

Evaluation of Yukon Science Strategy

Overview of the Science Strategy

Purpose of this strategy is to:

- ✓ Establish a long-term approach to the development of science capacity in Yukon
 - ✓ Provide a strategic and integrated approach to aligning Yukon's competing science and associated policy priorities
 - ✓ Enable Yukon science initiatives to be connected to established priorities and goals
 - ✓ Long-term vision is to support the active pursuit, gathering and storage of scientific knowledge so it can be easily retrieved, transferred, shared and used to support evidence-based decision-making (EBDM)
 - ✓ Prior to the Strategy, there was a risk that individual departments were implementing science-related policy and activities that were not only untethered to any core Government priorities but were also possibly duplicative or running counter to other activities taking place elsewhere in Government
 - ✓ Implementation is a shared responsibility – key actors include the ISC, the Executive Council Office, the Office of the Science Advisor, and individual departments
- Released in 2016
 - Strategic framework for integrating and enhancing the efficiency and effectiveness of science activities carried out within Government
 - First all-of-government effort at developing science capacity and providing strategic direction for science activity in Yukon

The Evaluation

- ✓ Government of Yukon intends to complete an evaluation of the Strategy by March 31, 2025
- ✓ Evaluation will assess the:
 - Relevance
 - Resulting outcomes
 - Design of the Science Strategy

Phase 1
(2018-19)

- Develop the evaluation methodology report and workplan

Phase 2
(2019-20)

- Conduct a Baseline Assessment and prepare a summary report

Phase 3
(2024-25)

- Full Evaluation

Methodology for the Baseline Analysis



- **Represents first step in implementing the evaluation framework**
- **Worked with OSA and the ISC and finalizing the methodology**



Implemented a mixed-methods approach:

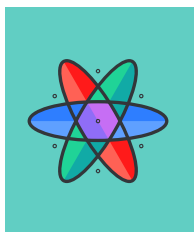
- ✓ Review of available documentation and administrative data
- ✓ Interviews with 20 key informants (10 internal Yukon representatives, 6 external researchers, and 4 First Nations representatives)
- ✓ Survey of 153 internal stakeholders drawn from a wide range of departments within the Government of Yukon
- ✓ Survey of 25 external stakeholders from a wide range of sectors
- ✓ Three focus groups involving 13 individuals, internal and external to the Government of Yukon
- ✓ Two case studies which illustrate some ways in which science is supported, conducted and used in Yukon



Evaluation of Yukon Science Strategy

Major Findings

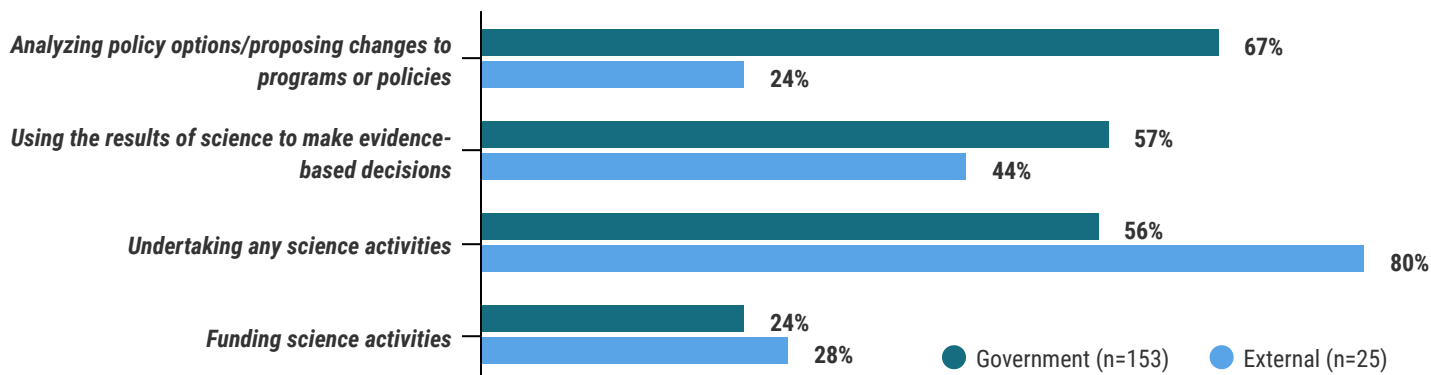
Major Findings 1: Progress in Implementing Evidence-Based Decision Making



Government of Yukon researchers, policy analysts and decision-makers are involved, as performers, users and funders, in a wide array of science-related activities.

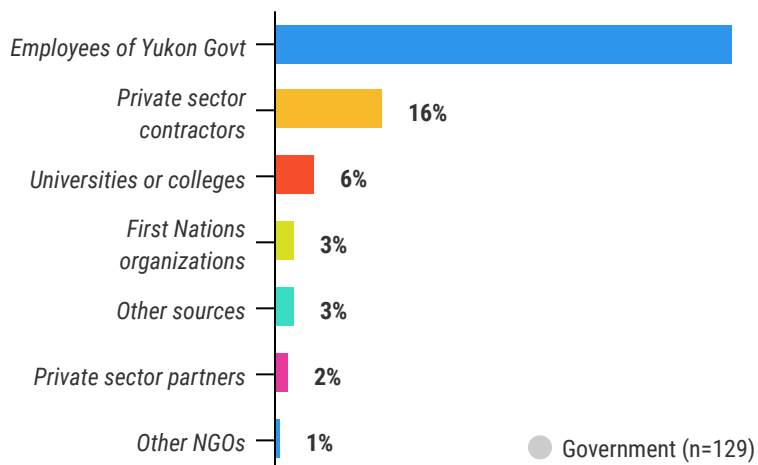
- ✓ Reported involvement in science-related activities in areas as diverse as health, transportation, environment, natural resources, human resources and tourism, often involving multiple disciplines, multiple departments and partners from outside of government

During the past 12 months, have you taken a major role in:

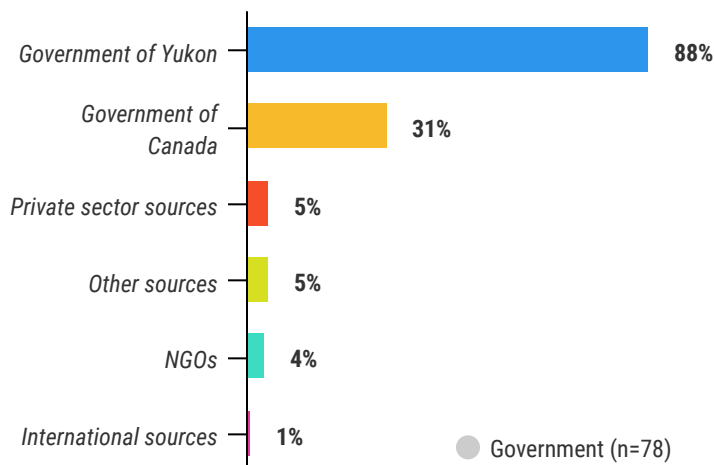


- ✓ **Most of the science-related activities identified by the Government of Yukon representatives were both funded and conducted by the government.**

Who is primarily involved in conducting science funded by your organization?



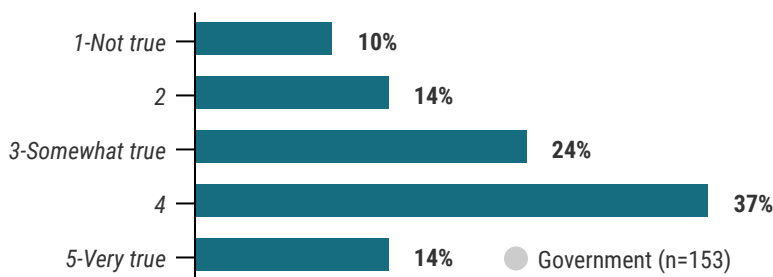
What are or were the primary sources of funding for the project?



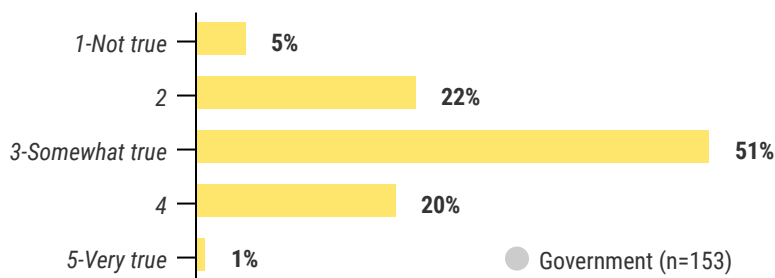
The Government of Yukon has placed increased emphasis on evidence-based decision-making

- ✓ Departmental mandate letters which mention evidence-based decisions, the development of government-wide performance plans, the establishment of an evaluation unit, and the adoption of the Strategy itself all speak to a commitment to accountability and transparency around decisions

Statement: The Government of Yukon is placing a greater emphasis on evidence-based decision-making than it did five years ago.



Statement: Government of Yukon policy is informed by sound science.



However, the extent to which that emphasis has translated into practice varies somewhat across government departments

- ✓ Most representatives agree that there is more discussion and recognition of the value of evidence-based decision-making
- ✓ However, to translate into practice across all departments, more work is needed to ingrain a culture of evidence-based decision-making

Major Findings 2: Barriers to the Implementation of EBDM

Evidence is one consideration, but not the only consideration, that feeds into the decision-making process.

- The need for a quick decision, pressure from interest groups and political realities also influence decisions

Access to evidence can also be a major constraint.

- Issues related to data collection, availability, accessibility, applicability
- 25% of Government of Yukon reps. noted their departments often do not have sufficient access to data or evidence needed to inform decisions

There can also be challenges faced in applying the evidence.

- Very few scientists at the director level
- Lack of understanding of the scientific process
- Limited experience in interpreting scientific results

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Major Findings

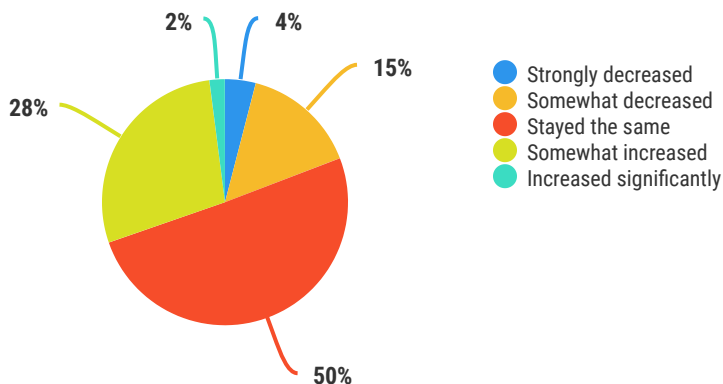
Major Findings 3: Key Gaps and Issues



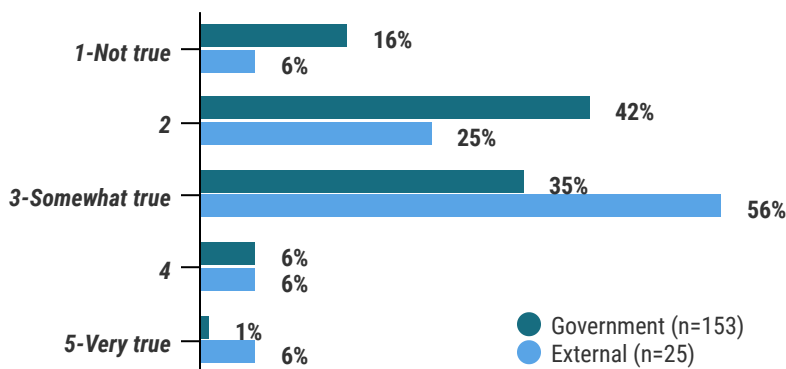
Evidence-based decision-making within the Government of Yukon would benefit from:

- ✓ **Increasing the investment in science-related activities.** Only 2% of Government of Yukon representatives reported that expenditures increased significantly over the past five years. Factors that may constrain expenditures include budget pressures, difficulties in leveraging funding from other sources, and competing priorities.

In comparison to five years ago, would you say that your organization's expenditures related to science have (n=92):

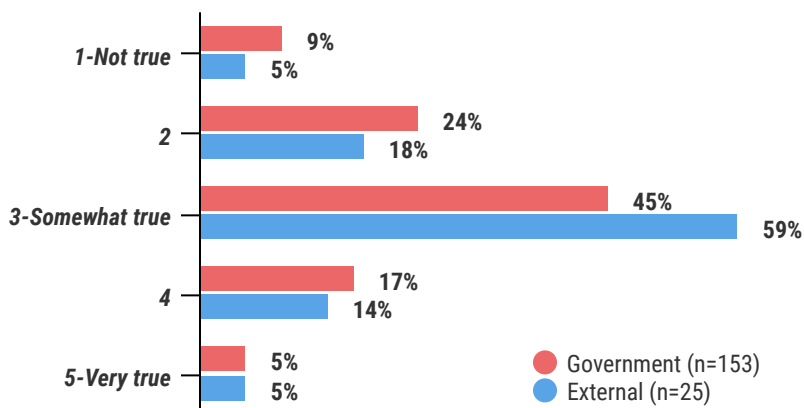


Statement: The level of investment in science and research by Government of Yukon is appropriate given its needs.

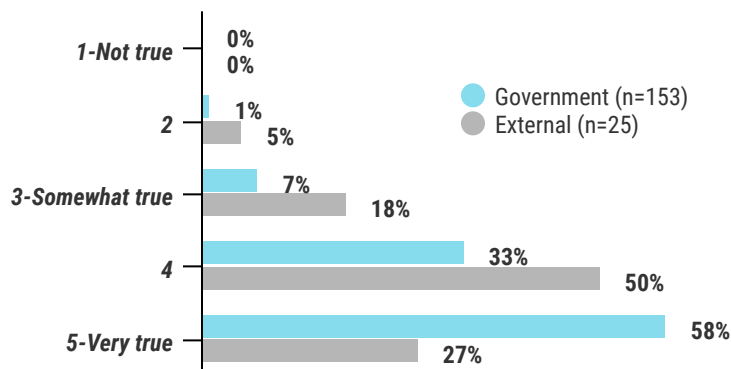


- ✓ **Improving communication, coordination, information sharing and data management** across departments and organizations, as well as improving data standards and scientific information management systems.

Statement: There is a culture of information sharing that facilitates the sharing and distribution of scientific information generated in Yukon.



Statement: There is a need to improve data standards and scientific information management systems so data can be more easily retrieved, transferred, shared and used.



Further developing internal capacity to perform and apply science.

- An important component of building science capacity involves having a strong talent base of science practitioners and professionals in place

Statement: The capacity of Government of Yukon to manage and perform science is sufficient given its needs.



51% says that incorporation of traditional and local knowledge in science is increasing within the Government



Incorporating traditional and local knowledge.

- While progress has been made in incorporating traditional and local knowledge into science and the decision-making progress, more work is required. A key part of that is strengthening relationships with Indigenous governments and communities

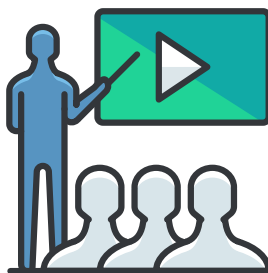
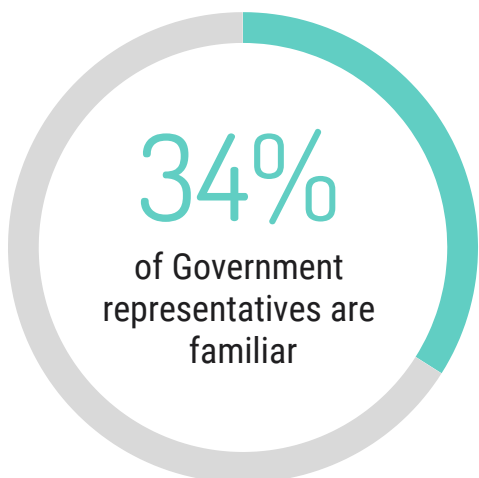
Evaluation of Yukon Science Strategy

Major Findings

Major Findings 4: Need for the Yukon Science Strategy



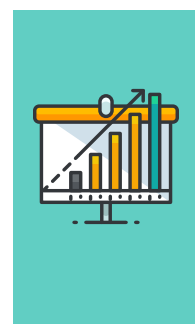
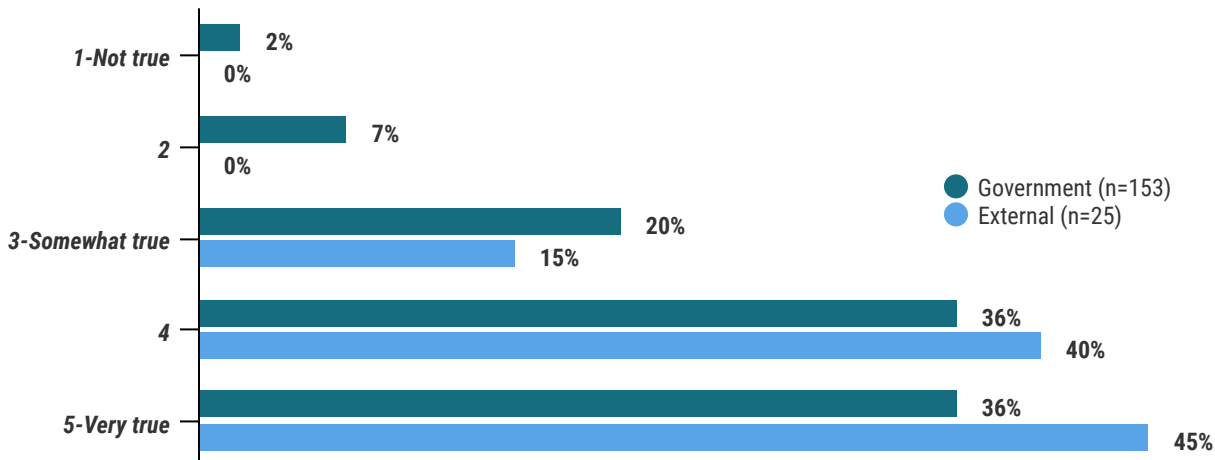
✓ **Familiarity with the Science Strategy varies widely across the government representatives and external stakeholders who were surveyed.**



✓ **There is a strong need for the Yukon Science Strategy.**

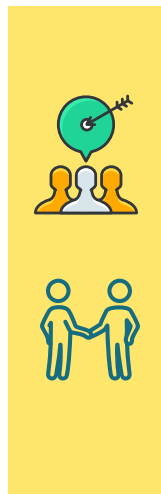
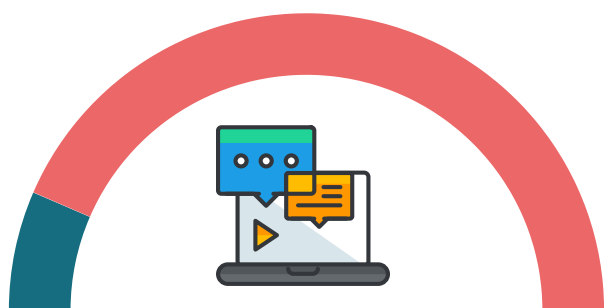
- Most Government of Yukon representatives and external stakeholders, recognize the need for a strategy which works to enhance the efficiency and effectiveness of science activities in order to support evidence-based decision-making.
- The goals of the Strategy align well with the key issues constraining evidence-based decision-making and the priorities for improvement identified by government representatives and stakeholders.

Statement: There is a need for the Yukon Science Strategy.



✓ **The Yukon Science Strategy can play a significant role in promoting and supporting evidence-based decision making in Government of Yukon.**

- The ECO (Executive Council Office), and more specifically OSA, is well-positioned to oversee the Strategy, given the focus on science and the horizontal nature of the strategy (i.e. its application across all departments)
- However, fulfilling that role may require additional funding and some changes to how it is implemented



✓ **Use of the Compendium of Current Research and Monitoring and participation in SCOPE and ISC are relatively limited.**

- 9% of Government representatives and 18% External stakeholders have made use of the Government of Yukon's online Compendium of Current Research and Monitoring to access information on research and monitoring activities currently underway at Yukon government and/or supported by Yukon government.

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Examples of Opportunities to Enhance the Strategy

Opportunity #1

Raise awareness of the Strategy

- Familiarity with the Science Strategy varies widely across government representatives and external stakeholders.
- Consideration should be given to re-branding the name and creating a champion responsible for engagement and network development.



Opportunity #2

Establish priorities

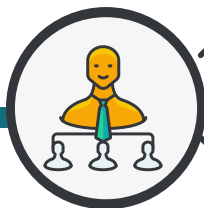
- Rather than pursuing the full, ambitious set of six goals, the OSA and ISC should establish clear priorities regarding its plans on a year-by-year basis.



Opportunity #3

Strengthen the governance structure

- Increasing the resources and impact associated with the Strategy
- Defining a more meaningful role for ISC
- Establishing an external advisory panel of academic, industry and First Nations experts to support the Strategy as well as establishment of a research ethics board for Yukon



Opportunity #4

Facilitate greater information sharing

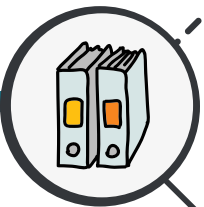
- SCOPe is well received and could be more aggressively promoted to a range of target groups
- Use of Compendium appears low/need to increase the utility of information provided
- Annual "Science in Government" conference
- Promote further use of Open Data Portal
- Ensure research results are publicly available and understandable



Opportunity #5

Facilitate incorporation of traditional knowledge

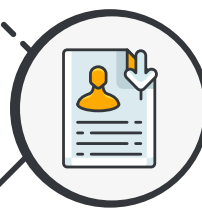
- OSA tasked with further developing an effective approach for capturing and reflecting Indigenous ways of knowing and doing
- Could be supported by providing training on OCAP principles to government employees and assisting communities to expand their capacity to participate in research processes



Opportunity #6

Improve the Scientists and Explorers Act and associated licensing

- Transfer responsibility to the OSA
- Expand the mandate to include Yukon-based researchers
- Revise process to require more meaningful consultation with First Nations where relevant
- Use license data to establish a central database on research permit applications



Opportunity #7

Further ingrain principle of evidence-based decision-making into government processes

- Integrating principle into memoranda to cabinet and the Cabinet Committee on Priorities and Planning (C2P2), decision-templates, mandate letters, and employee performance plans
- Increasing transparency of decisions
- Improving science literacy and understanding of the purposes and processes involved in evidence-based decision-making via case studies, promotional materials, and training



Opportunity #8

Invest in the supporting infrastructure and data standards

- Systems, processes, standards and tools related to the collection, storage, protection, and reporting and data, artifacts and other materials



Opportunity #9

Increasing access to peer-reviewed journal articles

- Better position those designing and implementing research projects to build on existing knowledge base

