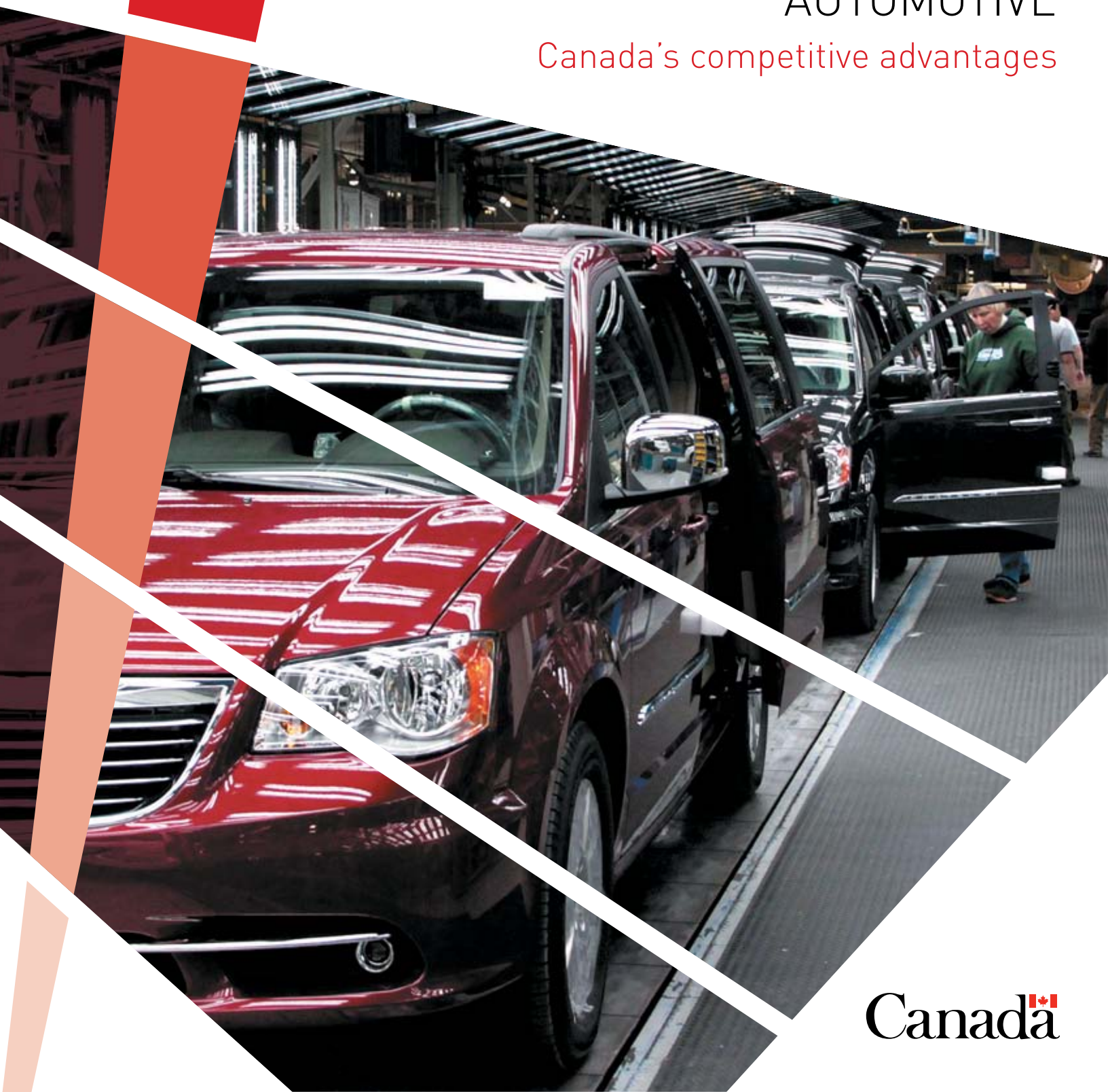
2011

Invest in Canada

AUTOMOTIVE

Canada's competitive advantages



Canada

LEADING MANUFACTURERS IN CANADA

- Aisin Canada Inc.
- CAMI Automotive Inc.
- Chrysler Canada Inc.
- Continental AG (formerly Siemens VDO)
- DENSO Corp.
- Ford Motor Company of Canada Ltd.
- General Motors of Canada Ltd.
- Honda Canada Inc.
- Linamar Corp.
- Magna International Inc.
- Martinrea International Inc.
- PACCAR of Canada Ltd.
- Toyota Canada Inc.
- TRW Inc.
- Brose GmbH
- Johnson Controls Inc.

RECENT INVESTMENTS IN CANADA

In March 2011, **Mercedez-Benz Canada Inc.** announced the expansion of its Canadian operations with a new Greenfield investment in Burnaby, British Columbia, to manufacture fuel cell stacks for the growing electric car market.

Chrysler Group LLC invested $27.2 million* into a casting plant in Etobicoke in 2010.[1]

In 2010, a $16.6 million national smart-car research network was established at McMaster University, in collaboration with seven other universities and three industry partners including **GM** and IBM.[2]

Nemak invested $8 million in its Windsor aluminum plant to produce engine blocks for GM in Canada, the U.S. and Australia.[3]

GM expanded its St. Catharines powertrain plant to produce a new engine and a new six-speed transmission. The $480 million investment in 2010 secured 800 jobs.[4]

Magna International and the NRC jointly established a new $7.2 million Composite Centre of Excellence in Concord, Ontario in 2009.[5]

CAMI Automotive invested $96 million to increase capacity and added a third shift, boosting total employment by 580 jobs, in 2009.[6]

Linamar is investing $365 million in its Green & Fuel Efficient Powertrain Project, which began in 2009.[7]

In 2009, **Tata Motors** entered into a joint venture with a Québec company TM4 to manufacture components for their electric hybrid cars, accompanied by an investment of $25 million.[8]

Toyota opened a new $1.1 billion vehicle assembly plant in 2008, creating 2,000 jobs in Woodstock.

Since 2008, **Ford** has invested $590 million in Windsor, to revamp its Essex Engine Plant and upgrade its advanced powertrain R & D centre.

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

[1] www.media.chrysler.com/pdf.do?id=9882

[2] General Motors Canada

[3] *The Windsor Star* – September 28, 2010

[4] *Niagara Business Pulse* – June 2010

[5] National Research Council Canada

[6] *Globe and Mail*, November 9, 2009

[7] *The Toronto Star*, November 9, 2009

[8] http://www.hydroquebec.com/publications/en/strategic_plan/pdf/plan-strategique-2009-2013.pdf - *pg.65*

Cover Photo: Chrysler Canada

Photo credit: GM Canada Ltd.

AUTOMOTIVE

The automotive industry is Canada's largest manufacturing sector. It accounts for 17 percent of North American vehicle production and has 2.5 million units of installed production capacity. Canada is the world's sixth-largest exporter of automotive products with, on average, more than three-quarters of production in a year exported. In 2010, the auto sector accounted for 12 percent of Canada's manufacturing GDP, with revenues totalling $68.5 billion and exports of $51.5 billion. Capital investment in Canada's automotive industry has averaged $3.5 billion annually from 2001 to 2010.[9]

The Canadian auto manufacturing industry directly employs more than 109,000 people in some 1,300 establishments.[10] Over the past 10 years, the auto manufacturing sector has attracted investment primarily from Germany, Japan and the United States. Automotive employment, investment, and R & D are clustered in the provinces of Ontario, Québec, Manitoba and British Columbia.

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

KEY CAPABILITIES

RESEARCH & DEVELOPMENT (R & D): From 2000 to 2009, R & D spending in Canada's auto industry has averaged $485 million per year. Canada's core strengths in auto-related innovation include: metal processing, advanced materials, advanced design, visualization and manufacturing, as well as information and communications technology.[11]

Canada has vibrant R & D clusters and offers generous investment tax credits and funding to automotive companies for R & D. In addition to conducting independent R & D, private companies also partner with universities, colleges, and public research centres in Canada to undertake collaborative research. Such organizations include the AUTO21 Network Centres of Excellence, the National Research Council and the metals and materials laboratories of Natural Resources Canada.

VEHICLE ASSEMBLY: Canada is home to many of the most productive light vehicle assembly plants in North America. Canadian assembly plants have earned a global reputation for exceptional quality, winning many awards:[12]

- Canadian assembly plants have won one-third of all J.D. Power plant quality awards for North America since 1991.
- The 2010 J.D. Power Gold Award for Plant Quality was awarded to Toyota's Cambridge, Ontario plant.
- The General Motors Oshawa, Ontario plant won the J.D. Power Silver Award for Plant Quality in 2009.
- Six times in the last 10 years, Toyota and General Motors plants in Canada were rated the best in the western hemisphere in the annual J.D. Power initial quality survey.

[9] Industry Canada, from various sources
[10] Statscan – Automotive Industry 2009
[11] Industry Canada, from various sources
[12] JD Power and Associates

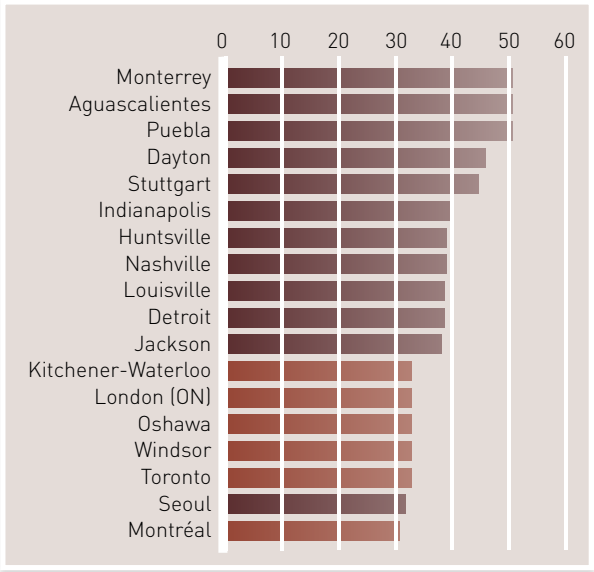
CANADA'S COMPETITIVE ADVANTAGES

Advantage:
Favourable corporate income tax rates

Canada's overall tax rate on business income is lower than that of five of the other G-7 countries. The corporate income tax rates are well below those of the U.S. and Germany, among others.

► **This chart looks at the total income tax payable by corporations in selected cities. Figures express tax payable as a percentage of companies' gross profit, in 2009-2010.**

Total tax payable by businesses



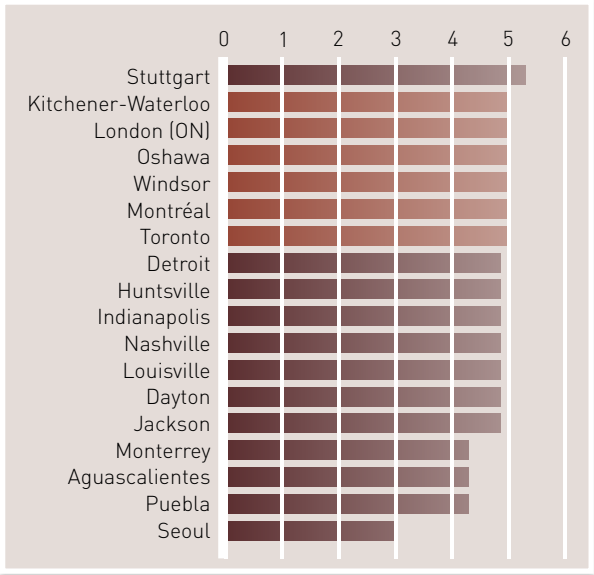
Sources: fDi Benchmark; World Bank, *Doing Business 2010*; The Tax Foundation, *National and State Corporate Income Tax Rates, U.S. States and OECD Countries, 2009*; KPMG: Income Tax Rates for General Corporations (2008/2009)

Advantage:
Good labour relations

Labour relations in Canada favour cooperation over confrontation, a principle enshrined in the *Canada Labour Code*. The Code, which *"deems the development of good industrial relations to be in the best interests of Canada in ensuring a just share of the fruits of progress to all,"* guides federal, provincial and territorial labour relations programs. Overall, labour relations in Canada are somewhat better than, if not comparable, to those in the United States.

► **This chart rates the quality of labour relations in various cities. Zero signifies that labour relations are poor while 6 signifies that labour relations are very good.**

Labour relations



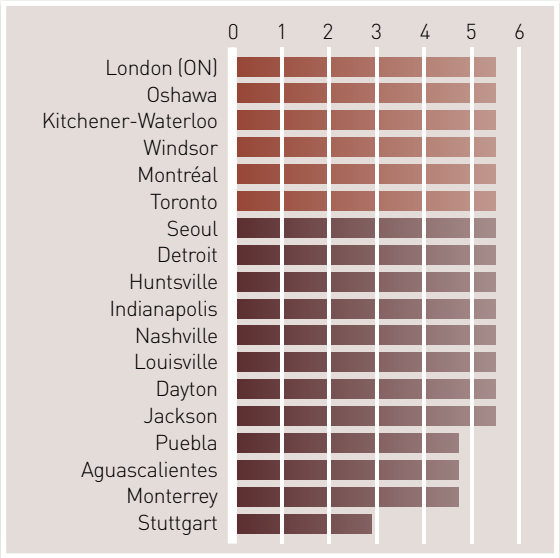
Sources: fDi Benchmark; World Economic Forum, *Global Competitiveness Report (2010/11)*

Advantage:
Flexible wage determination

Canadian wage determination regulations are as flexible as those in the United States, giving individual companies a fair level of competitiveness.

- **This chart assesses the flexibility with which wages are determined, with 0 signifying that wages are set through a centralized bargaining process (least flexible) and 6 signifying that wages are set by individual companies (most flexible).**

Wage determination



Sources: fDi Benchmark; World Economic Forum, *Global Competitiveness Report (2010/11)*

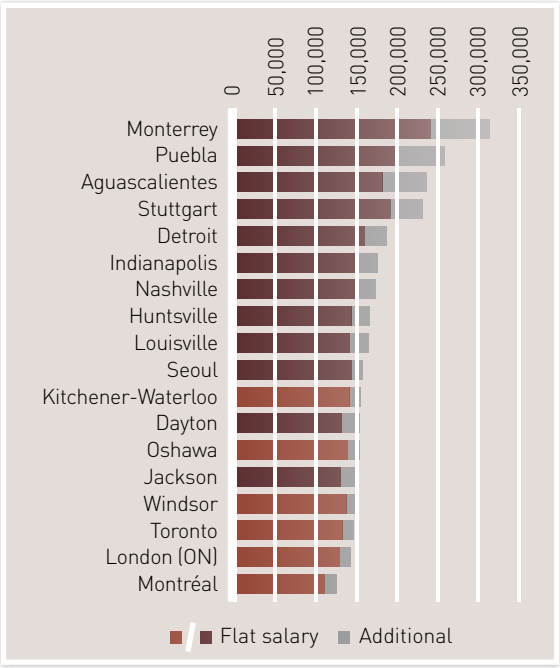
Advantage:
Competitive salary costs for manufacturing executives

The cost of salaries paid to auto manufacturing executives in Canada is competitive when compared to the U.S., Germany and Mexico.

- **This chart examines remuneration levels for heads of manufacturing. These executives usually report to the company's chief executive and exercise overall control of a major manufacturing site. The products they oversee are highly technical and require years of development.**

- **Remuneration includes flat salary as well as additional compensation, such as incentive payments and performance bonuses.**

Head of manufacturing



Sources: fDi Benchmark; Towers Watson, *2010/2011 Global 50 Remuneration Planning Report*

CANADA'S AUTOMOTIVE INDUSTRY: AN OVERVIEW

BRITISH COLUMBIA

The hydrogen and fuel cell sub-sector in British Columbia is the largest in the world. Since 2002, more than $1 billion has been invested into hydrogen and fuel cells research and development in Canada, with most of the funding going to British Columbia-based companies. The province accounts for 70 percent of Canada's employment in this sub-sector, for a total of 1200 employees.

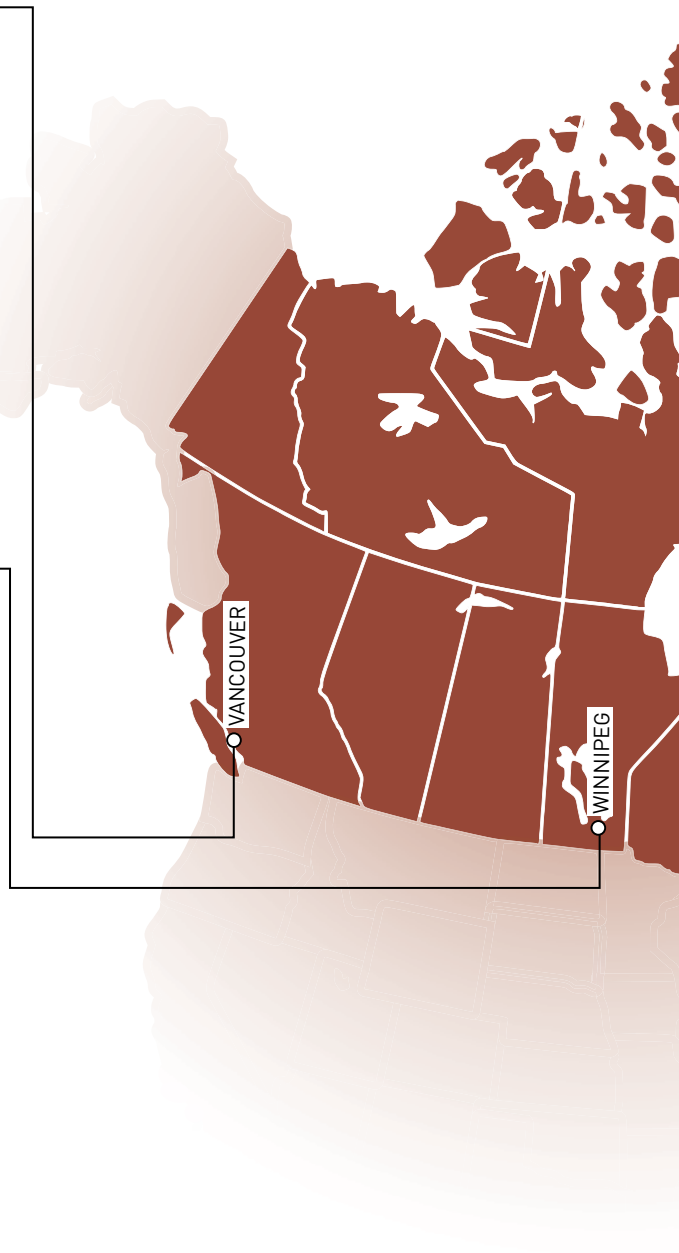
Vancouver-based Ballard Power Systems, founded in 1979 by John Ballard, has pioneered the development of a robust pool of fuel cell technology entrepreneurs in the region. British Columbia's reputation as a clean energy powerhouse was reinforced in March 2011 when Daimler announced a $50 million fuel cell stack manufacturing plant in the Vancouver area, in partnership with the Automotive Fuel Cell Cooperative (AFCC).

Overall, British Columbia's advanced manufacturing and innovation sector offers a growing pool of more than 50,000 high quality engineering, technical and production workers.

MANITOBA

Over a third of the bus market in North America is supplied by Manitoba-based companies. The sector is led by two large manufacturers, Motor Coach Industries Ltd. (MCI), a supplier of inter-city coaches and New Flyer Industries Ltd., which has become the largest supplier of urban transit buses. MCI recently announced investment commitments totaling $40 million, which now consolidates coach production and engineering for its inter-city coach models in a single world-class, state-of-the-art manufacturing facility in Winnipeg.

Close to 40 highly successful automotive companies build other types of vehicles in Manitoba including motorhomes, fire engines, step vans and a wide range of semi-trailers. All of these products are sold across North America. About half of these firms are smaller companies, employing less than 100 persons. The transportation equipment manufacturing sector employs more than 8,000 workers in Manitoba, of which 1,620 were involved in the manufacturing of motor vehicle bodies and trailers in 2009. The industry is supported by a well-diversified infrastructure of suppliers of raw materials, parts, component assemblies and services to original equipment manufacturers (OEM).



ONTARIO

Automotive assemblers and parts manufacturers are making major investments, positioning Ontario as one of the best places in the world to research, design, develop and manufacture vehicles and components. In 2010, Ontario produced 2,062,559 vehicles, which was over 92 percent of total Canadian output. Ontario has been the top sub-national vehicle assembly jurisdiction in North America since 2004, winning J.D. Power North/South American assembly plant quality awards for 17 of the past 21 years. The most recent awards were for the GM Oshawa car plant (Silver in 2009) and the Toyota Cambridge-South plant (Gold in 2010).

Annual capital investment in automotive manufacturing has averaged $3.5 billion over the past 10 years, in leading clusters such as **Windsor**, **Oshawa**, the **Waterloo** region, **London**, and **Toronto**. Leading companies include: Chrysler, Ford, General Motors, Honda, Toyota, Denso, Linamar, and Magna, to name a few. In fact, the only Toyota plant outside Japan to produce Lexus vehicles is in the Waterloo region.

Ontario's workforce competes favourably in terms of quality and cost against the best in the world, consistently winning the J.D. Power initial quality survey and the Harbour Report productivity survey. As a region, Ontario has more qualified engineers per capita than any G-7 country. Over 40 percent of Ontario's 87,000 highly-skilled autoworkers have a post-secondary education and, on average, they stay with an employer for nine years.

Throughout Ontario, world-leading companies collaborate with more than 150 university, college and public research centres to speed new discoveries and processes from the lab to the marketplace. Helping to commercialize breakthroughs by connecting scientists with companies are AUTO21, the largest of Canada's Networks of Centres of Excellence, and the Centre for Materials and Manufacturing, part of the Ontario Centres of Excellence network.

QUÉBEC

Québec is home to over 250 businesses active in original equipment manufacturing and the production of replacement markets for the automotive industry. The industry generates sales of approximately $3.7 billion annually and employs some 11,500 workers. Of the parts, systems and tools produced, 85 percent is shipped outside Québec, mainly to Ontario and the United States. The industry consists mostly of small and medium-sized enterprises and a few foreign subsidiaries, among them Waterville TG, Rehau, Raufoss, Bridgestone, Mark IV Automotive and Timken.

The automotive sector in the greater **Montréal** region draws on such internationally renowned companies as Rio Tinto Alcan and Mecachrome, among others. Montréal's strong expertise in light metals represents an undeniable competitive advantage for the industry, which is supported by large, cutting-edge research facilities such as the National Research Council Canada Industrial Materials Institute, the Center for Applied Research on Polymers and Composites (CREPEC) at the École Polytechnique de Montréal, and the Concordia Centre for Composites at Concordia University.

Québec is also known for its high-tech businesses specializing in parts and systems manufacturing for new-generation hybrid and electric vehicles. These businesses operate in the fields of lightweight materials, fuel delivery systems, electric motorization and batteries and include AMT Die Casting, Spectra Premium, TM4 and Bathium—all based in the province.

Québec has about 30 research centres working in promising fields related to the ground transportation industry, including new materials (light metals, composite materials), batteries, new propulsion systems, fuels and noise reduction. The strategic positioning of these research centres in key ground transportation sectors is a major asset for Québec.

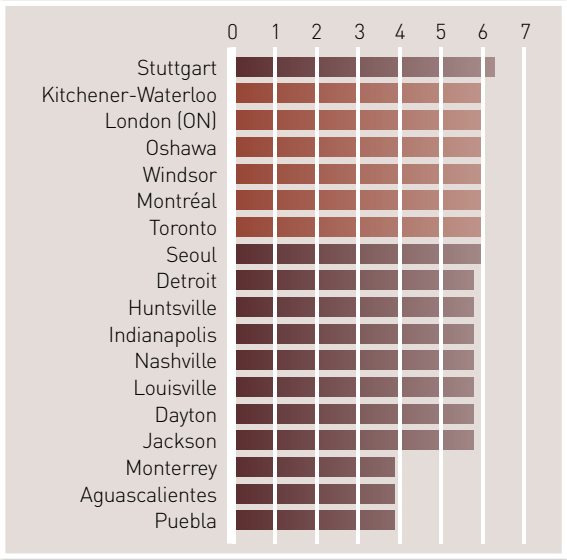
CANADA'S COMPETITIVE ADVANTAGES

Advantage:
World-class infrastructure

Canada's modern, world-class public infrastructure supports the economic growth of its cities and communities. Canadian roads, bridges, railroads, ports and airports are well located, well built, well maintained and secure.

- This chart rates the overall quality of infrastructure such as transport, telephony and energy. A rating of 0 signifies that infrastructure is "extremely underdeveloped," while a rating of 7 signifies that infrastructure is "well developed."

Overall infrastructure quality



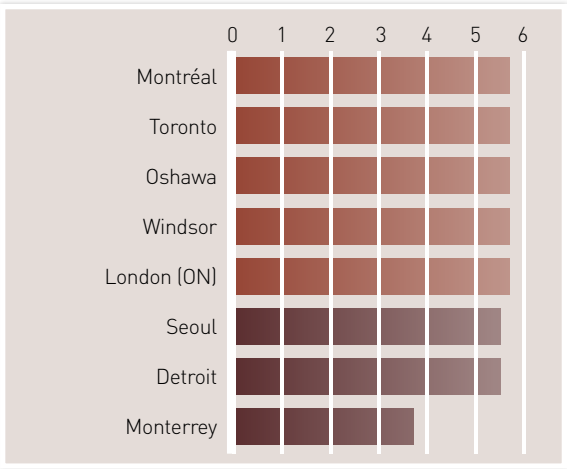
Sources: fDi Benchmark; World Economic Forum, *Global Competitiveness Report (2010/11)*

Advantage:
Port infrastructure quality

Canada's seaports are key to the country's supply chain, moving goods to and from more than 160 countries around the world.

- This chart assesses the quality of port infrastructure in selected cities. A rating of 0 indicates infrastructure is "extremely underdeveloped," while a rating of 6 indicates infrastructure is "well developed and efficient by international standards."

Port infrastructure quality



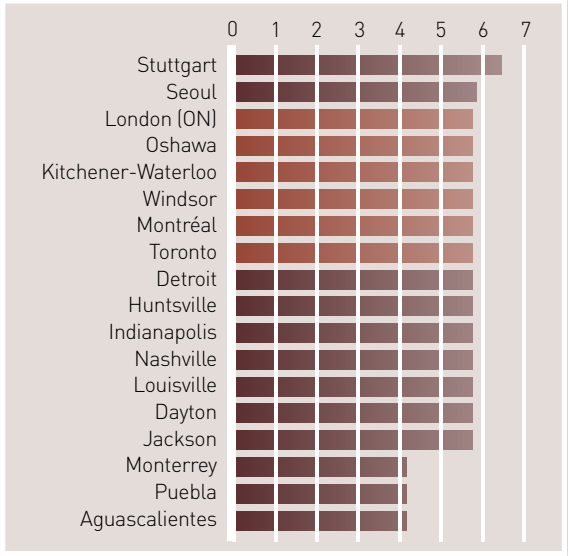
Sources: fDi Benchmark; World Economic Forum, *Global Competitiveness Report (2010/11)*

Advantage:
Quality of roads

Canada's national highway system is 38,000 km long, and integrates well-developed national and provincial highways linking all regions of the country.

- **This chart assesses the quality of roads in selected cities. A rating of 0 indicates road networks are "underdeveloped," while a rating of 7 indicates road networks are "extensive and efficient by international standards."**

Quality of roads



Sources: fDi Benchmark; World Economic Forum, *Global Competitiveness Report (2010/11)*

Confederation Bridge

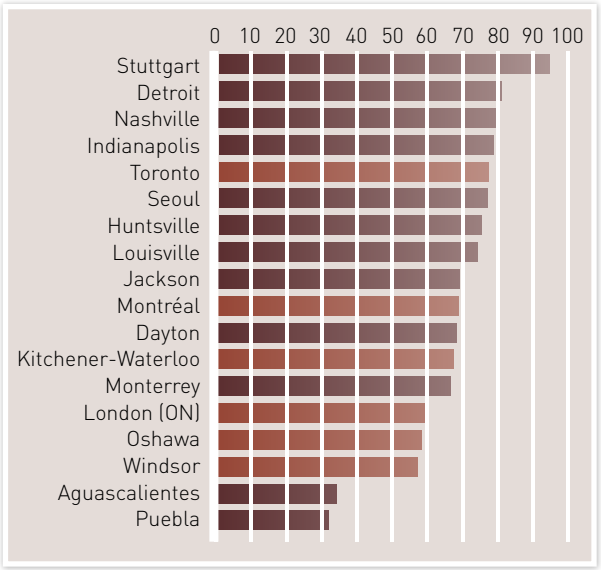
CANADA'S COMPETITIVE ADVANTAGES

Great quality of life at affordable cost

Canadian cities offer a high quality of life at an affordable cost. Comparatively, cities like Montréal, London, Oshawa and Windsor boast a lower cost of living and a higher quality of life. In 2011, the Economist Intelligence Unit ranked Vancouver as the most liveable city in the world, while Toronto and Calgary also placed in the top 10.

► This chart assesses a variety of living costs, including housing.

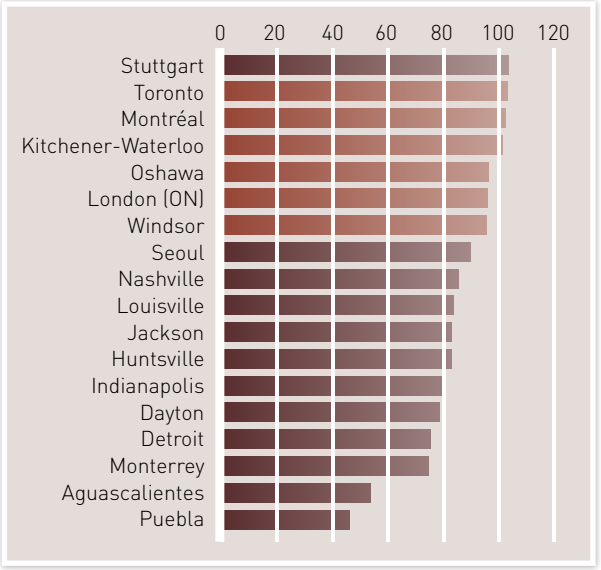
Cost of living index



Sources: fDi Benchmark; fDi intelligence based on data from the Financial Times Ltd.

► This chart assesses quality of living factors.

Quality of living index



Sources: fDi Benchmark; fDi intelligence based on data from the Financial Times Ltd.

INVESTMENT LOCATION BENCHMARKING

The tables and graphs in the preceding pages were generated by fDi Benchmark, a service of the Financial Times Ltd. (www.fdibenchmark.com). This search tool relies on industry-recognized databases and location assessments to appraise the attractiveness of countries, states/provinces and cities around the world for specific sectors and investment projects.

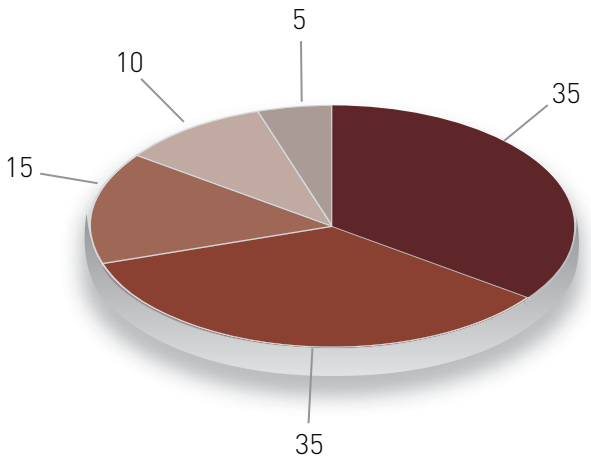
- **The following Canadian and foreign cities selected for benchmarking are locations with a significant cluster of automotive companies: Aguascalientes (Mexico), Dayton, Detroit, Huntsville, Indianapolis, Jackson, Kitchener-Waterloo, London (ON), Louisville, Monterrey (Mexico), Montréal, Nashville, Oshawa, Puebla (Mexico), Seoul, Stuttgart, Toronto and Windsor.**
- **The company profile below is that of an auto components manufacturing plant with a staff of 400, most of whom work in an industrial setting with a few others located in a downtown office.**

Auto Components Manufacturing Plant

COST FACTOR	USAGE AMOUNT
Property	**Square metres**
Total occupancy (in-town office rent)	800 m²
Total occupancy (industrial rent)	50,000 m²
Utilities	
Electricity	72,460 100kWh
Industrial gas	680,000 m³

EMPLOYEE TYPE	PROFILE HEAD COUNT
Manufacturing	
Head of manufacturing	1
Production manager	1
Production operative (highly skilled)	50
Production operative (skilled)	94
Production operative (unskilled)	170
Quality control manager	1
Quality control specialist	16
R & D / Engineering	
Engineer	55
Administration	
Facilities/office services specialist	2
Secretary	10
Total	**400**

Quality Model Properties / Weights Applied



WEIGHTING MODEL OVERVIEW	WEIGHT
Labour availability and quality	35%
Presence of an industrial cluster	35%
General business environment	15%
Infrastructure and accessibility	10%
Living environment	5%

CANADA'S COMPETITIVE ADVANTAGES

Canada boasts many advantages and unparalleled potential: it is a place where businesses can achieve excellence on a global scale.

A HIGHLY EDUCATED WORKFORCE

Canada ranks second in higher-education achievement among members of the Organisation for Economic Co-operation and Development (OECD). (Source: IMD, *World Competitiveness Yearbook 2010*)

A WELCOMING BUSINESS ENVIRONMENT

The Economist Intelligence Unit rated Canada the number one place to do business in the G-7 for the next five years. (Source: Economist Intelligence Unit, *Business Environment Ranking, March 2011*)

A SOUND ECONOMY

Since the third quarter of 2009, Canada's economy has grown for six consecutive quarters and has now fully recovered job and output losses that occurred during the global economic crisis. (Source: Department of Finance Canada, Budget 2011)

FINANCIAL STABILITY

Over the past three years, Canada's banking system has repeatedly been declared the soundest in the world by the World Economic Forum.

LOW TAX RATES

Canada's overall tax rate on new business investment is substantially lower than that of any other G-7 country, while corporate tax rates are among the lowest in the G-7. (Source: Department of Finance Canada, 2010)

SCIENTIFIC RESEARCH AND EXPERIMENTAL DEVELOPMENT

Canada has a very generous Scientific Research and Experimental Development Program (SR & ED) and the lowest costs in R & D-driven sectors in the G-7. (Sources: KPMG, *Competitive Alternatives 2010*; OECD)

NAFTA

Canada's NAFTA advantage (North American Free Trade Agreement) gives investors access to more than 448 million North American consumers and a combined continental GDP of more than US$16.3 trillion. (Source: World Bank, *World Development Indicators Database, 2010*)

A GREAT PLACE TO LIVE AND WORK

World-class universities; a universally acclaimed health-care system; clean, friendly cities; and spectacular scenery make Canada a great place to invest, work, live and raise a family. (Sources: United Nations Development Programme, *Human Development Report 2010*; Economist Intelligence Unit, *Global Liveability Report 2010*)

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