An Essential Guide to Science Advocacy

Equipping scientists to advocate effectively across Canada
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By Farah Qaiser, Kimberly Klenk, Caitlin Fowler and Vanessa Sung

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Evidence for Democracy is the leading fact-driven, non-partisan, not-for-profit organization promoting the transparent use of evidence in government decision-making in Canada. Through research, education, and issue-based campaigns, we engage and empower the science community while cultivating public and political demand for evidence-informed decision-making.

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Table Of Contents

1 Why should scientists advocate for science? 5
2 Machinery of Government: The Essentials 8
3 How To Inform Policy and Engage In Advocacy 11
   3.1 Meeting with Elected Representatives 11
   3.2 Preparing a Submission for Pre-Budget Consultations 13
   3.3 Submit Briefs and Testify in front of a Committee 14
   3.4 Additional Opportunities to Champion Science 15
4 The art of persuasion: communicating the relevance of science to policy 17
   4.1 Oral and Written Briefings 17
   4.2 What goes in a message? 18
   4.3 Crafting A Message That Resonates 19
5 The Road Forward 21
Foreword

Although we have been friends for over two decades, it was not until we shared a panel at a health conference in 2022 that we had the *aha* moment that inspired the creation of this guide.

Our *aha* moment was that scientists are not as effective as they could be in advocating for the use of the best available scientific evidence to inform public policy. Nor are scientists pushing governments to develop policies that could be used to help advance the scientific enterprise necessary for ensuring the health and economic wellbeing of our society.

**Scientists have to do a better job at getting their voice heard.**

As we see it, a component of this is that scientists need to better understand how governments work at all levels, and how, where and when they can most effectively advocate for science and research. This guide is a start in that direction. We hope that all scientists have a chance to read, reflect and act towards ensuring a more science-literate policy process.

There is another issue which requires attention for a better chance at success, and that is the need for collaboration.

Scientists must work collaboratively with science champions who are already in parliament and government to promote and advance a better understanding of science, and the need for best available scientific evidence to inform public policy. Similarly, scientists must avoid the temptation to focus their advocacy only on advancing their own interests, and instead, work collaboratively in the common interest of growing the scientific enterprise and scientific ecosystem. To highlight this, although I, Senator Kutcher, have been in the Senate for a number of years, very few science organizations have reached out to me to help champion the growth and development of our scientific enterprise. For me, Dr. Quirion, while science organizations and groups have often contacted me, their request is usually about asking for more money for the organization or a particular project, and rarely about how to grow and improve the broader scientific ecosystem.

Unity is necessary for political success, and a rising tide can lift all boats.

We thank Evidence for Democracy and the Fonds de recherche du Québec for their work on and support of this resource.

As always, both of us are, and will continue to be, open to meeting with any scientific group or organization to help advance the use of science in policy development and the development of science policy.

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Hon. Dr. Stanley Kutcher  
Independent Senator, Nova Scotia

Dr. Rémi Quirion  
Chief Scientist of Québec
Why should scientists advocate for science?

Today, public policy needs science more than ever.

Virtually every policy issue that decision-makers encounter can benefit from the input of the best available scientific evidence, especially as we consider the growing, and increasingly complex, challenges related to climate change, food security, widening social inequality, future pandemics, and so much more.

Scientific evidence helps illustrate the realities of a particular dilemma, and challenges what we might think is common sense. It can help policy-makers understand what works, where, why, and for whom, and help ensure that policies serving the public interest are being developed and implemented effectively.

Today, more than half of Canadians feel that governments pay too little attention to scientific evidence and public opinion, and too much on political considerations when making decisions. There is an unmet public appetite for the increased use of best available scientific evidence in the development of public policy — in fact, eight in ten Canadians want the evidence used in government decision-making to be openly reported.

But as critical as the best available scientific evidence is, it is but one of the many inputs to consider when making a decision. As Kathryn O’Hara and Paul Dufour noted, “science advice is just that: counsel to be taken or ignored.” This is because policy-making is complex and nuanced. In governments across the Canadian federation, policy actors must gather, synthesize and make sense of constantly evolving information from many sources.

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The work of the politician and the development of public policy must take into account, in addition to scientific elements, a range of social, economic and political factors. Although science alone cannot dictate all political action, it is nonetheless extremely important in guiding the politician’s action.

It is in the best interests of society as a whole to be able to rely on scientists who are well versed in the political process, and who communicate with decision-makers to inform their actions.”

— Member of Parliament

1 We are referring to science in the broadest sense of the word, including but not limited to, the physical sciences, life sciences, social sciences and humanities. We acknowledge that there are a variety of sources of evidence, including but not limited to, Indigenous knowledge and lived experiences.


Decision-makers also face many challenges when attempting to use scientific evidence in their work, including navigating conflicting findings and managing information overload — often amid a paucity of time, inadequate resources, insufficient subject matter expertise, and lack of prior training to tackle these complex and often interrelated issues.4,5

It’s clear: there is much more work to be done to strengthen the relationship between science, policy and society. As science evolves rapidly, and scientific developments increase in number, much greater attention needs to be paid to ensure that policy-makers have a good understanding of what the best available scientific evidence is on any topic under consideration. This is a space where scientists6 must play a bigger and more effective role than previously.

To place the best available scientific evidence at the heart of public policy, we encourage scientists to learn how to navigate the complicated world of policy, including the nuances and challenges involved in policy-making processes. We invite scientists to communicate their research in a way that is accessible to a non-specialist audience, demonstrate its relevance to policy problems, and engage with stakeholders to help build trust and credibility around the best available scientific evidence. This can involve seeking deliberate opportunities for scientists and policy-makers to better serve society, whether that is testifying in front of a committee, or striving to become a knowledge broker with a foot in both the world of science and policy. Above all, we encourage scientists to have the willingness, energy and know-how to explore the science-policy interface, and seek to build long-term relationships with policy-makers.

We recognize that this is not an easy task. Scientists already have so many demands on their time, and numerous competing priorities to manage. There are also potential risks to consider when engaging in advocacy, including the possibility of public criticism or negative consequences due to backlash.

But science cannot speak for itself, especially when it is often trapped behind paywalls or incomprehensible due to technical jargon. We must all stand up for science, and the use of best available scientific evidence to inform the creation and implementation of public policy. Fostering a better relationship between scientists and policy-makers is not just about enabling ground-breaking discoveries or strengthening the economy. It’s also about how science can serve the collective good — for a healthier, more prosperous, and just society.

Now, more than ever, scientists need to be able to understand and participate in the different processes that contribute to public policy. This is why we’ve collaborated with the Office of the Chief Scientist of Québec and Senator Stanley Kutcher to develop this resource, An Essential Guide to Science Advocacy. Throughout this guide, you will find the foundational knowledge and tools necessary for scientists to effectively communicate with policy-makers and engage in advocacy, as well as firsthand experiences from parliamentarians reflecting on their experiences interacting with the science community.

6  Similar to the word science, we are referring to scientists in the broadest sense of the word, including but not limited to, the individuals who carry out and conduct research in the physical sciences, life sciences, social sciences and humanities.
As you read through this guide, reflect on your goals, and what type of engagement is appropriate for your situation. For example: do you want to advocate for the use of evidence to support policy decision-making (i.e., science for policy), or inform policy related to Canada’s science and innovation system (i.e., policy for science)? As outlined in *The Honest Broker*: are you engaging as a pure scientist, an issue advocate, a science arbiter, or an honest broker who will provide all available policy options? We also encourage you to think beyond self-advocacy. How can you advocate for the broader Canadian science community, and for science to be used to inform policy-making for the collective good?

**Select Events in the Canadian Science Policy Landscape**

<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
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<tbody>
<tr>
<td>2006</td>
<td>War on Science: the federal government increasingly sidelines science</td>
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<td>2008</td>
<td>Closing of the Office of the National Science Advisor</td>
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<td>2011</td>
<td>A new Chief Scientist is appointed to the Government of Québec</td>
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<td>2012</td>
<td>In the nationwide Death of Evidence rallies, thousands protest against the sidelining of science</td>
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<td>2015</td>
<td>In addition to the Minister of Innovation, Science and Economic Development, a Minister of Science is appointed. In 2019, the science portfolio is consolidated under the Minister of Innovation, Science and Industry</td>
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<td>2016</td>
<td>A Memorandum of Agreement enshrines scientific integrity in collective agreements, initiating the development of federal scientific integrity policies</td>
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<td>2017</td>
<td>The Government of Canada’s appointed Advisory Panel on Federal Support for Fundamental Science releases a report, the Fundamental Science Review, with 35 recommendations to strengthen the foundations of Canadian extramural research</td>
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<td>2017</td>
<td>A new Chief Science Advisor is appointed to the Government of Canada</td>
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<td>2018</td>
<td>United advocacy results in increased investments in science in the 2018 federal budget</td>
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<td>2018</td>
<td>The Office of the Chief Science Advisor and the Canadian Science Policy Centre collaborate to launch Canada’s first Science Meets Parliament program</td>
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<td>2020</td>
<td>Amid the pandemic, more scientists speak up to share science with the public, and new initiatives, including ScienceUpFirst, are created</td>
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<td>2021</td>
<td>Canada’s 44th session of Parliament welcomes a new Standing Committee for Science and Research</td>
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<td>2022</td>
<td>Trainees and scientists call for increased investments in graduate student scholarships and post-doctoral fellowships through the Support Our Science campaign</td>
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<td>2023</td>
<td>The Government of Canada’s appointed Advisory Panel on the Federal Research Support System releases a report highlighting long-standing challenges, sparking renewed calls for investment by the Canadian science community</td>
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8 A summary of the four roles can be found here: [http://rogerpielkejr.blogspot.com/2015/01/five-modes-of-science-engagement.html](http://rogerpielkejr.blogspot.com/2015/01/five-modes-of-science-engagement.html)
Machinery of Government: The Essentials

Before you can start engaging with policy-makers, it’s important to understand key components of the policy-making process. Let’s dive in!

A public policy, as defined by Beyond Policy Analysis, is “a course of action or inaction chosen by public authorities to address a given problem or interrelated set of problems.”9 This can include bills, regulations, funding announcements, and more. When you read a government policy announcement or hear about a new Bill being introduced to Parliament or a legislature, try to identify the following components, all of which can be informed by science:

1. Issue: What is the issue that governments are trying to address? What factors caused this issue? Who is it affecting? What is the rationale for government intervention?

2. Goals: What are the desired outcomes of this policy? Can we track or quantify them?

3. Instrument: What means are available to address the issue, and achieve the policy goals? This could involve doing nothing (policy inaction is increasingly the starting point), acting indirectly (e.g., providing information, incentives, or regulations towards action), or acting directly (using state resources/organization capacity to change conditions or provide services).

You can use LEGISinfo, an online database, to explore federal legislation that is before Parliament, including all speeches, debate, and testimony related to a bill.10 Similarly, head to your provincial, territorial or municipal government’s website to track bills for a specific region.

In Canada, there are four arenas of government. Policy-making is distributed across federal, provincial or territorial, and municipal levels of government, as well as Indigenous self-government (established through agreements with different levels of government). Each arena of government has its own set of responsibilities, so it’s important to reach out to the correct level when advocating for a particular issue.

• The federal government is primarily responsible for national and international matters, such as defense and national security. The political representative for your federal riding is a Member of Parliament (MP), who represents constituents at the House of Commons. They have a constituency office in your riding and an office in Ottawa.

• Provincial or territorial governments are primarily responsible for matters more closely related to realities specific to each province, such as education, and road regulations. The political representative for your provincial riding is a Member of the Legislative Assembly (MLA), who serves on behalf of constituents at the provincial/territorial legislature in your capital.11 They have a constituency office in your riding and an office in the provincial/territorial capital.

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10 Available at: https://www.parl.ca/legisinfo/en/overview
11 An MLA is referred to as a Member of Provincial Parliament in Ontario, a Member of the National Assembly in Quebec, and a Member of the House of Assembly in Newfoundland and Labrador.
• **Municipal** governments manage cities, towns or municipalities, and are primarily responsible for matters such as libraries and public transportation. Elected representatives at the municipal level generally include a mayor, city councillors, and in some jurisdictions, school board trustees.

• **Indigenous nations** and representative organizations have varying powers depending on the specific agreement between those Nations or groups and the federal government. Generally, Indigenous-led governing bodies have powers typical of municipal and provincial governments. Each Nation or group is different: consult resources, such as Native-Land, to find the applicable Treaties and Territories for a given area.12

In some cases, policy is a shared domain (e.g., the health sector), and it can be more difficult to distinguish between the responsibilities of each level of government. Often, the federal government contributes financial support as well as other inputs, while the province, territory or Indigenous governing body is responsible for delivering the programs and services (in addition to often providing financial support too).

Scientists should take note that a substantial part of the funding for science comes from the federal government, with a variable proportion from provincial or territorial governments. Funding is also provided by post-secondary institutions, non-profit organizations, charities and industry.

**Government priorities are presented across policy documents.**

Government budgets, ministerial mandate letters, and Speeches from the Throne all provide insight into government goals and policy priorities, and can help inform how to frame your advocacy. These priorities feed into what programs and services will be included in the government budget, as well as identify priorities for each minister.

**Federal policy-making takes place across three branches (legislative, executive and judicial), with input from Central Agencies, and is implemented by the public service.**

The legislative branch is responsible for making laws and authorizing government spending. Federal legislation can originate in either the House of Commons or the Senate, but must pass in both before receiving Royal Assent.

The executive branch is the key decision-making forum responsible for developing federal policies. Members of the Cabinet, known as Ministers, are responsible for one or more specific policy portfolios, and are the political or partisan head of a government department or agency. Ministers direct, but are separate from the public service. (Similarly, at the provincial or territorial level, the executive branch consists of the Premier and their appointed Cabinet.)

Public servants are expected to work in a non-partisan manner. This means that they advise on, develop, support, and implement policy, regardless of the originating political party or the political leaning of the decision.

Of note: the Clerk of the Privy Council is the head of the Public Service of Canada, and is the most senior public servant within the federal government. The Deputy Minister is the administrative head of a government department and represents the highest position within that department. Finally, the Central Agencies oversee interdepartmental coordination, and also advise the Prime Minister and Cabinet on strategic public policy decisions.

12 Available at: https://native-land.ca/
Figure 1: The branches of the federal government.

Figure 2. The branches of the Government of Québec, an example of provincial government.
How To Inform Policy and Engage In Advocacy

There are several entry points through which you can connect with policy-makers to share your research and expertise to inform decision-making. Let’s explore a few of the major ways.

3.1 Meeting with Elected Representatives

By engaging with your elected representatives, from local councillors to Members of Parliament, you can share your scientific knowledge and research, build relationships that may enable you to get important issues on the table, and learn about your representatives’ priorities. Similarly, your representative wants to hear from their constituents, and fulfill any priorities or responsibilities they may have.

As with any relationship, there is some give and take. Connecting with your political representatives is not just about a single transactional meeting to get your research or request into their hands. Instead, focus on building long-term connections with representatives of all political stripes. When done well, a relationship with a member of the science community can be constructive and time-saving for the representative, and a link for advocacy for the scientist.

It is a challenge knowing what research is happening across the country. It would be great for more researchers to reach out to their local [Members of Parliament] and talk about their work and how it might be shared more broadly with other Parliamentarians, such as with regional or issue specific caucuses or relevant committee members.”

— Member of Parliament

I think some of the most effective people that I have seen on the Hill have been ones that have built relationship[s]. They have a relationship with the [Members of Parliament] and the Ministers, and they have a very good relationship with the staff […]. It’s building partnerships with the people here that are trying to get things done.”

— Member of Parliament
Here’s how to engage with your elected representative:

1. **Identify who to contact.** Start by identifying which level of government has the jurisdiction to address your issue, and then find your elected representative. You can also identify who works on the file most relevant to the issue you want to speak to. This could be a minister, a parliamentary secretary, an opposition critic, or a representative who serves on a related committee.

2. **Prepare your key messages.** Your elected representative is busy! Prepare for your meeting by doing some research beforehand. What has your representative previously said about this issue? What are their personal motivations? Use this research to prepare a specific request: an actionable item that your representative can feasibly accomplish and is directly related to your concerns. Consider how you can frame the request in a way that will resonate with them.

3. **Contact your representative.** Reach out to your representative’s office by email or phone. Keep it brief: introduce yourself, state your concern, and request a meeting to discuss this further. Follow up as needed. Be persistent, polite and patient.

4. **Meet your representative.** Be on time! State your concern clearly, and be sure to explain why they should take action on this issue. Share why your concern or solution is important, and how or why it impacts your region or Canada as a whole. This is a conversation — be sure to listen too. Does your representative have any suggestions for you and/or your organization?

5. **Follow up after the meeting.** Say thank you via email or phone, and share any requested information. Did your meeting go well? Share this on social media and tag your representative. This may encourage others to contact their representatives too!

6. **Building and maintaining a relationship takes time.** Reach out to your representative as needed. Keep track of who you meet, and take notes about what you discuss. If your issue becomes timely (e.g., there is a recent development, or it will be subject to a government decision soon), contact your representative again and share your thoughts. Respectful persistence may be necessary.

Do you know the difference between lobbying and advocacy?

Lobbying is being paid to communicate with public office holders regarding policy development, and the awarding of grants, contributions or other financial benefits.\(^\text{13}\) Lobbying does not include submissions to parliamentary committees, or requests for information made to a public office holder.

\(^{13}\) Frequently asked questions. Office of the Commissioner of Lobbying of Canada. Available at: https://lobbycanada.gc.ca/en/registration-and-compliance/frequently-asked-questions/
3.2 Preparing a Submission for Pre-Budget Consultations

Budgets outline the government’s fiscal, social and economic policies and priorities. By participating in pre-budget consultations, you have an opportunity to weigh in and ensure that science and research have a meaningful place in the next budget.

How can you be a part of the budget process?

Every year, governments across the Canadian federation carry out public consultations ahead of drafting their budget. You can have your say in the budget by preparing a formal **pre-budget submission** to the relevant committee by their specified deadline (e.g., at the federal level, the Standing Committee on Finance leads pre-budget consultations). Your submission will be disseminated to relevant policy-makers and made publicly available.

You can request to testify to the relevant committee in “**pre-budget hearings**.” Engaging with your elected representative by scheduling a meeting is also another great way to engage with the pre-budget process.

Ultimately, policy-makers will draft a report of recommendations to the relevant Minister, based in part on what they have heard from submissions and testimony. Once a budget is released, providing feedback (e.g., by meeting with representatives, or writing an op-ed) will close the loop and identify future budget priorities.

What should a pre-budget submission look like?

A pre-budget submission can contain facts, informed opinions, and recommendations about how the government should spend its resources. Your submission should clearly answer the government’s stated interests (if any) for the pre-budget consultation. Take care to adhere to any provided templates or guidelines, and submit your brief before the stated deadline.

What are some considerations when drafting a pre-budget submission?

**Language matters.** Try to craft a compelling narrative. Show how your priorities fit with the government’s priorities, and use their language (e.g., from ministerial mandate letters) to demonstrate it. Use plain language, as these briefs will most likely be read by public servants who may have limited knowledge in your area of expertise.

**Think about the bigger picture.** Consider what you think was missing in the previous budget, and how your recommendation(s) addresses this gap. Ask yourself: what research do we need today to ensure we have the evidence to inform future policy challenges? Consider aligning your messaging across your sector, industry or ecosystem.
3.3 Submit Briefs and Testify in front of a Committee

Committees study specific issues in depth — a task more easily accomplished by a small multi-partisan group of elected representatives, or Senators — to improve laws and public policy on behalf of Canadians.

There are several types of committees: standing, legislative, special, joint, and subcommittees. Most are standing committees, which means they are automatically renewed at the start of each parliamentary session and are mandated to oversee one or more government departments. At the federal level, committees exist within both the House of Commons (e.g., the Standing Committee on Science and Research) and the Senate (e.g., the Standing Committee on Social Affairs, Science and Technology).¹⁴,¹⁵

Several of the scientists we [met] said they were unaware of the recent creation of the [Standing Committee on Science and Research, SRSR]. Also, while submitting briefs for the SRSR Committee’s studies is a straightforward exercise, the number of individual scientists and scientific organizations taking part is small. Greater diversity among individual scientists and scientific organizations would certainly enrich the work of the SRSR Committee.”

— Member of Parliament

Committees scrutinize proposed legislation, examine government spending, and study issues that are of interest to Canadians. Through meetings, committees hear from witnesses (including individuals, experts, groups, lobbyists, and public servants) and receive briefs to gather information. Meetings are typically televised/webcast, and relevant materials (including notices of meetings, and minutes of proceedings) can be found online.

Committees report findings from their studies and share recommendations by issuing a public report. This may include a request for a government response (e.g., within 120 days at the federal level), and any dissenting or supplementary opinions.

As a scientist, you can follow along with committee studies. If a committee is pursuing a study relevant to your expertise, consider submitting a written brief which provides relevant opinions, comments and recommendations. When preparing your brief, keep in mind the committee’s mandate, their study objectives, and prior testimony the committee has heard.

You can also request to appear as a witness before a committee. If selected as a witness, the committee clerk will share details related to your appearance. Generally, invited witnesses will be called on to provide opening statements, followed by a question and answer period with members of the committee. When testifying, aim to speak slowly, in plain language, and answer questions to the best of your ability.

Are you planning to submit a brief, or appear as a witness in front of a committee?

Don’t forget to review guidelines related to brief submission and witness testimony on the committee’s website. Head to section 4 to learn more about how to prepare oral and written briefings.

¹⁴ Explore committees within the House of Commons: https://www.ourcommons.ca/en
¹⁵ Explore committees within the Senate: https://sencanada.ca/en
3.4 Additional Opportunities to Champion Science

Respond to opportunities to contribute your expertise

From science advisory committees to public consultations, there are many opportunities to contribute your expertise to inform policy-making across levels of government and different institutions. You can find such opportunities through mailing lists, social media platforms, or simply checking the websites of departments or agencies related to your expertise. For example, the Government of Canada maintains a list of active public consultations.  

“If we think about health, [the] environment, pollution, climate change, ocean acidification, soil infertility and its impact on agriculture, social inequality, outdated economic models, inadequate performance indicators, etc., then it is clear that science progresses faster, then technology follows, and then at a much slower pace, policy progresses and tries to catch up. [...] Thus, there is a very inadequate slow transfer of knowledge towards politicians and policies.”

— Senator

Meet with key individuals involved in policy-making to advance your issue

In addition to elected representatives, consider connecting with public servants, including government scientists who are working on files related to your issue. There is also a growing number of science advisors across the country, including Canada’s Chief Science Advisor and departmental science advisors in the federal government, the Chief Scientist of Québec, and even municipal science advisors. At the federal level, consider reaching out to Senators who have an interest in your area of expertise, as they play a key role in the legislative process and can be important champions for your issue.

Engage with the media.

By keeping up with the news, you can identify which media outlets and journalists tend to cover which type of issues. You can join databases to signal your interest in providing media commentary, such as through your institution’s expert database or Informed Opinions’ Find Experts database. You can also issue a media advisory or press release, either by emailing materials to journalists yourself or through your institution’s media relations office, to provide notice of new, relevant or interesting research or initiatives.

Write an opinion piece in a media outlet.

You can champion your issue by penning an opinion piece to raise awareness and share calls to action. Consider who your target audience is, and which outlets tend to cover issues relevant to this audience. For example, if you want to reach readers in a specific province, a regional newspaper will be a better fit than a national outlet.

16 Available at: https://www.canada.ca/en/government/system/consultations/consultingcanadians.html
17 Available at: https://informedopinions.org/find-experts/
Participate in a broader mobilization campaign.

There are additional ways you can advocate for science, such as using social media to invite a decision-maker to take action, taking part in a rally, signing a petition, hosting an event with policy-makers, or collaborating with like-minded organizations to build an advocacy coalition or campaign.\(^{18}\)

Whichever opportunity you choose, try to work collectively to help enact long-lasting change.

“I have occasionally been invited to speak with undergraduate and graduate students pursuing careers in science. I have found these conversations to be very productive, and a good exchange of perspectives. Having the chance to explain to students why their work matters and how to make an impact was very rewarding, and I benefited from hearing their concerns about their futures.”

— Member of Parliament

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\(^{18}\) The creation of Evidence for Democracy is a case study of how scientists can participate in grassroots organizing. Learn more at: https://evidencefordemocracy.ca/wp-content/uploads/2023/01/e4d_case_study-en.pdf
The art of persuasion: communicating the relevance of science to policy

Scientists often struggle to share their work in a way that resonates with decision-makers. There is a tendency of relying too heavily on technical jargon or failing to clearly share key messages. This is where science communication can help close the gap between the best available scientific evidence and decision-makers.

Effective science communication relies on the use of a common language and a good understanding of your audience to develop trust between stakeholders. This means dedicating time to crafting your key messages with intention.

4.1 Oral and Written Briefings

When it comes to engaging in policy-making, you may have to provide an oral briefing (e.g., when testifying as an expert) or prepare a written briefing note to share relevant scientific knowledge with decision-makers. Both oral and written briefings are used to convey information quickly, concisely, and accurately.

When it comes to communication, scientists benefit from producing concise, yet evidence-based documents. Given the fast pace of political life, I must stress the importance of conciseness and clarity, even if these imperatives can sometimes be difficult to reconcile with nuanced science.”

— Member of Parliament

An oral briefing is a story, which can last between two to five minutes, that is used to communicate relevant information to enable the listener to make a specific decision. It should be concise, relevant, and use plain language. To provide an effective verbal briefing:

- The best presenters maintain a conversation with their listeners, and pause for questions and interaction. Watch your audience for signs of engagement.
- Ask yourself: are you speaking too fast? Are you providing verbal cues? Is your body language appropriate?
- Understand how much time you have and don’t be surprised if it is shortened.
- Be ready for interruptions, unexpected questions and technical difficulties.
- Keep secondary details in your back pocket to use as needed.
A written brief is a 1-2 page document that should be equally compelling and concise.\textsuperscript{19} Include author information (to outline your area of expertise, and indicate why you are the appropriate person to be recommending policy changes), and contact information. You may be able to include an annex or appendix to provide additional non-critical information, and incorporate visuals (such as graphs) to augment your message. Sending a list of complex scientific articles is usually not an effective approach!

You just can’t read everything, and you can’t be an expert on everything. I think most of us try to be well read on a few key issues, but, on everything that you’re sent, you just can’t do it. There’s just no way.”

— Member of Parliament

Be ready for the follow-up you asked for: plan talking points for a meeting or a call. You should also plan what you’ll do if you don’t hear back, or receive a negative response. You can also keep a “living briefing note.” Update the briefing as needed, and deliver it when the policy opportunity arises.

4.2 What goes in a message?

The “what.” Outline what the issue is (statement of problem or opportunity), and why you are delivering this message (what do you want out of it?). State your ask/proposed action. This helps focus the decision-maker’s attention.

- Find hooks for your key messages by connecting them to the decision-maker’s priorities. Highlight how and why your problem is relevant to the listener.
- Keep the ask short, meaningful, realistic and convincing. Do not overwhelm the decision-maker with too many suggestions.

The “so what.” Here, provide the context necessary to understand the issue. What is the problem? What does it involve? Approach the so what by stating your ‘background’ first, and then considerations. You should only include the information relevant to the analysis and recommendations, and leave details and references (if necessary) to an annex.

Background:

- Provide relevant history briefly, organized chronologically.
- Why does this issue or opportunity matter, and why now? Again, frame your messaging around what is relevant for your target decision-maker (their priorities, values, and political mandate).
- How has their organization been involved previously? What events have led to the current situation? Who are the other players and what are they doing?

\textsuperscript{19} Resource: https://www.youtube.com/watch?v=pljV4Agn7QA (How to write a briefing note)
Considerations:

• What other factors need to be considered? Try to limit yourself to three factors.
• How does the issue impact stakeholders and what is their position?
• What policy options exist, and are they feasible? What are the benefits and repercussions on stakeholders if this issue is addressed, versus not addressing it?

The “now what.” Now that your listener/reader knows the context, restate what you are asking for and your recommendations. What do we need to do, and why? How do we do it?

• Clearly and succinctly state your rationale for recommendations based on the considerations, and provide immediate steps to implement your recommendations.
• Your message should be framed as a logical argument. Don’t just present the facts, but instead connect the dots, and present the argument that the facts support.

Scientists use an elaborate technical language that often is difficult to understand for politicians or the general public. There is much effort that needs to be done to communicate scientific and technical progress. I know that researchers are busy and time is precious. Maybe efforts by both university administration and politicians will close this gap.”
— Senator

4.3 Crafting A Message That Resonates

Carry out background research into your issue
What are the core elements of your issue? Have there been recent developments? What are policy options to address this issue?

Identify the stakeholders involved in your issue
Determine who has the potential power to make or influence the change you are asking for. Identify relevant decision-makers, allies, opponents and third-parties. Ask yourself:

• Who does your target decision-maker care about? Who do they listen to?
• Who are your allies? Who is opposed? Of these, who can “move”, and who is immovable?
• Who are the stakeholders that must be included? How should they be included?

People’s positions on issues often represent what motivates them, including their interests and values (why the position is important to them), and their needs and fears (what concerns must be met in order to feel safe). Contrasting positions on an issue may actually reflect agreement, but a different evaluation of risk or values results in the prioritization of different issues.
Consider the timing and context of your advocacy

Is your issue something the people in power care about, or could be convinced to care about? Consider whether this is an appropriate ‘policy window.’ Is it better to wait for when Parliament is in session, or after an election?

Consider your role when crafting your message

In what capacity are you engaging in advocacy? As mentioned earlier, are you engaging as a pure scientist, an issue advocate, a science arbiter, or an honest broker who will provide all available policy options? Your message should reflect the target audience and your goals. Consider your personal values and biases, and how they might affect how you convey your message.

Frame your message to align with your audience’s priorities

Once you understand your audience’s perspective, consider how your ask or message aligns with their goals. Consider focusing on what you have in common with your audience, such as shared interests, values, needs or fears. Try to use the language of your audience to convey your understanding. Link your request back to the priorities stated by your representative or government to show that you are aware, and want to help them achieve their commitments.

Develop a single key message

Try to distill everything into a single key message and begin with it. What is the bottom line? What critical information must be conveyed? What is your key request or recommendation? Then provide helpful, non-critical details for those most interested. The key message should address what decision-makers need to know to understand where you’re coming from and provide context to make the decision.

Use storytelling to compose a compelling narrative

Construct a narrative that integrates emotions (instinctive state of mind), values (lasting beliefs), and facts (evidence proven to be true) to connect with your audience. Stories are engaging: craft a story around the message you want to convey to help decision-makers understand and connect to the policy context. Try to share relevant statistics and data to highlight impacts or gaps, but avoid overwhelming decision-makers with a series of complex data or scientific articles to support your arguments.

Use plain language

Minimize your use of jargon. Consider that terms have different meanings for scientists and the public. For example, the public may understand the term “theory” as “speculation,” so substitute it with a more precise term, such as “scientific understanding.”

Communicate with respect and transparency

A member of any audience should be treated with respect equal to that accorded to the people communicating the information. We all have our own areas of expertise, which provide different information and perspectives.

Ensure that the information you are providing is based on the best available scientific evidence, and be transparent about where knowledge is limited or still evolving. Acknowledge where there are opposing views, and explain why the existing evidence base points away from those conclusions. This enables engagement and discussion, instead of alienation over differing perspectives. Communicating uncertainty is important to building trust.

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The Road Forward

There are many ways through which scientists can participate in the science-policy interface, and share their expertise with policy-makers across Canada. This guide serves merely as a starting point. There is no one-size-fits-all approach to advocacy. Over time, you will develop a toolbox of advocacy strategies that work best for you and your goals.

In Canada, science advocacy can often revolve around efforts calling for increased funding and support to carry out research, especially given the long-standing challenges faced by the Canadian science community. However, we invite you to also consider how you can advocate for the use of scientific evidence in policy-making, and for the collective good. Cultivating and maintaining strong relationships with policy-makers at various levels of government, regardless of political affiliation, will benefit all Canadians, including the science community. Ultimately, this will help encourage decision-makers to consider the use of the best available scientific evidence when crafting policies, and will help strengthen the three-way relationship between science, policy and society.

“Conversations around science are frequently centered around funding. They are less often about how [the] government can make better evidence informed decisions using the research that is being produced by the stakeholders I meet with.”
— Member of Parliament

Advocacy will not bear fruit overnight. It is an ongoing process that requires persistence and continued and open dialogue. Nor can success be achieved without the collective efforts of motivated scientists, empowered with the knowledge and tools to advocate effectively.

It is our hope that this guide inspires and helps you in your science advocacy. We encourage you to build and nurture relationships with decision-makers, and to work collaboratively towards a healthy science and research ecosystem and strong evidence-informed public policies, for the benefit of all Canadians.

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**Evidence for Democracy (E4D)** is the leading fact-driven, non-partisan, not-for-profit organization promoting the transparent use of evidence in government decision-making in Canada.

Through research, education and issue campaigns, we engage and empower the science community while cultivating public and political demand for evidence-based decision-making.

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