

Canada 2017!

A Digital Nation – Focus on ICT

Growing Canada's Prosperity

Used for Ministerial Briefing

Introduction – ICT & Canada's prosperity

- Importance of ICT to Canada's prosperity:
 - Revenue of \$168 billion, 5% of GDP;
 - Over 750,000 jobs are ICT-related;
 - 35% of R&D spend in Canada is on ICT.

- *But:*
 - The ICT investment gap between Canada & the U.S. is widening;
 - The labour productivity gap between Canada & the U.S. persists at 10 – 20%;
 - By 2016, there will be 160,000 ICT jobs that need to be filled* ;
 - Total ICT exports decreased by 8.2% between 2002 and 2011**;
 - Overall lack of risk capital to grow technology ventures in Canada.

* Source ICTC

** Source Industry Canada

Introduction:

A comprehensive ICT strategy addressing all sectors horizontally is urgent and vital to build Canada's digital economy and overall competitiveness.

Digital Nation Building Strategy: 2017

VISION:

- Be a world leading digital economy by 2017 (top 5 according to World Economic Forum).

GOALS*:

- Be a competitive business Nation;
- Be a smart Nation in the use of applications, promoted through a trusted framework;
- Be a Nation with universal broadband access;
- Be a destination Nation for talent & investment;
- Be a Nation where all services are mobile.

*Based on international indicators, such as World Economic Forum.

Digital Nation Building Strategy: 2017

OUTCOME:

- Improved competitiveness & productivity;
- State-of-the-art infrastructure and applications;
- Will attract top talent & global investment;
- Increased prosperity in all sectors.

1.0 Market for Innovation & Growth

Canada's Strengths:

- ICT Sector outgrew the rest of the economy in 2011 (up 3.1%).

Goals:

Be a Competitive Business Nation:

- Set targets for growth of the Canadian ICT sector (e.g. 20 companies above \$1 B by 2017) and measure annual progress.
- Reverse decline in Canadian ICT exports.
- Improve access to capital.
- Embrace and increase e-commerce in public and private sectors.

1.0 Market for Innovation & Growth:

Industry Action:

- Initiate and collaborate with Government on foreign business development programs to grow Canadian SMEs in all markets.
- Participate in multi-stakeholder governance of Economic Action Plan venture capital funding.
- Support innovation by young companies, e.g. mentorship, trials, incubation.

Government Action:

- Develop comprehensive strategy to increase ICT exports, especially for SMEs:
 - Promote the Canadian brand
 - Make market data/analysis for target countries available to SMEs;
 - Showcase CDN technology;
 - Use foreign offices to help SMEs make the right connections;
 - Attract foreign investors (if needed, with incentives);
- Apply pragmatic approach to allocate the Economic Action Plan \$400 M funding (see ITAC submission).
- Measure changes to “direct” vs “indirect” funding in the Economic Action Plan.

2.0 Smart Regulation

Canada's Strengths:

- Competitive regulatory telecom framework (ranked #1 by World Economic Forum).

Goals:

Be a smart nation in the use of applications, promoted through a trusted framework:

- Regulations on privacy, spam, encryption and copyright need to be refreshed often to keep up with market realities.
- Be the best in implementing cyber security measures.
- Revise securities regulation to better equip Canadian executives and boards to succeed.

2.0 Smart Regulation

Industry Action:

- Engage with Government to provide expertise and guidance on the right conditions for industry to flourish.

Government Action:

- Set up ongoing processes to work with industry to review & refine approaches to regulatory matters.
- Reduce domestically imposed hurdles to export Canadian cryptography.
- Consolidate the approach to standards development, where various committees reviewing the same items e.g. cyber-security, cloud computing.

3.0 Infrastructure:

Canada's Strengths:

- Strong coverage despite dispersed population
 - 98% of CDN households within broadband Internet footprint (1.5 Mbps).
 - 97% of Canadians within mobile broadband footprint.
 - Best-in-class infrastructure, including the reach of CANARIE.
 - Network providers spend \$10 B annually on infrastructure.

Goals:

Be a Nation with universal broadband access:

- Get Canada into a lead in next-gen broadband (incl. 4G & satellite) by 2017.
- Complete build of integrated Electronic Health Infrastructure by 2015.
- High-speed Internet across Canada by 2020 to bring applications to all Canadians.

3.0 Infrastructure:

Industry Action:

- Continue to invest in upgrading network infrastructure.
- Continue to deliver broadband access to all parts of the country.

Government Action:

- Reinvest spectrum auction revenue to stimulate business investment through an accelerated capital cost allowance on broadband equipment.
- Explore ways to leverage ICT among various industrial sectors e.g. environment and energy.

4.0 Human Resources/Individual Readiness:

Canada's Strengths:

- Canada's level of education ranks highly on UN Development Index (6th overall).
- ICT work force is highly educated (45.8% with University degrees) and compensated (average earnings 70K).

Goals:

Be a destination nation for top talent in technology:

- Improve Canada's performance in producing science and engineering graduates in OECD standings to top 5 by 2016 (now 20th).
- Increase digital literacy seats by 20% in college, polytechnique and university by 2017.
- Increase enrollment in next-gen ICT careers (target 10% annual growth).
- For next 5 years, focus on "economic class" of immigration, with human capital above other categories, e.g. entrepreneurs, skilled business people.

4.0 Human Resources/Individual Readiness:

Industry Action:

- Participate in the design, delivery and workforce entry activities of ICT education programs.
- Collaborate on data collection & strategies to address skills shortage.
- Exchange best practices among employers to optimize use of current labour pool (e.g. retraining, recruiting foreign workers).

Government Action:

- Develop national ICT skills strategy for Canada:
 - Combine efforts of private and public sectors to promote STEM literacy through a national campaign.
 - Aggressively promote the Canadian brand to target countries to attract and keep students in Canada.
 - Improve performance in the collection of data about all aspects of the digital labour market.

5.0 Business Readiness & Use:

Canada's Strengths:

- Strong currency against U.S. should accelerate ICT adoption.
- Competitive business tax rate.
- Business owners understand the productivity impact of ICT investment.

Goals:

Be a smart nation in the use of technology.

- Close Canada/U.S. gap in ICT investment per worker from 47%* currently to 13% by 2015 and entirely by 2020.

*Study by the Centre for the Study of Living Standards (CSLS) 2012

5.0 Business Readiness & Use:

Industry Action:

- Exchange and recognize best practices e.g. ITAC's Ingenious Awards Program for excellence in ICT adoption.
- Actively participate in global process on standardization across all sectors.
- Initiate collaboration with governments and academia to drive entrepreneurship and innovation programs.

Government Action:

- Provide tax measures such as permanent accelerated capital cost allowance on technology including ICT.
- Create conditions for a robust e-commerce environment in Canada, via policy support and other incentives.

6.0 Government Readiness & Use:

Canada's Strengths:

- Mandate for ICT Transformation;
- Strong track record in e-Government;
- Transparent, competitive procurement processes;
- Budget funding for Canadian Innovation Commercialization Program.
- Educated public service.

Goals:

Be the smartest nation in the world in technology use by a Government (Government as a model user).

- All Government services should be available on mobile apps by 2017, e.g. eHealth.
- Move to a simplified, outcomes-based ICT procurement model by 2014.
- Use e-commerce for all Government procurement.
- Release a comprehensive Digital Economy Strategy by 2013.

6.0 Government Readiness & Use:

Industry Action:

- Provide expertise in ICT transformation & advice on best practices.

Government Action:

- Set Digital Economy Strategy priorities & benchmarks.
- Accelerate Shared Services Canada agenda to consolidate and update Government ICT systems.
- Establish program to develop mobile apps for citizens to access Government.
- Update procurement processes to use e-commerce and be outcomes-based.

Conclusion

- Vital to set and measure specific benchmarks, as part of our digital nation building strategy.

With leadership on a digital economy strategy now, Canada can be a leading digital nation by 2017, celebrating 150 years as a nation, as well as greater growth and prosperity.