

The Conference Board of Canada
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Report April 2005



Six Quick Hits for Canadian Commercialization

Leaders' Roundtable on Commercialization

INNOVATION AND KNOWLEDGE MANAGEMENT



Six Quick Hits for Canadian Commercialization
by Brian Guthrie and Trefor Munn-Venn on behalf of the Leaders' Roundtable on Commercialization

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Preface

Commercialization is a prime driver of Canada's competitiveness and prosperity, yet there are fundamental roadblocks impairing our ability to commercialize effectively. The Leaders' Roundtable on Commercialization has been formed to find made-in-Canada solutions to these obstacles based on our unique strengths in the complex system of global commerce.

In this, the first publication of the Roundtable, we suggest six "quick hits" to address the commercialization challenge. These include strengthening innovation and collaboration in supply chains, expanding entrepreneurial mentorship programs across Canada and focusing government funding and tax systems on the commercialization imperative.

We acknowledge that these quick hits are by no means quick fixes. But they are an effective way to take immediate action while longer-term initiatives continue to develop. The Roundtable's goals, which we plan to achieve through these quick hits, as well as through longer-term initiatives, are to increase the return on Canada's research and development investments, raise productivity, expand international trade, create more value-added jobs and help build more sustainable, global-best Canadian businesses.

David Pecaut and Don Pether
Co-chairs

Leaders' Roundtable on Commercialization

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Acknowledgements

In the fall of 2004, The Conference Board of Canada launched the Leaders' Roundtable on Commercialization—a blue-ribbon panel of 47 industry leaders, university presidents and deputy ministers. This report, the first publication of the Roundtable, outlines six actions that can be taken immediately to start addressing Canada's commercialization challenges while a more comprehensive strategic plan is developed.

This report was developed with substantial input, support and guidance from all members of the Leaders' Roundtable. We would also like to acknowledge the valuable contributions and insights of a number of leading thinkers who were interviewed for the report. (See Appendix A for the list of interviewees and Appendix B for the list of Roundtable members).

In particular we would like to thank our Co-chairs:

- David Pecaut, Senior Partner, The Boston Consulting Group
- Donald A. Pether, President and CEO, Dofasco Inc.

We would also like to thank our Full Partners and our Partners:

Full Partners

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EXECUTIVE SUMMARY

Six Quick Hits for Canadian Commercialization

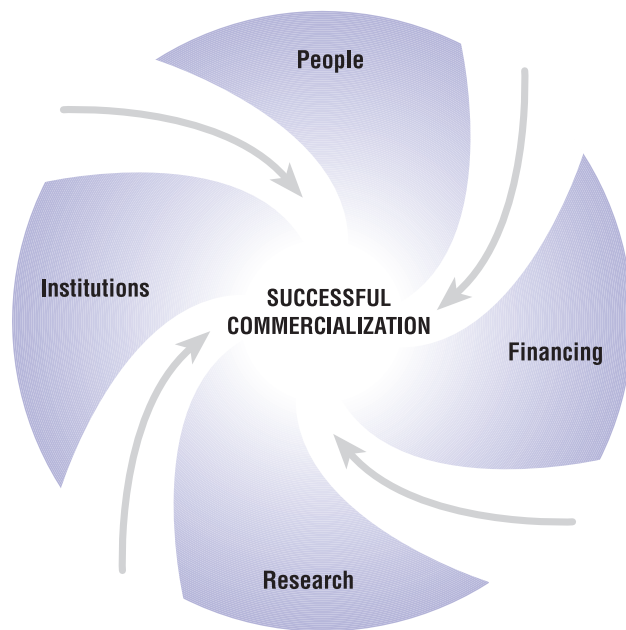
The Leaders' Roundtable on Commercialization is a blue ribbon panel composed of 47 senior business executives, university presidents and deputy ministers. The Conference Board of Canada convened the Roundtable with the following self-declared mandate: *to establish a shared commercialization vision for Canada and an action plan that recognizes the unique challenges facing various sectors and regions.* The Roundtable members are united by the belief that Canadian corporations struggle when taking new products and services to market. They also believe that there is increasing urgency to change this.

To that end, the Roundtable is in the process of developing a strategic plan to improve commerce in Canada. At the same time, it has identified a range of tactical actions that can be taken immediately. The Roundtable selected these actions, or "quick hits," because they capitalize on opportunities available today, they promise results and each of them has a champion prepared to lead the action. Furthermore, each quick hit directly addresses some of the challenges identified by executive-level interviewees.

When we asked 35 interviewees to outline the key issues in Canadian commercialization, they provided detailed and nuanced descriptions of both problems and opportunities. There are four different areas in which any country or system must excel in order to commercialize successfully. The four overarching areas are: people, research, financing and institutions. (See Exhibit 1.)

We arrived at the six quick hits discussed in this report by assessing the problems and opportunities mentioned during the 35 interviews we conducted, as well by assessing the *urgency of the need* and finding a *dedicated champion* to sponsor each suggested hit. The intent is to show tangible results within the *next 12 months*.

Exhibit 1
Essential Elements for Successful Commercialization



Source: The Conference Board of Canada.

These quick hits include strengthening innovation and collaboration in supply chains, expanding entrepreneurial mentorship programs across Canada and focusing government funding and tax systems on the commercialization priority. Table 1 on the following page shows how the six quick hits fit into the four elements of our framework.

These quick hits do not yet define an integrated, long-term strategy. They do, however, demonstrate that the Roundtable is biased toward action. The intent of the suggested actions (and of the Roundtable as a whole) is to be selective rather than comprehensive. The quick hits will create momentum and provide opportunities for immediate action while longer-term initiatives get underway.

Over the two-year tenure of the Roundtable, we will pursue initiatives and actions that provide more balance between the four key elements of people, research, financing and institutions. The Roundtable is examining initiatives

such as the longer-term development of collaborations, gateways and innovation exchanges across the country that will foster the infusion of new financial capital, experienced entrepreneurs and actual deal-making. It is also considering a \$1 million commercialization award, a knowledge-mapping initiative and the consolidation of applied R&D facilities across Canada.

Table 1
Quick Hits and Elements for Commercialization Success

Framework Element	Quick Hit
Research; Institutions	1. Industry-led Collaborative Research Networks
People	2. Regionally-based Commercialization Internships
Financing	3. Angel Tax Credits
Financing	4. Pilot Program to Expand R&D Tax Credits
Financing; Institutions	5. Strategic Procurement
Financing	6. Federal Seed Capital Investment

Source: The Conference Board of Canada.

The Roundtable will not pick winners but will consider strategic priorities—that is, areas in which Canada should focus its limited resources and build on its strengths in order to nurture global-best capabilities. The Roundtable shares the sense of many Canadians that we can no longer be all things to all people in the international marketplace.

Understanding Commercialization Challenges

Canada has unique strengths in the global marketplace with regard to innovation and skills. However, there is a fundamental disconnect between the Canadian commercial marketplace and the country's research and development (R&D) communities. Knowledge producers are not well connected with businesses, and businesses are not benefiting fully from the country's rich knowledge base—despite the fact that commercialization is a primary driver of competitiveness and prosperity. Leaders across the country are suggesting that change is required.

THE LEADERS' ROUNDTABLE ON COMMERCIALIZATION

To address this disconnect, The Conference Board of Canada has established the Leaders' Roundtable on Commercialization, a group of 47 Canadian leaders¹ whose goal is develop a change strategy for commercialization. This Roundtable is pan-Canadian and multi-sectoral. It is designed to motivate businesses, governments, academics and communities to make bold decisions and plans regarding commercialization. The mandate of the Leaders' Roundtable is: *to establish a shared commercialization vision for Canada and an action plan that recognizes the unique challenges facing various sectors and regions.*

Defining Commercialization

The Conference Board defines commercialization as:

A process through which economic value is extracted from knowledge through the production and sale of new or significantly improved goods and services

We expect that over the long term, the work done by the Roundtable will lead to an increased return on our R&D investments, increased productivity, expanded international trade and more sustainable, global-best Canadian businesses.

ABOUT THIS REPORT

In this, the first report of the Roundtable, we call for action and commitment to a series of shared initiatives that can be undertaken over the next year while a more comprehensive strategic plan is developed. We call these initiatives "quick hits."

We acknowledge that commercialization is a complex process that operates within an even more complex innovation system. There are many issues and players in the commercialization game. We recognize that as a result, the underlying issues limiting our commercialization capabilities will take time to change. That is why we are calling our short-term solutions quick hits rather than quick fixes. Longer-term initiatives will also be necessary to ensure future success in commerce. As such, the Roundtable will continue to develop a broad, strategic long-term plan to improve Canadian commerce while the quick hits are being pursued. The urgency of the challenges we face demands immediate action; these quick hits are a way to generate some much-needed momentum.

We derived the long list of potential quick hits from various sources:

- Interviews with 35 leaders from across Canada, carried out by the Conference Board team in December 2004 and January 2005 (see Appendix A);
- A comprehensive review by the Conference Board team of the activities, recommendations and related documents from various organizations across Canada;
- The suggestions made at the Nov. 3, 2004, meeting of the Roundtable; and
- The background material and long list of potential initiatives developed by the Conference Board in advance of the November meeting.

The intent of these quick hits (and the Roundtable as a whole) is to be selective rather than comprehensive. We have therefore placed a premium on actions that can make the most difference, are tangible, can be carried out within the next 12 months and have obvious or willing champions.

Much has been done in this field already. We have tried not to duplicate the past or future recommendations or actions already initiated by other groups, although we do endorse or agree with some of them.

OVERVIEW OF ISSUES

When we asked 35 leaders to outline the key issues in Canadian commerce, they provided detailed and nuanced descriptions of both problems and opportunities. There are clearly several areas that any country must excel at in order to commercialize successfully. These areas are:

- People;
- Research;
- Financing; and
- Institutions.

PEOPLE

- **Leadership:** There is a consistent call for bold, visionary leadership to be followed by tangible, high-impact action. There is a sense that Canadian leaders have been nipping at the ankles of major problems rather than tackling them directly. There is an opportunity to build stronger business leaders, particularly those with sales and marketing expertise, the capacity to manage innovation, a strong focus on the customer and the ability to take Canadian firms global.
- **Entrepreneurial pool:** Commercialization is driven by entrepreneurs. But a consistent message that emerged from our research is the perceived lack of entrepreneurs and deal-makers in the country. In addition to nurturing our own, we should look abroad to the many experienced entrepreneurs around the world who might be attracted by favourable immigration policies, or who can, at least, advise our commercialization agenda.
- **Experienced investor skills:** As suggested below (under “financing”), Canadian commerce would be well served by the participation of more experienced investors. The skills of seed venture capitalists and angel investors are invaluable, but they are earned more than learned. The country would do well to

attract people with such skills. This could be done by promoting a more favourable investment environment as well as by establishing appropriate immigration policies.

- **Engineering and technology skills:** Canada has one of the most highly qualified workforces in the world. Yet in selected industry sectors (e.g., automotive) there is a dearth of engineers and technicians. Demographic trends suggest severe shortages in skilled workers over the next 10 years. There are clear opportunities to meet these skills challenges through academic programming, immigration policies and lifelong learning.

RESEARCH

- **Global knowledge:** Canada has a deep research base with world-class scientists. In selected areas, we are global best. But especially in an era of “big science,” *scale* and shared infrastructure can be show-stopping issues for Canada. There are distinct commercial opportunities that can be exploited further if we are focused and purposeful in our commercialization activities.
- **Attracting research:** We rank highly in collaborative research between universities and domestic businesses. However, there are opportunities to attract more multinational R&D to Canada. It is equally important that we help to catalyze better connections between our research institutions and our small and medium-sized businesses.
- **The commercial role of universities and colleges:** Many industry leaders and academics are questioning current policies to increase universities’ and colleges’ commercialization targets. Most agree that it is important for researchers to work with industry to foster commercialization. However, they suggest that universities stay focused on conducting world-class *research* and producing skilled *people*.

FINANCING

- **Risk capital and experienced investors:** There is concern that there is not enough capital to support Canadian firms—especially the early-stage capital required to go to market and the mezzanine-round financing required to scale up. Furthermore, there is a lack of experienced investors in Canada. Interviewees also noted that Canada does not enjoy the same depth of early-stage grant money that is offered to small business in the United States.
- **Tax incentives:** Tax credits on R&D are insufficient to deal with broader innovation costs, such as proof-

of-concept activities, design work, bench testing and market testing. There are innovative new tax credit schemes arising in various provinces and states across North America that could be replicated for Canada as a whole.

- **Business investments:** International benchmarks show that, compared to American and European companies, in aggregate, Canadian businesses consistently under-invest in R&D, new machinery and equipment, and training and development.² Although more understanding of root causes is required, executives seem to prioritize short-term cost savings over managed risk-taking, sustainable innovation and longer-term performance.
- **Big buyers and savvy customers:** Governments and large businesses, through the purchase of leading-edge Canadian technologies, can both support and drive commercialization in Canada. Strategic procurement, designed and implemented in an appropriate manner, can be successful in this regard, as evidenced in various Canadian and international examples. This approach also benefits the smart procurers in terms of longer-term competitive advantage.

INSTITUTIONS

- **Strategic focus:** There are many excellent examples of Canadian firms of all sizes that have gone global and are engaging in commerce internationally. As a smaller country, we should have the advantage of being focused, flexible and fast. That said, “lack of critical mass” is a theme that emerged in virtually every interview. Canada has a small domestic market and a small population spread over a large geographical area. “Big science” and global marketing call for significant resources just to become competitive in a single technology or market area. Priority setting is required in Canada as a whole as well as in its regions.
- **Anchor facilities:** Facilities and knowledge centres, currently dispersed in regions across the country, could be integrated in geographic or virtual clusters. At the same time, there seems to be a growing appetite among Canadians to become more selective, to pick niches and to find suitable matches for Canada.
- **Mature firms and start-ups:** Canada needs to continue to develop new firms and nurture their long-term growth. But we must also support and develop existing, mature firms. Many corporate leaders suggest that we are overemphasizing the spinning out of new businesses directly from publicly funded research institutes (especially universities).

- **Government programs:** There are approximately 190 programs in the provincial and federal governments that offer assistance in various aspects of commercialization. In addition to being inefficient, this variety is extremely confusing, especially for smaller businesses that do not have the time to navigate through such programs. There is an obvious opportunity for consolidation and clarity.

THE QUICK HITS

The Roundtable has articulated six quick hits that are intended to provide short-term momentum while we continue to develop longer-term initiatives. In the following pages, we describe what each hit involves, why it is needed, related initiatives, who will sponsor and implement the hit and how we will measure its success.

We arrived at these six hits by assessing three key criteria: the challenges described above; the urgency of the need; and whether or not we could identify a dedicated industry champion to sponsor each suggested hit. In each case, the intent is to show tangible results within the next 12 months.

Generally, these quick hits include strengthening innovation and collaboration in supply chains, expanding entrepreneurial mentorship programs across Canada and focusing government funding and tax systems on the commercialization prerogative. The six quick hits fit into the four elements of our framework. (See Exhibit 2.)

Exhibit 2

Quick Hits and Elements for Commercialization Success

People

Quick Hit 2—Regionally-based Commercialization Internships

Research

Quick Hit 1—Industry-led Collaborative Research Networks

Financing

Quick Hit 3—Angel Tax Credits

Quick Hit 4—Pilot Program to Expand R&D Tax Credits

Quick Hit 5—Strategic Procurement

Quick Hit 6—Federal Seed Capital Investment

Institutions

Quick Hit 1—Industry-led Collaborative Research Networks

Quick Hit 5—Strategic Procurement

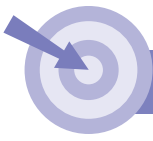
Source: The Conference Board of Canada.

As demonstrated by the imbalance in the above list, the quick hits do not yet define an integrated long-term strategy. They do, however, demonstrate that the Roundtable has a predisposition to action. The intent of the suggested actions (and of the Roundtable as a whole) is to be selective rather than comprehensive. The quick hits will create momentum and provide opportunities for immediate action while longer-term initiatives get underway.

The Roundtable will pursue initiatives and actions that can provide more balance between the four key elements of people, research, financing and institutions. The Roundtable is examining initiatives such as the longer-term development of collaborations, gateways and inno-

vation exchanges across the country that will foster the infusion of new financial capital, experienced entrepreneurs and real deal-making. It is also considering a \$1 million commercialization award, a knowledge-mapping initiative and the consolidation of applied R&D facilities across Canada.

Over its two-year tenure, the Roundtable will not pick winners but will consider strategic priorities—that is, areas in which Canada should focus its limited resources and build on its strengths in order to develop global-best capabilities. The Roundtable shares the sense of many Canadians that we can no longer be all things to all people in the international marketplace.



Industry-led Collaborative Research Networks

WHAT IS THE QUICK HIT?

The goal of this quick hit is to establish collaborative research networks that bring together suppliers, research labs and anchor businesses to improve the level of innovation in supply chains. Creative new approaches to improving the innovation performance of Canada's supply chains are essential if Canadian businesses are to participate effectively in the global economy. For example, within the automotive sector, GM Canada has established the Beacon Project as a major reinvestment initiative. This project will bring manufacturers, suppliers and the research community together into an active Automotive Innovation Network. This concept could be transformed into a template that can be used to raise the innovation performance of other Canadian supply chains.

WHY THIS QUICK HIT?

The Canadian leaders we interviewed reinforced the message that building a critical mass of innovation and a pervasive culture of commerce requires that customers, suppliers and researchers work more closely together.³ With global economic activity increasingly organized by extended, integrated supply chains, a major driver of success for Canadian businesses is the ability to find valuable niches in those supply chains and maximize performance in them.

BACKGROUND AND RELATED INITIATIVES

A number of initiatives are underway in Canada—for example, in the health informatics, forestry, oil and gas, and automotive sectors—that are designed to bring out the full competitive and commercial capacity of supply chains.

Some initiatives involve regular meetings, workshops and showcases for products and ideas where clients,

suppliers, businesses, entrepreneurs, inventors and researchers come together. They share and discuss specific technology development goals and foster ongoing relationships between second- and third-tier suppliers and the university research community. In this context, members of supply chains are establishing targets to increase their investments in R&D, training and development, and new machinery and equipment.

HOW BEST TO IMPLEMENT IT? WHO WILL SPONSOR THE QUICK HIT?

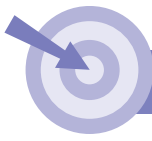
Larger companies and top-tier suppliers should drive this initiative. The Roundtable will build a generic template around the Beacon Project, adapt it to other supply chains and promote it across Canada.

Outreach and marketing would be carried out by academic advisory boards, industry associations, university technology transfer offices and governments. Governments could provide seed funding. Business people would “pay to play.” New investments could be shared among those in the supply chain.

MEASURING SUCCESS

This quick hit will create *purposeful* linkages between businesses and researchers. It will provide small and medium-sized firms with greater exposure to clients as well as to research savvy. The initiative will generate greater cohesion among people in shared or related industries and improve opportunities to work together and to develop new products and services. It will help large Canadian businesses keep costs down and innovation up.

This quick hit will be considered successful if the Beacon Project has been transformed into a template for at least three other industries—with an identified industry champion for each—by April 2006.



Regionally-based Commercialization Internships

WHAT IS THE QUICK HIT?

Our interviewees believe that Canada has a paucity of skilled and experienced entrepreneurs capable of transforming new ideas into products and services that customers want. To address this scarcity, more internships could be established that build entrepreneurial and commercialization skills. One way to deliver this quick hit rapidly is to expand the internship activity of the WestLink Innovation Network.

WestLink works to accelerate the rate at which scientific inventions are commercialized by connecting publicly funded research with industry. Its respected internship program is building the wealth of experience and skills required by Canada's future entrepreneurs.

WestLink Innovation Network

Based in Alberta, WestLink supports commercialization by cultivating managers who understand early-stage technology development. It is funded by federal and western provincial governments, and its members are post-secondary and research institutions from across Western Canada. The organization is perhaps best known for its internship program that focuses on developing top-tier managers with experience and expertise in technology evaluation, licensing and development, business planning, company formation, market research and structuring venture investments. WestLink focuses its activities on four areas: physical sciences, energy, IT and biotechnology.

WHY THIS QUICK HIT?

The goal of this quick hit is to improve entrepreneurial and marketing capabilities in Canada. The research and business communities speak different languages and travel in different circles. Establishing places and opportunities for them to come together and recognize common objectives is critical. Ensuring they have the right skills to make those connections is equally critical, as is helping them to develop a more acute awareness of customers.

BACKGROUND AND RELATED INITIATIVES

Many leaders and interviewees emphasized the perception that Canadians, and Canadian leaders in particular, seem to have a unique "DNA" that does not embrace risk-taking and entrepreneurship. Coupled with this is a double skills shortage in commercialization:

- The research community lacks both the mandate and the skills necessary for serving clients and for working with business; and
- The business community could improve the same skills, particularly in the sale of new and significantly improved products and services, marketing, new business development and client relations.

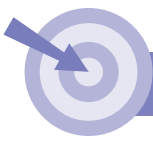
HOW BEST TO IMPLEMENT IT? WHO WILL SPONSOR THE QUICK HIT?

WestLink, along with the Roundtable, is ready and willing to work with other networks, governments, business and the research community to build the template and regional connections necessary to expand the internship program while taking into account regional differences.

Along with an expanded geographic scope, the WestLink model should also work to address the more difficult task of building a culture of commerce based on openness to mentoring, advice and experience. These capabilities will unlock the more subtle and more powerful aspects of commercialization.

MEASURING SUCCESS

This quick hit will be considered successful if the template has been developed and the number of internships has begun to grow across Canada within the next year. The longer-term success of the program will be recognized through the creation of more entrepreneurial and innovative business leaders in Canada.



Angel Tax Credits

WHAT IS THE QUICK HIT?

New businesses face a shortage of early-stage funding—typically provided by angel investors—that can bridge the gap between research ideas and marketable products and services. To address this gap, the National Angel Organization (NAO) has put forward an Innovation and Productivity Tax Credit (IPTC) for small business. This tax credit is endorsed by the Roundtable, and should also be endorsed by business and adopted by government.

The NAO recommends that federal and provincial governments provide investors with a combined 30-per-cent tax credit in respect of their investments directly into eligible business corporations. (Terms of eligibility are suggested by the NAO, but could be clarified, focusing on knowledge-based companies that produce internationally competitive goods and services.) The suggested annual maximum tax credit is \$250,000.

WHY THIS QUICK HIT?

Interviewees described a great chasm between research ideas and the market readiness of technology. In addition to business start-up costs in the early development stages, significant engineering costs may be incurred to establish the proof-of-principle and conduct activities like bench testing and user testing.

When it comes to gaining access to risk capital in Canada, it is difficult to get funding in amounts less than \$5 million or greater than \$100 million. This quick hit is concerned with the first category. Institutional investors are reluctant to do deals for less than \$3 million because their due diligence costs are the same as those for larger deals.⁴

This gap can be bridged by seed financing. The most effective source of seed financing is the individual who has invested before and understands the risks: the angel investor. The Canadian population of angels is very small—particularly when compared to that of the United States. We need to establish effective tax incentives that will

attract more investors to the angel community.⁵ **Entrepreneurs rely not only on angel investment—early-stage, high-risk capital—but they rely also on the mentoring, knowledge and experience that angels bring with them.**

BACKGROUND AND RELATED INITIATIVES

The NAO is just one of a number of organizations advocating changes to promote seed capital investment. For example, the Canadian Task Force on Early Stage Financing recommends a number of changes, including:⁶

- Establishing an Innovation Capital Canada institute to improve the quality and quantity of funding;
- Harmonizing Scientific Research and Experimental Development (SR&ED) rules to create a level playing field for Canadian-controlled private corporations, public companies and foreign companies; and
- Concentrating on angels as mentors by developing a national individual tax credit program for direct investment in early-stage companies.

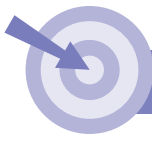
WHO WILL SPONSOR THE QUICK HIT? HOW BEST TO IMPLEMENT IT?

Working in consultation with others, the Roundtable will build a strategy using the NAO recommendations as a starting point for unifying the existing patchwork approach to early-stage financing support.

MEASURING SUCCESS

This initiative will stimulate more angel investment in Canada and more risk capital in general. In turn, this should promote more successful new ventures and increased commercialization in the country.

This quick hit will be successful if a comprehensive strategy for early-stage financing is brought together around the NAO recommendations and presented to governments and if key announcements are made in the next 12 months by governments to adopt them.



Pilot Program to Expand R&D Tax Credits

WHAT IS THE QUICK HIT?

The Canadian leaders we interviewed believe that a pilot program should be established to enhance the effectiveness of the Scientific Research and Experimental Development (SR&ED) tax credit by including corporate expenses related to the broader innovation process, not just to R&D.

WHY THIS QUICK HIT?

The R&D activities of a business are only one part of the innovation process. Without a clear understanding of the potential applications of research, there is risk that, while tax credits are being awarded, commercialization is not being achieved. Understanding the needs of potential customers is often an afterthought in the commercialization process, whereas for more innovative firms, it is seen as an essential first step. Expanding the scope of the SR&ED tax credit will address this critical gap in the effort to bridge scientific research with the needs of the marketplace.

BACKGROUND AND RELATED INITIATIVES

With more than 190 commercialization initiatives currently being operated by governments, the public sector is investing heavily. But interviewees emphasized that there is a lack of clarity in the overall public policy objectives related to commercialization—that is, the objectives seem unclear. To that end, they have suggested two specific objectives:

- Increase the number of companies performing R&D; and
- Increase the commercial success of companies performing R&D.

One way to achieve this is to align the SR&ED program more broadly with innovation and commercialization in

general. Since its inception in the late 1980s, there has not been a comprehensive review of the program. While some would argue that the SR&ED program is a cornerstone of Canada's international competitiveness, it is becoming less of a competitive differentiator for Canada over time. Other countries around the world are implementing equivalent programs. Furthermore, the level of investment in R&D by Canadian businesses has remained relatively flat during the last decade, with a marked decrease in recent years, while businesses in other innovative economies have been increasing their investments. Moreover, the number of firms conducting R&D in Canada is beginning to fall. Combined with major changes in the scale of research, the increased integration of fields of science and the increased levels of global competitiveness, a review of the efficacy of the SR&ED tax credit is warranted.

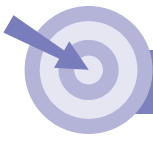
WHO WILL SPONSOR THE QUICK HIT? HOW BEST TO IMPLEMENT IT?

The pilot program will test the expansion of the tax credit to include market assessment activities that take place in conjunction with the research activities. We recommend that the pilot program be capped at \$10 million. A first and critical step should be a discussion with Finance Canada to clearly understand the options and boundaries.⁷

MEASURING SUCCESS

This initiative will improve the success rate of discoveries moving out of the lab, allowing for better capitalization on R&D investments.

We will measure success for this quick hit by examining the number of firms applying to participate in the pilot program in the first year. We will also measure its longer-term impact by assessing changes in revenue from the sale of new or significantly improved goods or services.



Strategic Procurement

WHAT IS THE QUICK HIT?

Governments and large businesses can drive commercialization through the purchase of leading-edge Canadian technologies. Purchases made today can be used to position Canada for the future and foster stronger customer orientation and a global view. This approach also benefits the “smart procurers” themselves in terms of longer-term competitive advantage.

To that end, a delegation led by Roundtable members will meet with the President of the Treasury Board to outline how federal government procurement in particular could be used to foster the development and sale of global-best products and services in Canada. This group will also explore opportunities with provincial governments and selected large businesses. The team will uncover leading procurement practices and work with these leading organizations to showcase best practices.

WHY THIS QUICK HIT?

In 2002, the federal government spent approximately \$12.7 billion on goods, services and construction. Along with this kind of spending should come a strategic imperative to ensure that public funds are being spent in a manner that builds a stronger and more innovative Canada. Yet we seem to have lost the ability to use government expenditures as a way to help Canadian companies build the experience they need to become strong contenders in the global markets.

BACKGROUND AND RELATED INITIATIVES

Canada has a smaller domestic market than many other countries. This makes it more difficult for small or medium-sized companies to build sufficient capability and scale at home before going international. Government procurement can help companies achieve these goals and, in the process, help new technologies emerge. For example, when building the James Bay hydroelectric facilities, the Quebec government used strategic procure-

ment to help foster the creation of a highly successful Canadian company: SNC Lavalin.

Strategic use of government buying mechanisms—in all their various forms—to support commercialization is a common practice in many countries. For example, the high level of military spending in the United States assists with the commercialization of new products and services. Canada does not have equivalent programs.

In order to avoid perverse market influences, the focus must be on global-best products and services—and it should be incumbent on suppliers to prove they are global best. This will induce suppliers to engage in international competitive and market intelligence.

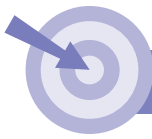
WHO WILL SPONSOR THE QUICK HIT? HOW BEST TO IMPLEMENT IT?

The Roundtable team will pursue this initiative in the context of a broader commercialization strategy. It will be necessary to ensure that the strategic aspect of procurement is aligned with key Canadian capabilities and priorities that could include health care, environmental technology and sustainable energy. In all procurement policies, programs and activities, we must apply the innovation policy test: “*Does this policy in any way enhance innovation in Canada?*”

MEASURING SUCCESS

This initiative will help to build Canadian strengths, maximize strategically important technologies and build domestic markets as a springboard for export development. In particular, it will help smaller companies gain important “lead clients” and “anchor clients.”

Success will be achieved if at the end of 12 months, a coherent national view of strategic procurement can be developed in concert with the Treasury Board, and if that view shifts procurement practices while maintaining high levels of accountability to taxpayers.



Federal Seed Capital Investment

WHAT IS THE QUICK HIT?

The federal government has provided seed capital funds to be managed by the Business Development Bank of Canada (BDC). These funds should be used to lever private funds and attract *experienced* venture capitalists who can provide financing, insight and mentoring to Canadian businesses.

WHY THIS QUICK HIT?

In its October 2004 Speech from the Throne, the Government of Canada committed to “ensure a supply of venture capital, particularly for early-stage businesses—for example, through the venture financing arm of the Business Development Bank of Canada.” In particular, the budget targeted approximately \$100 million to life sciences, biotechnology, medical technologies, environmental technologies and information and communication technologies.⁸

Early-stage funding is essential for taking new products and services to market—particularly in emerging areas of strength. It is critical that this money be used wisely and in a manner that directly meets the needs of emerging businesses.

The federal government estimates that the funds can be leveraged 4:1. Therefore, this \$100 million investment can effectively amount to \$400 million in new ideas, products and services. This represents a pressing opportunity to lever these investments with more private sector funds and experience that can assist entrepreneurs to launch and grow their businesses successfully.

BACKGROUND AND RELATED INITIATIVES

Recognizing a gap in early-stage financing, the BDC established, in mid-2002, a dedicated business unit—Technology Seed Investments—to facilitate and manage pre-seed and seed stage investments. As of April 2005, 750 proposals have been reviewed and approximately half of the money has been invested or allocated towards 33 new companies across Canada (60 per cent are university spin-outs). Thus far, \$60 million has been leveraged from angels and Canadian and U.S. venture capitalists. Moreover, 15 business mentors and presidents have been hired to support the business founders.

WHO WILL SPONSOR THE QUICK HIT? HOW BEST TO IMPLEMENT IT?

This is an urgent and important action. BDC is currently working to create a more positive “syndicate environment”⁹ to provide additional money and guidance to new businesses. A small group from the Roundtable will be convened to work with government and BDC officials to assist in maximizing benefits from business opportunities leveraged by BDC (i.e., narrowing follow-on financing and syndication gaps).

MEASURING SUCCESS

The funding addresses key barriers to getting Canadian ideas to market. Success will be gauged on the extent to which BDC is able to lever the funds with matching and follow-on private funds, and invest them effectively in high-calibre firms with global-best products and services. Effectiveness will be measured through business success and deal-making, which would include an increased level of business acumen among recipients.

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- 1 See Appendix B for a list of Roundtable members.
 - 2 The Conference Board of Canada, *Exploring Canada's Innovation Character: Benchmarking Against Global Best* (Ottawa, June 2004), p. iii.
 - 3 The Conference Board of Canada, *Trading in the Global Ideas Market* (Ottawa: The Conference Board of Canada, 2003), p. 11.
 - 4 Due diligence can take four to six months and cost up to \$100,000.
 - 5 Bernard Courtois, *The Issue: Commercialization* [online], May 25, 2004 [cited Dec. 6, 2004].
 - 6 Canadian Task Force on Early Stage Financing (Briefing for David Emerson, Minister of Industry), January 2005.
 - 7 Whenever discussions of expanding SR&ED occur, corresponding issues arising from World Trade Organization (WTO) commitments and the North American Free Trade Agreement (NAFTA) also emerge. These are legitimate concerns that need to be addressed in a context of openness and common purpose. Similar initiatives underway in Australia and the United States should be considered in this discussion.
 - 8 The total budget allocated to BDC Venture Capital was \$250 million.
 - 9 Automatic matching funds from other investors such as Sidecar funds.

APPENDIX A

Interviewees

Doug Barber

Distinguished Professor-in-Residence
McMaster University

Ray Bassett

Assistant Deputy Minister
Alberta Innovation and Science

Jeff Booth

President and Chief Executive Officer
BuildDirect.com Technologies

Arthur Carty

National Science Advisor to
the Prime Minister

Adam Chowaniec

Chairman
Tundra Semiconductor Corporation

John Evans

Chairman
Torstar Corporation

Eli Fathi

Chief Executive Officer
OrbitIQ

Jock Finlayson

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Gregg Szabo

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Jacquelyn Thayer Scott

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Ian Thomas

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Aubrey Tingle

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Hélène Tremblay

Présidente
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Janet Walden

Vice-President
Natural Sciences and Engineering Research
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David Watters

President
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Steve West

President and Chief Executive Officer
MDS Nordion

John Wood

Senior Advisor
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President
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Don Black

Deputy Minister
Ontario Ministry of Economic Development
and Trade

Jeffrey Booth

President and Chief Executive Officer
BuildDirect.com Technologies

Arthur Carty

National Science Advisor to
the Prime Minister

Adam Chowaniec

Chairman
Tundra Semiconductor Corporation

John Clarkson

Deputy Minister
Manitoba Department of Energy,
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Pierre Coulombe

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National Research Council Canada

Bernard Courtois

President and Chief Executive Officer
Information Technology Association
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John Evans

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Torstar Corporation

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André Marcheterre

Président
Merck Frosst Canada & Co.

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