

Federal Election 2015 – Science Policy Questionnaire

Please submit responses by **September 9th, 2015** to Katie@evidencefordemocracy.ca.

Evidence-based decision-making

Background. The case for evidence-based decision-making is compelling. Governments see advantages from moving towards processes that ensure that decisions are based on the best available evidence, from appropriately considering and communicating scientific uncertainties, and making explicit both the scientific and non-scientific elements of decisions. To ensure they receive the best possible science advice, governments have established external science and technology committees that provide independent, arms-length science and technology advice and capacity, ensuring that the best available scientific evidence is appropriately represented and considered.

Question 1a: What do you see as the value of scientific evidence for informing decision-making at the federal level in Canada?

Question 1b: How do you propose to ensure that government decisions are based on the best available evidence?

Question 1c: How would you go about strengthening the role of scientific evidence in federal decision-making in Canada?

Maintaining federal capacity for public science

Background: Public interest science informs programs policies, and supports drafting laws designed to promote healthy minds, bodies, communities, environments and economies. In Canada, funding of in-house government science shrank from 0.19% of GDP in 2006 to 0.15% in 2013. This level of funding is considerably lower than the 2013 OECD average of 0.27%. \$596 million (in constant 2007 dollars) were cut from federal S&T budgets between 2008 and 2013, along with the equivalent of 2,141 full-time employees mostly scientists and technical personnel. These reductions resulted in a loss of scientific programs devoted to public health, safety, weather and the environment.

Question 2a: Do you believe that current levels of federal support for public science are sufficient to meet the federal governments responsibilities?

Question 2b: If not, what will you do to increase public science capacity at the federal level?

Encouraging business investment in scientific research and development

Background: Business investment in scientific research and development is an important component of both the science enterprise and the Canadian economy. In 2013, Canadian business investment in scientific research and development amounted to about 0.82% of GDP, down from 1.11% in 2006, and about half the OECD average of 1.64%. During the same period, business investment in research and development (as a percentage of GDP) has increased in most other G7 countries. The decline in Canada has occurred despite a federal science, technology and innovation strategy designed specifically to increase business investment in scientific research and development.

Question 3a: Do you believe that the investment by Canada's business sector in scientific research and development is sufficient?

Question 3b: If not, what would you do to increase it?

Federal science communication and open data

Background: At the heart of democracy is the concept that citizens can make informed decisions regarding the actions and performance of their elected officials. This can only happen if citizens are provided with the information they need in an open and transparent manner. Openness implies a clear articulation of how decisions are made and what evidence was considered in making these decisions. Transparency requires that information underlying policy decisions (scientific evidence and analysis other than proprietary information) be published and disseminated widely so that the public has easy and timely access to the findings of scientists, and that effective and appropriate access to information legislation exists and is followed.

Question 4: Which – if any - of the following actions will your government commit to in support of open science communication (more than one option can be chosen)?

- (a) development and implementation of a federal science communication policy that allows federal government scientists to communicate their science freely, openly and in a timely manner unless there are compelling privacy, safety, or security reasons for doing otherwise;
- (b) free, online publication and dissemination of all research reports and papers produced by federal government scientists in the natural, physical and social sciences;
- (c) publication and dissemination of all scientific evidence and analysis taken into consideration in policy decisions;
- (d) strengthening and maintaining effective access to information legislation and processes, as well as providing independent oversight to ensure that the legislation and processes are followed.

Statistics Canada and the federal long-form census

Background: National censuses are important tools for tracking social, health, economic and environmental conditions. As such, they are critical data-gathering tools for all levels of government, from municipal to federal, as well as for business and the academic community. The national mandatory long-form census was eliminated in 2010 and replaced with a voluntary National Household Survey (NHS). There have been major concerns with the reliability of the data collected via through NHS and, as a result, many of these results have not been released.

Question 5a: Will you commit to reinstating the federal mandatory long-form census?

Question 5b: What additional or alternative steps would you take to ensure the ability of Statistics Canada to collect and publish high quality social, health, economic and environmental data?

Chief Science Advisor (CSA)

Background: In Canada, the position of Chief Science Advisor was first created in 2003 and, in 2004, Dr. Carty was appointed CSA. This position was eliminated four years later in 2008. Of the 12 best economically performing countries in the world (in terms of GDP), Canada is the only one that either doesn't have a CSA, or is not moving towards developing the position. In a recent white paper (https://rsc-src.ca/sites/default/files/pdf/PP_SA_EN_0.pdf), the Royal Society of Canada makes a compelling case for CSAs, even in countries where Science and Technology Advisory Committees (such as the Canadian Science, Technology and Innovation council - STIC) exist. The role of the CSA might be to: (i) ensure that policy decisions are scientifically robust and defensible, (ii) provide a strong coordinating presence for science in cabinet, (iii) facilitate coordination of science across federal departments to improve efficiencies through inter-departmental science initiatives, and/or (iv) ensure that Canada's science voice is heard in global affairs.

Question 6a: Do you commit to reinstating the position of Chief Science Advisor (CSA)?

Question 6b: If so, what role do you foresee the CSA playing in your government and where should that position best be placed to ensure its independence?

Parliamentary Science Office (PSO)

Background. A number of countries, notably the United Kingdom, have a well-resourced Parliamentary Science Officer (PSO) charged with providing independent analysis to parliament on the state of public interest science. In Canada, such an office might provide the parliamentarians with an objective analysis of the current state of scientific understanding on a range of policy and legislative issues and, perhaps most importantly, synthesize and evaluate the scientific evidence relevant to policy or management alternatives. As a service operation, a PSO could provide background information and briefs to members of both the House of Commons and Senate, assisting them in fulfilling increasing public expectations of science-informed decision-making.

Question 7a: Do you support the creation of a Parliamentary Science Office?

Question 7b: If not, what steps will you take to ensure that members of the House of Commons and Senate have on-going access to the highest quality science advice?

National Science and Technology (S&T) Policy

Background: In 1994, Canada's auditor general noted that "our audit has shown that an effective, highly-focused, national science and technology strategy is critical to survival and growth in today's high-technology economic environment." Canada had a national science and technology policy in 1987 detailing a national science agenda that was shared and endorsed by federal, provincial and territorial governments. This policy has been superseded by the 2015 federal S&T strategy that focuses exclusively on federal support for university and private sector scientific research and innovation. A properly formulated national science and technology policy should provide: (i) a robust framework for federal-provincial and federal-territorial agreements on investment in public interest science; (ii) an outline of the role of scientific evidence in decision-making, in areas of shared authority or interest; and (iii) clear principles and practices for open and effective science communication.

Question 8a: Do you believe that, at this time, Canada needs a new or updated national S&T policy?

Question 8b: If so, how will you go about developing and implementing one?