Evidence-informed decision-making in Canada: How a grassroots movement restored respect for science

A CASE STUDY

Evidence for Democracy

Synopsis

In 2012, evidence-informed decisions were becoming an endangered species in Canada. In its sixth year in power, the Conservative government under Stephen Harper was making increasingly bold attempts to sideline science in an effort to weaken objections to Conservative policies. The wilful exclusion of science from policy decisions and the muzzling of government scientists eventually sparked a rebellion by scientists and their supporters, leading to the creation of Evidence for Democracy (E4D). Canada's grassroots movement eventually restored evidence-informed decision-making (EIDM) in government. This case study explores the events from 2006 to the present to understand what worked and highlight what other jurisdictions may be able to learn and apply from how this was accomplished. Spoiler alert: the creation of a centralized hub like E4D and the availability of scientists who are willing to push for EIDM are indispensable components.

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HOW CANADA'S "WAR ON SCIENCE" BEGAN

In August of 2015, a federal government scientist named Tony Turner was put on administrative leave pending investigation after he wrote and performed a political protest song urging the ouster of then Prime Minister and Conservative Party leader Stephen Harper and shared it on YouTube.

A physical scientist who studied migratory birds, Turner also happened to be a folk singer and songwriter. Fed up with what he saw as the government's track record under Harper of dismissing science and silencing researchers, Turner and some friends produced a political song whose chorus repeated the line, "Harperman, it's time for you to go!"

The song touched on multiple issues, but a key focus was the government's treatment of science and scientists, with lyrics like, "Won't buy into climate change / Until it's sold on the stock exchange..." *Harperman, a Protest Song* was covered widely by media. Later that same year, a cross-country singalong was held in dozens of cities and at a rally on Parliament Hill. The song became a pivotal moment in a growing movement to defeat the Conservative government.

How did Canada end up with a science-denying government?

In 2006, Stephen Harper became Canada's 22nd prime minister. It was a turning point in Canadian history, marking the beginning of an era that would be characterized as "the dark times" in terms of the role of science in policy- and decision-making.

Harper won a minority government the first time, a larger minority in 2008, and a majority in 2011.

However, he did not parachute into office and immediately begin to dismantle the role of science in decision-making. The erosion was more gradual, with the gap between evidence and policy incrementally but steadily widening. Where science did not support Conservative priorities at the time, it was disregarded. At first, this took the form of passively discounting evidence or discontinuing low-profile research programs. But in the later years, there were more aggressive moves, such as the elimination of the Office of the National Science Adviser, the cancellation of the long-form census, and the withdrawal of Canada from the Kyoto Protocol.

A key Harper mission was to maximize Canada's natural resources sector, which included expanding oil production. This plan was at odds with mounting scientific evidence linking the oil sands to the climate crisis, so the Harper government continued to cut science and research programs and began to prevent government scientists from speaking up, strictly regulating how they communicated with media.

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Fast forward to 2022

Today, Canada's federal government is more respectful of science and has taken strides to listen to it. The 2015 election saw the Liberal Party elected with a majority government, and re-elected in 2019 and again in 2021 with minorities. The party has made new investments in fundamental research, provided new funds for graduate scholarship, reinstated a Chief Science Advisor, brought in new departmental science advisors, and put in place scientific integrity policies that allow scientists to speak freely. The party agrees that climate change is a crisis, and supports a federal price on carbon.

However, we live in turbulent and increasingly polarized political times. Without understanding how Canada succeeded in making this shift, we always risk another descent into science suppression. Other countries face similar issues.

So it's worth asking: How did we get back to this better (if still not perfect) place? How was the role of science in government restored over the last decade, and what can other countries learn from the process? What pitfalls, challenges and best practices should we be aware of going forward to prevent another slide in future?

IGNITING A MOVEMENT

Evidence for Democracy (E4D) believes that Canadian scientists and the public played a significant role in pushing for the return of science-informed decisions in the federal government. In other words, grassroots advocacy and organizing created real change and influenced the shift toward evidence-informed decision making (EIDM). Tony Turner's catchy song came on the heels of other developments that, together, fuelled a potent backlash to the government's heavy-handed approach.

In 2010, during its second of three terms in power, the Conservative government eliminated the long-form Census. A variety of research organizations, businesses and unions wrote open letters protesting the loss of essential data. Later the same year, more examples started to emerge of government scientists being prevented from speaking to the media. Researchers within and outside of government began to speak out, sometimes in editorials. The mainstream news media in Canada began to devote more coverage to what was coming to be known as the war on science.

In 2012, these events came to a head with the emergence of Bill C-28. Bearing the vague and seemingly innocuous title of "an Act to implement certain provisions of the budget," the bill aimed to strip environmental protections, defund research institutions and shutter several government research stations. One of the projects threatened with closure was the Experimental Lakes Area, a world-class living lab where scientists study how to protect freshwater.

That summer, a group of graduate students and professors at the University of Ottawa organized a protest. Hundreds of scientists and thousands of supporters marched through Ottawa to Parliament Hill in the "Death of Evidence" rally. Some wore white coats, while others came in grim reaper costumes complete with scythes. Their demand was clear: we need transparent EIDM for a strong democracy and the well-being of all Canadians.

Widely covered by the media, the rally became a turning point.

The launch of Evidence for Democracy (E4D)

Scott Findlay, a biology professor at the University of Ottawa, and Katie Gibbs, then a PhD candidate in conservation biology at the same university, played instrumental roles in organizing the rally.

"We were hearing from a lot of scientists that this was the first time they had ever participated in a protest or marched down a street holding a sign. They felt invigorated and empowered," says Gibbs.

They believed that Canada needed a dedicated science advocacy organization to harness and maintain the rally's momentum. They consulted with other march organizers and looked at aligned organizations in other countries, such as the Union of Concerned Scientists in the US and Sense About Science in the UK. They incorporated E4D in October of 2012, with Gibbs as the executive director.

By 2013, they had run their first campaign, *Science Uncensored*. The campaign focused on the muzzling of government scientists, and was essentially a petition page, posted online before E4D even had a website. The microsite aimed to publish a timeline of instances in which scientists had been silenced by the government, and invited the public to act by petitioning the government to restore free speech to government scientists.

E4D continued to advocate for the importance of science and evidence as the 2015 election approached. Its work was based on a belief that the first step toward achieving EIDM is to elect a government that demonstrates a commitment to science and the use of evidence.

However, that deceptively simple, logical statement is a door to a world of complexity and challenge—because in a democracy, to elect a government that leans toward the principles you favour, you first need to convince the electorate of their merit. Political scientists, political parties and public relations firms have dedicated decades and entire careers to figuring out how to get voters onside with particular issues, yet election days can still bring confounding surprises.

Key takeaway: Capture early momentum in support of EIDM, and harness it to make progress. Consult other organizations and countries that have done similar work. Document instances of government science-denial or suppression of scientists. Share your outrage and provoke a public response. Invite the public to join you and take action.

WINNING THE BATTLE FOR SCIENCE

Unpacking E4D's initial steps to restore EIDM, it becomes clear that among other things, it was important for scientists to:

- **Speak up and connect with Canadians to share scientific knowledge and get buy-in on its value**
- **Open up science to make it more transparent and accessible**
- **Become more media savvy**
- **Understand how policy is made**

These points imply the need for scientists to become activists as well—or at least, to acquire some activism skills. The following subsections of this case study offer further details about the various ways in which E4D supported this.

1. Getting scientists to speak up

A central challenge in advancing grassroots advocacy for science may be scientists themselves—not because they are part of the problem, but because their professional training does not equip them to be a big enough part of the solution: explaining science and its relevance to society at large.

The question is, who should do the explaining? Canada Research Chair Sally Otto, who has helped young academics connect their work to science policy in Canada, points out that scientists are already required to have a diverse skillset, and it may be unreasonable to ask them to add public relations to the list.

"Being a scientist is a hard job," she says. "You're managing a team, you're giving feedback to students, you're teaching, you're doing all of these other things. So I do worry a little bit about saying, 'Okay, in addition to all that, you need to have journalism training and science policy training and all those other dimensions.'"

All valid concerns, says Dr. Lucky Tran, director of science communication and media relations at Columbia University. "But the lessons we've learned, largely through the work of E4D in Canada, are that scientists actually do want to engage, but often don't know how. They just need some structure to organize around and some motivation."

E4D equips the science community in Canada to engage in public policy by developing and distributing accessible, easy-to-use resources—from webinars to toolkits to in-person training sessions—on topics they can raise during the federal budget consultation process or with elected representatives at any time.

It also offers on-demand training and workshops to scientists and researchers across the country on how to move science to policy. For example, E4D recently launched the Science to Policy Accelerator, a knowledge and training program, to deliver training to early-career researchers looking to learn the foundations of public policy engagement.

Tran co-founded the non-profit organization March for Science and co-organized the Scientists' March on Washington after President Donald Trump came to power. He points out that traditionally, scientists have been unwilling to share their work publicly and have avoided having anything to do with activism, often out of fear that they could lose the public's trust or contribute to the polarization of science at the federal level.

For example, there were scientists who worried that the March on Washington could reinforce a belief in some quarters that scientists are just another interest group. Other scientists worry about speaking up for fear of retaliation in the form of budget cuts. Others may view science as something to be carried out for its own sake, unsullied by the political concerns of the day.

Gibbs is well aware of the need to steer clear of politicization. "We didn't (and still don't) want to make science a polarized issue," she says. "The extent to which climate change is now so polarized is a good example of why not."

Still, scientists need to become more confident about speaking up so policy-makers can hear from them directly rather than hearing only information that has been filtered through political actors or special interest groups.

"Certain kinds of responses need to be led by people who can put the risks and the information and the data in the right context and who have extensive training in communicating that information in a way that people can understand," says Michael Halpern, former deputy director of the US Center for Science and Democracy at the Union of Concerned Scientists.

A shared vocabulary

To put it another way, what value does evidence have if no one knows about it or understands its relevance in people's lives? Creating and funding positions for people skilled in knowledge mobilization and science communication can help the public understand the facts.

Ultimately, the key stakeholders in the EIDM process are scientists, policy-makers and the general public—and it's important that they can speak the same language.

E4D has had success in training scientists to bridge the gap with policy-makers by communicating through various mediums, such as meeting with political representatives, writing effective op-eds, creating political campaigns and participating in parliamentary work.

Key takeaway: Recognize that some scientists may have a well-founded reluctance to enter the political fray, and others may need coaching to become effective spokespersons and activists. Work with scientists to ensure they understand the policy relevance of their work and the need to communicate its benefits to society, and equip them with the tools to do so.

2. Opening up science

The gap between science and policy could also be narrowed through a push toward a movement known as open science, which aims to make scientific processes and practices more transparent and accessible so its benefits are more universally understood and shared.

Open science is a movement away from the traditional "closed" arrangement where scientific inputs, outputs and processes are available only for a fee, and/or only to researchers or other scientific collaborators. It is about making them accessible to the general public. It is also about opening up the process of producing scientific knowledge in the first place, with scientists co-creating socially relevant research projects involving non-scientists.

For example, the broader public can be engaged through activities like collaborative or participatory research, crowdsourcing, scientific volunteering and transdisciplinary research methods. Participatory research projects emphasize the direct engagement of local priorities and perspectives, including the involvement of community members affected by the research.

E4D has published a paper in support of open science, and in 2021, it released a pair of reports on the relationship between government transparency and evidence. The papers present a framework for evaluating the use of evidence in Canada with a focus on assessing how evidence informs policy. The organization is currently pushing for more openness in policy as well—not just in science.

Science sometimes operates (or may be perceived to operate) in a metaphorical ivory tower of academia. Tellingly, Oxford defines the ivory tower as "a state of privileged seclusion or separation from the facts and practicalities of the real world." The problem is the moat between the tower and the town—that is, the disconnect between science and social relevance, or the failure of some scientists to draw a connecting line between them, or to care if there is one.

To be clear, a direct line from science to impact is not necessarily imperative, and in fact, it may not be welcomed by all researchers, some of whom worry that an impact agenda could restrict their work. There is a school of thought that values curiosity and the pursuit of science for its own sake. However, other scientists agree that if their work is funded by the public purse, it is reasonable to root it in real-world problem-solving.

Either way, the hard reality is that it is easier to get public support—and, by extension, political support—for science if people understand how they may benefit from it. Evidence, in other words, should enable the public rather than confuse or alienate them.

Among other things, open science is about:

- **democratizing information itself so non-scientists can take a peek inside**
- **explaining scientific findings to people without arrogance or needlessly esoteric language**
- **talking with members of the public rather than down to or around them**
- **co-developing research studies that increase trust in science because the public has bought into the process**

An open process increases government accountability along with the likelihood that science will achieve more positive policy outcomes and help the greatest number of people.

Key takeaway: Support the movement to open science. Look for opportunities to explain it to colleagues, the public and others. Push government to get behind open science, to be as specific as possible in any commitments, and to provide systemic guarantees of scientific integrity. Engage journalists and influencers to think and write about it. Use social media platforms to start discussions of open science.

3. Understanding media and public relations

Examples of the federal government preventing its scientists from speaking to the media began to emerge around 2010 during the Conservative Party's second consecutive term. In response, Canadian mainstream media increasingly began to cover the "war on science."

Because the media influence public opinion—which, in turn, affects the outcomes of elections—media coverage of an issue is a key part of the formula for change, no matter what the issue is.

Fortunately, Canada has a free press and professional journalists who pride themselves on objectivity and remaining beyond the influence of special interest groups.

That said, the media can still be convinced to cover an issue that is brought to their attention—as long as they deem it newsworthy. This means that understanding how news decisions are made and how to pitch story ideas are valuable tools in the EIDM toolkit. Even if the plan is to have scientists or researchers pen editorials and opinion pieces themselves (as opposed to persuading journalists to write about an issue), news editors still need to be convinced to read and publish the submissions.

Most news organizations prioritize:

- **timeliness**—news is interesting because it's new
- **proximity**—people care about things that happen in their community, region or country
- **conflict**—problems and controversies get readers' attention
- **human interest**—people are interested in other people
- **relevance**—consumers value information that helps them make good decisions

Fortunately for the EIDM cause, news organizations also prize free speech and oppose censorship, much like scientists. When the government censors scientists or punishes those who speak out, the media take notice. Such an event would meet most of the above news values.

Accordingly, when the Conservative Party began to make more frequent and assertive decisions to quash research in 2010, Canadian mainstream news media paid attention. Researchers within and outside of government began to speak out about being silenced, writing editorials and sharing their stories and opinions with media outlets.

E4D understood the assignment immediately: it was about both public engagement and media relations. One of the organization's first moves was to create a Science Pledge campaign to mobilize public support around the inherent value of science and evidence in creating a strong democracy. More than 3,000 individuals across Canada took the Pledge, including several high-profile Canadians, such as David Suzuki and Margaret Atwood. E4D held 40 events across the country focusing on the importance of science as an election issue and used the Pledge to engage election candidates at meetings and events. Ultimately, 80 candidates from multiple parties took the Pledge.

Here is what it said:

"I believe that all Canadians benefit when governments solicit, collect and use the evidence and expertise needed to make smart policy decisions that safeguard the health, safety and prosperity of Canadians. I support actions that invest in public-interest science; ensure open, honest and timely communication of scientific information; and make public the evidence considered in government decisions."
— The Science Pledge

Some insights into why and how people may join a cause

As mentioned earlier, this speaks to the need to persuade the public of the importance of EIDM. If you can mobilize voters to want EIDM and prove to politicians that they do, you make it easier for politicians to make the right choices. Therefore, it makes sense to spend some time figuring out what motivates people to engage with a topic, and what their preferred methods of engagement are.

A survey of E4D's community indicated that the reasons people engage in the EIDM movement vary. Some are motivated by frustration with a particular issue or moment. Others care about EIDM as a concept.

E4D found that people chose to engage in the EIDM movement in many different ways: signing petitions, meeting with elected officials, sharing digital content. The science community valued E4D's role as a leader in developing campaigns and giving advocates different means to take action.

For other organizations looking for a similar outcome, this means: Engage the public from start to finish in science, the scientific process, and the creation and sharing of evidence.

Of course, these efforts may seem like an uphill battle in the context of rising populism. In E4D's community survey, when asked if public perception and understanding of science and EIDM had improved in Canada over the last decade, only 43 per cent of respondents said they thought it had improved somewhat. More than half said there had been no change or that things had worsened. Responses to the same question at the global level were similarly discouraging: nearly half of respondents felt that public perception and understanding of science and EIDM had worsened.

Key takeaway: The media help shape public opinion, and public support for an issue translates into political support. E4D developed strong media relationships, created a Science Pledge, and organized nation-wide events and publicity to get its message out. Learn what motivates your followers and where they get their news. Understand the main principles of media relations. Recognize that the current political situation may complicate your work.

4. Understanding how policy is made

E4D learned that getting the general public to support EIDM is essential to empowering politicians to make the right policy decisions.

"I can talk until I'm blue in the face to a politician about, say, why anti-GMO sentiment is completely unscientific," says Dr. Rob Annan, president and CEO of Genome Canada. "But it doesn't matter if politicians won't act on it. It literally doesn't matter, right? They say, 'Rob, I believe you. That's fine. That's great. We believe you. The department believes you. Everyone believes you....but the fact is that we are a democratic country. The people elect the government to reflect their wishes, so in the end, it's the public that we actually have to convince.' Scientists by and large do not know that."

An E4D study based on interviews with Canadian members of Parliament found that despite the best intentions, a number of barriers can prevent politicians from using the best available science and evidence in policy decisions. These barriers include voter pushback, industry or lobby pressures, limitations in time and research capacity, trouble finding or interpreting complicated evidence, or contention within the field.

This can be discouraging, concedes Jim Handman, executive director of the Science Media Centre and the former executive producer of CBC radio's science program, *Quirks and Quarks*. "For example, we have a prime minister [Liberal leader Justin Trudeau] who's committed to climate change and talks endlessly about how important climate change is, and he took Environment Canada and renamed it Environment and Climate Change Canada. And then he bought a pipeline."

For a long time, it has gone without saying that political lobbying is not something the average

scientist wants anything to do with or understands to be part of their job description. But it could be, and there are times when it should be. Strategies include advocating for a seat at the table, engaging the public, getting time in front of a minister, building relationships with the public service, promoting open access to research, and writing op-eds about the policy impacts of research.

Start with ensuring everyone on your EIDM team understands how government works, who the stakeholders are, and the nature of the political landscape. This information will contribute to their grasp of who has the power to change something. Building trust and relationships with those people is important, as evidenced by E4D's success after years of laying the groundwork.

It also helps to understand the policy landscape so you can frame your evidence in ways that fit with policy outcomes. Finally, understand that policy-making is a complex process and that evidence is just one component of it.

"The research community has to understand that political decisions are made other than strictly for the use of evidence," says Paul Dufour, a Senior Fellow with the Institute for Science, Society and Policy at the University of Ottawa. Many scientists assume that if something is presented as a truth or objective fact, the right actions will follow. But that's not necessarily the case.

"Decision-making is complex. You need to understand what that looks like. In some ways, it's the difference between the politically clueless and the scientifically illiterate. Bridging the gap between the two to reach out to both communities to understand each other's way of doing business is an art."

While the generation and presentation of evidence *should* be free from political interference, political considerations will be factored in when policies are made—and that's as it should be, says Annan. "We don't want a government of technocrats who are unresponsive to the desires of the people."

Key takeaway: To win the political battle for EIDM, first you need to win the public battle. Even politicians who care deeply about science and evidence may not find it easy to make solely evidence-based decisions if their constituents have other priorities—so getting the public to understand the importance of EIDM is work that must be done in parallel with media relations and publicity of the issue. The two must work in tandem.

The study found that 72 per cent of people worldwide trust scientists, while 73 per cent trust a doctor or nurse over other sources for health advice. In Canada, those figures were 86 and 91 per cent, respectively.

DRAWING ON TRUST IN SCIENCE

Like most countries, Canada is not a perfect place when it comes to scientific literacy or trust in scientists, medical professionals and government institutions.

Long before the COVID-19 pandemic erupted, for example, communities in Canada dealt with occasional measles outbreaks because of mistrust of certain routine childhood vaccines.

Canada has been a better place than many in this respect. An Environics report published partway through the COVID-19 pandemic looked at data from a 2018 Wellcome Global Monitor study of attitudes to science and health (conducted by Gallup) in 140 countries, and reported that Canadians' trust in scientists and medical professionals was higher than average—even when compared to other highly developed countries where trust tends to be high.

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Canadians' trust in governments and the media differs from its peer countries even more sharply. Compared to others in the OECD, Canadians were more likely than most to say they had "a lot" or "some" trust in their national government, and they were among the most likely to trust journalists.

The difference in this respect between Canada and the United States is especially noteworthy: 71 per cent of Canadians said they trusted journalists (versus 56 per cent of Americans), and 65 per cent of Canadians said they trusted their national government (versus 47 per cent of Americans). Seventy-eight per cent of Canadians reported that they trusted the medical and health advice they got from their government (versus 59 per cent of Americans).

Although it would be impossible to prove, it seems plausible that Canadians as a whole are more likely than citizens of many other countries to understand the value of evidence-informed decision-making, to expect it from their government—and then, to become outraged when it goes missing. E4D and the movement to restore EIDM likely tapped into and benefited from these higher levels of trust.

Scientific literacy

One possible explanation is education levels and their overall impact on scientific literacy. The Wellcome Global Monitor found that within the OECD, Canadians were among the most likely to say they had leaned about science during primary school (88 per cent), secondary school

(91 per cent) or college or university (51 per cent). The OECD's Programme for International Student Assessment recently found that Canadian high school students have the second-highest achievement level in science among all 36 member countries.

The 2022 convoy to Parliament Hill in Ottawa and subsequent occupation of the city's downtown core in protest of pandemic measures (amid other issues) would seem to contradict the idea that Canada is a well-informed oasis of trust in government and media. However, while the convoy was persistent, it was supported and fuelled by a small number of Canadians.

An Angus-Reid poll conducted as the siege wore on reported that when asked what they thought the protestors should do, 72 per cent of Canadians chose, "Go home, they have made their point" as their response.

THE CONTINUOUS CAMPAIGN

E4D emerged from the 2012 Death of Evidence rallies, found its voice in holding the Conservative government to account, and hit its stride in the years after the Liberals came to power in 2015.

Capitalizing on the momentum of the protests in the lead-up to the 2015 election, E4D's first major campaign mobilized the science community in Canada and pushed hard to make science and EIDM a core election platform issue. This work was rewarded when the newly elected Liberal party quickly began to restore some of the scientific endeavours that had been powered down by the Conservative Party.

Key takeaway: Canada's comparatively high levels of scientific literacy are a valuable asset to support for EIDM. Countries or organizations hoping to defend or revitalize EIDM should take whatever measures are available to them to ensure all members of their population have equitable opportunities and incentives to achieve the highest possible level of education, including in science. Actions to restore EIDM should tap into these citizens' sense of outrage over its absence.

The election of a more science-friendly government made room for a shift in advocacy around EIDM in Canada. Grassroots efforts transitioned to more nuanced campaigns and initiatives: pushing for specific science-related policies, forming relationships with core government partners, and holding the government accountable for its commitments. E4D's most successful campaign during this time was #supportthereport, a 2015 advocacy initiative that pushed the federal government to increase its budget for fundamental science.

Today, E4D seeks to continually redefine what it means to advocate for the use of evidence in decision- and policy-making.

The lesson is that you don't stop advocating when a science-friendly government comes to power. Rather, you change tactics and keep the pressure on. This is a good time to establish and nurture relationships with government partners, decision-makers and influencers. If and when the government makes evidence-informed decisions, you continue to hold it accountable.

Meanwhile, you should also continue to educate the public about the value of EIDM. If a politician knows their base of support does not value or understand the evidence supporting a policy outcome, then there will be no compelling reason for them to pursue it, no matter what the evidence says.

What gave E4D momentum in the 2015 election campaign was the weight of grassroots participation it brought to the table, with some 12,000 names in its database, including people in influential professions. The politicians listened because the ideas were good and because listening was in their interests.

Here are some other examples of how E4D has continued to advocate for EIDM and for the implementation of specific science-supported policies even after the election of the Liberal Party in 2015:

- **Campaigning to bring back the long-form census:** Following the Conservative Party's cuts to Canada's long-form census, E4D campaigned about the need for strong public data to inform government decisions. The new government reinstated it shortly after coming to power in 2015.
- **Reinstituting a Chief Science Advisor:** E4D ran a national campaign urging the return of a Chief Science Advisor for Canada. In 2017, the government appointed Dr. Mona Nemer to this role.
- **Saving climate research:** Following unexpected cuts in 2016 to a climate science program that funded critical Arctic research stations in Canada, E4D ran a multi-faceted campaign to save the Polar Environmental Atmospheric Research Lab (PEARL). The campaign resulted in a $1.6 million investment to ensure PEARL stayed open.
- **Safeguarding scientific integrity**: In partnership with the Professional Institute of the Public Service of Canada, E4D campaigned for federal departments to implement Scientific Integrity Policies that would allow scientists to speak about their work and safeguard government science from political interference. Such policies were implemented and adopted across government starting in 2018.
- **Creating a Truth Pledge:** In 2019, as a part of a suite of training tools and modules on combatting misinformation, E4D created a Truth Pledge encouraging members to commit to reducing the spread of misinformation online.
- **Organizing Vote Science campaigns:** In the lead-ups to the 2019 and 2021 federal elections, E4D ran campaigns designed to encourage voters to engage with local candidates on matters related to science, research and evidence in policy.

Key takeaway: Never take your eye off the ball—or your foot off the gas pedal—even when a more science-friendly government is in power. Continue to focus on education about EIDM, build relationships, and campaign to augment the role of science in government decision-making.

LOOKING FORWARD

The never-ending battle for public opinion is not just a matter of engagement, but a continuous fight against a firehose of competing, and sometimes misleading, claims.

Early in the COVID-19 pandemic, it seemed as though the arrival of the virus had reinvigorated Canadians' trust in scientists. Several studies conducted earlier on suggested as much. However, the convoy protest of February 2022 suggests that as time went on, something changed. A very vocal group of Canadians became susceptible to misleading information about the virus and the public health measures needed to combat it.

Perhaps it is a leap to assume that all members of this protest were science-deniers. Perhaps some acknowledged the science but were nonetheless frustrated with the imposed restrictions. Either way, it is clear that over time, the COVID-19 pandemic drove a polarizing wedge through many countries' populations, including Canada's, often pitting people who prioritized individual needs against those who valued community solidarity and protections for the vulnerable. These two groups often divided themselves along political lines.

It also became clear over the course of the pandemic that even if Canadians as a whole are highly educated and trust science, especially compared with peer nations, there remain thousands who don't—those who continue to question or refute the evidence, facts and advice presented by medical professionals who have the public's best interests in mind. Further, the convoy made it apparent that some people had become so

entrenched in their beliefs that no amount of science was likely to sway them, in large part because they don't trust the media or individuals who interpret and report on the science.

A key question, then, for Canada and other nations interested in EIDM, is how to rebuild trust—in science, media, government and democracy—more broadly across society post-pandemic. The lessons of E4D to date would indicate that what's needed is a program designed to provide a deeper education in civics and history, the role of the media in a functioning democracy, opportunities to use technology to combat mis- and disinformation, building newsrooms whose staff resemble the communities they serve, and reaching across political divides with civil exchanges.

These and other ideas are explored in Ten Ways to Rebuild Trust in Media and Democracy, published by The Aspen Institute.

FINAL THOUGHTS

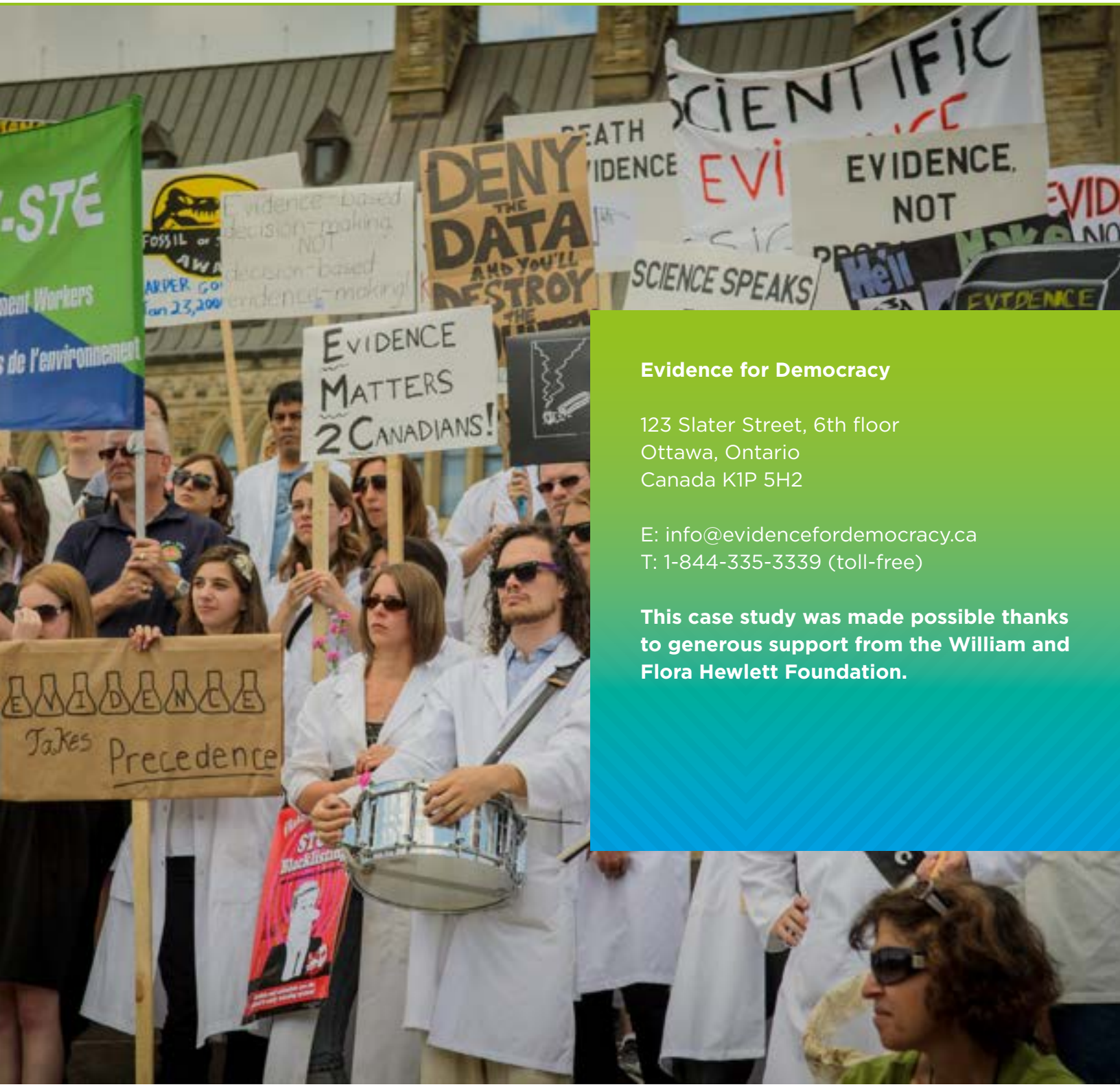
This case study has presented a number of approaches that other jurisdictions can employ to promote EIDM. Ultimately, these ideas all simmer down to a single double-edged sword that is a problem and opportunity at the same time: politicians are answerable to their constituents and motivated by vote-getting, so to ensure that political parties and ruling governments will respect science and use EIDM, you need to convince the electorate of its value.

It's clear that many of the approaches that were successfully used by E4D ultimately require the involvement of scientists themselves, so that is the best place to start. A significant part of the solution to introducing or restoring EIDM involves attracting scientists to the movement and giving them the tools to help it succeed. Essentially, countries need to engage, empower and motivate their scientific communities to take on initiatives similar to those explored here.

The creation of an organization similar to E4D—if one does not already exist—is a critical component in that process. A dedicated body to build demand for EIDM in the science community (and in society more broadly) can also serve as a hub for information and activity that can continuously fuel the work, rally scientists and supporters, organize participants and events, share valuable tools, evaluate progress and grow ambition.

E4D's work, particularly in its early years, was focused largely on equipping the research community with the means to influence public policy. Of course, given the realities of politics, there is also a strong case to be made for building support beyond the specialist community; the need to build public understanding of and support for EIDM cannot be understated. However, nor can it be achieved without the participation of motivated scientists who have been given the right tools for the job.

Ultimately, these ideas all simmer down to a single double-edged sword that is a problem and opportunity at the same time: politicians are answerable to their constituents and motivated by vote-getting, so to ensure that political parties and ruling governments will respect science and use EIDM, you need to convince the electorate of its value.



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This case study was made possible thanks to generous support from the William and Flora Hewlett Foundation.

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