

KPMG Business Study 2004

CEO's Guide to World Business Costs

Automotive



F.Y.I. The Economist Intelligence Unit (EIU) predicts that Canada will be the best country in the world to do business between 2004-2008. Why? The EIU cites Canada's openness to foreign trade and capital, high-quality infrastructure and great market opportunities within the North American marketplace.

Fuel-Injected Auto Profits: Canada's 6.4 Per Cent Cost Advantage

KPMG conducted a detailed 10-month study of automotive production costs in 11 countries in North America, Europe and Asia-Pacific: *Competitive Alternatives, the CEO's Guide to International Business Costs*.

Canada finished first in North America — just a hair behind Australia worldwide. The United States finished fifth. The big North American difference: U.S. cities averaged 6.4 per cent higher costs than Canadian cities — enough to transform weak profit margins into muscular returns.

Canada's cost advantage makes it a great place to produce for all North American markets. Canada's national health care plan, in model is based on a ratio of components that all Tier 2/3 firms are

typically called upon to produce: metal components (75 per cent), plastic components (15 per cent) and electronic components (10 per cent).

Canada's edge in all three categories reflects the strength of the Canadian automotive industry. But see for yourself. In addition to the study, KPMG developed a web-based cost model and interactive website that enables investors to explore the costs involved in setting up and operating over a 10-year period in more than 120 cities in Canada, the U.S., the U.K., France, Germany, Italy, Iceland, Luxembourg, the Netherlands, Japan and Australia.

Examine the data. Use your own criteria, make your own comparisons, pick potential spots to locate or expand.

The proof is at:
www.competitivealternatives.com



Comparison of Annual Costs – Auto Parts Manufacturing

Costs, by major component, US \$'000

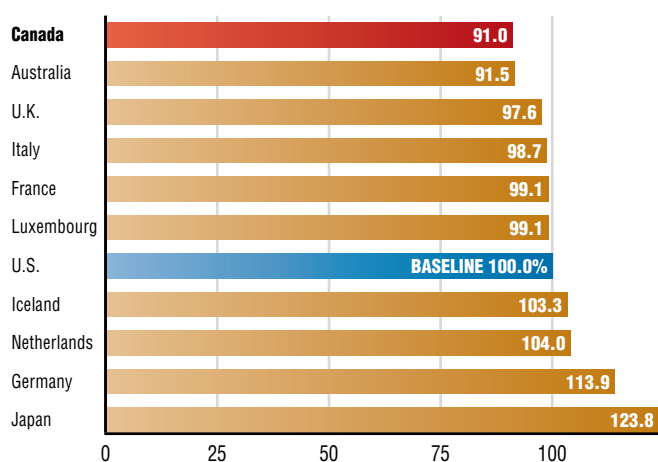
	North America					Europe				Asia Pacific	
	Canada	U.S.	France	Germany	Iceland	Italy	Luxembourg	U.K.	Netherlands	Australia	Japan
Revenues	14,415	14,415	14,415	14,415	14,415	14,415	14,415	14,415	14,415	14,415	14,415
Costs											
Salaries & wages	3,034	3,541	3,137	4,583	3,363	3,085	3,935	3,067	4,001	3,421	5,552
Statutory benefits	325	396	729	1,149	657	436	492	245	788	466	552
Other benefits	667	761	994	1,139	667	1,269	727	1,276	1,036	566	1,275
Total benefits	992	1,157	1,723	2,288	1,324	1,705	1,219	1,521	1,824	1,032	1,827
Labor and benefits	4,026	4,698	4,861	6,871	4,687	4,790	5,154	4,589	5,825	4,453	7,378
Transportation	745	1,112	782	565	1,585	664	677	688	479	519	1,187
Utilities	388	472	414	567	636	596	418	418	764	425	892
Interest & depreciation	807	919	981	1,596	1,109	906	1,297	1,103	1,100	665	2,021
Non-income taxes	285	219	275	291	187	195	158	361	45	55	620
Location-insensitive costs	5,032	5,032	5,032	5,032	5,032	5,032	5,032	5,032	5,032	5,032	5,032
Profit Before Income Tax	3,131	1,963	2,069	-506	1,180	2,233	1,680	2,224	1,171	3,266	-2,717
Income taxes ¹	1,085	762	717	113	264	1,094	501	689	397	1,025	-
Effective rate	34.7%	38.8%	34.7%	n/a	22.4%	49.0%	29.8%	31.0%	33.9%	31.4%	n/a
After-Tax Profit	2,046	1,201	1,352	-619	916	1,140	1,180	1,535	774	2,241	-2,717
Total annual costs	12,369	13,214	13,063	15,034	13,499	13,276	13,236	12,880	13,641	12,173	17,131
Index (US=100.0)	93.6	100.0	98.9	113.8	102.2	100.5	100.2	97.5	103.2	92.1	129.6
Rank	2	5	4	10	8	7	6	3	9	1	11

1. Income taxes may be either positive or negative, irrespective of whether profit before income tax is positive or negative, due to the impact of specific expense deduction rules, minimum taxes, and refundable income tax credits.

Source: *Competitive Alternatives: The CEO's Guide to International Business Costs*. KPMG, 2004.

Comparison of Annual Costs – 12 Industry Average

Overall business operation average in 12 industries.*
Per cent cost relative to the United States.



*Total business costs comprise the sum of location-sensitive costs and location-insensitive costs.

Source: *Competitive Alternatives: The CEO's Guide to International Business Costs*. KPMG, 2004.

Measurable Success

The best measure of a country's ability to compete in the global marketplace is its current account balance with all its trading partners. Canada has recorded an overall current account surplus for 17 straight quarters, and a surplus with its biggest trading partner – the United States – for 22 straight quarters.



The North American automotive sector will build a record number of vehicles this decade. About 15 per cent of them will be produced in Canada. Ontario rivals Michigan as the largest vehicle manufacturer in North America, with significant production from DaimlerChrysler, Ford, GM, Honda, Suzuki and Toyota.

Auto Efficiency? Auto Smarts? Canada? Yes.

Canadian automotive plants win awards for quality and productivity. That's a fact. It happens regularly and it demonstrates Canada's leading position in one facet of the North American automotive industry — assembly.

For two years in a row (2002 and 2003) GM's Oshawa assembly plant has been rated the best in the western hemisphere in the annual **J.D. Power** initial quality study. **Habour and Associates** has also ranked GM's Oshawa plants among the most productive on the continent. In September 2003, Toyota's Canadian assembly plant became the first outside Japan to build a Lexus brand vehicle — a testament to the skill of its Canadian team.

Canada would not be home to six of the world's leading automotive producers — DaimlerChrysler, Ford, GM, Honda, Suzuki and Toyota — if its assembly plants didn't produce high-quality products quickly and at a reasonable cost. But Canada offers **so much more.**

As exciting as Canada's repeated leadership in efficiency and craftsmanship has been, it has been Canada's rise to prominence in the area of "automotive intelligence" — design and engineering — that is stimulating most of the buzz these days.

SOME MAJOR PARTS FIRMS IN CANADA:

ABC Group
Arvin Meritor
Dana
Denso
Johnson Controls
Magna International
Siemens
TRW
Woodbridge Group

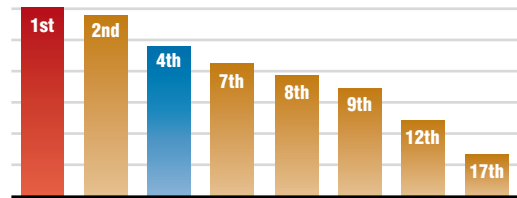


“With highly-skilled machine, tool, die and mould makers, world-class raw materials and low-cost energy, Canada has enjoyed competitive advantages in stamping, injection moulding, casting and forging. But recent injections of more than a billion dollars into research, design, development and testing of components and vehicles has given Canada one of the fastest-growing automotive R, D, D & T sectors in the global automotive sector.”

Dennis DesRosiers
North American Automotive Analyst

Canada Has The World's Best Educated Workforce

Higher Education Achievement – World Rank*



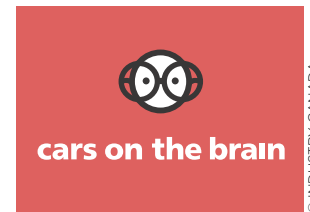
Canada Japan U.S. France Australia U.K. Germany Italy

*Source: IMD World Competitiveness Yearbook, 2003.

Cars on the Brain

Just a few examples of Canada's brainy new automotive profile:

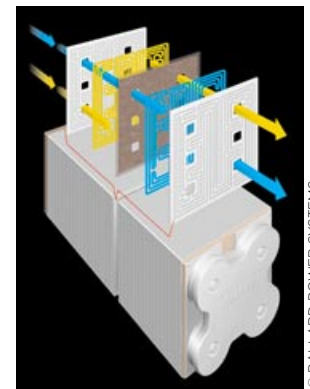
- **GM** has made large new investments in its regional engineering centre in Oshawa. Among other assignments, the centre has been mandated to do much of the development work for the Chevy Equinox, to be assembled at **CAMI Automotive Inc.**, in Ingersoll, Ontario, a joint venture of GM and Suzuki.
- **Ford** has just opened its Powertrain Engineering R&D Centre in Windsor, across the river from Detroit. The new centre ranks ahead of every other Ford R&D centre in the world, with the sole exception of the company's R&D headquarters in Dearborn, Michigan.



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Canada: the Fuel Cell Innovator

Canada is home to a 48-company fuel cell consortium led by **Ford**, which has begun testing five fuel cell vehicles in Vancouver. The Ford Focus vehicles contain hydrogen-powered fuel cells manufactured by **Ballard Power Systems**, of Burnaby, British Columbia, a pioneer in the fuel cell industry, as well as compressed hydrogen storage banks supplied by **Dynetek Industries**, of Calgary, Alberta. In October 2003, the Canadian government announced a new investment of US\$160 million to develop, demonstrate and commercialize hydrogen technologies and further promote Canadian leadership in the hydrogen economy.



© BALLARD POWER SYSTEMS

Automotive Drives Canada-U.S. Trade

Canada is the world's third-largest exporter of automotive products, and is part of a fully-integrated North American market with annual sales of 20 million vehicles. Automotive goods account for more than 27 per cent of total merchandise trade between the United States and Canada – America's largest trading partner. Canada currently enjoys a US\$14.5 billion surplus with the U.S. on two-way automotive trade of US\$98.4 billion.



Just a few Canadian success stories ...

© BRAINTECH INC.



Braintech: Robots With Canadian Eyes

Braintech Inc. of Vancouver has come out of nowhere to convince some very big companies that Vision Guided Robotics is the wave of the future on the assembly line. Ford, General Motors, Delphi and TI Automotive have all signed on as customers over the past few years. The company, specializing in robotic guidance that gives “eyes” to robots, has erased any initial doubts that it can automate difficult assembly line tasks that had been extremely labour intensive. Braintech’s eVisionFactory™ is the only software platform built specifically for developing and supporting Vision Guided Robotics solutions. Braintech has developed a family of advanced vision technology solutions, including its revolutionary Single Camera 3D vision, which is currently being used at Ford’s new engine plants, replacing laser-guided technology.

© 2003 ALIAS



Alias: Exciting Movies, Smarter Cars

Alias of Toronto is known for its dazzling special effects in award-winning movies and its contribution to best-selling video games. The majority of the nominees for best visual effects at the Academy Awards in recent years have used Alias software systems. But Alias’s biggest customer is **General Motors**. Car designers and sculptors use Alias systems for conceptual modelling, rendering, animation, visualization and surface development. Alias Studio Tools™ is used by every major automotive manufacturer in the world. Company President Doug Walker says, “Canada has the right blend of ingredients to support global technology companies. We’ve actually got development facilities in Santa Barbara, Seattle and Toronto. But by far our biggest facility is in Toronto, and the reason is that’s where you get the best people.”

© MINISTRY OF ONTARIO



AUTO21: Cars on Working Brains

AUTO21 is a national research initiative based on cooperation and collaboration among Canadian thinkers, companies and institutions connected to the automotive industry. Its role: to stimulate Canada’s automotive industry in ways that will make it even smarter, more productive and more profitable. AUTO21 is sustained by the Government of Canada — through the Networks of Centres of Excellence — and more than 120 industry, government and institutional partners, including Canada’s top auto assemblers and technology companies. It currently supports more than 250 top researchers working at more than 30 academic institutions, government research facilities and private sector research labs across Canada and around the world, studying materials, fuels, emissions, intelligent systems, manufacturing processes, crash worthiness, and a variety of vehicle dynamics issues.

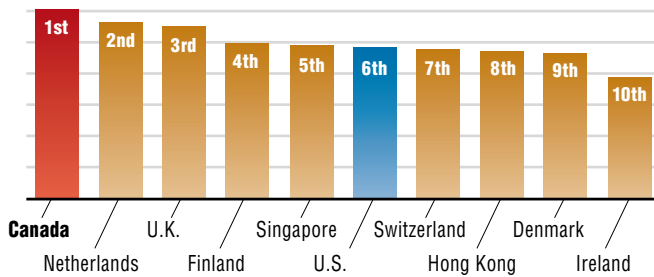
“It’s no secret that automotive manufacturers are constantly on the lookout for value-added suppliers. They often find them in Canada, because Canada offers the kind of cost effective infrastructure that helps innovative technology-based companies maximize their potential.”

**Mike van Gendt, President
Omron Dualtec Automotive Electronics Inc.**

“Innovative thinking leads the way to great engineering and design. With more companies conducting research and development in Canada, it’s important to stay at the innovative edge. AUTO21 promotes that. We’ve created a team from the best brains in the country, and in partnership with industry, we’re developing solutions for the future.”

**Dr. Peter Frise, CEO and Program Leader
AUTO21**

Business Environment of Top Ten Countries, 2004-2008



Source: The Economist Intelligence Unit, January 2004

Canada’s R&D Cost Advantage

	Canada	United States
1	Permanent program	Temporary program – periodically renewable through Act of Congress
2	Tax credits may be refundable	Tax credits are only non-refundable
3	R&D expenditures can be carried forward indefinitely	Time limits to expensing R&D expenditures
4	Salaries, material, contracts, overheads, and incremental costs may qualify	Only salaries, supplies, and 65% on contracts qualify
5	Capital equipment for R&D may qualify	R&D capital equipment does not qualify
6	Volume-based tax credits	Incremental tax credits
7	Research performed in Canada and funded by non-residents may qualify	Research funded by third party does not qualify

Access a wealth of information

The Canadian Embassy or Consulate nearest you is well positioned to assist in all of your key investment decisions and analysis. They can help you compare city-based sites worldwide, gather information on incentives, regulations, transportation and taxation, and arrange introductions to key government and private sector contacts.

Locate your nearest Embassy or Consulate at www.investincanada.gc.ca.

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*To learn more about Canada’s
automotive sector visit:*

<http://strategis.ic.gc.ca/autoe>

Why is Canada Such a Great Place to Do Business?

✓ A STRONG AND STABLE ECONOMY

Canada was the only G7 country to record a sixth consecutive budgetary surplus at the end of the 2002-2003 fiscal year. Finance Canada forecasts a seventh surplus for 2003-2004 and for each of the next five fiscal years. Inflation has averaged a modest 2.4 per cent over the past five years, producing low interest rates and one of the lowest cost-of-living indices in the developed world.

✓ SUPERIOR WORKERS AND MANAGEMENT

Canada leads the world in the percentage of citizens with a university or college education. Surveys show that Canada has North America's most impressive record for workplace stability and company loyalty. Canada's highly skilled, multilingual workforce stimulates the creation of global teams in the workplace.

✓ REASONABLE WAGES AND SALARIES

KPMG's 2004 business cost study found that Canada's average labour costs are significantly lower than comparable American costs. For positions paying US\$63,000 in the United States, salary levels are 20 per cent lower in Canada.

✓ WELCOME MAT FOR INVESTORS

Canada performed extremely well in the World Bank's report *Doing Business in 2004: Understanding Regulation*: it typically takes only two procedures, three days, and less than the equivalent of 1 per cent of annual income per capita to open a business in Canada.

“To be the only plant outside of Japan to produce a Lexus is a true vote of confidence that Canada can compete with the best.”

Ray Tanguay, President
Toyota Motor Manufacturing Canada Inc.

✓ SERVING ALL OF NORTH AMERICA

Under NAFTA, American markets are Canadian markets. Canada provides access to more than 400 million consumers with a combined GDP of over US\$11.4 trillion. Canada and the U.S. have the world's largest trading partnership, with two-way trade amounting to more than US\$508 billion in 2002. Of Canada's 20 largest cities, 17 are within an hour-and-a-half's drive of the United States. Many large North American firms have integrated Canadian and American production facilities.

✓ GREAT R&D AT HUGE SAVINGS

Canada's R&D tax treatment is among the most generous in the industrialized world. It includes immediate full write-offs for all expenditures in R&D capital equipment and appreciable tax credits. Firms can significantly reduce R&D costs through direct investment or subcontracting in Canada.

Healthy Canadian Workers, Healthy Canadian Profits

WINDSOR, ON – Michael Grimaldi, President of General Motors Canada, says Canada must continue to maintain the quality of its national health care plan because it offers the country a “strategic advantage” in attracting investment in the global marketplace.

In a joint statement with representatives of DaimlerChrysler Canada Inc., Ford Motor Company of Canada, and the Canadian Auto Workers Union, Grimaldi said that GM saves more than US\$450 per vehicle on health care for Canadian workers over U.S. workers, representing about half the cost advantage the company realizes by assembling in Canada. ■

To find out more about investment opportunities in Canada:

www.investincanada.gc.ca