December 10, 2015

The Hon. Navdeep Bains, P.C., M.P.
Minister of Innovation, Science and Economic Development
Innovation, Science and Economic Development Canada
235 Queen Street
Ottawa, Ontario K1A 0H5
Canada

Dear Minister:

In October, the Canadian Chamber of Commerce concluded its 86th Annual General Meeting (AGM) in Ottawa. A major highlight of the Canadian Chamber's AGM is the Policy Session. It is during the Policy Session that resolutions submitted by local chambers of commerce and boards of trade from throughout Canada are debated and voted on by accredited delegates. Once approved, these resolutions become policy of the Canadian Chamber for the following three years. In 2015, our delegates issued a clear and decisive national policy mandate that we intend to pursue vigorously with the federal government over the coming months.

Our renewed national policy mandate includes the following issues that fall within your portfolio.

Canadian Nuclear Innovation

The Canadian nuclear energy industry represents a vital part of the Canadian economy and employs over 70,000 Canadians, generating over $7 billion dollars a year. The restructuring of Atomic Energy of Canada Limited creates an opportunity for policy makers to partner with industryin fostering nuclear innovation by leveraging CNL's S&T capabilities. The Canadian nuclear industry is already well entrenched in the global nuclear energy community. We are advocating the establishment of a joint government - industry nuclear science, technology and innovation program.

I have also written to Minister Carr since this resolution falls within his portfolio.

CanNor and Territorial Businesses

Businesses lack necessary tools in our territories that are available to other regions. Canada needs economic strength in all of its regions to compete. Reducing the dependence of Canada's territories on the federal government for financial transfers and jobs as well as improving the conditions for private sector growth will improve our national competitiveness. This cannot happen without more tools for businesses in the territories to increase their economic footprint. CanNor was created to address this challenge, however concerns remain over transparency and efficiency. The Chamber is providing specific recommendations to improve the efficient administration of CanNor, beginning with the creation of an advisory council.

Capitalizing on Growth Opportunities in Canadian Auto Parts Manufacturing

Supportive federal government policies related to international trade agreements, competitive regulatory regimes, and investments into R&D can position Canada as a global leader in automotive parts manufacturing. Domestic parts manufacturers have been challenged over the last decade by the migration of assemblers to the southern United States and Mexico based on lower labour costs and major relocation incentives. Despite this trend, parts manufacturers emerged strongly from the recession and continue to expand as automobile sales escalate.

Tax rates and access to skilled workers have had a positive impact on the industry. However, tariff reductions that will be a result of trade agreements combined with overlapping regulatory requirements remain a significant concern for the industry. Expanding export opportunities for auto parts manufacturers, eliminating regulatory duplication and maintaining programs for assisting auto manufacturers on R&D activities would have resolve these concerns.

I have also written to Minister Freeland since this resolution falls within her portfolio.

Counteracting the Growing Productivity Gap: Call for a Public Debate

Canada lacks a satisfactory productivity strategy and productivity lags behind our major trading partners. We are not mobilizing to become more competitive. The globalization of markets is accelerating the diffusion of technology and the pace of innovation. A concerted productivity strategy that would encompass innovation, the labour force, markets and attitudes, skills and training is required.

Developing a National Bioeconomy Strategy

Canada has a significant and thriving biotech sector with unique knowledge capital What Canada lacks is a national bioeconomy strategy. G8 Countries have well developed strategies to work with industry that have lead to economic development, new businesses, high quality long term jobs, and clusters with stable growth.

Many industries, including health, agriculture, food, forestry and natural resources, as well as rural and urban communities stand to benefit from the development of new bio-based products and services that use renewable resources derived from terrestrial and marine sources of biomass and associated waste streams as their feedstock. These produce a wide range of products, such as bio-fuels, biomaterials, bio-chemicals, natural health products, and pharmaceuticals, while minimizing impact on the environment. It involves all processes including invention, development, production and use. The net result of a strategy focused on the bioeconomy will be the creation of new businesses; revitalization of old businesses and jobs for Canadians by capitalizing on the knowledge economy.

Increasing Technology and Productivity in Canadian Food Manufacturing

Low and stagnating productivity levels are restricting global growth and expansion opportunities across the Canadian food manufacturing sector. Food processing is the largest manufacturing industry in Canada by employment and GDP, where output is larger than autos and aerospace combined. The industry has a major presence in all areas of Canada and is integral to rural and urban communities. Investment in technology and process is necessary to scale and scale is necessary to improve productivity. Removing regulatory barriers and providing additional incentives for the adoption of new technology such as the accelerated capital cost allowance are vital to the growth of this industry.

I have also written to Minister Morneau and Minister MacAulay regarding this resolution since it falls within their portfolios.

Restoring Business Competitiveness to Canada's Anti-Spam Legislation

Canada's Anti-Spam Legislation (CASL) governs the unsolicited installation of computer programs and the sending of electronic messages for commercial purposes. CASL came into effect on July 1, 2014 with the portion governing software taking effect as of January 2015. Touted as a model for the worlds and intended to improve the environment for electronic commerce, CASL has actually had the opposite impact. The broad reach, highly prescriptive language and often contradictory guidance provided by enforcement agencies have forced many businesses to reconsider their approach to electronic commerce, in some cases opting for more traditional marketing approaches.

CASL has been widely criticized by businesses and the legal community across the country for the ambiguity of language and the difficulty in achieving compliance. The compliance cost to business is staggering.

We ask that the federal government reconsider this legislation to remove the more egregious provisions, in particular by removing the private right of action.

Strengthen the Knowledge-Based Economy

Worldwide, companies formed on biotechnology have generated employment, benefits to patients, and substantial economic value. Although Canada excels in basic research it has failed to share in the worldwide biotech boom because, where the majority of risk-tolerant capital is provided from public capital markets only in Canada are life sciences companies obliged to compete for public risk capital against capital subsidies for other industries.

Canada is a global leader in both educational attainment and scientific research. Canada has been recognized for disproportionate investment in primary reaearch at the institutional level, yet lags in private investment. Consequently, the rate of successful commercialization of Canadian intellectual property discoveries is well below its scientific peers and competitors. We need a solution to capitalizing on our knowledge base, one that recognizes the value of private investment. Extending flow-through shares incentives to Canada's biotechnology industry is viable solution.

Timely, Reliable, Comparable Government Data for Canada's Businesses

Data is critical to businesses to identify new markets and customers, clients at risk, etc. Digital technologies have made it possible for smaller businesses to access and use data in ways that were once only possible for larger companies. We are encouraged by the government's intent to reinstate the long-form census and support the delivery high quality data by properly resourcing Stats Canada.

I have also written to Minister Brison regarding this resolution since it falls within his portfolio.

International Online Sales: An Important Shortfall for Governments

Online sales through companies outside Canada are a growing phenomenon due to the rapid development of the digital economy. Foreign companies that have no assets or employees in Canada and are selling digital products to Canadian consumers are not forced by current tax regulations to collect the Goods and Services Tax/Harmonized Sales Tax (GST/HST) nor to remit the tax to federal and provincial governments.

Consequently, tax revenues are lost (i.e. Goods and Services Tax/Harmonized Sales Tax (GST/HST)) because of the loopholes in Canada's current tax system. This puts Canadian incumbents at a competitive disadvantage, deprives Canada of valuable tax revenue and is a constraint to investment in Canada. We urge the government to impose the consumption tax system on foreign companies selling digital products and services to Canadian consumers by registering with the Canada Revenue Agency (CTA).

Clean Technology and the Renewable Energy Sector in Canada

Recent energy dialogue has focused on oil prices and the impact this is having on federal and provincial budgets. This misses the fact that a more fundamental shift is occurring in the global economy. For the first time in more than a century, multiple signs suggest that the dominance of fossil fuels is beginning to decline. We are seeing the beginning of a new technology revolution that will provide huge economic benefit for those able to place themselves at the forefront of this revolution. The scope of the clean technology and renewable energy opportunities are poorly understood. While investments in renewable energy are well underway in many jurisdictions, the scope of change required will be well beyond electricity generation. Innovation in terms of new technologies and new practices will be required in a range of other areas.

Canada needs to move beyond the limited focus on Canada's traditional industries and make Canada a global leader in all aspects of the new emerging global green economy. While market forces will be a key determinant of successful new technologies, governments have a critical role to play in setting the scene for this societal shift. To ensure that Canada is able to move quickly to establish ourselves as a global leader government, we must develop, expand and implement plans to make Canada a global leader in the sustainable technology and energy sectors.

I have also written to Minister McKenna, Minister Carr and Minister Dion regarding this resolution since it falls within their portfolios.

A copy of the complete text of these resolutions is attached. I hope to have the opportunity to meet with you soon.

Sincerely,

Perrin Beatty
President and Chief Executive Officer

Attachments

Canadian Nuclear Innovation[1]

The Canadian nuclear energy industry represents a vital part of the Canadian economy. The industry employs 70,000 Canadians directly and indirectly (via support industries), generating over $7 billion dollars a year in economic activity and over $1.5 billion in both federal and provincial revenues.

The current restructuring of Atomic Energy of Canada Limited and the need for an innovation mandate for Canadian Nuclear Laboratories (CNL) creates an opportunity for the Federal and Ontario governments along with nuclear industry partners to play a lead role in fostering nuclear innovation by leveraging CNL's S&T capabilities. The parties should develop a new collaborative approach for defining nuclear science, technology and innovation priorities and for establishing program funding that will enable Ontario's nuclear industry to be competitive and sustainable in world markets.

With over 400 nuclear facilities in operation globally, 63 currently under construction and 66 in the planning phase, nuclear energy expansion and maintenance of existing facilities will become an increasingly vital source of energy and economic stability in coming years. The Canadian nuclear industry is already well entrenched in the global nuclear energy community, with significant operations in over 20 countries. Support for the Canadian nuclear industry from all levels of government, especially at the Federal level, will become increasingly necessary due to increased demand for nuclear production, both domestically and internationally, as well as increased competition within the market.

Since 2012, the Greater Oshawa Chamber of Commerce, together with the Ontario and Canadian Chambers, have supported the creation of an oversight committee/panel to address nuclear industry issues and act as a liaison between government and relevant industry representatives.

Recommendation

That the federal government work with provincial and territorial governments to:

1. Through its Energy, Research and Innovation and Economic Development ministries and the Canadian nuclear industry leaders, establish a joint government – industry nuclear science, technology and innovation program. This program will ensure that Canada retains its leadership position in the global nuclear industry.

---

[1] Data for this resolution was generously contributed by industry members including Ontario Power Generation, CANDU Energy Incorporated, and the Ontario Society of Professional Engineers.

CanNor and Territorial Businesses

The Canadian Chamber of Commerce has identified the lack of tools available to businesses in our territories as one of Canada's Top 10 Barriers to Competitiveness. Canada needs economic strength in all of its regions to compete. Reducing the dependence of Canada's territories on the federal government for financial transfers and jobs as well as improving the conditions for private sector growth will improve our national competitiveness. This cannot happen without more tools for businesses in the territories to increase their economic footprint.

In 2009, the federal government created the Canadian Northern Economic Development Agency (CanNor) to "develop a diversified, sustainable and dynamic economy across Canada's three territories…by delivering funding programs to Northerners and Aboriginal people, guiding resource development and major projects across the North through the Northern Projects Management Office, undertaking research to support the development of evidence-based policies, advocating for Northern economic prosperity and diversification, and collaborating with and aligning the efforts of other federal departments, territorial governments, Aboriginal organizations and industry."[2]

The Strategic Investments in Northern Economic Development (SINED) is CanNor's largest funding program and the one used to support private sector initiatives. SINED's current funding ($20 million annually) is in place until March 31, 2016 and the program is under review. Businesses in Canada's territories appreciate the acknowledgement by the federal government that the territorial economies warranted the establishment of a dedicated economic development agency and have had successful partnerships with CanNor that have brought benefits to the business community and – as a result – the economy. An example is the Whitehorse Chamber's Yukon Business Development Program (YBDP), which received CanNor support until March 31, 2014. Under this program, selected companies and First Nation economic development corporations receive personalized business development assistance to help them reach their full market potential. The YBDP has helped more than 54 businesses in Yukon. One example of the success of the program is a business connected to the resource sector. The owner came to the program working out of his garage and after several years in the program, he now employs more than 12 people and has gone from gross sales of $100,000 per year to more than $4 million.

The Whitehorse Chamber's Partnering for Success program, which was also supported by funding from SINED, brings representatives from industry, governments and First Nations together to discuss business issues and ways to enhance the Yukon economy. Partnering for Success has resulted in changes to several pieces of legislation in Yukon including the *Business Corporations Act*, the *Landlord Tenant Act*, the *Workers'Compensation Board Act*, the *Condominium Act* and the *Land Titles Act*.

That said, territorial chambers of commerce and their members believe that CanNor's ability to fulfill its mandate as an enabler for the private sector is hampered by a lack of business experience/sense of urgency within the agency as well as a cumbersome, lengthy and bureaucracy-laced application, review and approval process. The difficulties cited by territorial businesses and chambers of commerce in navigating the application process for CanNor support was corroborated by the Auditor General of Canada, Michel Ferguson, when he appeared before the House of Commons Public Accounts Committee to speak to his office's Spring 2014 Report. "Mr. Ferguson said that CanNor's 'administration of (contribution) agreements was weak.' For example, he explained that it took on average over nine months after an application was received for a contribution

[2] Treasury Board Secretariat, 2015-16 Main Estimates Parts I and II The Government Expenditure Plan and Main Estimates, page II-65.

agreement to be signed, with the result that some of the contribution agreements were signed late in the fiscal year they covered, and some recipients had only a short period of time to spend funds."[3]

CanNor is undoubtedly meeting its 90-day application completion standard "which starts when a complete application for funding is received"[4]. However, delays in acknowledging applications, changing parameters regarding supplementary documentation required, and the amount of funding available as well as long time gaps associated with each are capped by the fact that the Minister must approve each application. While businesses support the need for due diligence in the spending of public funds, the current process results in frustration and the waste of precious private – and government – time and money. Businesses cannot operate in this manner – for long – nor should the publicly-funded agencies that have been established to assist them in creating sustainable economic growth.

Territorial businesses find it extremely difficult to contact CanNor staff. At present, there is no personnel directory on CanNor sites. When combined with CanNor's history of not returning calls, it is very difficult – if not impossible – to apply for programs, clarify documentation requirements, etc.

CanNor is a relatively new agency that inherited some of the programs it delivers from other departments "that had deficiencies identified in past evaluations and audits. While attempting to address these issues, CanNor also had to develop and deliver new programs."[5]The territorial business community acknowledges this but also believes that CanNor can improve its efficiency and effectiveness in delivering programs to support the private sector.

Several territorial businesses and the chambers of commerce that represent them have said there is some confusion – particularly amongst small businesses – regarding who to approach for financing amongst CanNor, Business Development Bank of Canada (BDC) and the private banks. CanNor could assist by working with BDC and private banks to clarify and communicate appropriate funding sources for various businesses.

Recommendations

That the federal government:

1. Introduce the following enhancement/changes to the application and approval process for the Canadian Northern Economic Development Agency's (CanNor) Strategic Investments in Northern Economic Development (SINED) program:

    a. Establish an advisory committee of business people in each territory/region to identify opportunities to invest CanNor funding most effectively in private sector initiatives as a complement to its role in accepting applications on a reactive basis only.

    b. Acknowledge within 5 business days the receipt of funding applications.

---

[3] Report of the Standing Committee on Public Accounts of the Spring 2014 Report of the Auditor General of Canada, Chapter 6, Transfer Payments Programs – Canadian Northern Economic Development Agency, February 2015

[4] Ibid.

[5] Ibid.

c. Follow up with a preliminary assessment of applications – including additional documentation required – within 10 business days after the original acknowledgement.

d. Communicate a final decision on applications within 90 workings days of receiving funding applications or provide an explanation to the applicant(s) of why this is not possible.

e. Approval at the territorial level of applications for funding less than or equal to $100 thousand that meet the required criteria.

f. Provide detailed marketing/communications requirements in its approval letters.

g. Communicate its requirements with other partners, e.g., territorial governments, Crown Corporations.

2. Make SINED a permanent program, reviewing it after 5 years in order to provide planning certainty for CanNor and territorial businesses.

3. Establish an "ease of access to CanNor's offices and personnel" as a performance standard for the agency.

4. Mandate CanNor to provide access to information on the variety of sources of capital available to business enterprises and entrepreneurs. This information is to include matching sources of capital to business lifecycle, stage of commercialization and ability to provide required financing information to capital providers. Capital providers would include, but not be limited to: government agencies and programs (both federally and territorially), the Business Development Bank of Canada, private banking institutions, credit unions, alternative financing providers, venture capital, angel investors and private equity.

Capitalizing on Growth Opportunities in Canadian Auto Parts Manufacturing

Issue

Supportive federal government policies related to international trade agreements, competitive regulatory regimes, and investments into R&D can position Canada as a global leader in automotive parts manufacturing.

Background

The Canadian auto sector consists of assemblers – Ford, Chrysler, General Motors, Honda and Toyota – and a large network of parts suppliers.

Domestic parts manufacturers have been challenged over the last decade by the migration of assemblers to the southern United States and Mexico based on lower labour costs and major relocation incentives. Despite this trend, parts manufacturers emerged strongly from the recession and continue to expand as automobile sales escalate.

A 2014 report[6] from the Lawrence National Centre for Policy and Management at the Ivey School of Business at Western University analyzed the operations of three major auto parts manufacturers – Magna International, Linamar Corporation, and Martinrea International. Quality and process innovation was identified as a high priority for securing business from assemblers, along with technology and knowledge transfer to maintain low operating costs.

All three firms utilized government tax incentives and programs, including SR&ED (Magna), federal and provincial support for innovation (Linamar) and trade financing through the Export Development Corporation (Martinrea). Concern was expressed that Canada's inherent manufacturing advantages are not sufficient to overcome heavy location incentives from governments in the United States and Mexico.

Canadian taxation levels are however considered a benefit and in some corporate decisions are sufficient to overcome lower labour costs. High school and post-secondary education should provide the skills required for industry along with information on wages available in advanced manufacturing. Government funding for educational programs should relate to the demand for skills in that area. Germany has frequently been identified as the prototype for supplying manufacturers with skilled employees through apprenticeships and trade institutions.

Two primary public policy issues identified by the three manufacturers include trade agreements and overlapping regulation. More agreements are required as freer trade with Mexico and the United States has made those jurisdictions relatively more attractive for parts that are readily exported. Magna has indicated that Canada needs to develop a strategy to increase Canadian manufacturing jobs rather than buying manufactured products. The Comprehensive Economic and Trade Agreement (CETA) with the European Union will benefit the domestic auto parts sector as EU tariffs, which can reach 4.5 percent, will be eliminated. This measure will provide Canada with a major advantage over competing jurisdictions.

---

[6] The Future of Canadian Manufacturing: Learning from Leading Firms. Canadian Auto-Parts Manufacturing. Lawrence National Centre for Policy and Management, Ivey Business School, Western University. 2014

The requirement to reduce regulatory overlap and duplication is also a priority for parts manufacturers and particularly important when importing machinery from countries that have rigid environmental regimes such as Germany. The retesting of equipment wastes time and money and adds no value.

Martinrea has indicated that part manufacturers need to cluster around assemblers (within 50 miles) to compete on logistics and reduce supply chain risk, implying that Canada should also offer location incentives to attract assemblers. Winning the competition for assembly plants will require superior performance in three areas – government subsidies, coordinated responses across federal, provincial and local governments, and flexible, highly productive labour arrangements.

The 2015 federal Budget tabled by Finance Minister Joe Oliver committed up to $100 million, over five years, for the Automotive Supplier Innovation Program. This new initiative will assist domestic parts manufacturers in developing new products required by assemblers. Of the total $100 million, one-half will be reallocated from the Automotive Innovation Fund and will be supplemented on a cost-shared basis by participating firms.

Recommendations:

That the federal government:

1. Expand export opportunities for Canadian auto parts manufacturers through international trade agreements;

2. Eliminate regulatory duplication and overlap particularly in relation to the importation of machinery from jurisdictions with effective environmental and safety regimes;

3. Maintain programs for assisting auto manufacturers on R&D activities to meet the changing requirements of domestic and international assemblers.

4. Direct Ray Tanguay, Canada/Ontario Auto Adviser, to advise the Canadian Chamber of Commerce of his strategic plan within 6 months.

Counteracting the Growing Productivity Gap: Call for a Public Debate

Canada continues to lack an overarching productivity strategy. Canadian productivity is not growing as fast as it is in the U.S. and many other countries as Canada sits in the bottom quartile of the Organization for Economic Co-operation and Development (OEDC). At present, Canada has relatively healthy balance sheets, low taxes and low borrowing cost, what potentially makes Canada a competitive partner for the emerging markets and global economy key players.[7]However, there continues to be important obstacles that lessen the Canadian economy attractiveness, underuse the country's economic and human potential and, in the whole, slow down the Canadian productivity notably.

As stated by the research conducted by the World Economic Forum (WEF) *Canada is slipping a few notches in the 2014-15 report (with its goods and labour ranked 14th (12th in 2011-12 report) 7th (5th in 2012 report)) respectively. (The country's financial market, which ranked 13th in the 2012 report, has excelled into an 8th positioning, in the 2014 report.) Canada boasts well-functioning and transparent institutions now ranked 14th (11th in 2012 report), and excellent infrastructure now ranked 15th (11th in 2012 report). In addition, the country has been successful in nurturing its human resources: it is ranked 7th (6th in 2012 report) for health and primary education and 18th (12th in 2012 report) for higher education and training. Business sophistication and Innovations falls further down the scale at 23rd and 22nd respectively. As a global competitive entity Canada is ranking 15/144.*[8]

In less than ten years of time the emerging economies will account for 55% of the world's economic output, up from the current 45%. The strong demand in these countries for materials, finished products and services presents opportunities for the Canadian business. According to the WEC, the most problematic factors for doing business in Canada are: access to financing, tax rates and inefficient government bureaucracy. Rated 4th is insufficient capacity to innovate, followed by inadequate supply of infrastructure. "Structurally, we're not doing as well at innovation as we need to," said Daniel Muzyka, president of the Conference Board of Canada, the WEF's Canadian partner in the global study. "We're not really mobilizing to become more competitive."

If there ever was a time to take poor productivity growth seriously the time has arrived. Over time Canadian business investment has shifted away from manufacturing toward resource development. Key resource sectors, such as the oil sands have absorbed significant and innovative investment but have yet to see a significant and sustained increase in productivity. With a downward adjustment in the price of these key natural resources the country will certainly feel the urgency to diversify and innovate.

At the same time, Canadian researchers indicate that a key source of U.S. higher productivity growth has been the development and production of information and communications related goods, and subsequently the broad application of these through the U.S. economy, particularly in the service sector. The intensity of usage of information technology by Canadian business continues to be only half that of the U.S..

In 2007, Canadian business ranked 14th among OECD countries in research and development expenditures as a percentage of GDP. Canadian business spending on R&D was only 1% of GDP and continues to stay the same according to current studies, well below the OECD average of 1.6%, half of what the U.S. business spends and 33% compared with Sweden, Finland and Korea. As a result, Canadian business has less capacity to be receptive to innovation, and less of a focus on innovation as part of integrated business strategy in Canada.

---

[7] Productivity must rise: Bank of Canada, Retrieved on 28 May, 2012 from: http://www.cbc.ca/news/business/story/2010/03/29/boc-jenkins.html

[8] *Global Competitiveness Report* http://www.weforum.org/reports/global-competitiveness-report-2014-2015

The globalization of markets is accelerating the diffusion of technology and the pace of innovation. New occupations are emerging and replacing others. Within each occupation, required skills and competencies are evolving, as the knowledge content of production processes and services is rising."[9]. In a research document titled "Smarten Up: It's Time to Build Essential Skills" prepared by the Canada West Foundation the document identifies 40% of the workers in Canada do not have the essential skills needed to apply their technical skills and knowledge at globally competitive levels. The document speaks to ½ of the people who did not finish high school who have essential skills shortages (basic skills like math, reading and writing) and 1/3 of 16 – 25 year olds are short of some essential skills for their jobs. The skills shortages are pervasive across all demographics.[10] The federal government has implemented the Canada Job Grant through provincial bi-lateral agreements, which is a step in the right direction, however, without a needs assessment to determine what essential training is required, by which employees and to which level is not undertaken prior to implementation would be crucial for the success of qualifying federal government spending job creation grant application expenditures.

Public perception may need to be addressed. In a further study through Deloitte; The Future of Productivity 2013; closing the perception gap suggests attitudes and perceptions may explain why Canadian companies invest less in improving their productivity and growth. 36% of Canadian businesses do not realize they are underinvesting and are overconfident. "To spur Canadian Companies into action we need to change perceptions" "Companies need timely, accurate information about their competitive environment and how they compete".[11]

Taking into account different attitudes towards the Canadian productivity gap, there is no denial that Canada is missing a broader debate about the countries productivity. A concerted productivity strategy, that would encompass innovation, the labour force, markets and attitudes, skills and training should be elaborated.

Recommendations

That the federal government:

1. Within the next 18 months, develop a long-term, comprehensive productivity strategy that will ensure Canada becomes one of the top five nations for competitiveness in the World Economic Forum rankings.
2. Implement the recommendations of the federal government's own expert panel, which created a framework for action in 2011 that speaks to R & D funding so that Canada can compete on equal terms with the most innovative economies in the world, based on the GII Index 2014.
3. Focus on building global centres of research excellence, better commercialization of research efforts to create jobs and wealth, better models of business-university partnerships, and better market-based means of financing the application of innovation.

---

[9] 8A *Skilled Workforce for Strong, Sustainable and Balanced Growth: A G20 Training Strategy.* International Labour Office – Geneva, (2010)

[10] Smarten Up: It's Time to Build Essential Skills
http://cwf.ca/pdfdocs/publications/HCP_SmartenUp_Report_JUNE2015_WEB.pdf

[11] The Future of Productivity: Deloitte http://www2.deloitte.com/ca/en/pages/insights-and-issues/articles/future-of-productivity-2013.html

Developing a National Bioeconomy Strategy

Issue

Canada is the only country in the developed world without a federally-led long term strategy or policy on economic growth through the bioeconomy. The USA, European Union, Australia, Malaysia, Japan and other nations have strong strategies developed in concert with industry and endorsed and approved by their leadership. For the 21st Century, Canada needs a blueprint for the bioeconomy that can lead the country to strong economic development, creating new businesses, high quality long term jobs, and clusters with stable growth.

Background

Many industries, including health, agriculture, food, forestry and natural resources, as well as rural and urban communities stand to benefit from the development of new bio-based products and services that use renewable resources derived from terrestrial and marine sources of biomass and associated waste streams as their feedstock. These produce a wide range of products, such as bio-fuels, biomaterials, bio-chemicals, natural health products, and pharmaceuticals, while minimizing impact on the environment. It involves all processes including invention, development, production and use. The net result of a strategy focused on the bioeconomy will be the creation of new businesses; revitalization of old businesses and jobs for Canadians.

Canada's economic future depends on the country becoming a global player in the bioeconomy. In 2008, the United States' biobased economy – measured in GDP on a per capita basis - was over 60% more developed than Canada's, upwards of $1.25 trillion dollars, or 8.45% of GDP. Compare that to Canada's biobased economy valued at $78.3 billion dollars, equivalent to 6.4% of GDP.[12] In addition Canada's food and beverage industry is valued in the range of $125 billion annually.

Recognizing this, the Government of Canada created a $500 million NextGen Biofuels Fund™ in 2007 to encourage the private sector to increase production and commercialization of biofuels. Natural Resources Canada is partnering with industry, research institutes and the financial sector to lead Canada's forest industry into the bioeconomy through the Bio-pathways Project. In recent months the federal government has established the Canada First Excellence Research Fund with agri-food considered to be a priority area.

Some communities have grasped the bioeconomy and are building their future. Examples are:

- Sarnia, Ontario - bio-based chemistry cluster
- Drayton Valley, Alberta - biomaterials and bioproducts cluster
- Saskatoon, Saskatchewan - agri-food bioscience cluster
- Charlottetown, Prince Edward Island – bioactives for health cluster

Sarnia, Ontario's focus on bio-based chemicals to build a hybrid chemistry cluster has been happening without a national policy, but is also a good example of what could be developed even faster with a national strategy in

---

[12] Measuring the biobased economy: A Canadian perspective, William Pellerin and D. Wayne Taylor; INDUSTRIAL BIOTECHNOLOGY WINTER 2008, page 363-366

place and the proper support. Ten years of effort in Sarnia is now seeing the benefits of a long-term strategy with the recent attraction of BioAmber, which will open a US $125-million biosuccinic acid manufacturing facility in the city, creating 60 permanent jobs.

Despite these efforts by the Government and communities, Canada lacks a national bioeconomy and innovation strategy. Communities that are looking to develop their own unique clusters need support and direction through appropriate programs to foster the partnerships.

To quote US President Barack Obama on the importance of fostering partnerships, as stated in his administration's National Bioeconomy Blueprint, February 2011:

"We're all familiar with clusters like Silicon Valley. When you get a group of people together and industries together, and institutions like universities together around particular industries, then the synergies that develop from all those different facets coming together can make the whole greater than the sum of all its parts."

Recommendations

That the federal government:

1. Develop a national bioeconomy strategy that builds from the best existing models with appropriate support, federally and provincially
2. Recognize that universities, colleges and federal laboratories play a vital role in building a long term bioeconomy and provide them support for discovery research.
3. Provide appropriate support to attract new businesses in the bioeconomy to Canada including the development of bioeconomy clusters throughout Canada.

Increasing Technology and Productivity in Canadian Food Manufacturing

Issue

Low and stagnating productivity levels are restricting global growth and expansion opportunities across the Canadian food manufacturing sector.

Background

Food processing is the largest manufacturing industry in Canada by employment and GDP, where output is larger than autos and aerospace combined. The industry has a major presence in all areas of Canada and is integral to rural and urban communities.

A Lawrence National Centre for Policy and Management report[13] concluded the key to global competitiveness across the Canadian agri-food sector is increasing productivity. Improvements are being achieved through scale, new technology (robotics and automation) and systems. Discussions with food manufacturing firms indicated the Accelerated Capital Cost Allowance (ACCA) implemented by the federal government in 2007 has significantly assisted in the purchase of productivity enhancing machinery.

Like many other industries in Canada, food manufacturing is now dominated numerically by small companies. Approximately 84 percent of all firms have fewer than 50 employees, however they generate 17 percent of industry revenue. While opportunities continue for new firms to create new products, larger firms are restructuring and consolidating for global competitiveness.

Many Canadian plants are either too old or too small. Achieving global competitiveness requires investments in new facilities, technology and systems. A limited number of government programs apart from the ACCA for upgrading and expanding plants and their relatively small scale could present future challenges. The Alberta government offers the Agri-Business Automation and Lean Manufacturing Fund, which covers 50 percent of costs related to process automation, improvement and technology adaptation. More provinces should examine similar programs. Automation allows Canadian manufacturers to compete with lower-wage jurisdictions by increasing domestic productivity and product quality. Labour comprises 11 percent of total production costs.

In a study of 141 food manufacturing plant closures from 2006-2013, the Lawrence Centre reported that 60 percent resulted from the operation no longer being competitive. The Canadian Agri-Food Policy Institute[14] (CAPI) indicated that Canada had 143 plants closures from 2004-2014, with 52 percent in Ontario and 19 percent in Quebec. Approximately 90 percent of closures were a component of multi-plant restructuring by multinationals.

Canada requires a supportive regulatory system that protects consumers and ensures food safety, is consistent with major trading partners, and responds in a timely manner to new technologies and environments. Government policy can play a role in innovation and assist industry growth through tax policy, regulatory frameworks and municipal planning.

---

[13] The Future of Canadian Manufacturing: Learning from Leading Firms. Public Policies to Support Advanced Manufacturing. Lawrence National Centre for Policy and Management. Ivey Business School, Western University. October 2014

[14] Taking the Sector from Trade Deficits to a Competitive Resurgence. The Canadian Agri-Food Policy Institute. June 2014

The 2015 federal Budget extended the Accelerated Capital Costs Allowance for an additional ten years. As noted above this measure, introduced in 2007 and extended through a series of past budgets, provides an incentive for firms to invest in new machinery and equipment for elevating productivity levels. The Food and Consumer Products of Canada, in an April 21, 2015 media release, indicated the extension provides businesses with more planning certainty for larger investment projects and encourages investment in the innovative technologies required to boost productivity. Ultimately it is another tool to help Canadian manufacturers grow here at home and compete for new business globally.

Recommendations

That the federal government:

1. Continue to support innovation and productivity in food manufacturing through programs such as the Accelerated Capital Cost Allowance;
2. Work collaboratively with all relevant inspection agencies to provide a food safety regulatory system that is consistent with competing jurisdictions.

Restoring Business Competitiveness to Canada's Anti-Spam Legislation

Issue

Canada's Anti-Spam Legislation (CASL) governs the unsolicited installation of computer programs and the sending of electronic messages for commercial purposes. CASL came into effect on July 1, 2014 with the portion governing software taking effect as of January 2015.. Other jurisdictions, such as the US (CAN-SPAM Act (2003), that require the receiver's consent to send electronic messages. CASL deviates from CAN-SPAM in a number of areas but most notably CAN-SPAM uses an 'opt-out' consent model. In an opt-out model, an individual or business may send an electronic message that's commercial in nature (what CAN-SPAM calls a commercial electronic mail message or CEMM) to someone but the sender must provide the recipient a means to unsubscribe.

CASL, on the other hand, has adopted an 'opt-in' model. Senders may only send a commercial electronic message (CEM) if they acquire consent first or meet an exception. Like CASL, Australia's Spam Act (2003) is one of the few models globally that require an opt-in consent. However the Australian model uses the concept of "inferred" consent to create much broader exceptions to the law than are available in Canada:

"via an existing business or other relationship, where there is reasonable expectation of receiving commercial electronic messages"

Unlike Australia's Spam Act, CASL's business relationship exceptions are time limited, forcing the removal of contacts from distribution lists when no two way communication has occurred.

To complicate matters further, Canada has two consent regimes - one for privacy legislation and one for CASL. Bill S-4(changes to the Personal Information and electronic Documents Act – PIPEDA) added a major new requirement for obtaining consents pertaining to the collection, use and disclosure of personal information but is still inconsistent with the requirements of CASL.

Background

CASL has been widely criticized by businesses and the legal community across the country.

In March 2015, Network Seurity Firm Cloudmark noted that while CASL has been effective in reducing the volume of spam coming from inside Canada, it had no effect on reducing spam received in Canada from other Countries, which had actually increased. More importantly, they noted that there was a 29% decrease in legitimate email traffic, confirming the fears expressed by business prior to the implementation of CASL that the law would have a chilling effect on electronic marketing:

This new law represents staggering overreach by regulators, is unnecessary due to basic tech solutions and it seems to me most importantly, the law illustrates a serious and profound disconnect between federal legislators and regulators on the one hand and the realities of Canadian business (and their need to market to effectively compete) on the other (http://digest.dx3canada.com/2015/04/28/data-finds-casls-feared-chilling-effect-on-business/)

In a July 9, 2014, Huffington Post article, Dan Kelly, the President at the Canadian Federation of Independent Business (CFIB) cites that "62 per cent of small firms have done nothing to meet the new requirements."

In a July 4, 2014 article, Mark Goldberg, a prominent technology consultant and blogger wrote, "Our government has imposed yet another impediment to the adoption of e-commerce and information technology in Canada. It is another contributor to lower levels of competition across the board in Canada's economy."

Borden, Ladner, Gervais LLP, Partner Jeffrey Graham, in a July 3, 2014 Financial Post article wrote, "A simple opt-out regime would have avoided the complex transitional rules that have been created… Why would it not be enough for the law to simply provide that if there is an existing relationship, broadly defined, and an effective opt out right clearly identified in the promotional emails, the public interest is adequately protected?"

Businesses across Canada have struggled with implementing CASL.

Almost all businesses are falling into one or more of these categories:

- Spending a disproportionate amount of money on legal consulting, operational processes, staff training, and human resources to fully implement the legislation, and/or,
- Not in compliance and violating the law, and/or,
- Have opted for alternatives to electronic marketing to avoid the risk of prosecution.

These issues demonstrate the government has not met its objectives:

To bring into force legislation that is intended to deter spam and other damaging and deceptive electronic threats such as identity theft, phishing and spyware from occurring in Canada and to help drive spammers out of Canada, in a way that phases in the violations and enforcement mechanisms over a three year period…and to protect Canadians while ensuring that businesses can continue to compete in the global marketplace.

Disproportionate compliance spending hurts the Canadian economy. Businesses could be spending this money on innovation, hiring, marketing, and expansion.

Companies that exit the electronic marketing ecosysytem creates a less competitive environment in Canada and makes Canada less competitive globally. Mark Goldberg, in a July 4, 2014, article wrote, "Commercial Electronic Messages – and I mean otherwise legal, non-fraudulent, non-malicious messages – increase competition and expand market knowledge. Why would we want to block increased competition?" (http://mhgoldberg.com/blog/?p=7337)

Companies outside Canada continue to send CEMs to Canadians, violating CASL. Extra jurisdictional enforcement mechanisms are insufficient to these illegally sent CEMs. While this continues, Canadian businesses are scaling down their email efforts. This puts Canadian companies at a disadvantage against foreign competition.

Here are the specific issues with the CASL legislation that businesses are struggling with:

1. *Information requirements for acquiring 'express consent' are onerous.*

When collecting consent information, a business must disclose all of the following (s. 10(1) and s. 4 of the CRTC regulation):

- Name of the company
- Mailing Address
- Either phone, email or web URL

- According to regulators, the user must make an affirmative action to subscribe (ie. opt-in check box or providing their email)
- Consent message – And the consent message needs to have details as to what the company is going to do with their information and mentioning that the user may unsubscribe at any time.

Information requirements differ depending on whom the consent is being sought on behalf of. The complexity and technical requirements often require legal and IT consulting assistance.

2. *Managing the deadlines around implied consent is too difficult.*

Under the implied consent provisions of CASL, a company may send CEMs to someone for up to 2 years from the date of last purchase and 6 months from the date of the person's product/service inquiry (s. 10(10)).

This section of the Act appears simple enough but many businesses are struggling with its implementation. For instance, consider this:

- Software is logistically necessary to track leads and structure data entry. This software must be configured to purge contacts when lead's implied consent expires. The software (or through human process), must track when a lead becomes a customer as that will re-trigger the two year rule (s. 10.10.a)
- The software (or through human process), must track when someone re-purchases, re-starting the two year rule.

This solution to implement (whether developing/implementing software or hiring staff to manage) can cost individual businesses tens of thousands of dollars or more annually to maintain.

3. *Many of the exceptions are too vague.*

Many exceptions are too vague. For instance, s. 3(d) of the CRTC regulation states:

"Section 6 of the Act does not apply to a commercial electronic message… (d) that is sent and received on an electronic messaging service if the information and unsubscribe mechanism that are required under subsection 6(2) of the Act are conspicuously published and readily available on the user interface through which the message is accessed, and the person to whom the message is sent consents to receive it either expressly or by implication."

Under CASL, an electronic address is broadly defined as an address used in connection with the transmission of an electronic message to an email account, a telephone account, an instant messaging account or any other similar account. The notion of "similar account" has generated much debate about the application of CASL to social media. In response, the CRTC has affirmed that certain social media accounts may constitute a "similar account," yet has stated that the determination will have to be made on a case-by-case basis.

4. *Record keeping standard is difficult to achieve*

According to regulators, consent can be achieved by not only digital or written format but also verbal. However, section 13 puts the onus on the sender to prove consent. This has created a predicament for businesses. They may have acquired valid consent but are unable to document in a sufficient way to meet the challenge of a future audit or civil law suit.

5. *Private right of action.*

As of July 1, 2017, individuals can bring forth legal action against a party they believe has violated CASL (s. 47).

In CASL's current iteration, compliance is out of reach for many businesses due to cost and complexity. The risks associated with electronic commerce will be further exacerbated by the threat of civil litigation.

In comparing this section to CAN-SPAM to see how other jurisdictions have addressed this topic, CAN-SPAM provides no such right of action to private individuals, nor does the Australian Spam Act (2003). According to Sharon E. Groom, a lawyer at McMillan, "Apart from a state attorney general, only *ISPs* who have been 'adversely affected by a violation' can bring an action under *CAN-SPAM*."

6. *Inaccurately purging people from their lists.*

Section 66 of CASL (transitional provisions) allows businesses up to three years to send CEMs if certain pre-requisites are met.

Unfortunately, what has occurred is many businesses (out of misunderstanding the section or receiving poor advice), went and sent out the express consent request email blasts (pre July 1) and purged anyone that didn't respond. Some of those purged, the business may have still had implied consent (under the existing business relationship rule) and didn't know any differently.

Another segment of businesses would have missed the transitional provisions opportunity entirely by not sending out a CEM to those recipients pre-July 1 (sending a CEM pre-July 1 2014 is one of the pre-requisites under s. 66).

7. *Vicarious liability.*

Section 53 creates potential personal liability for officers and directors of corporations that violate CASL where due diligence is the only defense. This is extreme.

Recommendations

That the federal government make the following reforms to CASL in order to prevent this legislation from putting Canadian businesses at a competitive disadvantage:

1. Add in a new form of implied consent, recognizing the concept of inferred consent used in the Australian model that allows communication between parties where there is a reasonable expectation of receiving commercial messages and without time limits.
2. As a result of the amendment to PIPEDA in bill S4 , recognize all consents that would be recognized as valid under the standards for consents in PIPEDA
3. Clarify in regulation that two connected people or businesses on an existing social network (eg. Facebook, Linkedin, etc.) are deemed to have implied consent without time limits.
4. Remove the "Right of Action" from CASL. While individuals should still have the right to report inappropriate CEMs to federal regulatory bodies, they should not have the right to sue senders in the civil court system.

Strengthen the Knowledge-Based Economy

Issue

Worldwide, companies formed on biotechnology have generated employment, benefits to patients, and substantial economic value. Although Canada excels in basic research it has failed to share in the worldwide biotech boom because, where the majority of risk-tolerant capital is provided from public capital markets only in Canada are life sciences companies obliged to compete for public risk capital against capital subsidies for other industries.

Background

Canada's biotechnology sector has the ability to be an important driver of the Canadian economy, as it is in the United States, much of Europe and numerous other countries, and to continue to be one of two key engines of employment growth for the foreseeable future.

The aging of the population has already demonstrated rapidly increasing demands for drugs, diagnostic equipment and therapies. Biotech companies have already produced protection for our environment and have importantly advanced the world's food supply. In order for Canada to catch up in this robust and critical area of the international economy, it must competitively position its biotech sector through regulatory, tax, intellectual property and other policies.

The challenges facing the growth and development of the biotechnology sector are very similar to those of the natural resource sector: large capital requirements, low probability of success and long timeframes before reporting positive cash flow with biotechnology having larger capital requirements and longer time frames. Canadian governments have long recognized those specific issues challenging the natural resource sector and, for the past ~50 years have had in place specific programs to address those risks and to encourage capital into the sector. The Mining Exploration Tax Credit (METC) and flow-through share financing support mining companies raising exploration and development capital, keep investment in Canada and sustain [grassroots] exploration activity. Since 2006, the METC has allowed mining companies to raise over $5.5 billion for exploration and development. In 2013, more than 250 companies issued flow-through shares eligible for the METC to over 19,000 individual investors.

The Scientific Research and Experimental Development (SR&ED) program provides tax incentives to encourage Canadian companies of all sizes and in all industry sectors to conduct research and development. These tax incentives come in three forms: an income tax deduction, an investment tax credit, and, in certain circumstances, a refund. This assistance supports and is welcomed by biotechnology companies; however, it does not provide an incentive for third-party capital investment.

Canada is a global leader in both educational attainment and scientific research, yet the rate of successful commercialization of Canadian intellectual property discoveries is well below its scientific peers and competitors: the United States, France, Britain, Sweden, Netherlands, Germany and Switzerland. The Canadian Chamber of Commerce identifies lack of capital as one of its Top Ten Barriers to Competitiveness. The very limited capital that has been provided in Canada to finance the costs of commercializing research is recognized as the single greatest reason for Canada's biotech companies to be barely represented on the international scene, notwithstanding the excellence of Canadian basic medical science. In the same way that flow-through shares are successful in encouraging exploration and development in the mining and petroleum sectors, expanding the creative and thoughtful flow-through share program to the biotech sector would permit Canada to compete in the international arena with a direct and measurable impact on permanent employment, the building and management of technologically-advanced factories and a measurable benefit to provincial health plans with the replacement of imported drugs.

A study by PricewaterhouseCoopers LLP in 2010 analyzed the potential economic impacts of allowing the biotechnology sector to use flow-through share financing. The study identified an increase of R&D spending by $411 million, a total gross output impact of $967 million, and the creation of 7,945 full-time equivalent jobs. That same study also points to an increase in government taxes collected totaling over $80 million.

Recommendation

That the federal government extend flow-through shares incentives to Canada's biotechnology industry.

Timely, Reliable, Comparable Government Data for Canada's Businesses

Data is critical to businesses of all sizes to identify new markets and customers, clients at risk, etc. Digital technologies have made it possible for smaller businesses to access and use data in ways that were once only possible for larger companies.

In September 2014, delegates to the Canadian Chamber's annual general meeting adopted a policy resolution calling upon the federal government to reinstate the mandatory Long-Form Census in 2016 in the interests of ensuring that businesses and other stakeholders – including municipalities – have reliable, comparable data to make decisions ranging from which markets to promote themselves in to planning (in the case of municipalities) critical infrastructure investments.

In October 2014, the federal government issued a mandatory Open by Default policy requiring federal departments and agencies to maximize the release of their data and information, subject to applicable restrictions related to privacy, confidentiality, and security. As a result, eligible data and information will be released in standardized, open formats, free of charge, and without restrictions on reuse. This follows the federal government's 2013 announcement that it intends to work with provinces, territories, and municipalities to break down barriers to integrated, pan-Canadian open data services. This is no small task given many government programs and services cut across multiple jurisdictions (e.g., health and transportation).

It is one thing to have "open" access to government data, however, the utility of that data is compromised if it is outdated and its reliability is questionable due to it being difficult and/or impossible to compare with data previously collected, for example comparing 2011 National Household Survey data to 2006 Census data.

The federal agency responsible for ensuring "...Canadians have access to a trusted source of statistics on Canada to meet their highest priority needs"[15] is Statistics Canada. *The Statistics Canada Act* "requires that Statistics

[15] Treasury Board Secretariat, 2015-16 Main Estimates Parts I and II The Government Expenditure Plan and Main Estimates, page II-259

Canada collect, compile, analyze and publish statistical information on the economic, social and general conditions of the country and its people. It also requires that Statistics Canada conduct a census of population and a census of agriculture every fifth year, and that the Agency protect the confidentiality of the information with which it is entrusted."[16]

While the federal government's Open by Default initiative is a step in the right direction, businesses of all sizes rely heavily upon the data provided by Statistics Canada. While the 2015-16 Main Estimates for Statistics Canada call for its budget to increase by 28 per cent ($149.8 million), this is the first increase in the agency's budget since the 2011-12 budget year. All but $640,000 of this increase is being devoted to the 2016 Census of Population and 2016 Census of Agriculture.[17]

For three consecutive federal fiscal years (2012-13, 2013-14 and 2014-15) the budget of Statistics Canada has been cut by $286.9 million[18], $54.1million[19] and $15.6 million[20] respectively. The decreases of the latter two fiscal years is explained as being the result of the Budget 2012 Spending Review which demanded cuts from all departments and agencies as the government worked towards its commitment to eliminate the federal deficit by 2015.

Not only has the elimination of the mandatory long-form census - the core survey to which many other surveys are tied – had serious implications for business people, economists, urban planners and others, cuts to Statistics Canada's budget has resulted in there being fewer resources to provide the analysis and timely delivery of ancillary econometric surveys like the Travel Survey of Residents of Canada (TSRC) and International Travel Survey (ITS), among many others. When these surveys are released, they are often a year or more after the collection of the data which diminishes their usefulness.

<u>Auditor General's 2014 Spring Report</u>

In his 2014 Spring Report, the Auditor General of Canada interviewed non-government users of Statistics Canada data and found, "that Statistics Canada has not consulted them on their needs. For example, a municipal user of the Labour Force Survey informed us of their need for employment data by workplace location, but there was no ongoing mechanism to provide feedback to Statistics Canada on these needs. Without ongoing consultation with users, the Agency's data may become less relevant."[21] The Auditor General

---

[16] Ibid.

[17] Ibid.

[18] Treasury Board Secretariat, 2012-13 Main Estimates Parts I and II The Government Expenditure Plan and Main Estimates, page II-225. Nearly all of the decrease is explained as the result of the winding down of the 2011 Census of Population and National Household Survey, as well as the ending of the major data collection period for the Census of Agriculture.

[19] Treasury Board Secretariat, 2013-14 Main Estimates Parts I and II The Government Expenditure Plan and Main Estimates, page II-330

[20] Treasury Board Secretariat, 2014-15 Main Estimates Parts I and II The Government Expenditure Plan and Main Estimates, page II-304

[21] Office of the Auditor General of Canada, Spring 2014, Chapter 8 Meeting Needs for Key Statistical Data

recommended that, "In order to ensure the continued relevance of its data products, Statistics Canada should obtain, document, and analyze ongoing feedback from the full range of its data users."[22]

In response to the Auditor General's Report, the agency committed to "Starting in 2014, Statistics Canada will plan its future consultation activities to ensure that the full range of users—including those from the private sector, municipalities, and non-governmental organizations—are consulted where appropriate, and the results of these consultations are documented and analyzed."[23]

The Auditor General also recommended that there be a formal, routine process to rotate membership of advisory committees to "ensure the Agency is aware of, and responsive to, evolving needs".[24] In response, Statistics Canada committed to "formalize its membership renewal process for subject matter advisory committees by January 2015 to ensure that the fullest possible range of users are represented on these committees and that the Agency is formally aware of and responsive to evolving user needs."[25]

Recommendations

That the federal government:

1. Continue its efforts to collect and present defensible data in a centrally-accessible, consistently formatted manner.
2. Continue working with the provinces/territories and municipalities to release data that is standardized, open formats, at little to no cost and never more than cost recovery, and without restrictions.
3. Ensure that Statistics Canada has the ability to deliver data that is timely and reliable to meet Canadian business needs.
4. Communicate the representation of private sector, municipalities and NGOs on Statistics Canada's advisory committees, the process for membership rotation and how stakeholders can identify their interest in participating.

[22] Ibid.

[23] Ibid.

[24] Ibid.

[25] Ibid.

International Online Sales: An Important Shortfall for Governments

Background

Online sales through companies outside Canada are a growing phenomenon due to the rapid development of the digital economy.

Foreign companies that have no assets or employees in Canada and are selling digital products to Canadian consumers are not forced by current tax regulations to collect the Goods and Services Tax/Harmonized Sales Tax (GST/HST) nor to remit the tax to federal and provincial governments.

Digital products are products entirely downloaded by Internet clients, for example, electronic books, movies, television programs and video games.

Consequently, tax revenues are lost (i.e. Goods and Services Tax/Harmonized Sales Tax (GST/HST)) because of the loopholes in Canada's current tax system.

It seems essential to fix the problem so federal and provincial governments can collect the Goods and Services Tax/Harmonized Sales Tax (GST/HST) on all online sales in Canada by foreign suppliers.

Not enrolling these companies in the Canadian system has significant consequences.

Losses of tax revenues: The federal and provincial governments are depriving themselves of these tax revenues, and this forces them to get more from other sources (i.e. income tax on individuals and companies) or to reduce spending and the level of service to citizens. With the continued growth of online business, the phenomenon will grow.

An inconvenience for Canadian companies: Canadian companies are at a disadvantage compared with foreign companies because the price of goods and services they sell is, due to consumption taxes, about 13% higher than those of non-Canadian companies.

A constraint to investment in Canada: Foreign companies are not encouraged to invest here, because in so doing they would add 13% to the price charged to Canadian clients, which would reduce demand for their digital products and services.

The Commission d'examen sur la fiscalité québécoise (Commission Godbout) analyzed this phenomenon and recognized that collecting taxes and duties for these activities is a major challenge.

For Quebec only, Revenu Québec estimated in 2012 that the Quebec state lost $165 million in tax revenues due to online purchases by Quebeckers from suppliers located outside Canada. Even if it seems difficult to estimate losses tied to online purchases by Quebeckers from suppliers in another province or country, is it probably a significant amount. An amount of $300 million was once been mentioned by Revenu Québec.

In its Budget 2015-2016 presentation, the Quebec Government adopted the recommendations of the Commission sur la fiscalité québécoise and intends initiating discussions with the Federal Government on the matter.

Furthermore, the Business and Industry Advisory Committee to OECD (BIAC) agrees that the most efficient way to collect the Value Added Tax (VAT) on cross-border B2C services is to force foreign suppliers (nonresident) to register and record these services in the customer's jurisdiction. Countries should examine a simplified registration system to reduce the compliance burden.

Recommendations

That the federal government:

2. Impose the consumption tax system to foreign companies selling digital products and services to Canadian consumers, specifically that companies:
    3. Register with the Canada Revenue Agency (CTA);
    4. Collect the Goods and Services Tax/Harmonized Sales Tax (GST/HST/QST) from Canadian clients;
    5. Remit the revenues from these taxes to the proper tax authorities.
6. Intensify its efforts as part of ongoing OECD work on the collection of the following tax and duties:
    7. Sales taxes on Internet transactions by suppliers in foreign countries;
    8. Income taxes on companies tied to electronic commerce.

Clean Technology and the Renewable Energy Sector in Canada

Issue

Much of the recent energy dialogue has focused on the price of oil and the impact this is having on federal and provincial budgets. This misses the fact that a more fundamental shift is occurring in the global economy. For the first time in more than a century, multiple signs suggest that the dominance of fossil fuels is beginning to decline. We are seeing the beginning of a new technology revolution that will provide huge economic benefit for those able to place themselves at the forefront of this revolution. One only need to look at countries such as Germany to appreciate how taking a leadership approach to this new green economy can benefit an entire country both economically and environmentally. [26] Unfortunately, while some Canadian provinces have a strong international reputation for innovation on climate change we, as a country, are not leveraging this reputation to be at the forefront of the growing green technology economy.

The scope of the clean technology and renewable energy opportunities are poorly understood. While investments in renewable energy are well underway in many jurisdictions, the scope of change required will be well beyond electricity generation. Innovation in terms of new technologies and new practices will be required in a range of other areas.

---

[26] http://thetyee.ca/News/2014/10/20/German-Clean-Energy-Revolution/

Sector	Examples of Technology
Electricity Access	Upgraded Power Grids Off-grid technologies
Water Management	Wastewater Treatment
Waste Management	Recycling Energy capture from landfills
Climate Change/Reducing Emissions	Mitigation technologies Upgraded power grids Renewable energy, wind, solar, geothermal, geoexchange, tidal, biomass, hydro, etc. Electric and hybrid vehicles Carbon Capture and storage Adaption technologies New cultivation practices Climate resistant infrastructure: sea walls, drainage capacity, water, forest and biodiversity management, etc.
Transport	Rapid Transit systems Low emission vehicles and fuels, biogas, natural gas and plug in electric
Building Energy Efficiency	Thermal Insulation Energy efficiency programs Best practice building codes

It should be recognized that some Canadian and international governments have already begun placing a direct focus on the green economy. "Technology and Green Economy" forms a part of the BC Jobs Plan. In addition the British Columbia Provincial Government has also developed "BC's Green Economy – Growing Green Jobs". Nova Scotia has created a rebate programs for a variety of solar and energy efficient green products for consumers through Efficiency Nova Scotia.[27] "Sustainable Development Technology Canada" (SDTC) has established a role that fills the gap in government funding for Canadian renewable energy and cleantech projects. In addition, they provide consultation for small and medium-sized enterprises (SMEs) wishing to engage in clean technology and renewable energy projects.[28] While the creation of SDTC is a welcome initiative,

[27] http://www.efficiencyns.ca/energy-solutions/solar/
[28] https://www.sdtc.ca/en

it is insufficient for the scale of the challenge facing Canada. While this program needs to be highlighted, expanded and encouraged, there are other successful programs in other jurisdiction that should be replicated here in Canada; perhaps the best examples can be found in Germany.

In conjunction with their National Action Plan on Energy Efficiency (NAPE), Germany has implemented a number of investment and incentive programs to foster the shift to renewable energy generation and clean technology[29]. Some of these include, but are not limited to, premium funding to strengthen the establishment of the renewable technologies in the heat market, special promotions of offshore wind energy projects, low-interest loans, high volume loans for large-scale investment projects. The SME Energy Consulting programme in Germany which is run by KfW and the Federal Ministry for Economic Affairs and Energy helps unleash energy saving in SMEs. Consultations may qualify for subsidies of up to 80 per cent of the consultation costs. Around 17,000 companies received consultations under this program from 2008 to 2013. All told, the consultations led to EUR 0.7 to 1.4 billion of investment and 1.5 to 2.7 terawatt-hours of energy savings. Every publicly financed euro generated EUR 16 to 29 in private investment. [30]

Canada needs to move beyond the limited focus on Canada's traditional industries and make Canada a global leader in all aspects of the new emerging global green economy. As an example, the Canadian government needs to make clean technology, including renewable energy production and the manufacture of renewable energy producing products (like solar panels, wind turbines, etc.), a high priority in Canada in an effort to grow a diversified 21st century economy.

This strategy should be broad and to be successful would have to address the following challenges:

- build a stronger industrial structure, i.e. larger SMEs and more large firms entirely dedicated to the environment and green technology;
- develop and accelerate the marketing of homegrown technologies;
- capitalize on local markets to stimulate growth in the environmental and green technology industry;
- increase exports and acquire a strong position in buoyant niches in international markets;
- achieve the convergence of the efforts of all players in the sector

While market forces will be a key determinant of successful new technologies, governments have a critical role to play in setting the scene for this societal shift. We have seen a number of instances where government has been successful in initiating programs that have resulted in positive outcomes. As already referenced the carbon tax has been a resounding success in reducing BC's greenhouse gas emissions while having no negative impact on the rate of growth in the BC economy. In addition, we have seen the Efficiency Nova Scotia programs result in a significant reduction in electricity consumption through a range of programs, including targeted incentive and rebate programs. We have just seen the election of a provincial government in Alberta that is committed to a boost for renewable energy and a green retrofitting loan program.

To ensure that Canada is able to move quickly to establish ourselves as a global leader government, we should look to best practices globally to identify programs that encourage the production, sale and purchase of renewable energy and green products. Canada has a unique opportunity. Canada has an undeniable advantage

---

[29] http://www.kpmg.com/global/en/issuesandinsights/articlespublications/taxes-and-incentives-for-renewable-energy/pages/germany.aspx

[30] http://www.bmwi.de/EN/Topics/Energy/Energy-Efficiency/energy-consulting-and-funding,did=687122.html

to be at the vanguard of addressing the challenges raised by today's industrial and environmental issues. This will require consultation and a focused effort by government to play a leadership role in partnership with the private sector.

These technologies are in demand worldwide and will be a catalyst in driving a diverse 21st century economy in Canada. Jurisdictions around the world are looking to lead. Without a coordinated plan we will quickly see Canada overtaken and left behind in the new global economy, missing huge economic opportunities.

Recommendations

That the federal government:

1. Develop, expand and implement plans to make Canada a global leader in the sustainable technology and energy sectors
2. Work with the business community, provinces/territories and international institutions and governments to ensure that individual jurisdiction carbon pricing programs work toward a common target for emissions reductions.