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## Creating a Chief Research and Knowledge Advisor for Canada

A brief submitted by the Federation for the Humanities and Social Sciences pursuant to the Government's commitment to create a Chief Science Officer and a research advisory system for Canada to ensure evidenced-based decision making for public policy.

**March 1, 2016**

## Executive summary

The establishment of a senior Canadian research advisory function within the Government of Canada has the potential to greatly improve the quality of evidence supporting public-policy decisions and the impact of government research. Canada has the opportunity to learn from the experience of other jurisdictions in how to design such a research advisory function that can be the best in the world.

The Federation for the Humanities and Social Sciences presents four overarching recommendations:

- ✓ **The advisor’s responsibilities should be broad in scope, ensuring research and evidence from all disciplines can inform public-policy decisions:** Recognizing that Canadians face a broad range of important challenges, we recommend that the research advisor’s mandate cover all research disciplines to ensure all relevant evidence can inform public policy decisions, whether they are technical, social or cultural in nature. The advisor should also welcome and promote the use of traditional Aboriginal knowledge. To reflect this scope, we recommend the title of this position be Chief Research and Knowledge Advisor (CRKA).
- ✓ **The CRKA’s role is to serve as a provider of knowledge and champion of transparency:** To ensure that the CRKA has the credibility necessary to act as an effective advisor, we recommend a focused two-part mandate: to help synthesize and channel high-quality evidence to decision makers, and to strengthen the transparency—and ideally the timeliness—of knowledge production within the federal government. The CRKA need not be a subject expert and should not be an advocate for specific policy options.
- ✓ **The CRKA should be positioned centrally within a network of research advisors:** Canada utilizes a sophisticated federal system of government, which presents unique challenges and opportunities for a high-level advisor. To achieve its objectives, we recommend the CRKA be placed centrally within government, be supported by research advisors in federal departments and agencies as well as external research communities, and maintain a dialogue with research advisors in provincial and territorial governments.
- ✓ **Priority topics for the CRKA should be determined by the government’s policy agenda, public priorities and issues emerging from research:** The Federation propose ways in which the CRKA should select priorities in the long term. We recommend the CRKA prioritize those issues high on government and public agendas, as well as those emerging from the latest research. Two illustrative priorities include addressing climate change and reconciliation with Aboriginal peoples.

A full listing of detailed recommendations can be found in the Appendix to this brief.

## Introduction

The Government of Canada's commitment to evidence-based public policy is welcome and important. Success in an evolving knowledge-driven economy and society will depend on both producing and utilizing high-quality research. The establishment of a Canadian research advisory function within government has the potential to greatly improve the quality of evidence and advice supporting public-policy decisions, as well as the transparency and timeliness of government research.

To ensure government has all the relevant evidence and insight it needs to address the complex challenges facing Canadians, a chief advisor must access a broad and diverse scope of research.

As New Zealand's Chief Science Advisor Peter Gluckman has articulated:

*Until relatively recently, the nature of science advice to government was limited to relatively technical advice on relatively linear issues regarding government's use of science say in managing fish stocks or on adopting new health technologies. In many ways these are technological rather than scientific challenges and, with some caveats, they are not the cause of the challenges we face at the interface between science and policy. Rather, now we face a very different set of challenges, particularly the so-called "grand societal challenges" which span borders, disciplines, and comprise a constellation of related and compounding questions.<sup>1</sup>*

Indeed, all major policy issues facing the government include critical dimensions related to human behaviour, relationships, institutions and identities. A narrow understanding of "science" or evidence will not serve Canadians well as we look to set up a new governmental research advisory system.

The Federation recommends that the centerpiece of a new research advisory system be the creation of a **Chief Research and Knowledge Officer** (CRKA) with a mandate to work with a broad range of research disciplines. This term will be used throughout this brief, though we note the key issue here is scope and mandate rather than title.

Canada also has an opportunity to benefit from the lessons learned in other jurisdictions with chief research or science advisor positions and to design, from the outset, a research advisory function that can be the best in the world. At the same time we should stay clear of copying too closely a model from elsewhere. Canada's unique federal system introduces particular challenges and opportunities that must be acknowledged in the design of an important new federal advisory system.

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<sup>1</sup> Peter Gluckman, Address to the Joint Research Centre of the European Commission, Brussels, Belgium, October 15, 2014, <http://www.pmcsa.org.nz/wp-content/uploads/JRC-Speech-The-Art-and-Science-of-Policy-Advice.pdf>

## 1. The CRKA's role within government and ensuing primary responsibilities

**RECOMMENDATION #1: The CRKA's role should be to help synthesize and channel high-quality evidence to decision makers and strengthen the transparency of knowledge production within the federal government. The CRKA need not be a subject expert and should not be an advocate for specific policy options.**

The Federation supports the primary objectives described by the government for the CRKA position: To promote transparency in the government's knowledge-production activities and to support the use of evidence from research in the public-policy process. A two-part mandate focused on these core activities will maximize the credibility and effectiveness of the CRKA.

### 1.1 The CRKA should help synthesize and channel high-quality evidence to decision makers

The CRKA should oversee the development and maintenance of a system to ensure that relevant evidence from research plays a meaningful role across the policy-development processes of government Ministries. This will require the development of robust departmental research nodes that form a network of internal scientific and research advisors.<sup>2</sup> It will also require ensuring that diverse relevant external experts and academic research communities are able to share their knowledge with decision makers at appropriate and timely points in the policy-development process.

The CRKA's role in supporting evidence-based decision making is fundamentally to act as a convenor, bringing together decision makers and those members of research communities who are best able to convey relevant evidence from research. To perform this function successfully, the CRKA should ensure that the government has the necessary relationships with external research communities to allow ongoing exchange. The CRKA should also work with departments to ensure that relevant evidence can be presented to decision makers at points in the policy process where it can make a meaningful contribution. Responsibilities could also entail commissioning specific studies and reports on identified priorities, drawing on internal and external expertise (including internationally where appropriate). For this, the CRKA should take advantage of and support the important expert panel convening capacities of such groups as the Council of Canadian Academies and the Royal Society of Canada.

These responsibilities will entail developing relationships with research communities through universities, learned societies and their representative bodies, and the federal research granting councils. These relationships will allow the CRKA to identify emerging research trends and the researchers who can best provide evidence to decision makers.

The CRKA will also require the independence and authority to play an accountability and challenge function within government, ensuring that quality research evidence and

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<sup>2</sup> This is further elaborated in section 3.

advice is being deployed to inform departmental policies. The CRKA should also enhance the legitimacy of key research-related appointments by advising government on the appointments of federal research organization presidents and research council board members.

Finally, the CRKA must act as a liaison with international networks of research advisors to share information on Canadian research knowledge systems and to stay attuned to innovations and best practices that can improve research-advice systems in Canada. The CRKA should be active in such international fora as the International Network for Government Science Advice, launched under the leadership of the Chief Science Officer of New Zealand, and the Carnegie Group of Science Advisors to Presidents and Prime Ministers.

The CRKA should inform and advise government on emerging international science and technology agreements and on important multinational research challenges, such as issues affecting polar regions.

*Supply for scientific advice comes from academies, comes from learned societies, from the scientific community itself, and it comes definitely from in-house, from the European Commission and the JRC [Joint Research Centre]. ... So what we decided is that we would put resources into organising this supply ... to make it possible to have scientific advice coming from these constituencies, these learned societies, these academies.<sup>3</sup>*

Carlos Moedas, European Commissioner for Research, Science and Innovation describing the EU Science advisory system established in 2015

## **1.2 The CRKA should strengthen the transparency of knowledge production within the federal government**

Public access to reliable knowledge and evidence is a critical component of moving towards a knowledge-based economy, and the CRKA should help the government achieve best practice. Current Canadian science advisory structures, such as the Science, Technology and Innovation Council (STIC), fail in this regard.

The CRKA should be tasked with effectively promoting and ensuring transparency in government research activities. The CRKA should play a leading role in supporting the dissemination of government-produced research, through such avenues as scholarly publication, public information programs and commentary to the media.

The CRKA should monitor the processes used by government departments and agencies to make the research they conduct available to the public, ensuring departmental

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<sup>3</sup> Carlos Moedas, joint press point opening remarks, May 13, 2015, <http://ec.europa.eu/avservices/video/player.cfm?ref=1103199&videolang=INT&devurl=http://ec.europa.eu/avservices/video/player/config.cfm>

policies do not create undue restrictions for government researchers. The CRKA should have the responsibility to recommend changes to departmental transparency policies and practices that do not meet established criteria and also to promote best practices between departments. The CRKA should advise on appropriate allowances for secrecy, in recognition that, in some cases, the premature release of research findings may conflict with other Ministerial responsibilities, such as privacy concerns and cabinet deliberations.

The CRKA must also practice a high level of transparency in its own reporting. Most of the science advisory structures found in other OECD countries are public in their advice—whether their meetings or reports. Thus reports produced by the CRKA on the transparency practices of government departments should be made public at an appropriate time. (Delaying the release of such reports until after the department in question has had an opportunity to respond and to advise would be an example of an acceptable limit on transparency.)

Finally, as is perhaps understood from the above, the CRKA becomes an important spokesperson with the public. The CRKA should help underscore the value research and evidence bring to public decisions, generating increased public confidence in policy and building awareness of opportunities for citizens to engage. Communication skills, it goes without saying, are critical for the CRKA candidate.

### **1.3 The CRKA need not be a subject-matter expert and should be seen as an advisor on evidence, not a public advocate for particular policies**

It is the responsibility of Ministers (and other parliamentarians) to make policy and legislative decisions; it is the responsibility of the CRKA to help government make the most informed decisions possible.

In consequence, there is no need for the CRKA to be an expert in any specific research discipline. Because the role of the CRKA is largely to help bring relevant evidence into the policy-development process, they will instead require skills related to interdisciplinary networking and influencing governance systems.

The CRKA will require a high level of credibility in order to fulfill their advisory and convenor objectives effectively. This credibility would be diminished if the position also undertook public advocacy in any specific policy area. The CRKA should instead be a champion for better knowledge-production and decision-making processes. This might include support for basic research, for better data collection or for improved transparency policies.

*[We need] to make sure that we are promoting the integrity of our scientific process; that not just in the physical and life sciences, but also in fields like psychology and anthropology and economics and political science—all of which are sciences because scholars develop and test hypotheses and subject them to peer review—but in all the sciences, we’ve got to make sure that we are supporting the idea that they’re not subject to politics, that they’re not skewed by an agenda, that, as I said before, we make sure that we go where the evidence leads us.*

President Obama’s speech to the National Academy of Sciences 2013<sup>4</sup>

## 2. The CRKA's scope of work

### **RECOMMENDATION #2: The CRKA’s responsibilities should be broad in scope, ensuring research and evidence from all disciplines can inform public-policy decisions.**

In the previous section, we recommend two primary objectives the CRKA should work to achieve. This section describes the CRKA’s overall scope, specifically the kinds of policy and research areas in which the CRKA should work to achieve their objectives.

Our primary recommendation is that the scope of the CRKA should be broad. The CRKA should support the use of evidence from all research disciplines, to support policy decisions. The CRKA’s mandate should not specify any research disciplines for preference or exclusion. It is for this reason that we recommend adopting the title “Chief Research and Knowledge Advisor,” which would send a strong signal regarding Canada’s forward looking and inclusive approach to research and evidence.

Without a clear mandate to include all research disciplines, there is a danger that the CRKA will be mainly understood to represent research disciplines traditionally associated with the term “science,” a word most often associated with the natural and health sciences. This could lead to significant missed opportunities considering that the vast majority of policy issues facing the federal government relate to human behaviour, relationships, institutions and identities. Climate change, Aboriginal reconciliation, immigration and refugees, understanding the determinants of disease, and health and regional economic development are just a few examples.

Other jurisdictions have recently made changes to their science advisory systems to broaden the scope of evidence they consider. For instance, in 2013 the UK added a dedicated social science component to its Parliamentary Office for Science and Technology office, which provides research and evidence to Parliamentarians. In 2015 the EU created a new broader Scientific Advisory Mechanism, to replace the previous Chief Scientific Advisor position (a single office formerly led by Anne Glover). The

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<sup>4</sup> <https://www.whitehouse.gov/the-press-office/2013/04/29/remarks-president-150th-anniversary-national-academy-sciences>

Scientific Advisory Mechanism is mandated to supply evidence and insight from all disciplines, including the social sciences. Its first seven-member High Level Group of Scientific Advisors includes Pearl Dykstra, Professor of Sociology at Erasmus University.

Finally, the CRKA has an important role to play in helping the government meet its commitments to support reconciliation between Aboriginal and non-Aboriginal Canadians and to unlock all forms of knowledge to the benefit of public policy. The Truth and Reconciliation Commission calls for government research bodies (and post-secondary institutions) to integrate Indigenous knowledge and ways of knowing into their activities. The Canadian government should lead by example by including these practices in the mandate of the CRKA, to the benefit of all Canadians.

Peter Gluckman, New Zealand's Chief Science Advisor, addressed the value of traditional knowledge in a 2015 address:

*Science, over the centuries has been refined to recognize and mitigate the influence of values in producing knowledge. Other ways of knowing may position values and tradition at their very heart. Our challenge is to come to a meeting place on the reliability and acceptability of variously derived knowledge and what elements from each knowledge pathway will inform the whole and create a better society.<sup>5</sup>*

### 3. The CRKA's placement within government

#### **RECOMMENDATION #3: The CRKA should be positioned centrally within a network of departmental research advisors**

The design of any research advisor position in Canada must operate within the country's sophisticated federal governing system. This section includes recommendations on how the CRKA should be placed within government to achieve the goals described above.

The CRKA should be centrally placed within government and in the civil service, likely the Privy Council Office, reporting to the Prime Minister. The office needs effective support for staffing and travel, though this should be additional to needed federal re-investments in research itself. The EU has had bitter experience with an inadequately staffed and resourced single chief science advisor position.

We recommend that the CRKA be not be placed within a Ministry, which would constrain its vantage to oversee a "whole of government" advisory system, which is sorely needed. The requirement to serve a Minister, particularly as political staff, would also compromise the CRKA's independence and credibility over the long term. An external Council or Advisory body that includes (unpaid) experts from diverse disciplines, would also be a helpful resource for a CRKA in this regard.

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<sup>5</sup> Peter Gluckman, address to the Public Symposium: Engagement of Indigenous and Western Science Knowledge Systems, Wellington, New Zealand, May 6, 2015, [http://www.pmcsa.org.nz/wp-content/uploads/Indigenous\\_Western\\_Science-May-2015\\_final.pdf](http://www.pmcsa.org.nz/wp-content/uploads/Indigenous_Western_Science-May-2015_final.pdf)



The CRKA should provide an annual report on its activities to Parliament. But ideally a separate advisory structure should be set up to address the research and evidence needs of Parliament, which are distinct, linked to the work of legislators, committees, and the role of opposition parties. In the UK, the Parliamentary Office for Science and Technology, for example is a robust and separately resourced advisory mechanism distinct from the office of the Government Chief Scientific Adviser.

Over time, science advisor positions should be developed within all major federal departments and agencies, with the goal of developing an effective cross-government network of science advisors sharing complementary mandates. A network of science advisors working across disciplines and sectors, would help to ensure robust, joined-up evidence is at the core of decisions within departments and across government, particularly on issues that cut across departmental lines. A network allows a wider web of relationships with Research Councils and the external research community. Finally, such a system can also allow sharing of lessons and best practices with regard to dialogue with external researchers, public communication and transparency, and critically, lessons of maximizing research impact for good policy. The “What Works” office in the UK is instructive in this regard.

‘What Works Centres’ is a new UK initiative to improve the use of high quality evidence when the government makes decisions about public services. The network is made up of seven evidence centres and synthesizes existing evidence and shares findings for local practitioners and policy makers. They cover areas such as education, health services, social and economic development. They enable policy makers, commissioners and practitioners to make decisions based upon strong evidence of what works and to provide cost-efficient, useful services.<sup>6</sup>

The CRKA should maintain productive dialogue with counterparts in provincial governments where they exist, and to support the development of provincial positions in the future where there is interest to do so. Building on the strength of the Chief Science Officer position in Quebec, a cross-country system to support evidence-based decision making is a long-term goal worth pursuing (as has existed in the past in Canada).

These recommendations are based on evidence of best practice from other jurisdictions. The research-advice systems in the UK and New Zealand have demonstrated the effectiveness of this general design. Both systems feature a chief advisor who reports to the Prime Minister, supported by advisors in major departments. A single Chief Advisor can have neither the heft nor the capacity to ensure effective knowledge systems for Government. As noted, in a Canadian context, the network of advice would ideally include meaningful contributions from provincial and territorial governments.

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[https://www.gov.uk/government/uploads/system/uploads/attachment\\_data/file/378038/What\\_works\\_evidence\\_for\\_decision\\_makers.pdf](https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/378038/What_works_evidence_for_decision_makers.pdf)

The objectives of the CRKA are important and far-reaching, and we predict that substantial long-term benefits can be achieved by fostering inter-department and inter-government dialogue and collaboration.

#### 4. Priority issues for the CRKA

**RECOMMENDATION #4: Priority topics for the CRKA should be determined by the government's policy agenda, and informed by public priorities and issues emerging from the latest research.**

It goes without saying that the top priority for the CRKA is to advise and help establish the wider knowledge and research systems in government. This will require an early review and assessment of existing federal science-advice systems with the goal of improving processes and avoiding duplication. For example, the CRKA position, and ideally its attendant network of science advisors, would ultimately eclipse the STIC. The new system would in turn provide the antennae to identify priority topics for special investigation. The Federation recommends that the CRKA use both a policy-driven and a research-driven approach to determining priority issues.

Using a policy-driven approach, the CRKA prioritizes issues that are before government as well as considers those seized by the public. This complements one of the CRKA's major objectives, which is to ensure that decision makers have access to the best knowledge available. This also follows from our recommendation that the CRKA concern themselves with all areas of research that can contribute to evidence-based decision making. The CRKA should not be confined to a narrow selection of policy issues considered to be "science" relevant. Two key examples of current public policy driven priorities include mitigation and adaptation to climate change and advancing reconciliation with Aboriginal peoples.

Using a research-driven approach, the CRKA plays a role in bringing new developments in research to the attention of government. The CRKA should have the opportunity to introduce decision makers to issues that, according to strong evidence from research communities, should be a priority for government.

This will require that the CRKA be in contact with academic institutions, scholarly associations and their representative bodies to identify insights and emerging findings from research with important public application. It will also require an appropriate venue for the CRKA to advise decision makers on important research findings in policy-relevant areas.

## Conclusion

The Canadian government has an exciting opportunity to improve the way it utilizes knowledge far into the future. By opening up the government's research knowledge to the public and making evidence from research an important part of the policy-development process, this government can make important strides in creating a more responsible, informed and knowledge-oriented Canada.

The CRKA should play a meaningful role in this transition, establishing the norms and practices that will guide future governments long into Canada's future. To make the most of this opportunity, we recommend that the CRKA champion transparency, utilize all research disciplines to inform policy decisions, and work within a cross-government network of research advice.

The Federation for the Humanities and Social Sciences welcomes the opportunity to contribute further to the development of this important office.

**A detailed listing of the recommendations presented can be found in the Appendix.**

# Appendix: Detailed recommendations for a Chief Research and Knowledge Adviser (CRKA)

## I Roles and Responsibilities

**RECOMMENDATION #1: The CRKA's role should be to help synthesize and channel high-quality evidence to decision makers and strengthen the transparency of knowledge production within the federal government. The CRKA need not be a subject expert and should not be an advocate for specific policy options.**

### **1.1 The CRKA should help synthesize and channel high-quality evidence to decision makers. The CRKA should:**

- Oversee the development and maintenance of a system to ensure that relevant evidence from research plays a meaningful role across the federal policy-development processes of government Ministries
- Ensure that diverse, relevant external experts and academic research communities are able to share their knowledge with decisions makers at appropriate points in the policy development process
- Commission specific studies and reports on identified priorities
- Develop effective relationships with research communities through universities, learned societies and their representative bodies, and the federal research granting councils.
- Advise government on the selection of federal research organization presidents and of research council board members
- Possess the independence and authority necessary to play an accountability and challenge function within government
- Act as a liaison with international networks of research advisors
- Inform and advise government of opportunities for collaboration on international science and technology agreements and on important multinational research challenges

### **1.2 The CRKA should strengthen the transparency of knowledge production within the federal government. The CRKA should:**

- Play a leading role in supporting the dissemination of government-produced research
- Monitor processes used by government departments to disclose their research activities
- Recommend changes to departmental transparency policies and practices that do not meet established criteria
- Promote best practices between departments
- Advise on appropriate allowances for secrecy to accommodate legitimate government priorities that cannot be achieved under full disclosure
- Ensure that departmental policies do not create undue restrictions on the ability for government researchers to discuss findings of research publicly
- Practice a high level of transparency in its own reporting
- Act as a public spokesperson on the value of research to underlie public decisions
- Have highly effective communications skills, as well as skills related to interdisciplinary networking and influencing governance systems

**1.3 The CRKA need not be a subject-matter expert and should be seen as an advisor on evidence, not a public advocate for particular policies. The CRKA should:**

- Not be limited by the need to possess subject-matter expertise in a research discipline
- Not advocate for specific policy options
- Advocate for the development of better knowledge-production and decision-making processes within government

## **II Scope of Work**

**RECOMMENDATION #2: The CRKA's responsibilities should be broad in scope, encompassing all disciplines and research areas that can support public-policy decisions. The CRKA should:**

- Have a clear mandate to support the use of evidence from all research disciplines to inform policy decisions
- Welcome and integrate Indigenous knowledge and ways of knowing into their work
- Be titled Chief Research and Knowledge Adviser to signal Canada's inclusive approach

## **III Placement in Government**

**RECOMMENDATION #3: The CRKA should be positioned centrally within a network of departmental research advisors. The CRKA should:**

- Be centrally placed within government and in the civil service, likely the Privy Council Office, reporting to the Prime Minister, rather than placed within a Ministry
- Receive effective support for staffing and travel, independent of federal investments in research
- Receive support from an external Council or Advisory body that includes experts from diverse disciplines
- Provide an annual report on its activities to Parliament
- Be supported by a separate advisory structure that can address the research and evidence needs of Parliament
- Develop and be supported by a network of research advisers within federal departments
- Develop relationships with external research communities, such as universities, learned societies and their representative bodies, and the federal research granting councils
- Maintain dialogue with counterparts in provincial governments

## **IV Priority Issues**

**RECOMMENDATION #4: Priority topics for the CRKA should be determined by the government's policy agenda, and informed by public priorities and issues emerging from the latest research. The CRKA should:**

- Review and assess existing federal science-advice systems as an early priority with the goal of improving processes and avoiding duplication
- Prioritize issues that are before government and/or seized by the public (such as climate change and Aboriginal reconciliation)
- Bring new developments in research to the attention of government.