

ITAC 2018 FEDERAL PRE-BUDGET SUBMISSION

– *Strengthening Canada's Place in a Digital World* –

As Canada's national Information and Communications Technology (ICT) business association, the Information Technology Association of Canada (ITAC) champions the development of a robust and sustainable digital economy in Canada. More than 37,000 Canadian ICT firms create and supply goods and services that contribute to a more productive, competitive, and innovative society. The ICT sector employs almost 600,000 Canadians and invests \$4.6 billion annually in R&D, more than any other private sector segment in Canada.

In 2016, to support the federal *Innovation Agenda*, ITAC released a series of innovation papers setting out *ICT Fundamentals for Canada's Innovation Agenda*. The four papers - **Modern Digital Economy, Trade and Competitiveness, Talent and Skills, and Modern Digital Government** - included 28 specific recommendations for how the federal government can work with the ICT industry to create a more innovative Canada. Many of these recommendations were addressed in Budget 2017. However, there are still several important areas which we hope Budget 2018 will resolve.

In our 2018 Pre-Budget Submission, ITAC has brought forward nine requests from our membership across five core themes that we feel will help secure Canada's place in a digital world.

TAX and FINANCE POLICY RECOMMENDATIONS:

1. ACCELERATE CAPITAL COST ALLOWANCE TO EXPAND ICT INFRASTRUCTURE

The government recognizes the foundational role ICT infrastructure plays in helping businesses and individuals connect and realize the benefits of digital transformation. In December 2016, the CRTC set out ambitious minimum service targets for broadband internet—50 Mbps download, 10 Mbps upload—with the aim of making them available to 90% of Canadian homes and businesses by 2021. Minister Bains has also been charged with increasing high-speed broadband coverage.

Achieving these targets will require substantial investments from Canada's telecommunications companies and internet service providers—private businesses that are currently making significant annual investments to create, upgrade and maintain the foundational infrastructure for the digital economy.

Federal funding for new ICT infrastructure is often delivered through sporadic programs led by government. The expansion needed to meet the demands of Canada's innovation economy will require considerable ongoing investments from industry.

Under federal income tax regulations there are currently several classes of depreciable assets that relate to telecommunications network equipment, including broadband networks, each with different capital cost allowance (CCA) rates:

- Class 8: radiocommunication equipment (CCA rate of 20%)
- Class 42: fibre optics (CCA rate of 12%)
- Class 46: data network infrastructure equipment and systems software (CCA rate of 30%)

For many pieces of equipment (particularly those on Class 46), these rates do not accurately reflect the product lifecycle. Moreover, new technologies can span CCA categories, creating confusion as to how they should be rightly classified. Over the past year, ITAC has been meeting with senior federal officials to discuss these challenges and provide evidence to policymakers.

Recommendation- ITAC recommends Budget 2018:

- **Reduce confusion and unnecessary overlap in by harmonizing CCA rates for telecommunications network equipment falling under (or between) Class 8, 42 and 46.**
- **Encourage greater ongoing private sector investments in ICT infrastructure and more accurately reflect real depreciation costs by accelerating CCA to 50% for all ICT class assets.**

Accelerating the CCA rate for these classes will encourage telecoms and ISPs to continue to increase network efficiency and expand Canada's telecommunications networks, the backbone of our digital economy.

2. INNOVATING THE SR&ED PROGRAM

In Budget 2017, the government announced a holistic review of federal R&D programs including the Scientific Research and Experimental Development (SR&ED) tax credit, which distributes \$4-billion a year to businesses and drives a tremendous amount of Canadian innovation.

SR&ED is highly successful at supporting start ups, but less effective at helping our small companies scale to middle and large-sized businesses. The reason for this is that SR&ED can inadvertently incentivize companies to stay small by scaling back the credits as companies grow and reach commercial success.

For the past year, ITAC has been meeting with Government officials to advance several tweaks to the SR&ED program which our members feel will:

- a) Encourage innovative companies to export and scale-up;
- b) Create market-based mechanisms to ensure value for tax-payer investments in R&D, and;
- c) Increase access to risk capital.

Specific tweaks identified by ITAC include:

- **Support Scale-up:** Reward successful innovators by reducing the SR&ED Grind Down for growing companies. Potential options include:
 - Demonstrating a high percentage of their revenue are generated from exports.
 - Providing a higher threshold for taxable income in the SR&ED expenditure limits.
 - Remove the threshold for taxable capital in the SR&ED expenditure limit as innovative companies need access to capital.
- **Encourage Collaborative Innovation:** Allow large firms to access a portion of unused SR&ED credits to fund collaborative R&D with Canadian SMEs – increasing risk capital for growing companies while providing SMEs with access to global supply chains.
- **Encourage SMEs to grow through mergers and acquisitions:** Encourage SMEs to merge and create larger, more globally competitive businesses by creating a 3-5 year “SR&ED Holiday,” wherein the merged company can still access SR&ED credits at the rates previously available to the smaller entities.
- **Improve SR&ED Administration for the ICT industry:** Reduce administrative burden of the SR&ED program to deliver better value for taxpayer dollars. SR&ED accountability requirements and timelines should also be more flexible to support innovative sectors with more continuous R&D cycles, like software development.

Recommendation: ITAC recommends Finance Canada and ISED work with ICT industry experts to advance ICT-industry recommended adjustments to SR&ED.

These changes will permit start-ups and smaller businesses to leverage SR&ED to support scaling, encourage exports activities and help companies create jobs.

INVEST IN DEVELOPING KEY INDUSTRIES

3. INVEST IN 5G

The next generation of wireless networks, known as 5G, is expected to revolutionize the way we use and leverage technology. 5G will make possible new classes of advanced applications, foster business innovation and spur economic growth by delivering faster

transmission speeds to support the broader deployment of connected devices (Internet of Things) including the deployment of smart cities and autonomous vehicles.

If Canadian researchers, businesses and entrepreneurs want to play a role in developing the technologies and applications that will leverage 5G's capabilities, the federal government needs to act now and invest in the development and deployment of new networks, including a national 5G testbed.

Several other developed and developing nations (e.g. Korea, Japan, the UK, the U.S., the EU, India and China) have already made significant investments in 5G. ISED has already held several consultations in this area, and the governments of Ontario and Québec have earmarked funding to support 5G.

Recommendation: Budget 2018 should allocate adequate funding to build a national test bed and innovation corridor for 5G wireless technology.

Investments in 5G today will position Canada to take advantage of the new business models and technologies that emerge. A national test bed will support the development and testing of new applications and technologies as well as support improvements in public safety, cyber security, privacy, healthcare, education and the efficient use of spectrum.

4. CYBER SECURITY

As connected technologies expand into all areas of our lives, cyber threats pose an increasing risk for our economy and society. The recent unprecedented WannaCry ransomware attack that affected organizations in over 150 countries highlights the exploding and persistent threat landscape that we face today.

With the drive to connect everything and everyone, it's now essential to make Canada more cyber secure, and champion a trust relationship into the ecosystem of suppliers and customers.

The security of Canada and the stability of our country is increasingly dependent on creating a culture of cyber awareness, and both governments and businesses making the necessary investments to ensure vital assets and systems are protected. Even though the World Economic Forum has listed cyber-security as one of the greatest threats to businesses and economic stability around the world, a new cyber security strategy for Canada and supporting investments were conspicuously absent in Budget 2017.

Canada has a robust cyber security industry with expertise in emerging areas like quantum cryptography and artificial intelligence that form the basis of next generation technologies.

In Budget 2018, ITAC recommends the federal government:

- **Appoint an externally focused Chief Information Security Officer for Canada to act as a high-profile convener, champion and bridge between the public, business community and government on cyber security issues.**
- **Encourage and support business adoption of cyber security solutions, especially among SMEs.**
- **Develop federal public education programs to encourage a national culture of cyber hygiene.**
- **Centralize cyber security leadership within the federal government and provide Shared Services Canada with the necessary investments to protect the Government of Canada’s cyber perimeter and critical infrastructure. Government should also increase investment and strive to be a model procurer of new cyber innovations.**
- **Invest in the development of cyber security talent and encourage students to pursue cyber careers.**
- **Fund the research, development and commercialization of new cyber security technologies, and develop programming to support the growth of Canada’s dynamic cyber security industry to take advantage of a \$100B global cyber economy.**

5. INTRODUCE A “SMART INFRASTRUCTURE LENS” FOR NEW INFRASTRUCTURE INVESTMENTS

In 2017, the federal government took a leadership role in promoting the adoption of “smart” infrastructure across Canada by launching the \$300 million Smart City Challenge. While this is an excellent initiative to spark innovative approaches to infrastructure at the municipal level, the scale of the program is limited – especially relative to the \$180 billion the government will invest in other infrastructure programs over the next 12 years.

Federal investments in infrastructure should take a long-term view of value on taxpayer investments. Investments in “smart infrastructure,” assets that can collect, communicate and potentially act on data, can represent better long term investments for tax payers. The data generated can inform things like maintenance schedules and, if combined with other data sets, can support a plethora of additional policy or public benefit purposes.

While all infrastructure decisions need to be made based on the specific circumstances of the project, to promote innovation and future proof tax payer investments, the federal government should at very least require funding applicants to consider opportunities to embed “smart technologies” into new infrastructure projects.

Recommendation: Budget 2018 should introduce a “Smart Infrastructure Lens” for all federal infrastructure investments, including investments made by the Canada Infrastructure Bank, which requires applicants to evaluate opportunities to leverage connected technologies and data in new infrastructure projects.

DIGITAL GOVERNMENT

6. INSTITUTIONALIZE DIGITAL GOVERNMENT APPROACHES ACROSS THE GOVERNMENT OF CANADA

Digital adoption by the federal government can drive productivity and fuel innovation across the economy. Budget 2016 included several measures to support the transformation, modernization and digitization of federal services, such as the creation of the Canadian Digital Service, and the creation of *Innovative Solutions Canada*. With input from of the Government of Canada’s Digital Advisory Board and other industry bodies, these exciting initiatives should be expanded.

While pursuing transformative changes, it is essential that the government make ongoing investments to maintain legacy systems and ensure program integrity.

Recommendation: ITAC recommends that Budget 2018:

- **Expand Funding for Digital Experiments. While Budget 2017, allocates some funding to Treasury Board Secretariat for digital experimentation under Innovative Solutions Canada, additional funding should be earmarked.**
- **Invest in Back Office Transformation: The government needs investments to modernize back office government services that will support the government as it innovates and digitizes operations.**
- **Invest in Talent: The federal government needs to invest in attracting and developing the skilled employees that will be able to lead and manage transformative digital projects.**

7. IMPLEMENT 21ST CENTURY PROCUREMENT RECOMMENDATIONS

The federal procurement process for information technology products and services has long been acknowledged as a frustrating barrier that slows deployments, dampens innovation and increases costs for government and industry alike. Innovating procurement and a pragmatic approach towards public-private partnership is mission critical to building a modern digital government.

On March 9th 2017, ITAC brought together senior leaders from Treasury Board Secretariat, Shared Services Canada and Public Works and Procurement Canada along with over 100 IT procurement experts from industry and other levels of government to discuss challenges and co-create solutions for a 21st Century procurement process in the federal government. This event was highly successful and delivered an ambitious set of recommendations including:

- **Innovate contracts, terms and conditions to align with industry norms with a focus on fairness, limiting the allocation of risk and opening the possibility of negotiations with bidders to access confidential inputs. The current procurement process is perceived as too restrictive, costly and unnecessarily complex.**
- **Consider international best practices from the UK and U.S. to develop a vendor performance framework, including a central repository to review past vendor performance.**
- **Engage with industry at the idea stage to ensure business cases are developed with a broad understanding of the marketplace, emerging technologies and delivery methods—before procurements are constructed.**
- **Collaborate with industry on the design and implementation of a socio-economic development strategy that works for all suppliers. Accelerate the implementation the strategy so that Canadians see these benefits.**
- **Raise the sole sourcing threshold to the NAFTA limits so that small and medium-sized enterprises can take full advantage of Government’s allowable limits.**
- **Work with industry to develop and implement an annual refresh cycle for the federal procurement process so that each year government is evolving and strengthening how it engages with industry on what it buys.**

In Budget 2018, the government should affirm its commitment to modernize procurement. A 21st Century procurement framework is mission critical to building innovating service delivery to Canadians. It is time to accelerate the design and implementation of pragmatic and flexible policies, processes and partnership arrangements that fuel citizen-centric service delivery and provide better value to Canadians.

TALENT

8. TALENT DEVELOPMENT

Canada’s technology industry – indeed the entire economy – is fueled by the skills, knowledge and capabilities of ICT professionals. Canada’s long-term prosperity depends on developing workers with the right skills for the rapidly evolving digital economy. At a

high level, Canadians and their government need to transition to a life-long understanding of education – and embrace educational technologies to support ongoing skills development across the workforce.

The *Innovation and Skills Plan* announced in Budget 2017 was an important move by government to further address Canada’s ICT talent gap. Canada’s ICT industry, through ITAC’s Talent division, has a long history of working with governments, employers and educators to inspire and educate the next generation of ICT professionals.

To continue to ensure Canada’s talent meets the needs of ICT employers, ITAC requests the following measures in Budget 2018:

- **Create a rapid response program to design and launch new post-secondary professional ICT programs for in-demand emerging technologies – for example, in artificial intelligence/machine learning, cybersecurity, and intelligent mobility systems.**
- **Beyond coding and promoting STEM, work with educators, industry, and parents to inform and inspire students to pursue the wide variety of ICT related career paths. Integrate information that specifically engages women, Indigenous Canadians, and any students who presume that ICT is not for them.**
- **Launch a project to achieve global leadership in ICT-related labour market information technologies and data. Leverage ICT sector capabilities such as advanced information technologies (e.g. artificial intelligence-based analytics) and social media (e.g. business social networks).**

ITAC has drafted detailed, costed proposals for each of these recommendations which we look forward to developing further with federal officials.

DIGITAL HEALTH

9. SUPPORT AND SUSTAIN DIGITAL INNOVATION IN HEALTHCARE DELIVERY

Digital technology offers some of the greatest opportunities to improve the efficiency, effectiveness, safety and inclusiveness of our health care system. While the federal government regularly supports digital health pilots with the provinces, seldom does funding become sustainable.

One of the most transformative ways in which technology can impact our communities is through telehealth. Telehealth benefits urban Canadians by offering a convenient and efficient alternative to traditional touch points with medical practitioners. Telehealth is particularly important for Canadians who are using homecare or who have mobility challenges. For Canadians who live in rural and remote communities, including First

Nations and Indigenous populations, telehealth bridges an important gap and brings medical practitioners into underserved areas.

Recommendation: ITAC recommends that Budget 2018 allocates additional transfer funding to support and sustain digital healthcare innovation, including funding to Canada Health Infoway specifically targeted at developing and sustaining new telehealth opportunities.

ITAC looks forward to working with the Federal Government to provide additional details on these recommendations. For further information please contact Andre Leduc, VP Government Relations and Policy at aleduc@itac.ca; or David Messer, VP Policy, at dmesser@itac.ca