



Council of Canadian Academies
Conseil des académies canadiennes

Media Backgrounder

SUMMARY OF RELEASE

Report Title:	Innovation and Business Strategy: Why Canada Falls Short
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Spokespersons:	Panel members: Robert Brown (panel Chair) and Marcel Côté, (panel member) Council Staff: Peter Nicholson, President, Council of Canadian Academies
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SUMMARY OF THE CHARGE

This assessment was undertaken in response to a request from the federal Minister of Industry asking the Council of Canadian Academies to appoint a panel of experts to assess the performance of Canadian business in respect of innovation and the factors that influence business innovation. The specific charge to the panel was as follows:

- How should the innovation performance of Canadian firms be assessed?
- How innovative are Canadian firms, and what do we know about their innovation performance at a national, regional and sector level?
- Why is business demand for innovation inputs (for example, research and development, machinery and equipment, and skilled workers) weaker in Canada than in many other OECD countries?
- What are the contributing factors, and what is the relative importance of these contributing factors?

BACKGROUND – INNOVATION AND BUSINESS STRATEGY

Canada's poor productivity growth over the past two-and-a-half decades is largely due to weak business innovation. The innovation performance of Canadian business, taken as a whole, is significantly weaker than that of the U.S., and in fact weaker than that of many of Canada's peers among OECD countries.

Because business strategy drives innovative behaviour, explaining business innovation performance in Canada comes down to explaining the business strategy choices of Canadian firms. Too few Canadian businesses and entrepreneurs choose business strategies that emphasize innovation.

The discussion about what needs to be done to improve productivity in Canada therefore needs to focus on the factors that encourage, or discourage, the adoption of innovation-based business strategies. A focus on the determinants of business strategy, rather than on innovation activities themselves, is the most significant new contribution of the expert panel's study – *Innovation and Business Strategy: Why Canada Falls Short*.

The business strategy roots of Canada's innovation deficiency run deep in the nation's economy. Canadian firms have often chosen, or been relegated to, an upstream position as providers of commodities or other intermediate goods in many North American value chains, with most product innovation taking place elsewhere. Canada's domestic market is also relatively small and geographically fragmented. Small markets offer lower potential reward for undertaking the risk of innovation and tend to attract fewer competitors, and thus provide less incentive for a business to innovate in order to survive. But the innovation success of countries like Sweden and Finland shows that the disadvantage of a small domestic market can be offset by a strong orientation to innovation-intensive exports.

Canadian businesses, on the whole, have so far failed to aggressively grasp the opportunities created by globalization. Canada's failure to develop a greater number of innovative Canadian-based multinationals has been a key contributor to the country's overall R&D weakness. Relatively low business R&D spending, and the disappointing level of university research commercialization, appear to be two symptoms of the same underlying condition – a lack of orientation by Canadian business to the commercial exploitation of opportunities at the leading edge of science and technology. There is a need in Canada for more "market pull" to complement "research push".

Investment by Canadian business at the leading edge of technology (which represents the indirect acquisition of innovation) has also lagged. The most significant and puzzling shortfall has been in information and communications technologies (ICT) where average investment per worker in Canada was 40% below the U.S. level in 2007. Investment in ICT is a key driver of productivity growth, particularly in many service producing industries which are the main source of job growth in advanced economies. The ICT investment picture is consistent with the view that Canadian businesses on the whole, but always with notable exceptions, are technology followers, not leaders.

Canada's history, its specialization in natural resources and its proximity to the U.S. colossus have had a powerful shaping influence on the nation's path of economic development, and on the values and the attitudes of its business people. Too many successful Canadian businesses would rather behave like an "income trust" than like a "venture capitalist".

The many successes of Canadian businesses in the hyper-competitive global marketplace nevertheless show that there is nothing innate in the national character that prevents Canada's businesses from being just as innovative and productive as those of other nations. With each new generation, Canadian business people – whether born in Canada or abroad – will have an increasingly global mindset and be further removed psychologically from the more limiting conceptions that shaped the nation's past. So whether by necessity or inclination, there is reason to expect that Canadian business will become more ambitious.

There is meanwhile a need for proactive public policies to:

- encourage investment in advanced machinery and equipment in general, and in ICT in particular
- sharpen the incentive for innovation-oriented business strategies by increasing exposure to competition and by promoting a stronger export orientation
- improve the climate for new ventures to better translate Canada's university research excellence into growth businesses that are based in Canada, and
- support areas of particular Canadian strength and opportunity. As a small country, Canada cannot expect to compete globally across all sectors and should focus instead on a limited number in which it can be among the world leaders.

ABOUT THE EXPERT PANEL ON BUSINESS INNOVATION

The expert panel consisted of 18 members of the Canadian private sector and academia who served voluntarily without fee or honoraria. The panel first met in November 2007 and was supported by the staff of the Council of Canadian Academies.

The members of the expert panel were:

Robert Brown, Chair, C.M. O.Q., President and Chief Executive Officer, CAE Inc. (Montréal, QC)

Savvas Chamberlain, FCAE, Chairman and Founder, DALSA Corporation (Waterloo, ON)

Marcel Côté, Founding Partner, SECOR Inc. (Montréal, QC)

Natalie Dakers, Chief Executive Officer, Centre for Drug Research and Development, University of British Columbia - (Vancouver, BC)

Meric Gertler, FRSC, Dean, Faculty of Arts and Science; Professor, Department of Geography and Program in Planning; Co-Director, Program on Globalization and Regional Innovation Systems, University of Toronto (Toronto, ON)

Bronwyn Hall, Professor of Economics of Technology and Innovation, University of Maastricht (Maastricht, The Netherlands); Professor of the Graduate School, University of California at Berkeley (Berkeley, CA)

André Marcheterre, Former President, Merck Frosst Canada (Lorraine, QC)

Arthur May, O.C., President Emeritus, Memorial University; Chairman of the Advisory Board, Atlantic Innovation Fund (St. John's, NL)

Brian McFadden, President and Chief Operating Officer, Prestige Telecom Inc. (Baie d'Urfé, QC)

Walter Mlynaryk, Executive Vice-President, Kruger Inc. (Montréal, QC)

David Pecaut, Senior Partner and Managing Director, The Boston Consulting Group (Toronto, ON)

Jim Roche, Company Director, and Former President and Chief Executive Officer, CMC Microsystems (Ottawa, ON)

Charles Ruigrok, Former Chief Executive Officer, Syncrude Canada Ltd. (Calgary, AB)

Andrew Sharpe, Executive Director, Centre for the Study of Living Standards (Ottawa, ON)

Jim Stanford, Economist, Canadian Auto Workers (Toronto, ON)

Guthrie Stewart, Former Partner, Equity Fund, Edgestone Capital Partners (Montréal, QC)

Alexandre Taillefer, Co-Founder, Stingray Digital Group Inc (Montréal, QC)

John Thompson, Chairman, TD Bank Financial Group (Toronto, ON)

REPORT REVIEW

This report was reviewed in draft form by the individuals listed below – a group of reviewers selected by the Council of Canadian Academies for their diverse perspectives, areas of expertise and broad representation of academic, business, policy and non-governmental organizations. The reviewers were not asked to endorse the conclusions nor did they see the final draft of the report before its release.

Douglas Barber, O.C. (FCAE), Distinguished Professor-in-Residence, Faculty of Engineering, McMaster University (Hamilton, ON)

Marcel Boyer, Bell Canada Professor of Industrial Economics, CIRANO, University of Montréal (Montréal, QC)

David Dolphin, O.C. (FRSC), Emeritus Professor, Department of Chemistry, University of British Columbia (Vancouver, BC)

Fred Gault, Visiting Fellow, International Development Research Centre (Ottawa, ON)

Elhanan Helpman, Director of Graduate Studies, Department of Economics, Harvard University (Cambridge, MA)

Warren Jestin, Senior Vice President and Chief Economist, Scotiabank (Toronto, ON)

John Mann, (FCAE), Chair of the Board, AUTO21 NCE (Amherstburg, ON)

Roger Martin, Dean, Joseph L. Rotman School of Management, University of Toronto (Toronto, ON)

Donald McFetridge, Professor, Department of Economics, Carleton University (Ottawa, ON)

Pierre Mohnen, Department of Quantitative Economics, University of Maastricht (Maastricht, The Netherlands)

Rein Peterson, Emeritus Professor, Entrepreneurship and Family Enterprise, Ted Rogers School of Management, Ryerson University (Toronto, ON)

Richard Rémillard, Executive Director, Canada's Venture Capital & Private Equity Association (Ottawa, ON)

Gilles, Rhéaume, Vice President, Public Policy, Conference Board of Canada (Ottawa, ON)

Andrei Sulzenko, Public Policy Consultant (Ottawa, ON)

Val Traversy, Director General (retired), Industry Sector, Competition Bureau, Industry Canada (Clam Bay, NS)

The report review procedures were monitored on behalf of the Council's Board of Governors and Scientific Advisory Committee by **Dr. Tom Brzustowski**. Professor Brzustowski is the RBC Financial Group Professor in the Commercialization of Innovation, Telfer School of Management, University of Ottawa. The role of the report review monitor is to ensure that the panel gives full and fair consideration to the submissions of the report reviewers.

ABOUT THE COUNCIL OF CANADIAN ACADEMIES

Mandate: The mandate of the Council of Canadian Academies is to provide independent, expert assessments of the science that is relevant to matters of significant public interest. Here *science* is interpreted to encompass any knowledge-generating discipline, including the natural, social and health sciences, engineering, and the humanities. The Council facilitates access to the best available scientific knowledge with the objective of informing public debate and decision-making in Canada.

Mission: The primary mission of the Council is to manage the conduct of assessments of what is known, and also what is not known, about the science that is relevant to important public issues. The Council does this via the appointment and support of independent expert panels, whose membership includes authorities from both Canada and abroad.

Value: To effectively address important issues such as climate change, nanotechnology, innovation, and new infectious diseases, Canadians need access to credible, independent assessments of the underlying science. The Council provides a standing capacity to undertake such assessments and thus helps keep Canada abreast of emerging issues, gaps in knowledge, and the implications of advances in science worldwide. The procedures by which the Council appoints and manages expert panels are designed to ensure the quality and independence of panel reports. All Council reports are made public in French and English to allow both decision-makers and the people of Canada to benefit from this source of expert knowledge.

Organization: The Council of Canadian Academies is an independent, not-for-profit corporation. Its Board of Governors includes nominees from the Council's three Member Academies — RSC: The Academies of Arts, Humanities and Science of Canada; the Canadian Academy of Engineering; and the Canadian Academy of Health Sciences. The Board and Council staff are advised by a Scientific Advisory Committee of eminent authorities in key disciplines of knowledge. The Council is independent of government, but benefits from a \$30 million founding grant from the Government of Canada in support of the Council's core operations through 2015.