Environment Canada Environnement Canada

Knowledge Translation and Brokering: Building Awareness Through Dialogue

STRENGTHENING SCIENCE-POLICY LINKS: STUDY SERIES NO. 4

Connecting science to policy is an essential function of any science-based organization seeking to ensure a meaningful impact on policies, decisions and programs. Many Canadian science-based federal departments and agencies generate or transfer scientific information as a key component of their mandate. Over time, they have developed valuable strategies and tools for packaging and presenting science information so that it is accessible to and understood by policy and program users. Whether the science in question is related to the environment, human health or some other discipline, the priorities established and tools employed are often transferable from one field to another.

MANY IMPORTANT LESSONS CAN BE LEARNED THROUGH SHARED DIALOGUE ON THE VARIOUS KNOWLEDGE TRANSLATION AND BROKERING INITIATIVES EMPLOYED BY FEDERAL DEPARTMENTS AND AGENCIES.

Canada

Many important lessons can be learned through shared dialogue on the various knowledge translation and brokering initiatives employed by federal departments and agencies. Beyond the Canadian federal government, experiences and challenges in strengthening science–policy integration are similar among academia, industry and other levels of government, both in Canada and internationally; thus, the lessons learned and best practices developed are broadly applicable.

WHAT IS KNOWLEDGE TRANSLATION AND KNOWLEDGE BROKERING?

Knowledge Translation (KT) is an activity that packages science information to the preferences, channels and time scales of a given audience. Knowledge Brokering (KB) is where an intermediary (whether an individual or a specialized group) actively links the producers and users of knowledge to strengthen generation, dissemination and eventual use of that knowledge. There are analogous and related terms: Knowledge Transfer, Knowledge Mobilization, Knowledge Exchange, among others.

MAKING CONNECTIONS

Environment Canada's Science and Technology (S&T) Liaison is uniquely positioned as a knowledge translation and brokering unit. The unit focuses on customizing and targeting science knowledge to improve uptake by the target audience, and on developing mechanisms for sustained interaction between science and policy/program communities to help users inform the research agenda.

AN INTERDEPARTMENTAL DIALOGUE WOULD CONNECT AN ACTIVE BUT DISPARATE FEDERAL COMMUNITY AND PROVIDE A PLATFORM TO SHARE IDEAS, ADDRESS COMMON GOALS AND CONCERNS, AND ENGAGE IN INSPIRED DISCUSSION ON MOVING FORWARD ON SHARED GOALS.

Recognizing the growing number of federal government employees engaged in knowledge translation and brokering, Environment Canada's S&T Liaison realized much could be learned from a discussion of this growing field. An interdepartmental dialogue would connect an active but disparate federal community and provide a platform to share ideas, address common goals and concerns, and engage in inspired discussion on moving forward on shared goals. S&T Liaison sought to bring together a group of individuals positioned as knowledge translators and/or brokers who would benefit from participating in a collaborative event. To ensure the correct individuals were identified, the invitation posed the following questions: are you one of a small group with a mixed skill set; working at the interface of science and policy; robustly writing, but not for the media, youth or the public?

The invitation elicited an enthusiastic response, with over 70 (of approximately 100) federal employees invited expressing interest to attend an interdepartmental meeting or to be otherwise kept informed.

AN INTERDEPARTMENTAL DIALOGUE

On September 30, 2009, S&T Liaison welcomed over 40 participants from 13 federal departments and agencies to a two-day Interdepartmental Dialogue on Knowledge Translation and Knowledge Brokering hosted at the Canada Centre for Inland Waters in Burlington, Ontario.

The 13 federal departments and agencies brought valuable multi-sectoral expertise and ideas to the Dialogue. With participants representing policy and program researchers and analysts, science advisors, knowledge managers, and staff engaged in strategic science and technology liaison, discussion benefited from a broad spectrum of perspectives and experiences. Throughout the entire meeting, participants maintained an open dialogue that allowed all voices to be heard and captured all ideas and expectations. With the assistance of a skilled facilitator, participants devoted their efforts to compiling practical ideas, sharing best practices and generating a list of priority items to advance a common agenda.

WITH PARTICIPANTS REPRESENTING POLICY AND PROGRAM RESEARCHERS AND ANALYSTS, SCIENCE ADVISORS, KNOWLEDGE MANAGERS AND STAFF ENGAGED IN STRATEGIC SCIENCE AND TECHNOLOGY LIAISON, DISCUSSION BENEFITED FROM A BROAD SPECTRUM OF PERSPECTIVES AND EXPERIENCES.

DIALOGUE GOAL:

Improve recognition, support and application of Knowledge Translation and Brokering within the federal government.

Canada Centre for Inland Waters. Photo: Tom Bochsler

FINDING COMMON GROUND

To seed the discussion on advancing knowledge translation and brokering (KT-KB) in the federal government, participants were asked to provide statements prior to the meeting about which KT-KB activities within their organizations should be stopped, started or maintained, with examples of current or proposed KT-KB activities (either individually or at a departmental/agency level). Commonalities across departments and professions quickly emerged during the session and these became the basis of the discussion.

ACTIVITIES TO START OR MAINTAIN	ACTIVITIES TO STOP
▪ Focus on *doing* while keeping it simple and practical ▪ Build a Community of Practice (federal government, and national and international) ▪ Legitimize KT-KB – information technology is not the only solution ▪ Integrate KT-KB into program design ▪ Incorporate the "tacit" (experiential) knowledge component of KT-KB ▪ Develop a suite of KT-KB products and tools that can be used broadly ▪ Enhance communication between science and policy ▪ Use performance metrics to assess the impact of KT-KB ▪ Establish knowledge transfer centres ▪ Train staff and colleagues	▪ Misclassification of KT-KB personnel ▪ Focusing on terminology instead of shared learning and action ▪ Working in silos (isolation) ▪ Focusing efforts on disseminating knowledge "after the fact" ▪ Initiating activities and products without an identified target audience and the resources to support KT-KB ▪ Discounting grey literature ▪ Creating independent databases that have limited accessibility ▪ Assuming that information technology tools (wikis, portals) are the primary solutions to a science and policy interface

To establish discussion priorities among the diverse group, it was necessary to identify criteria against which potential topics could be assessed. The criteria developed included the degree to which the topic has impact, is realistic, measurable, inspiring and visionary, and has an identifiable beneficiary ("who's my who").

The top five priorities emerged as follows:

1. **Establish a Community of Practice (COP)**
2. **Create a suite of products and tools**
3. **Develop a strategy for KT-KB**
4. **Maintain performance metrics to evaluate success**
5. **Elements of a KT-KB program design**

Small groups discussed the tangible steps required to move each of the five priorities forward, such as funding, involvement of key players, infrastructure, performance measures and time frame. Discussion highlights are summarized below for each of the five priorities.

1. Establish a Community of Practice (COP) as a forum for federal employees working in the KT-KB field to discuss priority issues across departments. Discussion focused on what would be needed to support development of a COP, including:
   - Delineating the role and objectives of the COP
   - Determining how membership in the COP would be decided
   - Deciding how the COP would be promoted interdepartmentally
   - Creating commitment and engagement at a high level within departments and agencies
   - Outlining how members would participate (e.g., electronic, face to face)
   - Determining whether the required tools and support are already in existence or if something additional is required
2. Create a suite of the products and tools already used within the Government of Canada to raise awareness and accessibility among the various departments and agencies. Discussion focused on tools such as newsletters, websites, wikis, webinars and various face-to-face methods. Discussions also touched on how to create tangible tools with wide-ranging applicability and how to deal with barriers that may exist in developing various tools within federal government parameters.
3. Develop a strategy for KT-KB to increase the use, exposure and credibility of KT-KB within federal departments and agencies. Discussion points included defining objectives for the field; determining priorities, gaps and successes; promoting KT-KB to key audiences, such as senior management; considering human resource structures and issues; and developing mechanisms for ongoing learning in the field.
4. Maintaining performance metrics to evaluate success was of interest as staff are often required to report on how the work they are undertaking is having an impact. Questions of how success would be defined and what would be measured dominated the discussion. Possible metrics included Web hits, numbers of publications, a change in the types of information requests received, adoption of language by senior management, success of stakeholders and a decrease in concern over communicating science to target audiences.
5. Elements of KT-KB program design were considered. The importance of where such a program would be located organizationally, either as a new program or embedded in existing programs, was discussed, with the need to create a space for a program seen as key. Other elements included building on existing initiatives, developing a set of core competencies or skill sets, developing training or mentoring opportunities, and promoting the program.

BUILDING MOMENTUM

The concept of a larger KT-KB conference (beyond federal employees) was enthusiastically supported as a future initiative. The larger conference was viewed as a platform to build more awareness and support for KT-KB, move ahead on priority issues coming out of the Interdepartmental Dialogue, and learn from other organizations or fields that may be further developed in their KT-KB strategies or initiatives.

In the long term, success of the Interdepartmental Dialogue will be a function of how the ideas generated during the exchange effectively move forward and influence the cultures of science–policy interaction and departmental communication. Participants broadly affirmed their desire to champion the movement within their respective organizations. A series of action items were collectively identified to ensure momentum continues and the group and its evolving community stay connected over the long term. These included maintaining ownership of KT-KB; identifying a forum to share best practices and products; exposing senior management boards to the concept of KT-KB; and raising awareness and recognition of KT-KB.

The goal of the dialogue was to improve recognition, support and application of KT-KB within the federal government. There were a number of lessons learned in striving for that goal, including the necessity of getting the right people together, creating commonalities among a disparate group by determining priorities in a concerted effort, providing a forum to network, share experiences and make connections, and using these events as a catalyst in developing momentum.

Special Workshop on Knowledge Translation and Brokering

One year later participants of the Interdepartmental Dialogue saw a very real outcome of their discussions. A Special Workshop on Knowledge Translation and Brokering took place under the auspices of the 2010 Canadian Science Policy Conference. Environment Canada co-organized the event with the Canadian Water Network and ResearchImpact.

The workshop was the first national, multi-sectoral event of its kind, bringing together 108 participants from 54 organizations, including universities, health agencies, governments and industries from across Canada, the United Kingdom and Australia.

The workshop provided a dynamic, interactive forum to network, share experiences and explore the role of KT-KB in strengthening science–policy linkages. Through various facilitated formats, discussions built on priorities identified at the Interdepartmental Dialogue and those of the broader community, including a Community of Practice, KT-KB toolbox and evaluation.

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Fisheries and Oceans Canada

Health Canada

Indian and Northern Affairs Canada

Industry Canada

International Development Research Centre

Natural Resources Canada

Professional Institute of the Public Service of Canada

Public Health Agency of Canada

Links:

Canadian Science Policy Conference 2010 – Conference Coverage
http://sciencepolicy.ca/cspc2010/coverage

About this study series:

The need for robust scientific evidence in policy and decision making and for innovative mechanisms to sustain interaction between science producers and policy/decision makers is well recognized. Such interaction improves the uptake and use of research by science users, and also allows the user to inform the research agenda. Linking science with policy/program decisions is not straightforward and more effort is required to understand this relationship and maximize information flow between users and science producers.

S&T Liaison has been involved in a number of initiatives aimed at strengthening links between science knowledge and policy/decision making. This series highlights these initiatives. This series and other S&T Liaison products can be found at: **www.ec.gc.ca/scitech**

S&T Liaison is a *knowledge translation* and *knowledge brokering* unit. It focuses on customizing and targeting science knowledge to the user audience to improve uptake and utility, and on the development of mechanisms for sustained interaction between science and policy/program to not only "push" knowledge to the correct science user, but to allow the user to inform the research agenda ("policy pull").

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