

2009

Invest in Canada

# GRAIN PROCESSING



## RECENT INVESTMENTS IN CANADA

- » **Kellogg Company** of Michigan opened a new \$97 million plant in Ontario during 2007, with an estimated headcount of 100.
- » **Louis Dreyfus Mitsui Foods** is constructing a \$90 million canola-crushing plant in Saskatchewan, with a production target of fall 2009.
- » **James Richardson International** is constructing a \$100 million canola-crushing plant in Saskatchewan, with a production target of summer 2010.
- » **Puratos** of Belgium expanded its manufacturing operations in Ontario in 2007.
- » Massachusetts-based **Twin River Technologies** invested over \$150 million in 2008 in a new greenfield facility in Quebec—a canola seed and soybean-crushing plant.

## MAJOR GLOBAL INVESTORS IN CANADA

Archer Daniels Midland Co.  
Bunge  
Grain Millers Inc.  
Jungbunzlauer  
Meiji Seika Kaisha  
Natraceutical Group  
Nisshin Seifun Group

## LEADING CANADIAN COMPANIES

BioNeutra Inc.  
Can-Oat Milling  
Canada Bread Company Limited  
Commercial Alcohols Inc.  
Permolex Ltd.

Canada offers global investors the right ingredients for success in the food- and beverage-processing industry, combining skilled labour with cost advantages and access to quality raw materials.

The food- and beverage-processing industry is Canada's second-largest manufacturing industry and accounts for approximately 14 percent of total manufacturing shipments. In 2007, the industry provided employment for 286,000 Canadians and produced shipments worth \$83.7 billion.<sup>1</sup> That same year, Canada exported \$18.4 billion of processed food and beverage products to some 180 countries. During 2006-2007, investment in this industry created an estimated 3,700 new jobs in Canada.

## Grain and Oilseed Processing

Canada has approximately 50 commercial wheat, oat and corn establishments located across the country. Each year, Canadian mills grind some 3.5 million tonnes of wheat, oats, corn and barley and export commodities such as wheat flour, semolina and other milled grain products to over 30 countries worldwide.

In 2006, the Canadian grain-fractionation sector, including flour milling, starch manufacturing and corn wet milling, employed almost 5,000 people and produced approximately \$1.4 billion in total revenues from shipments. The overall grain- and oilseed-milling sector accounted for approximately \$6 billion in shipments in 2007.

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

## Key Capabilities

Canada offers access to an abundant supply of different grain commodities with stable crop yields, including corn, oats, wheat, barley, rye and other primary grain and coarse grain crops. Access to quality inputs such as wheat is second to none globally due to Canada's system of quality assurance.

**Innovative product manufacturing:** Using world-renowned quality grain inputs, firms operating in Canada are leaders in developing new food ingredients. Canadian firms are processing feedstocks into ingredients that target specific areas of interest, including functional foods, nutraceuticals, and natural health products that address a growing consumer demand.

**Research and development (R&D):** Canada recognizes that R&D is a crucial component of any food-processing industry. Many partnership opportunities are available with both public and private research centres that can foster R&D in such areas as primary breeding, processing technologies, innovative health and wellness product development, and commercialization.

## Alberta

Alberta accounts for 25 percent of Canada's total agricultural production and yields approximately one-third of Canada's wheat, barley and canola. Numerous special crops, forages and livestock raised in a province rich in clean air and water add to Alberta's diversity in the food and beverage industry. Top international food processing companies have invested more than \$1 billion over the last five years, showing their confidence in the province's stable and business-friendly environment.

Private and public research is a high priority. The University of Alberta's Agri-Food Discovery Place has obtained \$7.6 million in research funding in the last five years. Alberta Agriculture and Rural Development operates the Food Processing Development Centre, a modern, fully equipped pilot plant and product development laboratory facility. The federal and provincial governments have several research facilities distributed across the province to ensure a competitive supply chain from farm to processor.

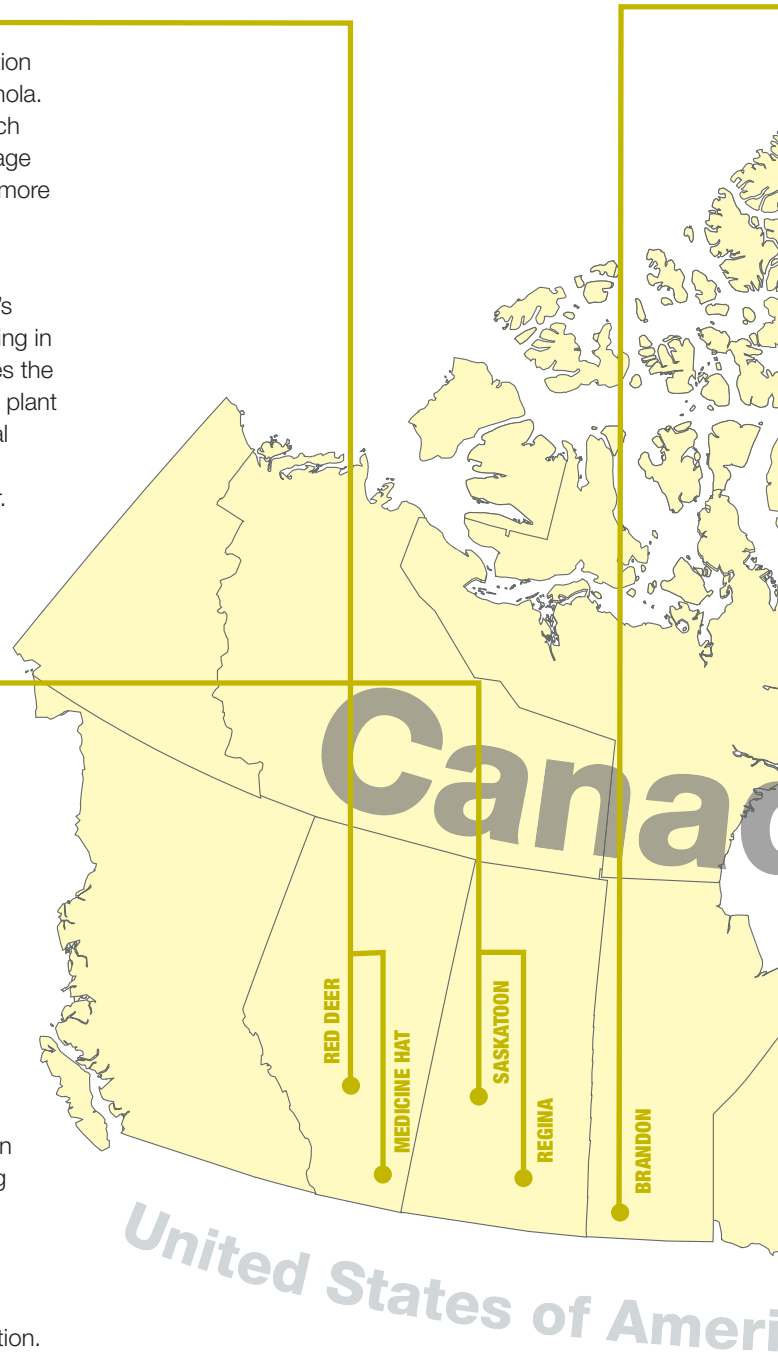
## Saskatchewan

Saskatchewan's \$2.3 billion food- and beverage-processing industry includes more than 300 processors and over 6,100 employees. Grain and oilseed milling rank among the largest food categories in the province. In 2008, Saskatchewan's agricultural exports totalled over \$9.7 billion.

With its 47.8 million acres of cultivated farmland and over 18,500 grain and oilseed farms, Saskatchewan is Canada's most important grain-producing region. The province is also a global leader in cereal crop production, supplying ten percent of the world's total exported wheat. Other types of cereal crops grown in the province include durum, oats, barley and rye.

Saskatchewan's six milling operations produced approximately \$76 million worth of exports in 2007. The province is very active in the natural health products and functional foods sector, supplying and processing various ingredients, such as oat constituents, beta-glucans from oats and barley, pulses, roasted flaxseed, essential fatty acids, hemp seed products and herbal products. Saskatchewan is a leading exporter of organic grain and oilseed products and is home to 35 percent of Canada's organic production.

Saskatchewan is also recognized as one of the world's leading agricultural biotech research centres. Innovation Place in Saskatoon is one of North America's most advanced research parks for agriculture. The University of Saskatchewan's agricultural genomics centre in Saskatoon and the Plant Biotechnology Institute hosted by the National Research Council conduct some of Canada's most leading-edge crop and cereal research.



## Manitoba

Food processing is one of Manitoba's most dynamic industries, with annual shipments exceeding \$3.5 billion. Grain processing makes up an important segment of the provincial agri-food sector. Manitoba is home to significant operations in wheat, oat and feed milling, and oilseed crushing, as well as smaller flax-milling operations. As a leading supplier of milled oats, Manitoba has the capacity to process 200,000 tonnes of this commodity annually. The province is also home to three oilseed-crushing plants. In 2008, Manitoba's grain and oilseed milling industry exported products totalling \$642 million. Leading companies include Can-Oat Milling, Emerson Milling, Bunge Canada, and Associated Proteins.

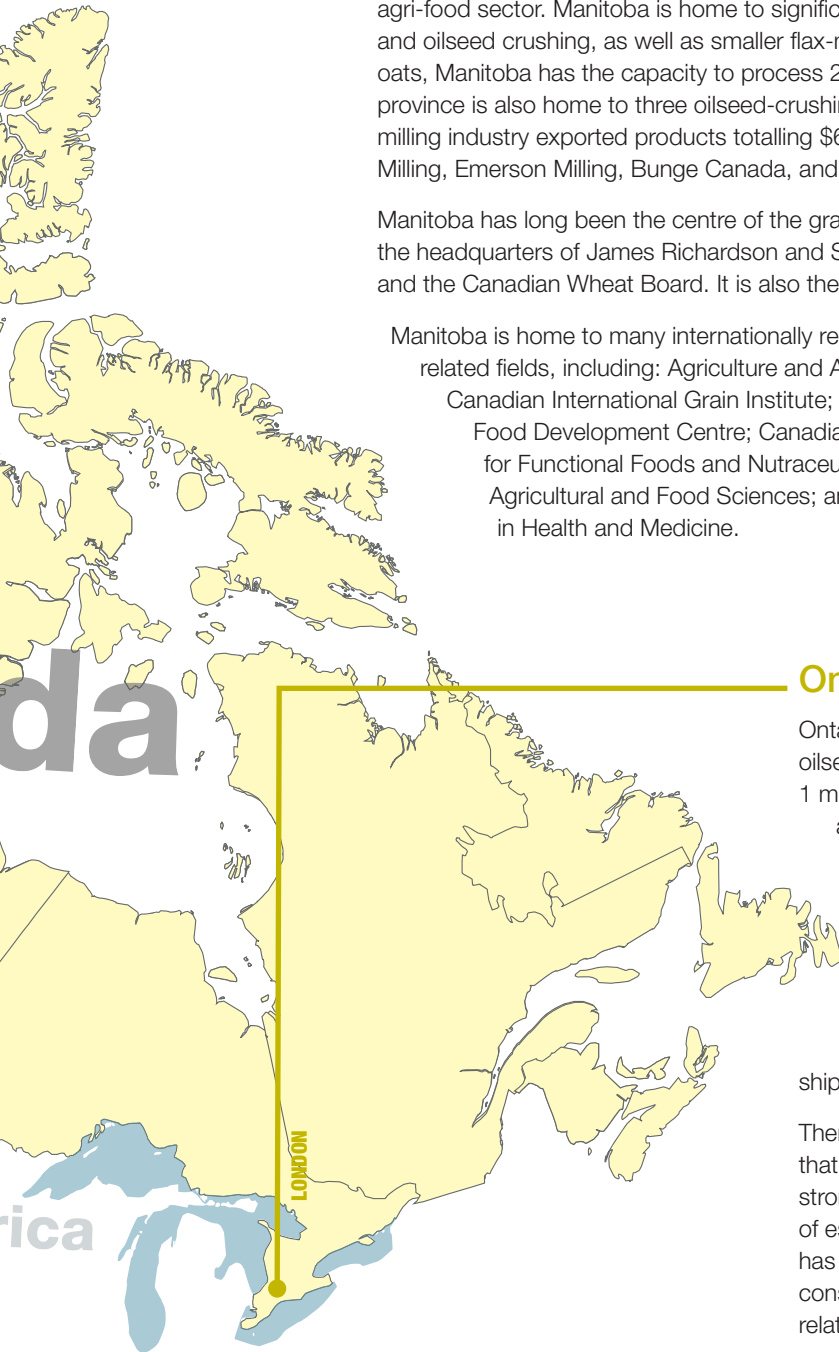
Manitoba has long been the centre of the grain trade in Canada, and is the area of choice for the headquarters of James Richardson and Sons, Cargill Limited, Parrish and Heimbecker, and the Canadian Wheat Board. It is also the location of ICE Futures Canada.

Manitoba is home to many internationally recognized research facilities in agriculture and related fields, including: Agriculture and Agri-Food Canada Cereal Research Centres; Canadian International Grain Institute; Canada-Manitoba Crop Diversification Centre; Food Development Centre; Canadian Grain Commission; Richardson Centre for Functional Foods and Nutraceuticals; University of Manitoba's Faculties of Agricultural and Food Sciences; and the Canadian Centre for Agri-food Research in Health and Medicine.

## Ontario

Ontario is ideally suited to be an important centre for grain and oilseed milling in Canada. Each year, Ontario producers grow over 1 million acres of wheat, 1.9 million acres of corn, and 2.2 million acres of soybeans, mainly in Southwestern Ontario. Ontario growers plant a wide range of crop varieties to meet the needs of the processors and ultimately the consumer market, which is concentrated in the Great Lake basin of Canada and United States. The abundant source of raw material, coupled with a strong manufacturing infrastructure and skilled workforce, means that the grain- and oilseed-milling sector in Ontario generates \$3.2 billion in value of shipments annually.

There are five relatively large grain and oilseed processors in Ontario that are key players in the sector, along with 35 other firms providing strong competition, primarily in the specialty markets. The number of establishments milling and processing grain and oilseed in Ontario has shown consistent growth in recent years, and the sector is considered to be strong and viable. Ontario also excels in agri-food related R&D and is home four Agriculture and Agri-Food Canada research centres: the Southern Crop Protection and Food Research Centre; the Eastern Cereal and Oilseed Research Centre; the Greenhouse and Processing Crops Research Centre; and the Guelph Food Research Centre.



## 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 that produces bakery flour, livestock feed, ethanol and other co-products through the fractionation of wheat—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 investment and operating costs and revenues for each representative project profile. Cash flow projections have been calculated and discounted over a 10-year period, incorporating anticipated inflation rates, to determine their net present value, and to assess the profitability of the project in each of the benchmarked locations.



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

# INVESTMENT LOCATION BENCHMARKING

## REPRESENTATIVE PROJECT PROFILE



### GENERAL DESCRIPTION OF OPERATIONS

Production of bakery flour, livestock feed, ethanol and other co-products through the fractionization of wheat.

### KEY PROJECT DRIVERS

- » Proximity to input (wheat supply)
- » Accessibility to customers
- » Experienced R&D capability through the use of food engineers and scientists

### OPERATING COST ANALYSIS

#### PROJECT REQUIREMENTS FOR FINANCIAL MODELLING

#### LABOUR

(HEADCOUNT = 31)  
 Production Operatives: 15  
 Maintenance and Technicians: 5  
 R&D Scientists (Food Engineers/Scientists): 3  
 Management and Administration: 4  
 Sales: 1  
 Supervisor/Engineers (Process and Electrical Engineers): 3

#### SALES

C\$ 15,000,000

#### MACHINERY AND EQUIPMENT

C\$ 35,000,000

#### PROPERTY

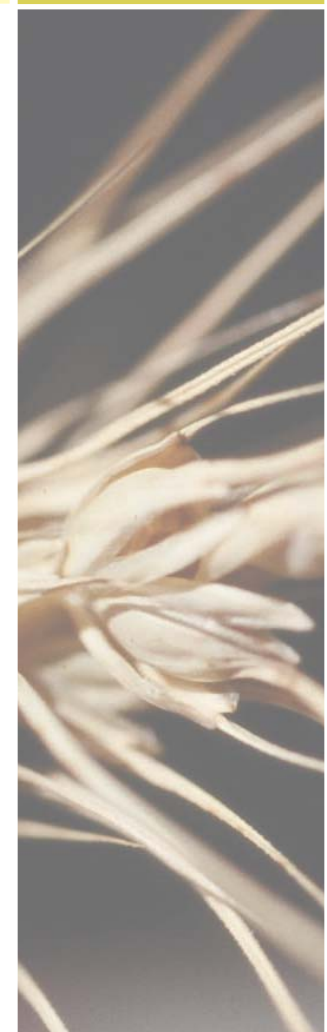
Land: 5 acres  
 Building: 40,000 sq. ft.

#### UTILITIES

Power: (Monthly Consumption) 68,043 kWh  
 Gas: (Monthly Consumption) 1,566 MMBtu  
 Water: (Daily Consumption) 375,000 gal

## OPERATING ENVIRONMENT

<b>GENERAL BUSINESS ENVIRONMENT</b> » 10%*	» Business permitting procedures; » Availability of financial support & incentives; » Quality of support from local government & development agencies; » Economic and financial stability; » Political stability
<b>LOCAL POTENTIAL TO RECRUIT SKILLED STAFF</b> » 25%*	» Presence of experienced grain processing employees, including manufacturing related; » Overall tightness in the labour market (unemployment); » Overall size of labour pool; » Presence of student population
<b>PRESENCE OF INDUSTRY/CLUSTER</b> » 30%*	» Access to raw materials; » Market proximity; » Importance of R&D; » Presence of industry base
<b>FLEXIBILITY OF LABOUR &amp; REGULATIONS</b> » 10%*	» Working time regulations; » Hiring & firing flexibility; » Industrial relations/attitude of unions; » Work permits
<b>INFRASTRUCTURE &amp; COMMUNICATIONS</b> » 10%*	» Highway network & congestion; » Public transport; » Waterways and seaports; » Quality & reliability of IT & telecommunications; » Reliability of power supply
<b>REAL ESTATE</b> » 10%*	» Availability of large industrial sites
<b>LIVING ENVIRONMENT</b> » 5%*	» Cost of living



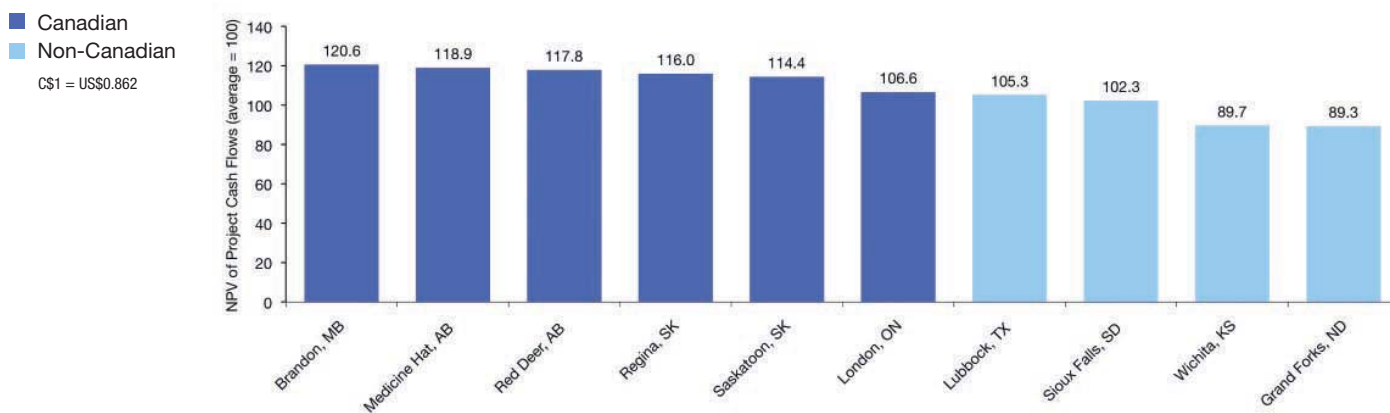


# CANADA'S VALUE PROPOSITION



Canada is home to a number of world-class clusters with strong offerings in the grain processing sector that bring together a large number of firms and a variety of associated companies. In addition to their proximity to the necessary raw materials and strength in research and development, Canadian locations offer higher profitability rates than evaluated U.S. and European counterparts.

## COST ASSESSMENT\*

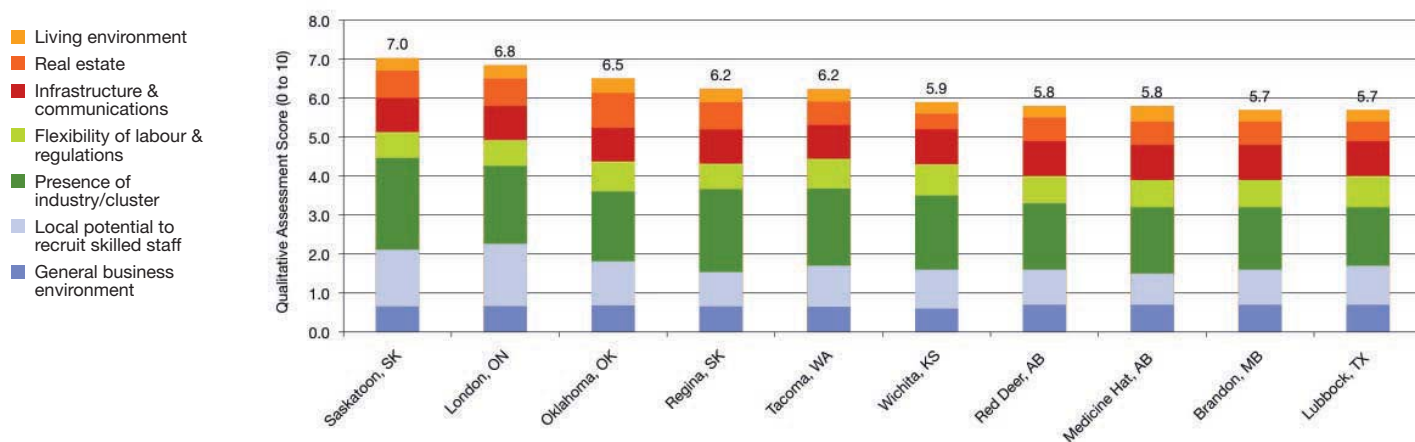


## A better return on your investment

With its combination of strong fiscal policies that support foreign investment and its safe and cost-competitive business environment, Canada offers investors an unparalleled opportunity to prosper. IBM-PLI's study reveals that all benchmarked Canadian locations outperform U.S. and other international competitors, with cities in

Manitoba, Alberta and Saskatchewan providing the upper range of profitability for businesses. Canada's lower tax rates are an important factor contributing to the cost advantage of Canadian destinations.

## QUALITATIVE ASSESSMENT OF OPERATING ENVIRONMENT\*



## Strong clusters with a wealth of resources

From a qualitative perspective, Canada offers some of the world's best locations in which to set up grain fractionation operations. The study reveals that Canadian cities occupy three of the top five spots among North American locations, with Saskatoon and London at the top of the evaluation scores. Other Canadian cities such as

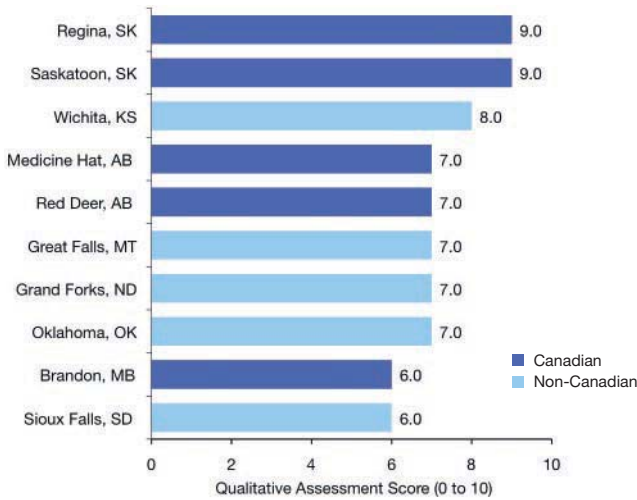
Regina, Red Deer, Medicine Hat, and Brandon also host good-sized clusters in the grain- and oilseed-milling industry, and due to their Prairie location are extremely well placed for accessibility to grain material.

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

# CANADA'S VALUE PROPOSITION



## Access to raw materials (highest-ranking cities)\*



## A wealth of resources

Canada is the world's fourth-largest exporter of agricultural products and offers reliable access to safe and high-quality raw materials. The total grain harvested is important to fractionation, as is the type of grain. The quality and variety of products available from the process is directly dependent on the grain inputs.

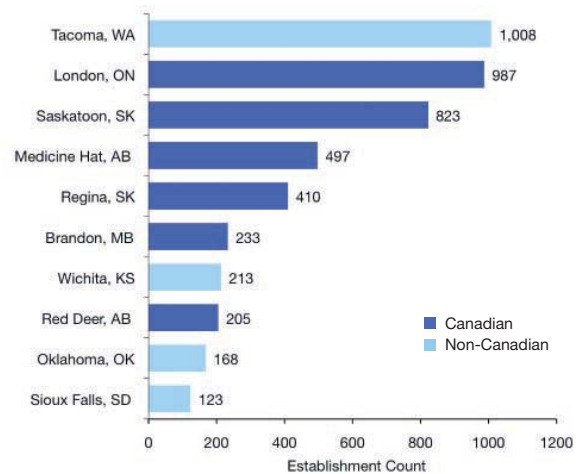
The benchmarking study concludes that many Canadian cities are among the top locations in North America in providing access to raw materials, with Regina and Saskatoon leading the way. Wheat is an integral component of many grain fractionation activities, and as a world leader in wheat production, Canada's Prairie provinces and cities are well placed to reap the benefits of their optimal location.

## Markets of opportunity

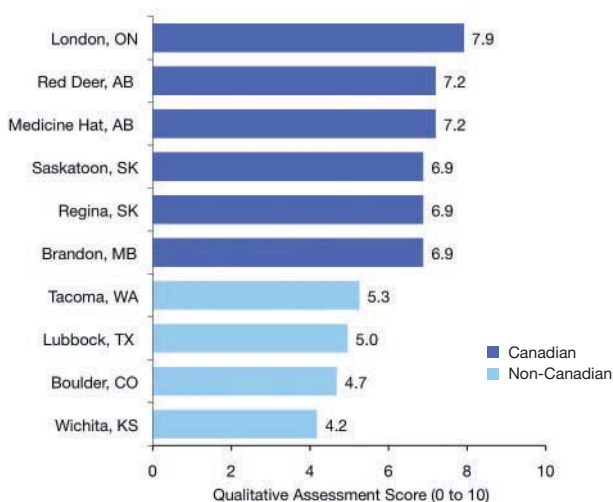
Proximity to market is a key consideration for grain fractionation companies looking to invest or expand their operations. This assessment takes into account the number of outlets in the region that can purchase and distribute the products resulting from grain fractionation. The customer market is composed of food processing plants, food wholesalers, biofuel distributors, and establishments involved in animal production, such as farms and ranches, that require livestock feed.

Canadian cities are among the leading locations in North America in market proximity, with London and Saskatoon both offering a very large variety of establishments expected to be part of the purchasing market.

## Number of establishments classified as part of the market for grain fractionation materials (cities with available NAICS data)\*



## Research and development (highest-ranking cities)\*



## Cutting-edge R&D

As grain fractionation is an emerging area of science and technology, innovation can be critical to the growth of the firms in this industry. Each year, Canada proudly invests billions of dollars in R&D to ensure that companies have access to the best talent and infrastructure in the world. Canada also provides generous R&D tax-based incentives to help global firms remain leading-edge, while significantly reducing their costs.

Canadian locations obtain the top ranks in the assessment of R&D, reflecting the high number of patents and academic institutions that support food sciences in Canada.

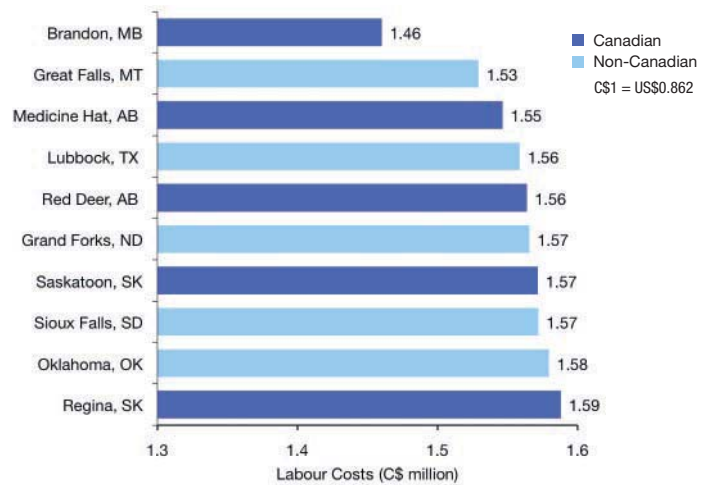


## Advantageous labour costs

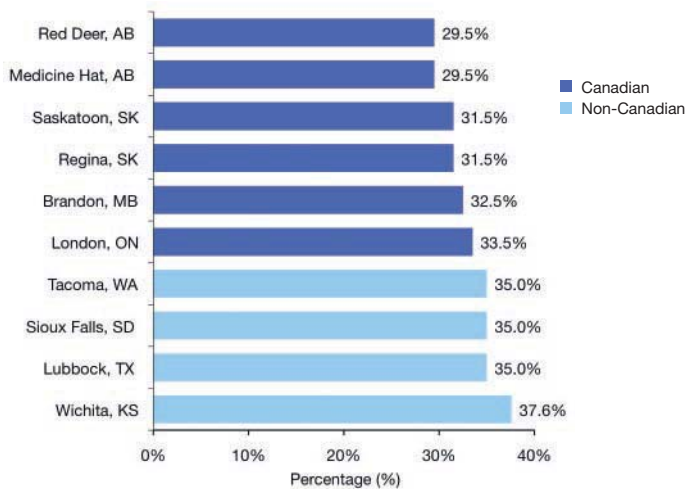
Canada offers competitive labour costs for employees such as R&D scientists, engineers and production operatives that are relevant to grain fractionation facilities. Several Canadian locations, including Brandon, Medicine Hat, Red Deer, Saskatoon and Regina, are among the most cost-competitive locations in North America.

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

Estimated annual labour costs (highest-ranking cities)\*\*



Corporate income tax rates (lowest rates)\*\*\*



## Low business taxes

Compared to many of its competitors, Canada offers compelling benefits to foreign investors in the form of a significantly reduced tax burden. Canada's low corporate income tax rates, an important investment driver, contribute to the high profitability ranking of Canadian locations. Red Deer, Medicine Hat, Saskatoon, Regina, Brandon and London all provide a significant tax advantage and greater profit cash flows to the business when compared to U.S. cities.

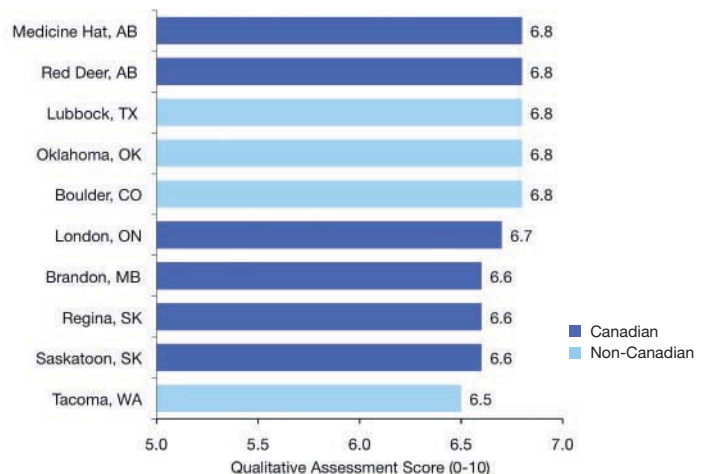
The tax reduction initiative announced by the federal government in 2007 will give Canada the lowest statutory tax rate in the G7 by 2012, at 12 percent, and the lowest overall tax rate on new business investment (the lowest marginal effective tax rate) in the G7 by 2010.

## A conducive business environment

Thanks to its solid and dynamic economy, low corporate tax rates, quality support from local governments and development agencies, business permitting procedures, privacy regulations, information security and protection of intellectual property rights, Canada has fostered a business environment that allows companies to invest and flourish.

As the leader in GDP growth among G7 countries over the last decade, and with the world's soundest banking system,<sup>2</sup> 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 rank well in this assessment, which is based on measures published by the IMD, the Economist Intelligence Unit and the World Economic Forum.

General business environment (highest ranking cities)\*



\*Unless otherwise noted, graphs represent IBM-PLI assessment scores. 2 World Economic Forum Global Competitiveness Report 2008-2009, October 2008. \*\*IBM-PLI calculations based on Watson Wyatt 2007/2008 & Economic Research Institute (ERI) 2008. \*\*\* Deloitte 2008.

# Invest in Canada

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- assistance in developing a business case for your next investment decision

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Catalogue Number FR5-38/11-2009E-PDF  
ISBN Number 978-1-100-12053-9