, Global Trade Atlas, 2011)

Top 10 Canadian exports of medical devices by category, 2011

The table below shows the top 10 Canadian medical devices by category.

Exports of Medical Devices by category	Value (\$ millions)	Share of total exports (%)
Composite diagnostic or laboratory reagents	349	19.0%
Medical, surgical, dental or veterinary furniture	154	8.4%
Instruments and appliances used in medical or veterinary sciences	144	7.9%
Parts and accessories for application based on the use of X-ray	137	7.5%
Radioactive elements & isotopes and compounds	129	7.0%
Electro-cardiographs	107	5.9%
Cobalt-60 and compounds with cobalt-60 radioactivity only	93	5.1%
Mechano-therapy application; massage applications	91	4.9%
Electro-diagnostic apparatus and patient monitoring apparatus	83	4.5%
Needles, catheters, cannula etc	79	4.3%
Other	468	25.5%

Source: Global Trade Information Services, Global Trade Atlas (2011)

Advantage:

WORLD-CLASS INFRASTRUCTURE

Canada has well developed airports, ports and roads, and duty free access to the U.S. and Mexico. According to corporate executives, Canada has a higher quality infrastructure than the U.S., U.K., Ireland, Mexico and India.

Overall infrastructure quality (Rank 1-7)

This chart shows the overall infrastructure quality. (1= extremely under-developed, 7=well developed efficient by international standards)

Location	Unit value
Singapore	6.6
France	6.5
Germany	6.2
Netherlands	6
Canada	6
U.S.	5.7
U.K.	5.6
Ireland	4.6
Mexico	4.2
India	3.8

Source: World Economic Forum Global Competitiveness Report 2011-12

Advantage:

MEDICAL DEVICE INNOVATION

Canada has a number of R & D clusters to drive and support innovation in the medical device sector. Innovators in Canadian cities have been granted more medical device related patents than their counterparts in Singapore, Bangalore, Mexico City and Cambridge (U.K.).

Number of medical device patents

This chart shows the estimated number of medical device related patents granted between 2003 and 2011 by the United States Patent and Trademark Office to inventors based in each city.

Location	Unit value
Minneapolis	608
Los Angeles	190
Boston	113
Chicago	86
Indianapolis	67
Vancouver	50
Galway	46
Toronto	41
Singapore	32
Cambridge (U.K.)	24
Munich	20
Montréal	19
Bangalore	16
Edmonton	13
Winnipeg	9
Halifax	5
Mexico City	5
Lyon	2
Rotterdam	1

Source: fDi Intelligence estimates based on the United States Patent and Trademark Office (2012)

Advantage:

ACCESS TO INTERNATIONAL MARKETS

Canadian cities offer access to a number of international destinations. Toronto offers the largest number of direct flights to international cities, while Montréal and Vancouver offer flights to over 40 international cities. Canada is truly a gateway to the world. Number of international destinations. This chart shows the number of direct international destinations served by proximate airports (within 50 mile radius of the selected medical device clusters).

Location	Unit value
Munich	157
Toronto	140
Singapore	131
Montréal	68
Los Angeles	63
Chicago	59
Lyon	59
Mexico City	46
Vancouver	44
Boston	34
Edmonton	33
Minneapolis	24
Halifax	23
Bangalore	21
Winnipeg	19
Rotterdam	14
Galway	5
Indianapolis	4

Source: fDi Intelligence based on OAG Flight Guide (2012)

Advantage:

FAVOURABLE CORPORATE INCOME TAX

Canada offers among the most attractive corporate income tax levels of any comparable country. Companies locating in Canadian cities pay lower corporate income taxes than the U.S., France, India, Mexico and Germany.

Corporate tax (%)

This chart shows the corporate income tax rates payable by corporations in competitor locations. Figures are expressed as tax payable as a percentage of companies' gross profit.

Location	Unit value
Galway	12.5%
Singapore	17%
Cambridge (U.K.)	24%
Rotterdam	25%
Edmonton	25%
Vancouver	25%
Kitchener-Waterloo	26.5%
Toronto	26.5%
Montréal	26.9%
Winnipeg	27%
Munich	29.5%
Mexico City	30%
Halifax (NS)	31%
Bangalore	32.4%
Lyon	33.3%
Boston	40.4%
Indianapolis	40.5%
Los Angeles	40.7%
Chicago	41.2%
Minneapolis	41.4%

Source: KPMG (Country and Canadian Provinces 2012); The Tax Foundation (U.S. States 2011)

Advantage:

OUTSTANDING QUALITY OF LIFE AT AN AFFORDABLE COST

Canadian cities offer the highest quality of life in the world. Vancouver was rated the most liveable city in the world by the Economist Intelligence Unit in 2011 and also tops the fDi Intelligence index. Canadian cities rank particularly well when considering both quality of life and cost of living.

Attractiveness of cities

This chart shows the overall attractiveness of cities based on combining their quality of life and cost of living, with a 50% weight attached to each.

Location	Unit value
Vancouver	100
Munich	97.5
Montréal	95.4
Toronto	94.9
Edmonton	87.6
Lyon	86.4
Halifax	85.7
Kitchener-Waterloo	84.4
Winnipeg	78.7
Singapore	78.5
Galway	78
Boston	74.8
Minneapolis	73
Los Angeles	70
Rotterdam	68.8
Chicago	67.1
Cambridge (U.K.)	65.1
Indianapolis	61.2

Source: fDi Intelligence from the Financial Times (2011). Vancouver=100

Invest in Canada to achieve global excellence

Financial stability

For the fifth consecutive year, the World Economic Forum has declared Canada's banking system to be the soundest in the world.

Source: Global Competitiveness Report 2012-2013, World Economic Forum (WEF)

A strong growth record

Canada led all G-7 countries in economic growth, on average, over the past decade (2002 - 2011).

Source: World Bank

A highly educated workforce

Canada's workforce is the most highly educated among members of the Organization for Economic Co-operation and Development (OECD), with half of its working-age population having a tertiary level education.

Source: Education at a Glance 2012, OECD

A welcoming business environment

Canada is the best country for business in the G-20.

Source: Forbes Magazine, November 2012

Low business costs and tax rates

Canada's combined federal-provincial statutory general corporate income tax rate of 26% is below the level of most other G-7 countries, and about 13 percentage points lower than that of the United States.

Source: Department of Finance Canada and the OECD Tax Database 2012

Scientific research and experimental development

Canada offers one of the most generous R & D tax incentives in the industrialized world, with combined federal and provincial credits that can currently save firms, up to 30 cents on a dollar invested in R & D in Canada. R & D-intensive sectors in Canada also enjoy the lowest costs in the G-7, with a cost advantage that is 10.7 per cent lower than that in the United States.

Source: Department of Finance Canada and KPMG Competitive Alternatives, 2012

NAFTA

The North American Free Trade Agreement (NAFTA) gives investors access to a vast lucrative market of nearly 461 million consumers and a combined continental GDP of about US\$18 trillion. Canada is the first among G-20 members to make itself a tariff-free zone for manufacturers by eliminating tariffs on manufacturing inputs and machinery and equipment.

Source: World Bank, World Development Indicators Database, 2012, and Department of Finance Canada

A great place to invest, work, and live

In 2011, Canadians enjoyed the second highest standard of living in the G-20, as measured by gross domestic product (GDP) per capita, according to the World Bank. Along with being one of the most multicultural countries in the world, home to world-class universities, offering a universal health care system and clean and friendly cities, Canada ranked second among G-7 countries in 2011 on the United Nations Human Development Index.

Source: Statistics Canada; United Nations Human Development Report, 2011; World Bank

Content is based on the latest available information at time of publication.

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