



January 27, 2014

The Honourable Greg Rickford, P.C., M.P.  
Minister of State (Science and Technology and FedNor)  
235 Queen Street, Ottawa, ON K1A 0H5

**RE: Seizing Canada's Moment: Moving Forward in Science, Technology and Innovation Consultation Paper (December 17, 2013)**

Dear Minister,

Thank you for the opportunity to comment on the Science, Technology and Innovation Consultation Paper you circulated recently. Maintaining a competitive edge demands innovation. Successful businesses recognize that innovation and productivity are intrinsically tied. Fostering a business environment in Canada that rewards innovation will generate tremendous economic benefits by increasing productivity, wages, return on investment, profitability and employment. Rewarding innovation will enhance Canada's position internationally as an economic leader and will make Canada a more attractive destination for foreign investment.

The saying "knowledge is power" has never been more appropriate, yet Canada has not developed a strategy that incorporates the many elements of innovation success, including the development of human capital and a strong financial commitment to innovation either by direct government investment or through policies that stimulate private finance.

With the right plan, Canada can reclaim its position as a global leader and lay the foundation for a more productive and competitive economy. By building on our strengths and working together with the federal and provincial/territorial governments, Canadian businesses can realize the benefits of new technologies and achieve a competitive advantage internationally. The Canadian Chamber is pleased to offer these comments in relation to this consultation process.

420 - 360, rue Albert St.

Ottawa, Ontario



K1R 7X7

613.238.4000

613.238.7643

## Canada's Innovation Ecosystem

A recent study<sup>i</sup> by the Conference Board of Canada defines a country's development of its knowledge base as its "innovation ecosystem" and argues that innovation is an essential element to drive economic growth, productivity and competitiveness. Canada has dropped 5 places to 14<sup>th</sup> on the Global Competitive Index.<sup>ii</sup> Canada is the only G7 nation to drop out of the Top 10 on the Innovation List to the 12<sup>th</sup> spot. In terms of percentage of GDP of R&D spending, Canada has dropped a full percentage point, whereas, almost every other OECD country has increased by a full percentage point.

There is a disconnect between public funding and business innovation research. If the primary goal of this consultation process is to devise a strategy for revitalizing Canada's innovative ecosystem, we need to recognize the disparity between government investment in science and technology, business investment in research and development and entrepreneurial innovation. We continue to fund science and technology for both post-secondary institutional research and incent R&D research for business. However, we do not fully support innovation because support for innovation is intrinsically tied to academic pursuits with no intent to operationalize, commercialize or monetize the end result. The public policy challenge is in the scope and how we define innovation.

New science and technology is important. The government is well positioned to support the infrastructure that incubates pure science. As is pointed out in the discussion paper, Canada remains a world leader in post-secondary education.

However, innovation is not pure science. Rather it is an economic concept. Innovation means taking existing ideas and using them in new ways with game changing results. For a truly successful innovation ecosystem, we must cultivate a talent pool with a broad mix of skill sets. We need to think beyond attracting the best and brightest researchers - we need to attract those with the inspiration to seize unique opportunities and the best and brightest who can operationalize those inspired opportunities. Therefore we hope this consultation process leads

to a long-term strategy that addresses the distinction between science and technology and innovation.

Yet, until we can confidently say that every industry has to focus on R&D and business innovation, the cultivation of talent aspect remains narrow. The fundamental aspects of attracting talent are economics and opportunity - we must have both. In research and R&D, more collaboration should be encouraged across university, college, polytechnic and industry players if Canada is to improve its performance in business innovation.

### **The Hydraulics of Business Investment Decisions**

Government has a definite role to play, but businesses must also continue to evolve their business models with a greater focus on innovation. In order to leverage Canada's long-term fiscal resilience, all players need to understand "decision-making hydraulics" wherein all players (government, business, etc.) understand how decisions are made at the firm level.

It is vital that business provides the government with feedback that impacts decision-making. In order to develop a strategic outcome, the government must have regular conversation with industries to understand business outcomes.

The key outcome for business is growth. The competitive edge to achieve that growth is improved innovation. To realize this outcome, sustained and candid dialogue between business and government is essential. We suggest both business and government commit to including dialogue as a metric for the success or failure of support/incentive programs and how they are structured, in addition to economic outcomes. This would be an important tool in improving Canada's innovation ecosystem. Because business decision frameworks are different across industries and evolve over time in relation to changing market forces, it will be necessary as part of the strategy to ensure frequent and ongoing dialogue.

### **Recommendations**

1. **SKILLS:** As noted, we view innovation more as an economic concept than a scientific one. The economics of an innovation ecosystem are what will drive the opportunity growth for a skilled workforce. Government policy for both skills and the business environment are a catalyst for this growth.

Canada's science, technology and innovation strategy must incorporate an innovative skills development agenda. In changing policies and programs, the government must understand the business needs for innovative people. Post-secondary institutions involved in science and technology research and R&D must be encouraged to cultivate more talent with the innovative skills necessary for business innovation to occur.

2. **INCENTIVES:** With respect to the business environment, government programs, like the Science Research and Experimental Development (SR&ED) program, have been important to the early success for many Canadian companies. However, changes in 2012 to SR&ED have left a gap in business investment decisions that needs to be addressed. We suggest that acknowledgement of the contributions and investments in R&D of foreign owned companies could be better reflected in the incentives available under current models.

The government could consider implementing an "innovation box" approach to encourage more business investment in innovative processes in Canada. An "innovation box" regime would reduce the normal corporate tax rate for income derived from developing and commercially exploiting patented inventions and other IP connected to new or improved products, services and related innovative processes for the benefit of Canada.

3. **ACCESS TO CAPITAL:** A critical element of business competitiveness in any industry is access to capital. From initial start up, through proof of concept, into initial sales and further growth, entrepreneurs of all sizes require adequate financing. Although Canada has a stable banking sector and is home to very large institutional investors, two areas of business finance have attracted attention: the lack of access to capital for start-up companies and young technology companies and the uncertainty around Canada's openness to foreign direct investment.

Venture capital continues to play a critical role in helping young technology companies with new or unproved products and start-ups that lack cash flow and tangible assets to secure a loan. While venture capital market activity expanded in 2011, the Canadian venture capital market faces a broad range of challenges hindering innovation and competitiveness. According to Thomson Reuters, \$1.5 billion was invested in 444 ventures in 2011, well shy of the \$5.9 billion invested in 1,007 Canadian start-ups in 2000. Of the \$1.5 billion invested, 71 per cent went to late-stage companies. Access to seed capital (early-stage financing) remained the most restricted. The average Canadian firm secured only 37 per cent of the venture capital dollars going to U.S. firms in 2011. Other challenges include poor long-term returns and an inability to consistently attract large, well-funded domestic and international institutional investors.

4. **OTHER INCENTIVES:** Other government programs that support innovative R&D, such as Sustainable Development Technology Canada, should be strengthened and expanded. An angel investor and venture capital credit would also help address this critical gap, bridging the gap between start-up and traditional financing. Angel investing is often accompanied with a mentorship which is invaluable to a start-up. We encourage the government to consider an angel investment tax credit to support the early stages of innovation.

The Canadian Chamber recommends that the federal government consider a collaborative industry investment incentive that would help to improve global innovation investment in Canada. Our chamber network passed a resolution calling on the federal government to work with other levels of government, private sector lenders and innovator companies, trade associations and venture capital firms to develop a strategy/action plan to promote and finance new technology development, and to expand the awareness of existing innovation funds. This could be enhanced by a federal procurement strategy that encourages innovation by recognizing it as a key quality in government purchasing of goods and services.

In addition, the Government should also consider programs to promote technology adoption among small and medium-sized enterprises (SMEs). It

is widely acknowledged that Canada is falling behind the rest of the world in technology adoption and usage. A demand-side incentive would not only facilitate adoption, thereby helping SMEs obtain productivity gains and generating economic growth, it would also benefit the Canadian ICT sector by promoting growth of the domestic market.

Government action will create a new, balanced system of direct and indirect contributions that will incent a broader cross-section of companies toward successful research commercialization . To consider these ideas, we encourage the government to convene an expert panel with the mandate to identify areas of the tax system that cause the most complexity and uncertainty and to recommend areas for simplification.

5. **INTELLECTUAL PROPERTY:** In addition to tax and direct incentives, we must acknowledge that Intellectual Property (IP) is the economic engine of progressive countries. IP rights can drive job creation, economic growth and innovation. Focusing attention on IP as a key economic theme is vital to thrive. The efficient granting, protection, and processing of high quality IP rights in all jurisdictions and effective safeguards against abusive practices and harmful litigation is key to protecting the benefits of IP. Having harmonized practices around the world helps reduce costs for businesses. If we properly protect IP in Canada, we can ensure that job creation and investment in the knowledge-based economy remains a top priority. It's clear – proper IP protection positively impacts job growth and contributes to a robust economy in Canada and abroad.
6. **GOVERNMENT INDUSTRY COLLABORATION:** Finally, and as noted above, innovation is the result of the *application of knowledge* to improve a process or product. The discovery of new knowledge, the translation of this knowledge into social and economic value, and the commercialization of this value into a sustainable business - i.e. the innovation process - requires the interaction and collaboration of various different stakeholders, including universities and researchers, large industrial partners and nimble entrepreneurs and small businesses.

If Canada expects to improve the performance of and the return from our public investment in scientific and technological research, then we must concentrate on cultivating the *full innovation ecosystem* that is

required to translate research in monetary value. This ecosystem approach is difficult, as it cross domains of responsibility in government, as well as sectors of the economy. However, if we are serious in our objective of improving Canada's innovation performance, we need to break down these barriers and make the development of collaborative innovation ecosystems a key component of Canada's S&T strategy going forward. We encourage a commitment to frequent dialogue to achieve these goals.

Thank you again for the opportunity to comment on this consultation paper. Should you have any questions, please contact me.

Yours Sincerely,

A handwritten signature in black ink, appearing to read 'S. Smith'.

Scott Smith  
Direct, Intellectual Property and Innovation Policy

cc: The Honourable James Moore, P.C., M.P.

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<sup>i</sup> [http://www.conferenceboard.ca/temp/a306d2f6-6aa3-4adc-bab7-c4ba900c627c/14-012\\_addingvalue-globalmanufacturing\\_rpt.pdf](http://www.conferenceboard.ca/temp/a306d2f6-6aa3-4adc-bab7-c4ba900c627c/14-012_addingvalue-globalmanufacturing_rpt.pdf)

<sup>ii</sup> <http://reports.weforum.org/global-competitiveness-report-2012-2013/>