Changing the paradigm through disruption, collaboration and co-creation

TECHNATION[CA]

Roadmap for Sustained Growth
in Canada's Tech Sector

CANADA'S TECH SECTOR

IT'S TIME for the federal government to focus on Canada's technology sector as a key driver of our economic future.

THIS MEANS DEVELOPING A COHERENT APPROACH that combines Canada's digital transformation agenda with an economic development agenda – fueled by Canada's innovative technology businesses that are creating the jobs of today, and tomorrow.

Canada's tech sector has grown twice as fast as the rest of the economy in the last decade and the sector is expected to grow by **5.3%** this year and another **2.7%** in 2022. In 2020, Canada's tech businesses contributed **$97B** to our gross domestic product (GDP). In fact, each **$1M** of direct GDP generated within the ICT sector leads to an additional **$832,000** in GDP generated for Canada.

The sector also generates **671,000** high-quality well-paying middle-class jobs, year-over-year. Job gains in eight of 10 provinces, and wages in this sector are growing at a faster rate than other parts of the private sector.[1]

YEAR	World Economic Forum Global Competitiveness ICT Adoption/Innovation	Bloomberg Innovation Index	UN E-Government Development Index
2020	N/A	22nd	28th
2019	35th/16th	20th	N/A
2018	34th/13th	22nd	23rd
2017	23rd	20th	N/A
2016	24th	19th	14th
2010	11th	11th (2014)	3rd

Note: Canada was 3rd in the e-government development index in 2010 and 11th in 2012 and 2014.

BUT CANADA IS LOSING GROUND AS A TECH LEADER

CANADA ALREADY HAS THE RIGHT INGREDIENTS to regain its status as a global innovation and tech leader:

▶ Amongst the world's most highly educated workforces

▶ High quality of life, which helps attract business investment and talent

▶ One of the most digitally connected populations on the entire planet

▶ A growing number of domestic firms delivering trailblazing technological innovations

▶ Amongst the most extensive free-trading networks of any developed country. In fact, 23.6 % of Canada's population is foreign-born – the highest proportion in the G8 countries

As we emerge from this pandemic – with the right strategy and the right mix of support from governments – Canada's digital economy can be a true success story and a global force long-term.

"What last year has shown us is that technology is a force multiplier... those that have been unable or unwilling to harness technology and innovation to build resiliency, are struggling to survive… or worse."

KEVIN PEESKER
Chair, TECHNATION
National Board of Directors,
President, Microsoft
Canada[2]

[1] Canadian ICT Sector Profile 2020. Innovation, Science and Economic Development Canada. 2020.
[2] TECHNATION Annual Review 2020-21.

CANADA MUST EXPLOIT THE TECH SECTOR as a key driver of economic recovery from COVID-19

KEY ASKS
OF GOVERNMENT

AS TECH SOLUTIONS FUEL THE RECOVERY and resilience of businesses, now is the time for government to focus strategically on Canada's tech sector as global innovation leader. The government must:

▶ **Recognize itself as the largest technology purchaser in Canada** – by far – and leverage well over $7B in ICT spend annually to adopt innovative solutions developed by Canada's tech sector, including scale-ups and SMEs. See our Innovation Adoption Program proposal here.

▶ **Welcome large multi-national and domestic tech as critical fixtures of Canada's economy** – achieved through measured policies and an attractive environment for investment. Large tech invests more heavily in R&D than its counterparts and drives entire supply chains - supporting entrepreneurs and thousands of SMEs and fueling business success across all sectors.

▶ **Incent Canada's SMEs to adopt technology. Fast.** – Ensure firms who simultaneously exist as our most promising yet most vulnerable tech businesses benefit from Canada's Digital Adoption Program (CDAP), as well as new incentives for technology adoption.

▶ **Rethink 'stimulus' and government investment** – 'Virtual shovel-ready' digital infrastructure projects can have a massive economic impact and contribute to a more resilient Canada.

▶ **Address the global war for tech talent** - Incent tech talent to work and stay in Canada including the Global Talent Stream visa program and make it easier for people on temporary visas to become permanent residents.

> "*Buy tech, don't build tech!* Canada is home to leading-edge innovation in every area of technology development. Canadian innovators need their governments to adopt and deploy their solutions, rather than competing with them."
>
> **ANGELA MONDOU**
> TECHNATION President and CEO

ADVANCE A DIGITALLY ENABLED FEDERAL GOVERNMENT to deliver modern services and keep Canadians' information safe and secure.

Government needs an aggressive and comprehensive tech strategy designed to leverage the best capabilities of Canada's tech sector. The government must:

▶ **Adopt a 'Buy not Build' approach** in the public sector.

▶ **Continue to modernize tech procurement** through agile (challenge-based) approaches focused on desired outcomes instead of technical requirements, leveraging Canada's Digital Marketplace.

▶ **Diversify the government's tech supplier base**, and ensure more access to contracts for SMEs, under-represented groups, and Indigenous business.

▶ **Involve industry in the forward view – 'digital roadmap'** – of plans for large-scale digital transformation projects.

▶ **Establish a National Data Strategy for Canada** that respects privacy and maintains public security.

ROADMAP FOR SUSTAINED GROWTH IN CANADA'S TECH SECTOR IN FOUR MOVES

1 WIN THE WAR FOR GLOBAL TECH TALENT

TARGET 2023

Canada's tech sector drives economic growth, high-quality, well-paying middle-class jobs, year-over-year job gains and wage growth that outpace other sectors. However, Canada has been losing ground for the past decade as a global tech hub, due to the increased competition in the global 'War for Talent'. The ability for Canadian businesses to fill available jobs continues to be a major challenge in a 'borderless' competitive global economy. Action is urgently needed to help rebuild Canada's economy in an inclusive, equitable and diverse way.

Make future tech workforce development a top national priority: Canada's tech sector cannot thrive if businesses can't fill jobs. There are jobs available immediately for recent graduates and those displaced by the pandemic. Canada must ensure a steady pool of workers trained and skilled up to work on the latest technologies especially in the areas of cloud, data, artificial intelligence, and cybersecurity. TECHNATION has existing training and student work placement programs in place and is ready to work with government to build more effective policies and strategies.

Invest in re- and up-skilling the public sector workforce: Talent, including the public sector workforce, is critically important to the success of the technology industry and ultimately our nation.

Investing in re- and up-skilling the public sector workforce is essential to prepare for and embrace the use of cutting-edge technology to better serve Canadians through a modern digital government.

Bring international tech talent to Canada

Over the last **10 years**, immigration has accounted for **75%** of Canada's population growth and as much as **90%** of all labour force growth. Government should build on programs such as the **Global Talent Stream** visa program to fast-track high-skilled talent to Canada.

2 EXECUTE A GLOBALLY COMPETITIVE TECH POLICY ENVIRONMENT

TARGET 2024

Red tape, uncertain or antiquated rules for doing business, fragmentation of regulatory, taxation, and privacy regimes (compared to other jurisdictions such as the EU, Asia, and the US), all impact job creation and business investment. To compete internationally, Canada needs domestic policies at all levels of government that attract technology investment and enable innovative businesses to thrive.

Create cohesive data and privacy laws while updating PIPEDA[3]:
Work to ensure interoperability of systems, including data and privacy policies, between all levels of government. This includes addressing fragmentation of different privacy policies across Canada, a major challenge for industry to navigate.

Modernize digital taxation through international forums:
TECHNATION and its members have supported the movement towards a new international tax framework, and we encourage the Government of Canada to work through the Organisation for Economic Co-operation and Development (OECD) to implement a solution. Global tax policy challenges require global solutions. Unilateral action will complicate efforts to reach a multilateral consensus.

A domestic digital sales tax in Canada implemented before an international consensus may harm ratification and risk trade retaliation from our closest partner and ally, the USA, against our domestic industries.

Regulate the Internet including Online Harms:
Across the tech sector there is a need to address online harms. The industry is already acting and wants to work with the Canadian government to develop meaningful policies. The regulation of the internet is an incredibly complex challenge, and the government should work with the tech sector to ensure new policies will maintain freedom of expressions, ensure regulatory burdens are not undue on industry, and most importantly, protect the most vulnerable.

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[3] PIPEDA stands for Personal Information Protection and Electronic Documents Act.

3 'GO GLOBAL OR GO HOME' MUST BE CANADA'S DIGITAL GOVERNMENT MANDATE

TARGET 2023

Canada needs an aggressive and comprehensive tech strategy to deliver a leading-edge, digitally enabled federal government fueled by the latest and best technologies – a strategy that will position Canada's government and our nation as a global leader in today's data-driven, digital economy.

In 2020, the United Nations ranked Canada 28th on E-Government Development Index down from 3rd place in 2010.

Ensure data interoperability and build on lessons learned from COVID-19:

There is a clear need for a secure, digital health infrastructure based on international technology, data, and clinical management standards. The rapid shift to virtual care during the pandemic demonstrated the importance and benefits of this approach. Canada's pandemic responsiveness and vaccination roll-out also highlighted why tech adoption, data interoperability, digital access to personal health care data, and privacy and security, must be at the foundation of our healthcare system. The government needs to ensure multi-jurisdictional data interoperability and implement a national approach to data sharing.

Leverage tech purchasing as a powerful lever to drive Canada's economic recovery:

Procurement is one of the most significant and underrated economic levers of government – the largest purchaser of good and services in Canada. The pandemic showed Canada needs a digitally enabled government. It also changed how the government approached procurement – looking to domestic businesses for urgently needed health-related solutions.This represents an opportunity to use readily accessible public sector resources to build a world class Canadian digital government, improve citizen access and experience with government services (e.g., online, mobile), and support the growth of our tech sector simultaneously.

Modernize Technology Procurement:

To diversify the Government of Canada's supplier base and ensure a fair, open, and competitive procurement program, the government must change the way it acquires technology. Adopting a "buy-not-build" approach, prioritizing agile, green, challenge-based procurement processes, leveraging Canada's Digital Marketplace, and reducing red-tape and excessive bidding requirements, will help deliver a modernized procurement regime.

Position advanced technology for growth with appropriate policies:

Blockchain, as an example, is a revolutionary technology allowing for new innovations and methods of trusted and transparent exchanges. However, Canada is currently lagging in awareness, application, and foresight in all aspects of policy, funding, and implementation. Canada still has an opportunity to be a leader in the digital asset revolution through early adoption of amenable policies. It is essential that Canada equip its industries with programs and policy support, enabling Canadian business to remain relevant and active in the global digital economy.

Advance the timeline of Canada's National Cyber Strategy:

Increasingly sophisticated malicious cyber campaigns threaten the public and private sectors, and ultimately Canadian's security and privacy. The Federal Government must improve and accelerate its efforts to identify, deter, protect against, detect, and respond to these actions and actors.

"Canada can chart a course for long term growth with decisions that actively embrace the "greening" of government ICT procurement. "Greening" government procurement is not a new concept. Simply, it's the integration of environmental performance considerations into the procurement decision-making process."

TECHNATION Member

4 CLOSE THE DIGITAL DIVIDE IN CANADA

Changes have accelerated technology adoption throughout the pandemic and this trend is not going away. Investing in digital adoption in the government is sound fiscal and economic policy that will drive improved social programs in an environmentally sustainable fashion and support a remote workforce that must deliver these programs.

A **10% Increase** in digitalization creates a	A **1% Increase** in digitalization creates a	A **1% Increase** in digitalization creates a
.86% Drop in unemployment rate	**0.5% Gain** in Gross Domestic Product	**1.9% Gain** in international trade

Source: Accenture Digital at Depth for Governance Innovation report

Bring Canada's tech adoption rate to par with our global counterparts:
A clearly defined national digital strategy is non-negotiable. Government must enable technology adoption across all sectors, and in particular with SMEs. Programs like the $4B Canada Digital Adoption Program (CDAP) are essential to drive global competitiveness and Canada's future prosperity, laying out significant investment to accelerate technology adoption, and digitization across SMEs, Canada's GDP engine.

Work with industry to develop and communicate a cohesive national technology roadmap and fund it:
Government needs to define its top investment priorities for digital transformation and technology adoption and look to collaborate, even co-create, with industry on its digital roadmap.

Continue investment in broadband and connectivity of Canadian communities:
The government must ensure high-speed broadband connectivity across Canada, with emphasis on rural, remote, and Indigenous communities. The government's current commitment of $2.75B through the Universal Broadband Fund (UBF) to connect *all Canadian households and businesses* by 2030 should be sped up to 2025. Funds from the spectrum auction should be re-invested into the UBF and other programs to address the critical connectivity gaps that exist in rural and remote areas of Canada.

Re-think 'Stimulus' and Strategic Investments:
Government should dedicate a significant proportion of federal stimulus/recovery funding to procure and adopt solutions – including support of innovation in other jurisdictions – needed from Canada's tech sector. It should also align economic opportunities that its purchasing power (over $7B in ICT annually) represents with urgent needs of government for digital solutions to execute 'virtual shovel-ready' projects delivered by technology SMEs across Canada.

"Canada's National Data Strategy and Roadmap should not be used as political levers. They should become economic drivers that will make or break our nation in the next 5 years."

ANGELA MONDOU,
TECHNATION President and CEO

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TECHNATION is the industry-government nexus for technology prosperity in Canada. **As a member-driven, not-for-profit, TECHNATION unites Canada's technology sector, governments, and communities to enable technology prosperity in Canada.**
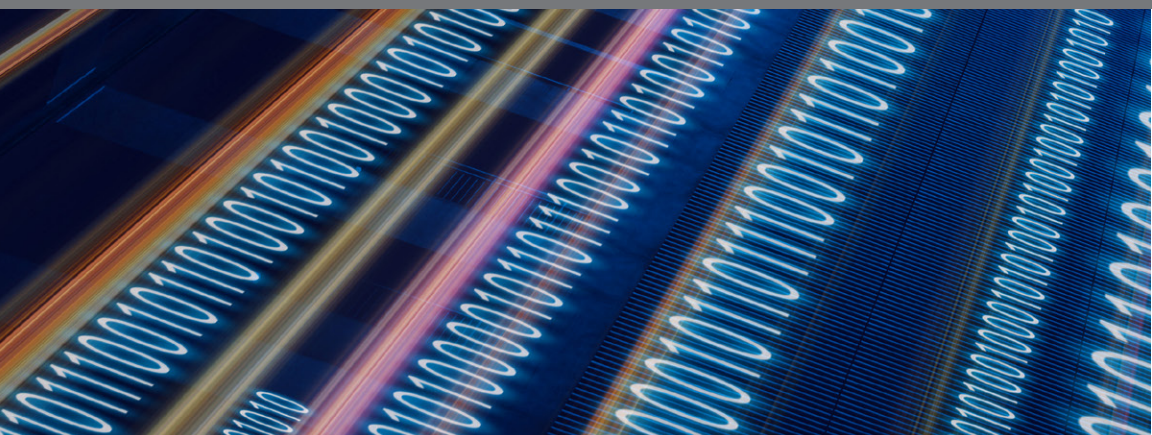
TECHNATION champions technology prosperity by providing advocacy, professional development and networking opportunities across industry and governments at all levels; connecting Canadian scale-ups with global tech leaders; engaging the global supply chain; and filling the technology talent pipeline.

TECHNATION has served as the authoritative national voice of the $230B ICT industry for over 60 years. More than 44,000 Canadian ICT firms create and supply goods and services that contribute to a more productive, competitive, and innovative society. The ICT sector generates more than 671,100 jobs and invests $8B annually in R&D, more than any other private sector performer.

For more information: www.technationcanada.ca. TECHNATION was formerly the Information Technology Association of Canada (ITAC).

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technationcanada.ca