

Written Submission for the Pre-Budget Consultations in
Advance of the Upcoming Federal Budget

Submitted by the Council of Canadian Innovators

August 7th, 2020

CCI's 2021 Budget Recommendations:

- Extend the IAP program for R&D intensive companies (until December 2020 and beyond if needed)
- Increase Access to Capital for R&D intensive firms to include IP as an eligible SR&ED expense
- Utilize government procurement processes to drive economic growth and enhance supply chain resiliency
- Ensure Canadian innovators are consulted as part of upcoming WTO reform discussions
- Create a National Data Strategy
- Create A National Intellectual Property (IP) Strategy for COVID-related R&D
- Increase Access to Talent for domestic Innovators
- Adopt Canadian Digital Standards for Health Care and Digital identification
- Address the need for a Canadian Cybersecurity Strategy

About CCI

The Council of Canadian Innovators (CCI) was founded in 2015 to ensure the voices of Canada's CEOs were heard in the public policy development process on innovation. Today, the Council is composed of over 125 CEOs who are the leading experts in their fields of health and clean technology, fintech, cybersecurity, and information and communication technology. All of our members are innovators, job creators, investors and philanthropists. Currently, the Council is chaired by Jim Balsillie, former Chairman and co-CEO of BlackBerry, and John Ruffolo, former CEO of OMERS Ventures, the largest Venture Capital firm in Canada.

The COVID – 19 crisis has accelerated the need for a digital transformation and support programs to solve problems on a global scale. To maintain this new wave of digitization, the Federal Government's recovery plan must include a more pervasive adoption of digital solutions across the Canadian landscape, starting with government. Strategic support programs or direct support to employers in the tech ecosystem will accelerate Canada's recovery and support a transitioning workforce. Working closely with CCI's membership and the extended tech community across Canada, CCI has compiled a list of recommendations for the Government of Canada to consider as the pathway for recovery is constructed.

1. Extend the IAP program for R&D intensive companies (until December 2020 and beyond if needed)

IAP has helped Canada's most innovative companies preserve their highly skilled workforces, allowing them to continue investing in R&D and scaling globally as they weathered the pandemic's impacts. For IAP 2.0, Canadian innovators would like to see the government make more strategic investments into high-potential companies with proven track records of commercialization and growth. By empowering market-tested companies to be the leaders of the recovery, the government would be helping to fuel job and public wealth creation, all necessary for Canada in the post-COVID economy. CCI recommends extending the IAP until December 2020, and beyond if needed.¹

2. Increase Access to Capital for R&D intensive firms to include IP as an eligible SR&ED expense

The government of Canada should update SR&ED to include the costs of filing and prosecuting a patent as an eligible expense under the SR&ED program.

In a knowledge-based and data-driven economy, intangible assets, notably intellectual property, are the most critical sources of economic advantage for firms and for nations. It is essential that basic research and development be converted into commercial assets. Canada's innovators invest heavily in creating and acquiring intellectual property and data related to their R&D projects. Yet very little of these expenditures currently qualify for SR&ED treatment despite the fact that they are necessary to capture and grow the value of the investments supported by the SR&ED.

¹ <https://betakit.com/canadian-tech-says-continued-irap-iap-funding-critical-to-sustaining-business-amid-pandemic/>

The average cost of filing and prosecuting a patent application to a granted patent is approximately \$10K per country, per patented invention (5 countries would be \$50k, 10 countries would be \$100k, etc.). to note, this doesn't go as far to cover affiliated costs such as prior art search, drafting of a patent application and other related costs.

Patents help secure a firm's valuation by protecting the intangible assets that secure a firm's market position. In a June 2020 survey undertaken by CCI with over 300 Canadian based technology firm responses, 49% of companies surveyed have experienced a decrease in company valuation as a result of the global pandemic. Protecting IP means also supporting companies to keep their valuations stable to ward off predatory acquisitions or activity.

As technology projects increasingly are about developing, acquiring and integrating intellectual property and data bases, innovators frustrated by the rules of our SR&ED system will choose to move those projects out of Canada. This is particularly damaging to Canada's future economy, as these projects may be considered to be among the most potentially impactful. Canada lags some other technology-oriented economies in this regard, such as Israel and Singapore².

CCI observes that the SR&ED tax incentive, and particularly its refundable portion, will deliver material and long-term value to Canada only if and to the extent that the IP flowing from the investment is situated in Canada so that our firms and our economy are then able to earn the benefits of the commercialization of the technology.

3. Utilize government procurement processes to drive economic growth and enhance supply chain resiliency

It is widely acknowledged that SMEs in Canada struggle with the procurement process and CCI's CEOs have emphasized that procurement must be a critical focus in the discussion of a recovery plan. The government of Canada must take a whole-of-government approach to both prioritize the participation of and reduce the administrative burden on domestic innovators. This will ensure that domestic firms are the ones to realize the benefits in and become leaders if supported through government procurement projects. Moreover, if leveraged effectively, these firms will substantially contribute to Canada's economic recovery and offer unique 'made-in Canada' solutions to the international community.

Unlocking the economic power modernizing Canada's procurement system and policies require a substantial upgrade. Emerging technologies in the healthcare space – such as artificial intelligence and other remote patient technologies – will impact the social and economic character of Canada as we find our way out of the pandemic.

4. Ensure Canadian innovators are consulted as part of upcoming WTO reform discussions

As reported over the past few weeks, the Government of Canada has taken steps to open this dialogue up with various organizations. It will be critical to ensure that digital and advanced technology companies are at the table for these discussions as modern trade agreements are almost exclusively

² <https://www.iras.gov.sg/irashome/Schemes/Businesses/Productivity-and-Innovation-Credit-Scheme/Six-Qualifying-Activities-under-PIC/#title4>

about rules for the global commerce driven by IP and data. CCI's mandate is to grow Canada's economy by advocating for policies that help high-growth companies scale up in Canada and abroad so that they can make significant contributions to our economy and society. In order to advance the Canadian economy recovery, we believe it's important that the government speaks directly with CEOs so that it can develop a strategy that advances the interests of Canadian SMEs and ensures Canada's long-term economic prosperity.

5. Create a National Data Strategy

Accelerate the development of a national data strategy with considerations for the economic and non-economic impacts of data-driven sectors to drive prosperity and growth. Canada was built with courageous political, technological, industrial, community and social leadership. Over the first 125 years of Confederation, our economy developed in response to the needs and opportunities of the time. Many of the strategic initiatives: nationally led infrastructure, community or industrial cooperatives, and social policy.

How to build a prosperous country – Then and Now	
<u>Era of traditional infrastructure</u>	<u>Era of Intangibles (Digital, IP, Data)</u>
National <ul style="list-style-type: none"> • Transportation (railways, canals, seaways, highways, airline) • Energy (hydro dams & transmission, pipelines, nuclear reactors) • Communications (Bell TransCanada Microwave, Telesat Canada Satellites) • Culture (CBC, Canadian Content rules) • Global institutions (UN, Bretton Woods, NAFTA) 	National <ul style="list-style-type: none"> • Updated foreign direct investment (FDI) strategies • Updated trade strategies • Updated research funding strategies • Updated Competition Bureau regulations • Domestic media/content strategies • National data strategy • National cyber strategy • National IP strategy • Strategic procurement • Digital Stability Board (DSB) for international digital governance
Cooperatives <ul style="list-style-type: none"> • Agricultural (feed supply, processing, equipment, butteries, processing, marketing) • Financial (credit unions) • Insurance (mutual companies) • Energy technologies (AOSTRA SAGD, CANDU Reactor) 	Cooperatives <ul style="list-style-type: none"> • Data trusts (energy, mining, forestry, agriculture, cities, healthcare, etc.) • Patent cooperatives (key vertical sectors, key horizontal technologies) • Digital standards
Social <ul style="list-style-type: none"> • Universal education • Labour regulations • Environmental regulations • Social welfare programs • Socialized healthcare • Canada Pension Plan 	Social <ul style="list-style-type: none"> • Data governance regulations to protect private sphere & personal autonomy • Data governance regulations to protect elections/democracy • Utilize tax code to address externalities from digital realms • Future of Work (social programs, education)

Digital Transformation: Implications
for Innovation & Prosperity Policy
Jim Balsille – April 2020

On the righthand side are some of the strategies, institutions, programs and policies that Canada needs to implement today to ensure our prosperity in the 21st century. We urgently need the digital policy infrastructure to position Canada for the opportunities and challenges of today's digital era.

This transition to the data-driven economy has been expedited as a result of COVID-19. While the transition was underway thanks to the increasing number of connected devices through the Internet of Things (IoT), this precise moment has created new opportunities as the world becomes more conscious of the value of our data and more concerned about our digital security.

In the data-driven economy, the collective ability to amass, control, own, and commercialize these new assets will determine our ability to provide social services, security, and jobs for Canadians. Canada must act fast to both enshrine our regulatory principles, including data property rights, as part of the foundation of the global innovation economy and provide our innovators with competitive

advantages in the ecosystem so they can support Canada's economic recovery while scaling up globally.

6. Create A National Intellectual Property (IP) Strategy for COVID-related R&D

Create a national IP Collective that goes beyond the project for clean technology to generate and preserve the intangible assets created with current emergency government funding. This means, that government funding used to support a firm's operations during COVID-19 should include a tie back to education on IP protection. This should be expanded beyond the needs of cleantech sector as IP and data are critical economic and security assets for all sectors from agriculture to medicine to transportation.

Initiated with the Innovation Asset Collective, the Government of Canada will help innovative clean technology companies with new policy supports to accelerate and scale up their cleantech solutions. Although this work is a step in the right direction, unsolved challenges remain as many other sectors in Canadian innovation ecosystem are in need of support to invest in and protect IP. The world's reserves of data are growing at an almost unfathomable rate and will only continue to do so as sensors and monitors are embedded in everything from phones and buildings to pipelines and heavy equipment. Now is the time to expand thinking and policy planning to support beyond clean tech (i.e. health tech, artificial intelligence, education tech) and to engage with Canada's innovators on how best to support their growth through IP, to support domestic economic recovery.

7. Increase Access to Talent for domestic Innovators

Increase access to skilled talent for Canada's fastest-growing firms by creating a pipeline of recent STEM graduates into Canada's recovery-fueling firms and examining the opportunity for upskilling to plan for future labour needs. The government should also look to organizations such as *Palette*³ for strategies to help transition some traditional sector jobs (such as retail) by expediting and doubling down on upskilling through programs already funded through the government. CCI has already endorsed the work of *Palette* along with a number of CCI member companies.

The government should also Create an '*Innovation Corps*' to mobilize thousands of our brightest co-op students who had their Silicon Valley job offers rescinded. CCI has created a [Tech Talent Radar portal](#) to help connect thousands of recent graduates with Canadian innovators. We encourage the government to build on it and use this opportunity to reverse the extraordinary costs of [brain drain](#) and engage these brilliant young minds to support our domestic innovation ecosystem.

8. Adopt Canadian Digital Standards for Health Care and Digital identification

Accelerate the adoption of digital health and digital identity standards to support the protection of citizens and their data as a result of the surge in digital technology resulting from pandemic. Outlining priorities and leveraging the work of the *CIO Strategy Council* on digital trust and identity standards, to support the tech ecosystem and help unleash new technologies to meet the post-COVID-19 needs of our provincial and federal data assets.

³ <https://paletteskills.org/>

Canadians must be secured and regulated through progressive standards development within the digital tech sector. This is also an opportunity for the Government to work with partners worldwide and to set new global standards for the protection and access of data. This will necessitate a modernization of privacy legislation to reflect well-grounded data protection and security measures and ensure that access to and usage of the platform is properly regulated.

9. Address the need for a Canadian Cybersecurity Strategy

We live in a world with zettabytes of digital data. The amount of global data has been growing exponentially, doubling every two years, and this growth trend is expected to continue toward 2021 and beyond. Much of this data is private and sensitive, and therefore, it requires protection. Current data security needs exceed the current security techniques and not capable of addressing future challenges.⁴

The government should strike a cyber table of CEOs from Canadian cyber scale-up companies to assist in the creation of a national strategy aimed to enhance the security and economic prosperity of Canada through the cybersecurity sector. This should include senior actors from both government and industry are recommended. As part of this, Senior officials from Public Safety Canada and its portfolio agencies (RCMP, CSIS, CBSA, Corrections), and the Office of the National Security Advisor (PCO), to establish the foundation of a national cyber security strategy for Canada.

Canada's response to this economic crisis must be different than the 2008 recession. Twelve years ago, our recovery was driven by the demand of oil, but today, oil prices have collapsed because of a supply-demand imbalance, with part of the demand as foreseeably permanent.

A strategic economic renewal must be built through high-growth, domestic technology firms who demonstrate the ability to commercialize their ideas and scale globally. Canada must stimulate demand and drive productivity through supporting a 21st century global economic structure where IP and data are at the core of valuable business and national security assets.

Contact CCI

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⁴ Nagy Moustafa & Vladimir Soukharev, 2018, Data Governance in the Digital Age: Crypto Agility is a Must-Have for Data Encryption Standards, <https://www.cigionline.org/articles/crypto-agility-must-have-data-encryption-standards>.