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TECHNATION 2021
Pre-Budget Submission

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Innovation Adoption Program

Procurement is one of the biggest and most underrated economic levers of government. Federal purchasing was estimated at **\$23 billion** in 2017 – making the federal government a powerful customer with the ability to shift markets, and launch, grow, or save businesses.

Yet, Canada's most promising technology start-ups and growth companies **do not bid** for the more than **\$6.8 billion** spent annually on technology projects, because processes are too long, costly, complex, and onerous for their business. This is a long-standing and widely acknowledged challenge for Canada's technology sector.

The COVID-19 crisis has triggered the need for rapid digital transformation by government. Technology solutions are urgently needed to meet demand surges and challenges related to:

- A public sector workforce that must be able to function seamlessly when working remotely;
- Urgently deliver needed government programs and benefits;
- Supply chain challenges;
- Capturing and leveraging health, social and economic data;
- Ensuring cyber security and privacy protection by default; and
- Provide Canadians with services they need through their phones and computers.

An immediate and significant opportunity exists for the federal government to stimulate the economy, ensure the recovery of Canada's technology sector, rapidly adopt technology solutions that are urgently needed, and create a 'new normal' of nimble, agile government procurement integrating cutting-edge innovations into public service delivery, while fueling economic growth.

COVID-19 has changed the way that the federal government and the Canadian public thinks about procurement. Governments have streamlined previously complex procedures, and many Canadian entrepreneurs have pivoted their business models to produce 'made in Canada' PPE and other solutions to aid in the health crisis. PSPC Minister, Anita Anand stated: "This is procurement like it has never been done before. This is not business as usual. This is urgent. This is aggressive."

Work is underway to reform ICT procurement. Shared Services Canada (SSC) has collaborated with TECHNATION to pilot agile federal procurements that leverage a new joint government-industry digital marketplace that is open, universally accessible, and can place hundreds of technology solutions at the government's fingertips. This collaborative platform provides the foundation for implementation of this proposal.

Canada's digital economy generates over 1 million jobs, contributes over \$120 billion annually to GDP, invests \$4.9 billion annually in R&D, and has taken over as the biggest economic sector driving Canadian economic growth. It's the leading creator of high-quality, well-paying middle-class jobs, driving year-over-year job gains and wage growth outpacing other parts of the private sector. It's estimated that every 1% increase in digital adoption, could have a direct \$2.5 billion impact on the economy.

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Proposal

A national *Innovation Adoption Program* should be included as a key pillar of the Government of Canada's economic recovery plan. The program would involve four main components:

- **Defined Needs:** Define public service's top priorities for digital transformation and technology adoption to transform enterprise infrastructure and government services.
- **Dedicated Funding:** Dedicate a significant proportion of federal stimulus/recovery funding for the federal government to procure and adopt solutions - including support of innovation in other jurisdictions - needed from Canada's technology sector.
- **Transformed Procurement:** Expend these funds through modernized procurement approaches that are agile, streamlined, and accessible to SMEs with limited available time and resources. Define problems (challenges), not solutions, to empower the problem-solving capacity of the technology sector.
- **Executed Projects:** Align economic opportunities that federal purchasing power represents with urgent needs of government for digital solutions to execute virtual-shovel ready projects delivered by technology SMEs across Canada.

A multi-departmental, coordinated approach will help to ensure the success of this proposal.

- ***Shared Services Canada***, and the ***Treasury Board of Canada Secretariat's Office of the Chief Information Officer Branch***, under the direction of the Minister of Digital Government, can work collaboratively within government and industry to define the public service's most pressing technology needs. They can also seek alignment with the federal government's enterprise approach to digital public sector transformation, as well as other ongoing initiatives.

Areas where Canada's technology SMEs are particularly ready and capable of providing solutions to government include:

- Ensuring the public sector workforce is equipped effectively to work remotely and ensure service continuity in the face of any short and long-term crisis.
- Tackling challenges related to supply chains, health, economic, and socio-economic data, contact tracing, information sharing, and more.
- Improving efficient delivery of government programs and benefits to Canadians.
- Providing Canadians with access to the solutions that they need through their phones, smartphones, and computers.

Examples of 'virtual shovel-ready' projects could include:

- Digital applications to connect Canadian citizens with government services provided by any federal departments, agencies, boards, commissions, and/or crown corporations (e.g. Employment Services).
- Citizen relationship management software and programs
- Software as a Service (SaaS).
- Big data management and predictive analytics to support health and socio-economic strategy.

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- Sharing of source lists with other levels of government in order to speed up processes and reduce burden on industry.
- **Public Services and Procurement Canada (PSPC)** – Under the direction of its Minister, PSPC can build on recent transformations in federal procurement, which have enabled the government to rapidly access COVID-19 products and solutions and make them available to Canadians, by pursuing a similar approach to technology adoption through this new national program.

New and promising approaches towards challenge-based and agile procurement can help public servants find fast and reliable solutions, cut through the complexity of available technology offerings, and ensure Canada's technology SMEs have improved access to offer their solutions to government and to Canadians.

Key components of the Innovation Adoption Program's (IAPs) procurement approach should include:

- **Leveraging TECHNATION's new national [TECH2GOV Digital Marketplace](#)** to help shape, promote, and deliver successful procurements.

Government often doesn't have a clear line of sight into solutions are coming or currently in the marketplace impacting challenge or requirements-based competitions. In some cases, it can be difficult to cut through the complexity of hundreds, if not thousands of technology offerings to get a clear picture of what is available in the market to serve a specific need. Or it can be easier to draw up procurements based on what is familiar.

The joint-government industry digital marketplace enables government to easily comprehend and engage with qualified SMEs who specialize in solving the problems they face. TECH2GOV is a free, objective, open and universally accessible national digital dashboard and registry that will place a full suite of technology solutions and capabilities across Canada at the government's fingertips.

- **Building on recent agile procurement pilot processes and challenge-based procurement approaches** to make IAP procurements more nimble, accessible, and effective.
- **Placing aggressive timelines on IAP procurements.** Procurement processes are too lengthy and costly for many SMEs to see through – Canada's former CIO, Alex Benay, was quoted saying "...it takes three years to create the project requirements, and two years to buy the solution."
- **Signaling the marketplace.** Procurement processes are too unpredictable; without clearer medium-term line of sight on where exactly federal technology transformation is headed, and what types of solutions the government plans to buy, it's hard for technology SMEs to be ready for procurement opportunities. Government can clearly signal the areas in which it intends to buy solutions through the IAP and address this long-standing challenge. If industry knows what the federal government needs and plans to buy, they will adjust as necessary to

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provide it.

- **Funding serious contenders.** Participating in federal procurement processes, especially late stages of bid consideration, can be extremely costly for technology business. The federal government can address this problem and inject capital into the digital economy by funding the participation of SMEs that are short-listed for consideration on an IAP procurement.
- **Addressing known administrative challenges** associated with procurements, including excessive red tape and paperwork, as well unreasonable requirements like unlimited liability that disincentivize collaboration between the public and private sectors, whilst doing little to protect government.
- **Innovation, Science, and Economic Development Canada, the Department of Finance, and Small Business, Export Promotion and Trade** and their respective Ministers can all play a role coordinating the development, execution and promotion of this program, while ensuring ample engagement with industry to identify 'virtual shovel-ready' projects and innovative solutions to immediate needs that are available in the digital marketplace.

Economic Recovery Across the Canadian Economy

Further to our proposed Innovation Adoption Program, TECHNATION recommends the following steps to ensure the viability of economic recovery across industries. These steps will ensure that Canada is positioned for long-term growth and underpins the country's potential to regain its status as a world leader in the digital economy.

Enabling Technology Adoption across Industries

Canada's decline in competitiveness and technology adoption has been well documented. In 2019, Canada fell two further spots on the [World Economic Forum's Global Competitiveness Report](#) to land in 14th position overall, and ranking 35th in ICT adoption and 16th in Innovation capability.

In Budget 2021, the Government of Canada must investigate mechanisms to reverse this trend, which may include capital cost allowances to expand ICT infrastructure and services, targeted grants and funding available to SMEs across the economy towards tech adoption, similar to programs that already exist on cyber security and green tech, and/or technology adoption guidance, through impartial industry associations and leaders.

5G and Connectivity

Modern hyper-connected networks are required for transmitting 5G networks, which are: predicted to revolutionize the way we use and leverage technology; make possible new classes of advanced applications; foster business innovation; and spur economic growth. Canada must implement 5G across the country, with emphasis on continuing the process of establishing rural connectivity.

Regulatory Environment

As part of the Government's work towards a Digital Charter, TECHNATION recommends that Budget 2021 should include a review the effectiveness of marketplace laws and regulations to ensure:

- PIPEDA, CASL, IP and Copywrite policies support innovation;
- Appropriate levels of funding exist to provide businesses, especially SMEs / Scale-ups, with simple compliance guidance and tools;
- Private initiatives, voluntary codes and standards are leveraged, and regulatory tools are only used where needed; and,
- PIPEDA especially must be kept in compliance with international norms such as the EU's GDPR. However, any potential new regulations being developed must be done so in consultation with industry partners. This can include Canada taking a leadership role in developing international standards with such organizations as the OECD.

Interoperability and Trade

The COVID-19 crisis has created the need for increased collaboration across the federation and this crisis is a prime opportunity to tear down trade barriers between provinces and territories, especially relating to data and technology barriers. In Budget 2021, the Government of Canada must commit to work with provinces and territories to ensure interoperability of systems, including data policies, between all levels of government and ministries. This includes a commitment to tackling data policy fragmentation that has resulted different privacy policies that will be a challenge for industry to navigate, especially SMEs.

Canada's Workforce in the Private and Public Sectors

Canada is home to some of the world's leading post-secondary institutions, and yet there remains a skills gap and a dearth of talent available to ICT companies in Canada. As part of the COVID-19 recovery process, there is an urgent need for the workforce, both within the public sector and beyond, to be trained to lead our economy and ensure future competitiveness. TECHNATION commends the steps the government has taken over the last number of budgets on training and skills upgrades.

The next step in training is to invest in re- and upskilling the public sector workforce, including through targeted use of current professional development budgets, and incentivizing technological training in the private sector. This will allow our public servants to be ready to use cutting edge technology to better serve Canadian citizens with an advanced modern digital government.