

**Successfully Curating Long-Term Goals: Advice and Insights from Those  
Who Practice and Use Strategic Foresight in A Canadian Government  
Context**

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# EXECUTIVE SUMMARY

## INTRODUCTION

Strategic foresight is the practice of long-term thinking that considers alternative plausible futures with the aim of successfully curating long-term organizational goals. When employed successfully, strategic foresight can improve resilience against disruption, create a clearer vision for the organization and strengthen strategic policy and decision-making. It is a relatively new discipline within the government context and, as a result, there is very little information in terms of best practices or success factors that foresight practitioners can use to guide their practice. Integrating strategic foresight into a complex organizational structure such as a government can be challenging, and without information on success factors, foresight practices are often ad hoc, lacking in necessary expertise and are isolated from central strategic functions in the organization. As a result, strategic foresight functions in government are not always as successful as they could be.

The purpose of this report is to identify factors that can help support a successful strategic foresight practice within a Canadian government context, as well as possible measures to assess the achievement of that success. In particular, this project focuses on provincial and federal jurisdictions within Canada, as the researcher was unable to find any evidence of foresight activity at the municipal government level. The central question that framed this research is: Based on the insights, opinions and experience of those who practice strategic foresight within a Canadian government context, what are some key factors and measures that can support a successful government-based strategic foresight practice?

## METHODOLOGY AND METHODS

This project incorporated a combination of primary and secondary qualitative research. Information was collected through a review of relevant literature and through key informant interviews with strategic foresight practitioners who work in a federal or provincial Canadian government organization. Attempts to reach foresight practitioners in every Canadian province were made, as well as practitioners at the municipal level. However, the researcher was only able to communicate with, and interview, participants in the federal government, the Government of Alberta and the Government of Ontario.

The literature review for this project focused on factors that enhance or restrain a successful strategic foresight practice, as well as possible factors that can be used to measure success. The key informant interviews also focused on these three factors, with participants being asked open-ended questions about enhancement, restraint and measurement of foresight success in their organization. To ensure that the interview data was relevant to the project scope and central research question, only practitioners from Canadian governments (federal or provincial) were interviewed. Also, to ensure that the data was comparable, only people who were currently practicing or had previously practiced strategic foresight were interviewed.

Findings from the literature review and the interviews were then compared in order to identify common factors or themes. In both the literature review and interviews, common factors were identified based on volume of consensus (i.e. factors identified by the most interviewees and the largest number of studies). These common factors were then discussed and were used to form the basis of the recommendations.

## KEY FINDINGS

Findings from the literature review and key informant interviews identified seven factors that support foresight success. Based on the research conducted, it seems that some factors are more essential than others in terms of either enhancing or restraining successful foresight. The most essential enhancing factor is support of organizational leadership. This inverse of this factor (lack of leadership support) also seems to be the primary restraining factor.

Due to the highly hierarchical nature of government organizations, government-based foresight is usually not successful if it is not supported by organizational leaders.

Integration of strategic foresight with other strategic functions was identified as a secondary enhancing factor, meaning that it is highly important to foresight success but was partially dependent on the existence of leadership support, and so is less essential. Five additional supporting factors that enhance foresight success but are not essential were also identified. Two of these factors were also deemed success measures because they can also be used to measure the degree to which a foresight function is successful. The five supporting factors that were identified are:

- Clear communication
- Strong networks and engagement
- Strong foresight capability and expertise
- High sustainability of foresight function (also success measure)
- High use of foresight outputs (also success measure)

## RECOMMENDATIONS

Based on the seven success factors identified through the literature review and the interviews, a series of recommendations were developed for the project clients at Alberta Environment and Parks. The initial recommendation is to assess the current level of foresight success so that interventions can be effectively targeted. Under each identified success factor, several recommendations are provided so that, based on the results of the assessment, the clients can then select where efforts need to be most urgently focused. Suggested actions include identifying an executive-level foresight champion, educating senior decision-makers about foresight, establishing two-way training for foresight and policy communities, and implementing a quarterly survey on use of foresight outputs. When combined, these recommended activities should help to strengthen the clients' strategic foresight practice and help them achieve sustained success.

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# 1.0 INTRODUCTION

## 1.1 DEFINING THE ISSUE AND SCOPE

Strategic foresight is the practice of long-term thinking that considers alternative plausible futures with the aim of successfully curating long-term goals and achieving organizational resilience. In the private sector, and in the military, strategic foresight has been in use for several decades (Dreyer and Stang, 2013). During this time, there has been a wealth of information generated on the value of strategic foresight and on how to practically apply foresight tools and methodologies (Calof & Smith, 2010). However, there has been very little research or literature on key factors for achieving a successful strategic foresight practice (2010). This is especially the case in government, where strategic foresight is a relatively new component of strategy development and planning (Jamala, 2010). The lack of research into success factors for foresight has meant that many government-based foresight practitioners are left without much guidance on how to achieve or measure success. As a result, foresight functions are often ad hoc, lacking in necessary expertise, and disconnected from other strategic functions within the organization (Calof & Smith, 2010). This has impacted the quality of advice and information that is generated by strategic foresight and has undermined the value and legitimacy of strategic foresight outputs (Rijkens-Klomp & Van De Duin, 2014). It has also created frustration amongst those who practice strategic foresight since a lack of best practices to follow means that foresight initiatives are often prone to failure (Calof, Miller and Jackson, 2012).

The purpose of this research is therefore to expand this small body of literature on success factors in government-based strategic foresight, with a particular focus on governments in Canadian federal and provincial jurisdictions. Similar to previous research on success factors in government-based strategic foresight (see Calof and Smith, 2010; Popper, Georghiou, Keenan & Miles, 2010; Dreyer and Stang, 2013; Cox, Swift & Rhisiart, 2015), this research is intended to guide government-based foresight practitioners in their practice and help them identify success factors by which they can identify and measure the achievements of their own practice. However, unlike previous studies, this research is focused exclusively on foresight being conducted within a Canadian government context. In particular, the research is focused on provincial and federal governments, due to the fact that the researcher was unable to find any evidence of foresight activity at the municipal government level. The reason for this scope is that the Canadian government context is unique in its structure as well as its decision-making, planning and policy processes (Calof & Smith, 2010). Although general insights and success factors from other jurisdictions may be helpful, more specific information on key success factors will vary between jurisdictions, due to the specialized nature of each country/region's government structures (Rijkens-Klomp & Van Der Duin, 2014). In order to develop advice and recommendations that are specifically applicable and relevant to the project clients, research on success factors from other jurisdictions has been supplemented with key informant interviews with those who practice and use strategic foresight within a Canadian government context.

Strategic foresight is, by nature, a collaborative and participative discipline that is constantly evolving based on the practice of sharing insights, discoveries and lessons-learned (Popper, Georghiou, Keenan & Miles, 2010). It is also often complex and difficult to implement in organizations such as governments that have rigid decision-making and planning processes but are also constricted by short-term budget and electoral cycles and prone to continually changing priorities and mandates (Leigh, 2003). Therefore, government-based foresight is highly unique, and the people who can offer the best advice on what makes (or breaks) a successful strategic foresight practice are those who practice it within the same unique context (Dreyer and Stang, 2010). This distinction was particularly important to the project clients, who are looking to gather specific and practical advice from those who practice in similar circumstances.

## 1.2 PROJECT CLIENTS

The clients for this research project work in the Innovation and Integration Services unit of Alberta Environment and Parks (AEP). Christy Benedict works as an Integration Coordinator and Shauna Kryba is the Director of the Innovation and Integration Services unit. The mandate of the Innovation and Integration Services unit is to “work[] collaboratively within the department, with other [Government of Alberta] ministries, as well as other jurisdictions to improve understanding of complex problems and the potential implications to Alberta, and AEP’s mandate” (Alberta Environment and Parks, 2016).

This research is important to Ms. Benedict and Ms. Kryba because they are high-performing strategic foresight practitioners who are continually seeking to improve their practice, and increase the value of the information and outputs that they produce through foresight exercises. As part of their interest in continual improvement, they felt that insights from other practitioners on how to achieve success could help to improve their own practice. In addition, they felt that an overview of success factors and measures could help them assess the value that foresight adds to their organization, and determine how resilient it will be in the face of organizational change.

## 1.3 PROJECT OBJECTIVES, RESEARCH QUESTION, AND KEY DEFINITIONS

**Main research question:** Based on the insights, opinions and experience of those who practice strategic foresight within a Canadian government context, what are some key factors and measures that can support a successful government-based strategic foresight practice?

The purpose of this research is to obtain insights and advice on key enhancing and restraining factors in government-based strategic foresight, as well as possible measures to assess the achievement of success. This information was gathered from those who practice strategic foresight or use strategic foresight outputs in Canadian government organizations, as well as from a review of relevant literature. Relevant insights and advice were then developed into a set of recommendations that can guide the project clients and help support the maintenance of a successful practice.

To ensure clarity, several key concepts that underpin this research are defined below:

**Strategic Foresight:** For the purpose of this research, Richard Slaughter’s definition of strategic foresight is used:

“Strategic foresight is the ability to create and maintain a high-quality, coherent and functional forward view, and to use the insights arising in useful organisational ways. For example to detect adverse conditions, guide policy, shape strategy, and to explore new markets, products and services. It represents a fusion of futures methods with those of strategic management” (Slaughter, 1999, p. 287)

This definition is aligned with the strategic foresight that the project clients practice. However, it should be noted that interview participants were also asked to provide their own definition of strategic foresight, in order to determine how closely their practice reflects Slaughter’s definition and to ensure that those interviewed are actually practicing the type of strategic foresight that would be relevant to the project clients.

**Canadian Context:** Either a federal or provincial jurisdiction within Canada.

**Government:** A ministry, department, board, agency, commission or other direct or arms-length public sector government entity.

**Strategic Foresight Success:** A successful strategic foresight practice is defined as one in which outputs generated by strategic foresight processes are used to inform decision-making, planning and/or policy development processes and are viewed as a valued component of strategic processes within the organization (Calof and Smith, 2010).

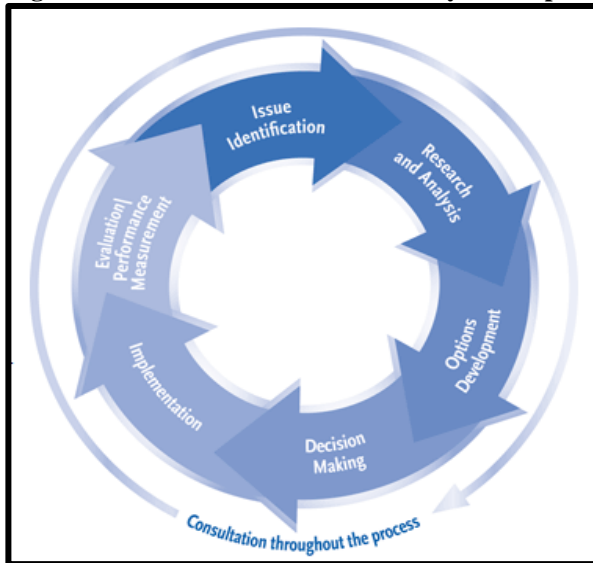
**Strategic Foresight Outputs:** Outputs from a strategic foresight exercise are defined as both tangible outputs such as a strategy, scenario or recommendations, but also intangible outputs such as knowledge, insights, greater awareness, intelligence, and strategic capacity (Voros, 2003).

**Planning:** Any organizational planning exercise including strategic planning, operational planning and business planning.

**Decision-making:** Any key decision made by executive levels of government that impacts policy development, planning, organizational direction, and/or prioritization.

**Policy Development:** For the purpose of this research project, the concept of policy development is based on the Government of Alberta’s policy development cycle (Figure 1).

**Figure 1: Government of Alberta Policy Development Cycle**



Copyright, Government of Alberta, 2015. Figure obtained from Government of Alberta Policy InSite website at: <https://excintapps.alberta.ca/policyInsite/3.cfm>

## 2.0 BACKGROUND

### 2.1 BRIEF HISTORY OF STRATEGIC FORESIGHT

The term foresight was originally used by author H.G. Wells during a broadcast for the BBC in 1932 (Kuosa, 2011a). Wells was advocating for the establishment of “Departments and Professors of Foresight” to support “a process of visioning alternative futures through a combination of hindsight, insight and forecasting” (2011a). The first systematic and strategic use of foresight as a process to engage with multiple plausible futures has its origins in military science and technology, and many scholars trace its official conception to the United States military, in particular the Research and Development (RAND) corporation in the 1940s and 1950s (Kuosa, 2011b). This was also the first time that the use of foresight and scenario development was applied to the realm of policy (Berze, 2014).

By the 1970s, global phenome such as the oil crisis were propelling private sector organizations like Royal Dutch Shell to adopt foresight as a method of achieving resilience to market uncertainties and as a way to obtain competitive advantage in highly volatile markets (Berze, 2014) (the Shell Scenarios are still the best known and most well-regarded example of private sector strategic foresight). As recognition of the complexity and uncertainty of societal change grew, the use of foresight throughout both public and private sector organizations increased, with

numerous countries throughout Europe and Asia applying foresight to public and private policy challenges (Jamala, 2010).

Throughout the late 1980s and onward, foresight began to “gain specific reference to approaches to informing decision-making, by improving inputs concerning the longer-term future and by drawing on wider social networks...To specify the approach of foresight, we can say that it attempts to become more systematic, logical, participatory and planning or management oriented” (Kuosa, 2011a, p. 6). Foresight also became a more established feature of strategic planning, decision-making and policy development in many government organizations, as technological innovations increased by leaps and bounds and governments attempted to grapple with the public policy implications of these advancements (Berze, 2014). However, due to its vast proliferation, and its application to, and within, many contexts, strategic foresight was also becoming more complex and attempts to systematize it were not always successful. Often its use and implementation was sporadic and foresight functions often waxed and waned. As Berze (2014) explains: “Foresight, especially after the 1990s, is like a complex ecosystem...As the landscape evolves, organizations rapidly form, change and die, terms proliferate and create ambiguity, methods emerge and fall out of common use only to get resurrected elsewhere” (p. 2). It is in this context that the use of strategic foresight in the Canadian government began to be formally implemented.

## 2.2 STRATEGIC FORESIGHT IN THE CANADIAN FEDERAL GOVERNMENT CONTEXT

Within the sphere of Canadian government and public policy, strategic foresight has only recently been employed in a systematized way (Dreyer & Stang, 2013). At the federal level, strategic foresight has been a fixture in the Canadian Armed Forces for several decades, due to its large-scale procurement activities which require a strong understanding of future security needs (2013). The necessity of anticipating, and planning for, emerging security threats has also given foresight a strong level of credence and use within the department (2013). As a result, the Canadian Armed Forces has a well-resourced and highly integrated foresight function that has produced a high volume and quality of foresight over the years.

The other highly successful and well-regarded foresight function within the federal government is Policy Horizons Canada (or Policy Horizons). This federal organization is described as “a foresight and knowledge organization within the federal public service” (Policy Horizons website, 2016). Reporting to a panel of Deputy Ministers, Policy Horizons is a central foresight body that produces reports and insights on “emerging changes in society, economy, environment, governance and technology in Canada and abroad” (2016). Members of Policy Horizons are also responsible for foresight capacity and training within the federal government and are tasked with promoting workplace innovation through a series of facilitation techniques and toolkits (2016). This centralized model of foresight seems to be working well and the Policy Horizons team has produced many foresight products that are well-regarded both within Canada and in other countries.

For the most part, however, foresight in the federal government context has been implemented in an ad hoc manner, usually within each individual ministry or department (Dreyer & Stang, 2013). In many cases, strategic foresight as a fully developed process has not been implemented, and instead foresight tools such as horizon scanning or trend mapping have been applied to individual projects, processes or initiatives (Calof & Smith, 2010). According to several federal foresight practitioners interviewed for this project, one encouraging sign is that all federal departments are now required to produce a yearly environmental scan. While environmental scanning is only one tool of strategic foresight, the fact that it is now a mandated requirement across the entire federal government system suggests a desire for a more coordinated and formalized understanding of the broader context.

Nonetheless, strategic foresight faces an uncertain future within the federal government, with many of the concerns around sustainability still relevant today. Many of those interviewed for this research project reported that they felt uncertain about the future of their foresight work and questioned whether foresight could be maintained with any integrity over the long-term.

## 2.3 STRATEGIC FORESIGHT IN THE GOVERNMENT OF ALBERTA

Strategic foresight as a fully-developed strategic function is also a fairly recent phenomenon within the Government of Alberta (GoA). Although elements of foresight such as environmental scanning and trend analysis have been fixtures for several decades, it has only been within that past decade that foresight has been more firmly established within organizational structures. Even within this time, support for strategic foresight within the GoA has been mixed. In 2006, the Alberta Research Council (now Alberta Innovates Technology Futures) proposed a plan to increase foresight capacity in the Alberta government. As a result of this proposal, a Chair of Foresight was established with the mandate to “engage pre-eminent thinkers from across Canada and around the world to define issues where the Alberta Research Council can strengthen its role as an agent for economic development for Albertans” (Alberta Innovates Technology Futures website, 2007). However, this role was vacated in 2010 and never re-filled.

Within the past few years, strategic foresight within the GoA has experienced a renaissance of sorts. There are new foresight units currently being established within many ministries, including Advanced Education, Indigenous Relations and Alberta Justice and Solicitor General. In many cases, foresight functions are being set up to replace the now-dismantled foresight work done by the Alberta Government’s Natural Resource and Energy pod and the Families and Communities pod. These pods were comprised of ministries with similar or complimentary portfolios and mandates. During their existence, they served as the coordinating mechanism for several cross-ministry foresight exercises. They were dismantled under the previous Conservative leadership, and so far have not been replaced by anything else. Additional foresight capacity in the GoA includes a Strategic Foresight Community of Practice, which functions as an internal networking, capacity building and information-sharing mechanism for foresight practitioners across the GoA. As well, the Strategic Energy Secretariat’s CoLab has been created as a dedicated space for foresight and other strategic design activities.

However, at the same time that the GoA is undergoing significant growth in foresight capacity, Alberta is also experiencing an extended economic downturn. Oil prices have plummeted and government revenue streams have been adversely impacted (Alberta Budget, 2015). Furthermore, the Alberta New Democratic Party is now in power after decades of Progressive Conservative leadership, signalling a significant change in political values, and philosophy of governance (Mason, Globe and Mail, 2015). All of these changes represent a time of significant change and uncertainty for many government functions and structures, including strategic foresight. While most strategic foresight areas have remained insulated from any direct changes, organizational restructuring in several GoA ministries has created some concern about the sustainability of internal foresight capacity. At this stage, organizational restructuring is ongoing and it is unclear to what extent foresight groups/areas within restructured ministries will be impacted.

### Figure 2: Overview of Strategic Foresight Capacity in the Government of Alberta (GoA)

**The Strategic Foresight Community of Practice** aims to facilitate the sharing of ideas, best practices and current initiatives with community members across the GoA.

**Alberta Energy’s Design CoLab** is a GoA-wide resource and has successfully provided strategic support to a large number of strategic foresight projects, strategies and initiatives across the GoA.

**Alberta Environment and Parks** has a strategic foresight team housed within the Innovation and Integration Services branch. Their work is used to inform the ministry Business Plan and also feeds into their Enterprise Risk Management system.

**Alberta Agriculture and Forestry** is in the process of building a strategic foresight team. At this stage, staff are conducting horizon scanning rather than full foresight, but are planning to build foresight capacity.

**Alberta Health** is currently building strategic foresight capacity within the ministry, including the recruitment of a designated team of trained foresight strategists.

**Alberta Justice and Solicitor General** is training staff in strategic foresight.

In 2010, the Strategic Foresight unit within AEP's Strategy Development and Foresight Branch was established with the mandate to support the ministry and clients in identifying complex issues and challenges, as well as analyzing impacts and developing solutions to these challenges. Some of the Strategic Foresight unit's key functions were to:

- Establish forums, processes and other opportunities to tap into global and local strategic resources and research
- Scan various intelligence and information platforms to identify and analyze how global and local signals, trends and drivers may impact the Government of Alberta and the ministry (horizon scanning)
- Develop a cross-ministry network to work on foresight projects utilizing various methodologies and tools (Strategic Foresight Community of Practice)
- Produce meaningful information and insight to inform the development of strategic intent and priorities and, in turn, heighten the relevance and impact of the department
- Identify opportunities, points of influence and possible risks, improving the department's likelihood of meeting short and long-term priorities.

The Strategic Foresight unit began with two full-time employees in 2010 and grew to five full-time employees by 2013. Many foresight projects and design initiatives were undertaken by this unit in the past few years, both with other ministries in the Government of Alberta and within AEP. Some of these projects include:

- Social Licence
- Sustainable Prosperity
- Environmental Innovation
- Alternative Futures
- Literacy
- Green Economy
- Climate Change Adaptation

A range of foresight tools, processes and methodologies were used for each project including scenario development, backcasting, trend analysis, systems design, futures wheel, and many others (see Appendix A for more detailed description of specific strategic foresight methodologies). This work has been well-received across the Government of Alberta.

In 2016, AEP was restructured, and the Strategic Foresight unit was moved into the newly created Innovation and Integration Services unit. Under this new unit, members of the Strategic Foresight unit have received new job titles which do not include the words "strategic" or "foresight". Likewise, the new mandate of the unit does not include any reference to strategic foresight. However, strategic foresight is still being practiced within the unit, and work on foresight projects such as the Green Economy is ongoing.

## 4.0 LITERATURE REVIEW

### 4.1 INTRODUCTION

The research for this project consists of a literature review and key informant interviews with strategic foresight practitioners in government roles across Canada. The purpose of the literature review is to inform the conceptual framework of the research, as well as to provide a foundational understanding of the definitions of foresight and the processes that shape it. An overview of the key advantages and potential limitations that strategic foresight can provide to a government organization is also included. Following this, an analysis of the key differences between private and public sector foresight is included to highlight how government-based foresight is unique and to provide a justification for the exclusively government-based focus of this research. Finally, the conceptual framework for this research project is discussed, based on the three key themes identified through the literature review.

## 4.2 MAIN THEMES OF THE LITERATURE REVIEW

### 4.2.1 WHAT IS STRATEGIC FORESIGHT?

There is no single, universal definition of strategic foresight but there is a general consensus among foresight scholars and practitioners that strategic foresight is the melding of two distinct disciplines: futurology (or futures studies) and strategy (Kuosa, 2011a; Jemala, 2010; Habegger, 2009). There are many good definitions of strategic foresight, and numerous authors and organizations have provided their interpretations of what strategic foresight is and the purpose it serves. Aside from Slaughter's definition, which is being used to frame this research, three definitions are provided in Figure 3 below which illustrate how, although expressed differently, there is a fair level of consensus on strategic foresight's role as a tool for long-term strategic thinking.

**Figure 3: Sample Definitions of Strategic Foresight**

*Strategic foresight aims...to develop a series of plausible futures. Its goal is not to predict the future, or to suggest which direction might be most desirable. Rather, the goal of strategic foresight is to offer insights to decision-makers on how best to prepare for all possibilities, what they might do to shift toward a future they prefer, and how to recognize and adapt to events and trends that may point toward a specific future.*

- **Conference Board of Canada, 2016**

*Identifying and assessing long-term, emerging global trends; connecting them to current challenges to inform policy and draw implications for strategy; and designing innovative strategies to reach desired future scenarios.*

- **Atlantic Council, 2016**

*Foresight is a participative approach to creating shared long-term visions that inform short-term decision making processes.*

- **European Foresight Platform, 2010**

Strategic foresight is the activity of planning for the future. It is both a methodology and a way of thinking that allows us to plan while looking forward (Bootz, 2010). Part of the premise of strategic foresight is that future outcomes can be influenced by our choices in the present. Foresight is not the same as forecasting, although the two are sometimes conflated (Schmidt, 2015). Forecasting tries to remove uncertainty from the future by predicting what will happen based on the likelihood of current and past events (United Nations Global Centre for Public Service Excellence, 2014). In contrast, foresight acknowledges that the future is ambiguous and aims to prepare decision-makers for how the future may change.

The benefit of strategic foresight is that it “enables participants and stakeholders involved in a policy decision to engage and deal with the complexity and uncertainty of the environment in which they operate. It creates an explicit and otherwise overlooked step in the strategic planning process where decision-makers’ assumptions about the future can be challenged” (United Nations Global Centre for Public Service Excellence, 2015).

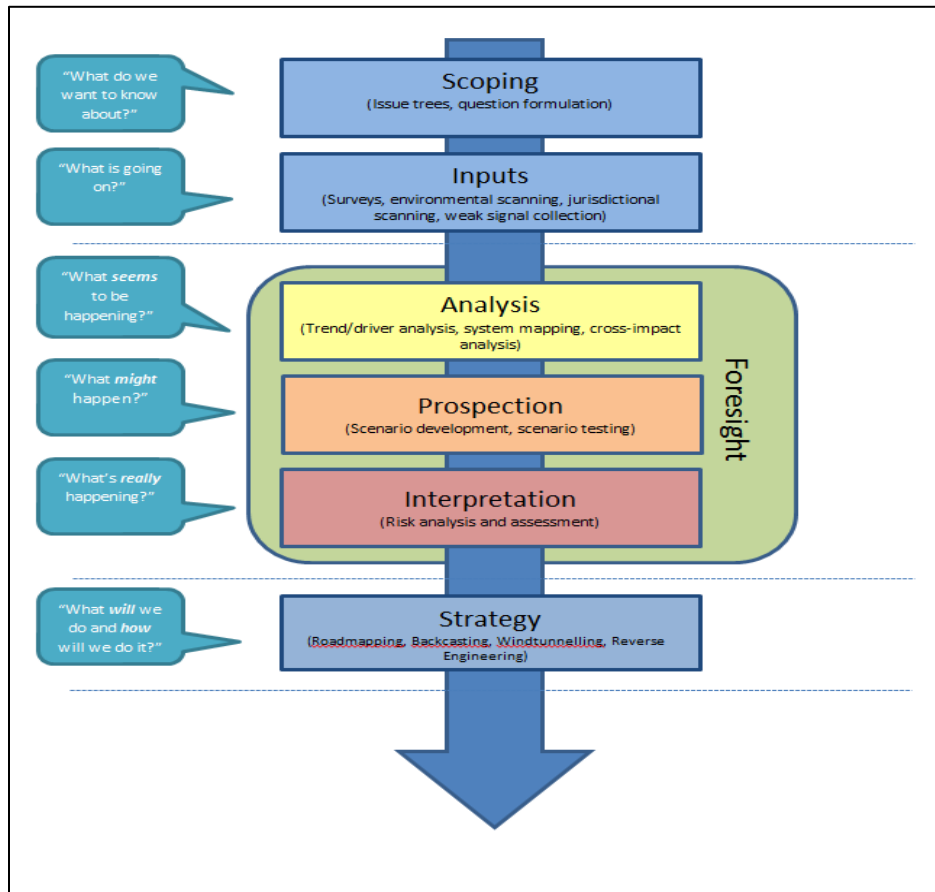
The problem with the future is that it cannot provide us with any reliable evidence, data or predictability. A strategic foresight process can help address this issue and answer the question: “Where are we and where do we want to go” (United Nations Global Centre for Public Service Excellence, 2015, p. 7). It does so “in a way that ensures that thinking about the future is not based on ‘blue skies’ or invented creative thinking, but instead is systematic, explicit and evidence-based” (p. 7).

### 4.2.2 WHAT ARE THE STAGES OF THE STRATEGIC FORESIGHT PROCESS?

There has been a great deal of research conducted into the various methodologies and tools that comprise a strategic foresight process (see Voros, 2003; Conway, 2006; Bishop & Hines, 2007; Kuosa, 2011a, 2001b; Giaoutzi & Sapio,

2013) which has produced a large variety of terminology, as well as prescribed approaches. Vast arrays of foresight tools are now available for use, and each foresight practitioner or researcher seems to recommend a different combination. Even in terms of foresight processes, there is a high level of discrepancy. As a result, it can be confusing to discern which tool and methodology is best. It is for this reason that Voros' generic process has been selected to illustrate the basic stages of a strategic foresight process or exercise. Each step is highly generalized and can incorporate the use of numerous methods and tools. For a more complete list and description of commonly used foresight tools, please see Appendix A.

**Figure 4: A Generic Strategic Foresight Process (Adapted from Voros, 2003)**



Voros, J. (2003). *A Generic Foresight Process Framework*. *Foresight* 5(3), p. 14

Strategic foresight is an emerging discipline, and so it is constantly evolving (Berze, 2014). While there are some common methodologies used by most foresight strategists, there is no standardized set of methods that are required for a strategic foresight process. Rather, foresight methodology contains a suite of tools that a strategist can select, based on the nature of the foresight topic, exercise and participants (Kuosa, 2011b). However, there are some basic steps that a foresight process might follow. They are outlined below:

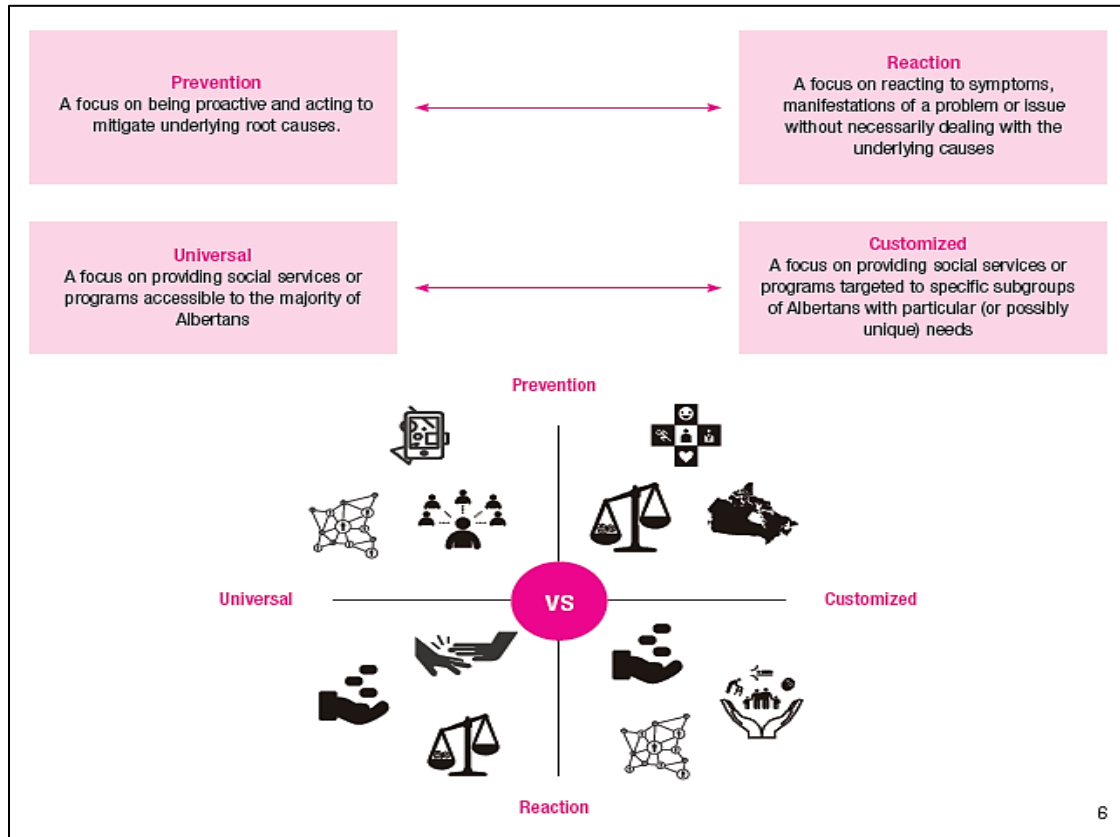
**Scoping:** Like most research processes, strategic foresight is driven by a central question that is used to frame the process and give focus to the foresight exercise (Giaoutzi & Sapio, 2013). This question can be extremely specific (for example, *How might [X organization] employ social licence and engagement to achieve sustainable prosperity by 2042?* (example drawn from the Government of Alberta's Natural Resources and Energy Pod's Sustainable Prosperity strategic foresight project)), or broader (for example, *What are the emerging shifts and changes that will most directly impact [X organization] and its system partners over the next 20 years?*). In strategic foresight, the central question is always about what may possibly occur in the

future, how the organization might strategically plan for those possibilities, and how it might leverage those possibilities to achieve a desired future state (Voros, 2003). Therefore, strategic foresight helps to frame issues, clarify the interdependencies and causalities between these issues and identify important intervention points where change can be enacted (Rejeski & Wobig, 2002).

**Inputs:** Once the central question has been developed and has set the scope for the foresight exercise, then a foresight practitioner might begin to gather signals, trends and drivers that relate to this central question (Kuosa, 2011b). This information-gathering exercise is both externally and internally focused, and can include how the organization has historically performed in relation to the identified issue, and what outcomes it has so far achieved in reaching the desired future state (Conway, 2006). This internal scan helps identify the organization's state of readiness in achieving the change necessary to reach the desired future state (2006). External scanning, on the other hand, collects information on what is occurring in other jurisdictions as well as the home jurisdiction (Grim, 2009). It is also important to note that strategic foresight scanning exercises incorporate weak signals, which is part of what sets foresight scanning apart from regular environmental scanning conducted by organizations (Fuerth & Faber, 2012). Weak signals are signs of new or emerging issues that often have low visibility, which is why they are often missed in traditional scanning exercises (2012). Because they represent highly emergent ideas, issues or trends, their meaning and impact is often ambiguous (2012). However, these types of signals are vital to a foresight exercise because they represent exactly the types of disruption and complexity that organizations are unprepared for and that foresight is intended to protect against (2012). Beyond weak signals, information on the evolving needs, attitudes and expectations of stakeholders should also be collected to inform understanding of stakeholder readiness to any plans or policies developed (Bishop & Hines, 2006). This usually means that the foresight exercise will involve some participatory elements, where stakeholders are engaged and encouraged to provide their thoughts and insights (Weigand, Flanagan, Dye & Jones, 2014).

**Analysis:** All of the information collected during the input phase might then be analyzed using techniques such as trend/driver analysis and cross-impact analysis (Voros, 2003). In some foresight practices, the information drawn from the analysis can then be used to develop the critical uncertainties that will frame possible future scenarios. Critical uncertainties are "the impactful and highly uncertain systemic conditions that could define change in the future" (Veale, 2014, p. 11) (see Figure 5 for an example of critical uncertainties). Often critical uncertainties are diametrically opposed, in order to represent a continuum of possibility (2014).

**Figure 5: Critical Uncertainties from the Government of Alberta’s Families and Communities Deputy Minister Discussion Group Strategic Foresight Project on the Sustainability of Alberta’s Social Programs by 2035**



**Prospection:** Once the critical uncertainties have been identified, the possible scenarios are developed. Scenarios are “parallel stories about how the future will unfold” (Bezold, 2010, p. 1514) and are aimed at making sense of uncertain issues, and clarifying strategic options for decision-makers (2010). Scenarios provide a non-threatening environment for exploring multiple perspectives, creating a shared language and leading to understanding and trust (2010). This is the stage at which backcasting (the process of working backwards from an imagined preferred future and identifying and describing the necessary steps to go from ideal to current state) can also be used (Conway, 2006).

**Interpretation:** Through exploration of scenarios, the various risks and opportunities of each possibility can be identified and analyzed (Kuosa, 2011a). This allows foresight strategists to understand how their organization might respond to a number of potential threats and opportunities. Exercises such as causal layered analysis and systems mapping are often used during this stage (Voros, 2003).

**Strategy:** From there, forward actions can be identified and built into a strategy that takes into account not only current threats and opportunities, but also those that may plausibly arise in the future (Voros, 2003). There are several ways to do this (e.g. windtunnelling, backcasting, reverse engineering, roadmapping), but each approach requires agility and should lead to a strategy that is resilient and responsive to all the potential scenarios (Habegger, 2010). This strategy should not only devise ways to respond to existing changes but build plans for how the organization might respond to changes that may emerge in the future.

The final key component to foresight’s success is implementation of the strategy. While foresight provides insight into future trends and impacts, those insights are only valuable if they are then translated into action (Da Costa,

Warnke, Cadnin & Scapolo, 2008). This can be through incorporation into business planning or policy development or through the implementation of a stand-alone strategy.

It should also be stressed that strategic foresight is not always a linear process (Berze, 2014). Sometimes one part of the process necessitates a change, or a revisiting of another part of the process. For example, a signal uncovered during the input stage may lead to a reframing of the central question, and a return to the scoping phase. Foresight is also rarely a closed process (Calof, Miller & Jackson, 2012). Often the insights unearthed through one foresight process lead to questions that drive a new process. In other words, the foresight process often mirrors the complexity of the issues it addresses. Therefore wise foresight strategists know that, when planning a foresight process, some flexibility must be built in to allow for change and disruption.

### 4.2.3 WHAT ARE THE KEY ADVANTAGES AND POTENTIAL LIMITATIONS OF STRATEGIC FORESIGHT?

Like with strategic foresight methodologies, there has been a significant amount of research conducted on the benefits and drawbacks of strategic foresight. This type of information can be particularly helpful when advocating for the implementation of a strategic foresight function. According to most of the literature surveyed, the advantages that strategic foresight can provide for an organization significantly outweigh the potential drawbacks. Nonetheless, an overview of both is important in understanding what foresight can offer and why it has been adopted (and sometimes abandoned) by so many government organizations.

#### 4.2.3.1 KEY ADVANTAGES

Much of the literature on foresight focuses on the potential benefits that it can bring to an organization. It is important to note that most discussions on the benefits of foresight are predicated on the assumption that strategic foresight is already successful in the organization. As some authors (Calof & Smith, 2010; Dreyer & Stang, 2013; Cox, Swift & Rhisiart, 2015) point out, it is only when the foresight function is successful that these benefits become apparent. Considering how many potential advantages foresight can offer, and the tangible value that it can provide over the long-term, ensuring and enhancing success becomes even more important. The most notable advantages include:

**Increased engagement/collaboration:** Strategic foresight is, by nature, a collaborative process that involves the perspectives and participation of a broad variety of people (Weigand, Flanagan, Dye & Jones, 2014). Incorporating an array of participants not only offers a more holistic and robust understanding of trends and possible futures, but it can help to build stakeholder investment and support for strategies that result from, or are informed by, strategic foresight exercises (2014).

**Increased resilience:** Strategic foresight allows for the identification and assessment of possible threats or barriers, and can help with the preparation of plans to mitigate these threats/obstacles while supporting the ongoing monitoring of early warning indicators (Schmidt, 2015). There is also the advantage of creating a greater understanding of, and appreciation for, the complexity of the world in which we operate and the fact that our actions today impact our outcomes tomorrow. This gives an organization a greater agility, and allows for greater responsiveness to unexpected events (Leigh, 2003). It also allows for the creation of sustainable strategies that continue to achieve results long into the future.

**Building a shared vision:** Foresight is a highly participatory process that offers a way to increase engagement around ministry goals and visions (Fobé & Brans, 2011). As it requires broad input into what the future might look like (and how this future might shape, and be shaped by, the organization), there is the opportunity to create a shared vision and shared support around how the organization could look in the future and, in turn, what it should look like now (Bootz, 2010).

**Changing mindsets and challenging biases:** Strategic foresight is a systematic process by which differing perspectives can be brought together. Incorporating a cross-section of participants can be an effective way to avoid group think and expert bias (Weigan, Flanagan, Dye & Jones, 2014). It can also help to draw those who are invested in current structures and frameworks away from their assumptions (Bootz, 2010). If too many participants have similar mindsets then there is a risk that they may miss outlier information that is beyond their realm of knowledge/expertise (Kuosa, 2011b). This in turn could lead to the omission of important and impactful trends and lead the organization in directions that may not adequately meet stakeholder needs.

**Strengthened decision-making:** Foresight is not only about identification of upcoming challenges. It is also about creating strategies to leverage future opportunities. It provides the organization with a view of the future so that decisions can more effectively address the potential pitfalls and prospects that may arrive with this future (United Nations Global Centre for Public Service Excellence, 2014). Foresight also strengthens decision-making because it is sourced from a broad and deep base of evidence (Leigh, 2003). Since it includes information from diverse sources such as media, academic journals, stakeholders, experts, etc. (Cox, Swift & Rhisiart, 2015), it helps create a stronger understanding of the issue being addressed (as well as the underlying trends, drivers, mindsets and structures that have created that issue) and builds an informed base upon which decisions can be taken (Kuosa, 2011b).

**Increased efficiency:** A frequently observed benefit of foresight is that it helps decision makers avoid failure since it allows them to anticipate and avoid emerging problems (Fuerth & Faber, 2012, Fobé & Brans, 2011, Habegger, 2010). This not only supports greater resilience but also efficiency, since government is often tasked with re-inventing or re-tooling programs, plans and policies that are no longer relevant or have failed to achieve intended outcomes (Da Costa, Warnke, Cadnin & Scapolo, 2008). By helping to circumvent unintended consequences, foresight supports strategies that can be more effectively planned and more efficiently implemented.

**Creating a strong evidence base:** Strategic foresight necessitates the collection and analysis of a large and diverse amount of information (Leigh, 2003). This information is useful not only to the foresight process but also to other essential strategic planning and policy development mechanisms such as evaluation and issue framing (Fobé & Brans, 2011). Therefore, the information collected through strategic foresight processes can also be leveraged to support strong evidence for other policy and planning decisions.

#### 4.2.3.2 POTENTIAL LIMITATIONS

Although the majority of foresight literature focuses on its many benefits, there is still a healthy discussion around the limitations of strategic foresight. Strategic foresight is not a panacea and should not be viewed as the only way to approach long-term strategic planning. As DaCosta, Warnke, Cagnin & Scapolo, (2008) explain, “within the landscape of strategic intelligence and policy-advising, foresight...coexists, collaborates and competes with complementary or alternative approaches such as impact assessment, risk assessment...innovation studies and future studies.” (p. 2). Foresight is a tool within an entire suite of strategic approaches that can be employed to address long-term and systemic issues. There are potential drawbacks to using foresight, and it is certainly not appropriate for all situations. Therefore, part of using foresight successfully is knowing when it should and should not be used, and being aware of the potential challenges that it may create. Some limitations addressed in the literature include:

**Timeliness:** Employing a complete foresight process (from scanning to scenarios to strategies) can be lengthy, and most fully robust processes often take more than six months (Voros, 2003). There is a risk that, by the time a foresight exercise produces any tangible insights, the information used to inform the foresight process is already out-of-date (2003). This is especially challenging in subject areas such as technology, where the pace of change is rapid (Da Costa, Warnke, Cadnin & Scapolo, 2008). The

information and issues scanning that feeds into the foresight process needs to be ongoing, and connected to the latest real-time information in order to maintain relevance and timeliness.

**High uncertainty and ambiguity:** In situations where future outcomes are certain, issues are fairly simple, and assumptions are already known and articulated, foresight may not be appropriate. In these cases, other future-focused techniques such as forecasting may be more applicable (Schmidt, 2015). The high level of ambiguity and uncertainty around foresight processes means that applying foresight to less complex projects with a shorter-term scope could lead to confusion and over-complication of a relatively straightforward issue.

**Confidentiality:** In its most robust form, strategic foresight is truly an engagement exercise (Fobé & Brans, 2011). It incorporates input and perspectives of a broad range of experts, relevant thinkers and stakeholders (2011). While it is often essential to have as much external participation as possible in order to offer a truly holistic and integrated view of the future, the nature of some foresight topics or projects can create challenges for full participation and stakeholder inclusion. Like any initiative that requires external (or even internal) engagement, the value of including a diverse set of participants must be weighed against confidentiality concerns (United Nations Global Centre for Public Service Excellence, 2015).

Many of the advantages and limitations listed above apply to foresight that is practiced in both the public and private sphere, particularly some of the cultural biases that can prevent foresight from being implemented effectively (Bootz, 2010). However, there are also some advantages, particularly around decision-making and engagement that are distinct to government. This is partly due to the unique nature of government and the ways in which its systems and structures are distinctly different from the private sector. An overview of the unique characteristics of government-based strategic foresight in relation to private sector foresight are outlined in the section below.

#### 4.2.4 PUBLIC SECTOR STRATEGIC FORESIGHT VERSUS PRIVATE SECTOR STRATEGIC FORESIGHT

In order to clearly understand the differences between public and private sector strategic foresight, it is best to start with how each practice is defined, according to the relevant literature. According to Habegger (2010), strategic foresight in public policy “informs policy by becoming more systematic about relevant trends and developments in an organization’s environments...and it acts as a driver of reflexive mutual social learning processes among policy-makers that stimulate the generation of common public policy visions” (pg. 49). Rohrbeck, Battistella and Huizingh (2015) define private sector, or corporate, foresight, as follows:

Corporate foresight permits an organization to lay the foundation for future competitive advantage. Corporate foresight is identifying, observing and interpreting factors that induce change, determining possible organization-specific implications and triggering appropriate organizational responses. Corporate foresight involves multiple stakeholders and creates value through providing access to critical resources ahead of competition, preparing the organization for change, and permitting the organization to steer proactively towards a desired future (p. 2).

There are clearly some areas where definitions of public and private sector foresight are aligned. Both descriptions include the notion of enhancing environmental awareness, fostering a future vision for the organization and preparing the organization for change. However, where the definitions diverge is in the purpose or goal of strategic foresight. Habegger (2010, p. 49) suggests that the purpose of public sector foresight is to facilitate a coalescing around public policy goals, whereas Rohrbeck, Battistella and Huizingh (2015, p. 2) describe the primary mandate of corporate foresight as helping to achieve competitive advantage. This is not surprising, given that the goals, structure and purpose of government are different from the private sector. The overarching goal for government is “achieving the best outcomes for the jurisdiction and its people, in accordance with the government’s political direction” (Schmidt, 2015, p. 494), whereas the general mandate for private sector entities is “identifying new

markets and creating new products” (Leigh, 2003, p. 8). Likewise, governments are accountable for the administration and expenditure of public funds and are therefore accountable to taxpayers and citizens, while private entities are essentially only responsible to shareholders (Schmidt, 2015). Furthermore, government planning processes are often limited by short-term budget and electoral cycles and so long-range planning is often limited to smaller stretches of time than in the corporate world, where planning is often only limited by market disruptions (Rejeski & Wobig, 2002).

Several authors report that strategic foresight in the corporate world encounters many of the same challenges and pitfalls as government-based foresight. Rorhbeck (2012, p. 440) and Battistella (2014, p. 60) describe the challenge of integrating strategic foresight into a corporation’s core strategic functions and Rohrbeck also addresses issues relating to a lack of organizational awareness of the basic purpose and function of strategic foresight, which is further complicated by the challenges of measuring and evaluating foresight’s value and contributions (p. 440). These are all problems that have also been noted in the public sector (Calof & Smith, 2010, Dreyer and Stang, 2013) and are challenges that were identified by the interview participants in this research project. Further discussion of these themes, and more, are addressed in the Interview Findings and Discussion sections.

Despite the fact that RAND, a government organization, is primarily credited for the birth of modern day foresight, there are many features of government that seem incompatible with the principles of strategic foresight (Leigh, 2003). In particular, government’s tendency towards systemization, specialization, hierarchy, professionalism, and accountability seem to contradict foresight’s broad-minded, participatory, inclusive and often informal approach (2003). As Leigh (2003) explains, strategic foresight is “neither systematized nor specialized. It looks beyond ministerial needs, and often ignores hierarchies. And it is more difficult, though not impossible, to impose accountability on advice about future contingencies” (p. 4). Leigh argues that these seemingly contrasting characteristics have created challenges for public sector implementation of strategic foresight, and explain why a different kind of foresight is necessary for the public sector context than in the private sector (2003, p. 4).

### 4.3 CONCEPTUAL FRAMEWORK – KEY FACTORS GUIDING THE RESEARCH

The conceptual framework that is guiding this research is based on three key themes identified in the literature review. Based on a survey of the literature on successful foresight practices, a series of factors/conditions that either support or inhibit a successful foresight practice were identified. In addition, the literature review also identified a series of measures that can be used to assess the success of a foresight function. The factors and measures that frame this research were selected based on the level of consensus within the literature. In general, there was a high level of consensus between authors about what factors and measures seem to indicate foresight success. Only factors/measures that were supported by three or more studies were selected as part of the conceptual framework.

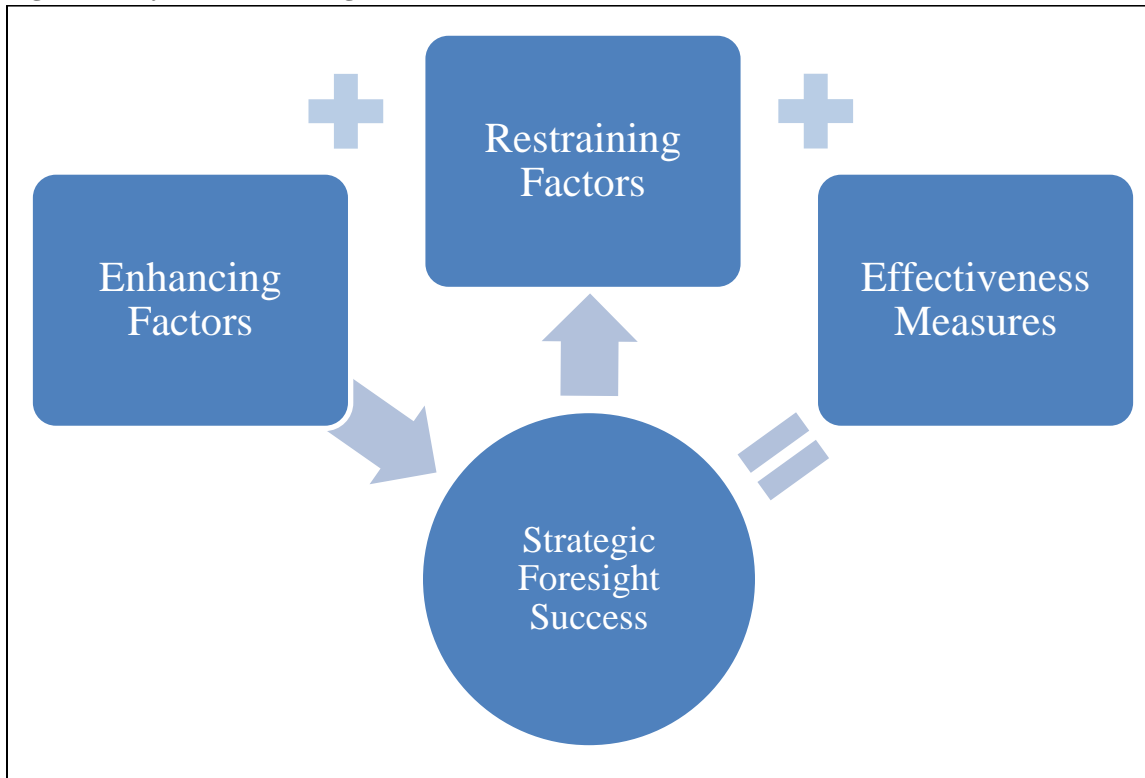
According to the literature review, nine factors were commonly identified among most of the research. These factors are considered important for continued foresight success within a government organization. For the purpose of this project, these factors are termed *enhancing factors*.

The literature review also identified a series of factors or conditions that can undermine a successful government-based strategic foresight practice. For the purpose of this research, these factors have been termed *restraining factors*. It should be noted that many of these factors could be viewed as the inverse of the identified enhancing factors. However, these factors were considered to be restraining rather than enhancing based on the number of times that they had a negative impact rather than a positive impact. For example, “change in leadership” seemed to more often have a detrimental effect on foresight, so has been placed under restraining factors.

The third theme identified in the literature review was the importance of measurement to assessing success. Based on a survey of the literature, three measures were identified. For this research project, these measures have been termed *effectiveness measures*.

As shown in the conceptual framework diagram below (Figure 6), foresight success can be achieved through the presence, or addition, of enhancing factors plus the elimination, or absence, of restraining factors plus the continual assessment/monitoring of success using the effectiveness measures.

**Figure 6: Key Factors Guiding the Research**



#### 4.4 THEME 1: FACTORS THAT ENHANCE THE SUCCESSFUL PRACTICE OF STRATEGIC FORESIGHT

The research for this project found four studies examining success of strategic foresight in a government-based practice. All four studies are also based on a combination of secondary research and key informant interviews and so contain a similar focus and structure to this research project. However, in each case there is a broader focus that encompasses insights from foresight practitioners outside of Canada. Cox, Swift and Rhisiart (2015), focused their investigation on foresight in Europe, while Popper, Georghiou, Keenan and Miles (2010), conducted their study in Colombia. Dreyer and Stang (2013) and Calof and Smith (2010) interviewed practitioners from all over the world.

Interestingly, there was a high level of consensus between studies on the factors that enhance a successful strategic foresight practice. In some cases, the authors used nearly identical phrasing. For example, Dreyer and Stang (2013) suggest that practitioners should “establish clear links between foresight topics and today’s policy agenda” (p. 28), while Cox, Swift and Rhisiart (2015) advise: “establish a clear link between foresight and policy agenda” (p. 5). As such, the common themes were highly apparent and are, as follows:

**Properly identified foresight clients/audience:** Ensuring that the foresight exercise is targeted at the correct audience was deemed critical in order to ensure appropriate uptake and receptor capacity, as well as ensuring that outcomes are relevant (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010).

**Support from senior decision-makers:** This factor was seen as important to ensuring that policy/planning needs were adequately understood and that foresight functions would remain appropriately resourced and funded. This was also deemed essential to ensuring successful implementation of recommendations/strategies resulting from foresight exercises (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010).

**Close integration with current organizational policy priorities:** In order to be successful, practitioners must ensure that their foresight function has clear relevance and application to current issues and priorities (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010).

**Continual engagement of stakeholders:** Most studies recognized the importance of continual stakeholder engagement to ensure necessary levels of support, awareness and understanding, as well as ensuring that foresight outputs are appropriately tailored to user needs. Continual stakeholder engagement also ensures a continual feedback loop for improvement and can help maintain a broader perspective (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010).

**Clear communication:** All four studies stressed the need for clearly communicating with stakeholders and others in the organization about the goals, purpose and value of the foresight function. Foresight is a complex and often complicated process that can involve a high level of conceptualization. Being able to bring this complexity down to a level that is accessible for the organization is important (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010; Popper, Georghiou, Keenan & Miles, 2010).

**High level of flexibility and adaptation:** Maintaining an iterative process that can be adapted as priorities or needs change was seen as important by several authors (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Popper, Georghiou, Keenan & Miles, 2010).

**Strong external networks:** All four studies highlighted the need to have a foresight function that extends beyond its organizational walls. The value of external networks lies in the ability to share new ideas and approaches, incorporate new insights, access different levels of experience and expertise and stay tapped into larger trends. Several authors identified the need to incorporate the participation of the private sector and academia, in particular (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010; Popper, Georghiou, Keenan & Miles, 2010).

**Adequate expertise:** Three studies pointed to the need for incorporation of foresight expertise, either through external sources or through in-house education and training (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010).

**Appropriate use of foresight methods and tools:** All four studies focused around the appropriate application of foresight methodologies and tools and ensuring that the right approach is used in each situation (Cox, Swift & Rhisiart, 2013; Dreyer & Stang, 2013; Calof & Smith, 2010; Popper, Georghiou, Keenan & Miles, 2010).

#### 4.5 THEME 2: FACTORS THAT RESTRAIN THE SUCCESSFUL PRACTICE OF STRATEGIC FORESIGHT

Only two studies (Dreyer & Stang, 2013; Cox, Swift & Rhisiart, 2015) addressed factors that restrain a successful strategic foresight practice. There was also a much lower level of consensus between these studies. However, some authors do acknowledge that the absence of any of the abovementioned enhancing factors could also be considered a restraining factor (interestingly, many interviewees suggested this as well) (Dreyer & Stang, 2013; Calof & Smith, 2010). Of the restraining factors identified, the following were mentioned by both Dreyer and Stang (2013) and Cox, Swift and Rhisiart (2015):

**Lack of political ownership/support:** Both authors mentioned that a reticence from politicians to endorse or support a foresight function can quickly undermine its success, particularly when this lack of support trickles down into the organization, which is often the case with government organizations, where direction and priorities are imposed through political leadership.

**Change in leadership:** In each study, it was observed that foresight functions are often stood up based on the interest or desire of a particular leader, but once that leader departs, the foresight function departs with him/her. In such circumstances, maintaining a sustained foresight function can be very challenging.

**Inconsistent funding:** Both studies addressed budgetary uncertainty as a major barrier to foresight success. Dreyer and Stang (2013, p. 17) point out that in times of budget reductions foresight is often one of the first functions to be targeted as it is rarely viewed as an essential service. Without the ability to convey the value and importance of foresight work, foresight functions are often especially vulnerable in times of economic downturn.

**Disconnection between policy, foresight and decision-making:** Ensuring a functional, integrated and coordinated relationship between foresight, policy and decision-making communities within an organization can be especially challenging, particularly when the latter two areas do not always see foresight as connected to their work, or believe that it has any tangible value.

**Lack of inter-organizational cooperation:** Many ministries, departments, agencies, etc. within government still take a siloed approach to foresight and so the ability to share foresight insights and expertise can be quite challenging. Foresight is a highly participative discipline that benefits from a diversity of viewpoints, and an ability to share insights and intelligence quickly and efficiently, and so a lack of integration between foresight functions within a government organization can undermine the robustness and strength of a foresight exercise.

#### 4.6 THEME 3: EFFECTIVENESS MEASURES TO ASSESS FORESIGHT SUCCESS

As many authors (Georghiou & Keenan, 2006, p. 764; Popper, Georghiou, Keenan & Miles, 2010, p. 31; Cox, Swift & Rhisiart, 2015, p. 8) have pointed out, assessing the effectiveness of foresight is challenging, due to the fact that its purpose is to strengthen organizations against future disruptions and challenges, and its impacts are often not apparent until several decades later. Issues such as “the time lag between project and results...and the perceived relevance of foresight studies to the outcomes they are trying to influence” (Cox, Swift & Rhisiart, 2015, p. 9) can undermine efforts to produce quantifiable measures of foresight impact. However, as Johnston (2012, p.62) argues, measurements that focus on events or phenomena that are tangibly observable in the present day and have some level of universality can be appropriate for measuring current foresight success. Based on research from these authors, some recommended success measures are:

**Appropriate use of strategic foresight outputs:** According to Cox, Swift and Rhisiart (2015), a key success measure is foresight’s ability to generate “a variety of engaging and tailored outputs” (p. 14). Use of foresight outputs is usually the primary tangible way in which an organization engages with strategic foresight, and so the type and frequency of use can offer insight into how valued and successful a strategic foresight function is.

**Role of foresight in organization’s key strategic functions:** Calof and Smith (2010, p. 32), Miles (2012, p. 76), Johnston (2012, p. 57), Dreyer and Stang (2013, p. 26), and Cox, Swift & Rhisiart (2015, p. 2) all argue that a primary indicator of foresight success is the role that foresight plays in strategic functions such as decision-making, policy development and planning, as this is where the value of foresight is often demonstrated.

**Sustainability against organizational change:** Miles (2012), terms this success measure “the survival of the foresightful” (p.73), and points to foresight’s rocky history of adoption, abandonment and misapplication in various government organizations. As Miles (2012, p. 73) and Calof and Smith (2010 p. 31) suggest, the ability of a foresight function to weather any changes in organizational leadership, funding, and mandate indicates the strength and success of its implementation.

#### 4.7 SUMMARY

What was particularly notable about the factors identified above was the amount of consensus both between studies, and the degree of alignment between the literature and the findings from the key informant interviews. This is perhaps partly related to the fact that most of the literature also incorporated perspectives from active foresight practitioners. Even though practitioners in the literature were based in other jurisdictions, the challenges, issues, and success factors that they encounter are very similar to those encountered by practitioners at the provincial and federal level here in Canada. In fact, Calof and Smith (2010) have observed that “in terms of critical success factors...all the studies showed that foresight delivery and reporting methodologies were very similar around the world and so best methods practice is spreading rapidly within the foresight community” (p. 31). This made for a clearer and more effective identification of success factors and measures, and significantly enhanced the research methodology for this project, which is outlined in the section below.

## 5.0 METHODOLOGY AND METHODS

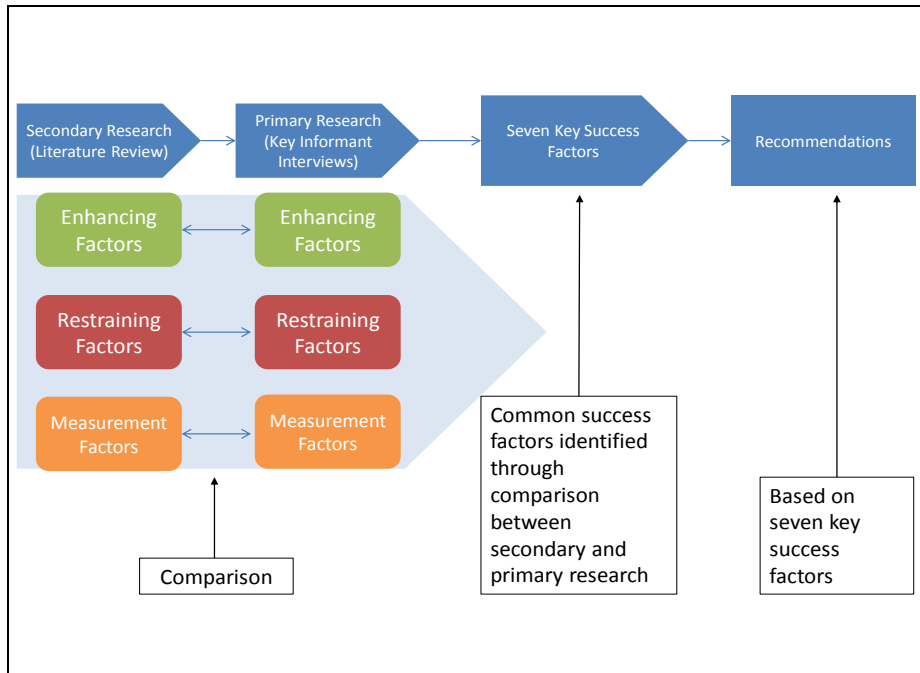
### 5.1 METHODOLOGY

The research methodology for this project was carried out in two phases: first, secondary data was collected through a literature review, and then primary data was gathered through key informant interviews. In the first phase, information on the definition, history, process, advantages and limitations of strategic foresight was collected. Research on factors that enhance, restrain and measure foresight success was also conducted. In each case, the scope of the research was limited to strategic foresight conducted within a government context, although some examination of private sector foresight and foresight functions in other countries was conducted as well, for comparative purposes. All secondary data was collected through a review of scholarly sources as well as credible organizations and researchers. Data was obtained through the University of Victoria library, the Government of Alberta library and online search engines. Search terms included “strategic foresight”, “foresight”, “success”, “anticipatory governance”, “government”, “practices”, “public sector”, and “Canadian/Canada”.

In the second phase, primary qualitative research in the form of open-ended key informant interviews was conducted. Interview questions were focused around factors that enhance, restrain and measure a successful strategic foresight practice within a Canadian government organization. Based on the information that was elicited from the interviews, a content analysis was then conducted to draw out key themes.

The key themes identified through the interview data were then compared to the enhancing, restraining and measurement factors identified through secondary research to identify similarities, differences and gaps. Based on areas where the interview data aligned with the secondary research, a series of seven key success factors were identified. These seven factors then served as the basis for four recommendations on how to support a successful strategic foresight practice in a federal or provincial Canadian government context. See figure 7 for an illustration of the research methodology.

**Figure 7: Illustration of Research Methodology for this Research Project**



The following section outlines the process of the key informant interviews, including the methods employed, overview of the sample group, the nature and rationale for interview questions and analysis of key themes that emerged.

## 5.2 METHODS

### 5.2.1 EXPERT INTERVIEWS

Key informant interviews with people who practice strategic foresight in a federal or provincial Canadian government context were conducted between mid-January and mid-February of 2016. These interviews were structured and open-ended in order to elicit as much information as possible about each participant’s insights, experience and opinions. Interviews were approximately 45 minutes to 1.5 hours long and were either conducted by phone, Skype or in person. Permission to collect the information, and to record conversations, was obtained through the standard Consent Form provided through the University of Victoria Human Ethics Research Board (Appendix B).

Interview questions were standardized to allow for comparison between participant’s responses. Standardization also allowed for detection of key themes and dominant ideas, as well as more ready identification of outlier ideas and discrepancies in opinion (Duke Initiative on Survey Methodology, 2016).

### 5.2.2 RESPONDENT SAMPLE

Interview participants were selected based on their professional experience with/exposure to strategic foresight. Selection criteria limited participant selection to those who were either currently practicing or had previously practiced strategic foresight within a Canadian government context. Length of experience with strategic foresight was not a critical factor in participant selection, although no interviewee had less than two years of experience.

Potential respondents were contacted by email with requests to participate in this research study, and were provided with an Invitation to Participate in Interview, which contains a detailed description of the project (Appendix C). Potential respondents were also given a Human Ethics Research Board Consent Form, which had to be completed prior to the interview, and a copy of the interview questions, to allow participants to prepare in advance, if desired.

Interviews were conducted with a total of twenty-three individuals. A total of fifteen government organizations were represented by interview participants. To maintain confidentiality, respondents' identities and responses were anonymized, and no directly attributed quotations or names of projects/initiatives are included in this report. However, to ensure the authenticity of the research, a complete list of organizations that were represented in the interviews is included in Appendix D.

Due to the specific focus of the research, all interview participants were based in a Canadian government context. About half were from a federal department or agency while the other half were from the Government of Alberta. There was also one participant from the Government of Ontario. The researcher was unable to find anyone from any other provincial government, nor anyone who practiced at the municipal level. This may be due to the fact that foresight has not penetrated most provincial and municipal governments to the same extent as the Government of Alberta and the federal government.

The majority of interviewees have some formal foresight training, either through an academic degree program or through short training courses, or both. The rest were self-taught through a mixture of participation in strategic foresight projects and processes and self-directed research into foresight theory, design, methodology and practice. A few were exposed by virtue of their professional role and had to learn by taking responsibility for the foresight function within their organization.

On average, participants had seven years of experience either practicing strategic foresight or engaging with strategic foresight information and products. Most are at a management level within their organization. Some are not currently involved with strategic foresight due to either a change in role or a shift in the mandate of their branch or work area. For those who are not currently involved with foresight in any capacity, interviews were conducted based on their experience and insights from a former role.

### 5.2.3 INTERVIEW QUESTIONS

The interview contained 39 questions, which were divided into five different sections (see Appendix E for Participant Interview Questions). The sections were:

- 1) Background Questions
- 2) Enhancing Factors for Successful Practice of Strategic Foresight
- 3) Restraining Factors for Successful Practice of Strategic Foresight
- 4) Effectiveness Measure 1: Use of Strategic Foresight Outputs
- 5) Effectiveness Measure 2: Role of Foresight in Organization's Key Strategic Functions
- 6) Effectiveness Measure 3: Sustainability Against Organizational Change
- 7) Final Thoughts/Comments

Interview sections 2 – 6 are the main focus for the conceptual framework (as outlined in Section 4.3 of this report), while sections 1 and 7 were created to elicit more information from participants, and allow for more details and

information to emerge. The initial set of background questions was also intended to create a rapport with participants and increase their level of trust so that the following questions could be answered more openly and honestly, which is a commonly employed interview technique (Duke Initiative on Survey Methodology, 2016).

Most questions in the interview were experience-based and required participants to provide a specific example of an experience. The purpose of this was to add authenticity to their responses and to ensure that the information they provided was based on direct observation (Duke Initiative on Survey Methodology, 2016). The content of the interview questions was deliberately designed so that most participants would have relevant input. For this reason, generalized terms such as “planning” and “decision-making” were used so that participants could still answer the question even if they only had knowledge or experience with certain types of planning or decision-making (for example, strategic planning but not operational planning).

This is the same reason why the interview only contained questions about foresight outputs but not questions about foresight processes. In many cases, some element or method from foresight is carried out as a standalone exercise, rather than a complete process. Therefore, some participants would not have any experience with processes and would not be able to answer any questions relating to that topic. On the other hand, all foresight exercises yield some kind of output (Voros, 2003) and so all respondents would be able to answer questions about foresight outputs.

#### 5.2.4 INTERVIEW LIMITATIONS

The primary research in this project is somewhat limited by the fact that the researcher was unable to interview anyone at the municipal government level, or in any provincial jurisdiction outside of Alberta and Ontario. Despite attempts to contact government in each province, as well as several municipal governments, the researcher did not have any success in finding foresight participants beyond the federal, Alberta and Ontario governments. Attempts to find contacts through professional foresight practitioner networks were also made but did not yield any additional interview connections. The narrowness of the jurisdictional scope may have somewhat limited the research since the entirety of the Canadian government experience is not represented. However, based on the similarity in responses between interviewees from Alberta, Ontario and the federal government, it is likely that foresight practitioners in other Canadian governments are experiencing similar successes and challenges. Therefore, although the research might be partly limited by a lack of jurisdictional representation, the experience of foresight in a Canadian government seem to be fairly universal, and this research is likely representative of all Canadian jurisdictions.

#### 5.2.5 INTERVIEW DATA ANALYSIS

All interviews were digitally recorded and then transcribed. Based on the transcriptions and a careful review of the digital recordings, responses were then categorized by interview section. Each category was then divided into subthemes, based on how often a certain idea or opinion occurred. Common words and phrases that might support, or tie into, a particular subtheme were also noted. In general, there was a high level of consensus between respondents, so subthemes were easily identified. However, unique or unusual ideas were also noted and some are included in the Findings and Discussion sections below.

Once subthemes were identified, they were grouped into larger themes, based on similarity and alignment. These broader themes were then each named, based on the common idea that they all featured. After the subthemes were grouped into broader themes, these broader themes were compared to the enhancing factors, restraining factors and effectiveness measures identified through the literature review. The purpose of this comparison was to determine similarities and differences between literature review findings and interview findings. A comparison between themes found during the interviews and those identified through the literature review is included in the Discussion and Analysis section.

## 6.0 INTERVIEW FINDINGS

### 6.1 INTRODUCTION

Findings from the key informant interviews are outlined below, according to the three main themes identified in the conceptual framework. Summary tables for each interview section address the main ideas and subthemes that emerged in the interviews. More specifically, each table includes broader themes, more specific subthemes and the number of respondents that spoke to each subtheme.

The themes and subthemes included in each table are ranked by the number of respondents that spoke about a particular subtheme. Most participants touched on more than one subtheme, and so the numbers listed in the ranking do not always correspond exactly to the number of people interviewed.

Findings detailed in this section that refer to “a few” or “a handful” of participants mean that between one and five people provided similar answers. Findings that refer to “some” or “several”, or “a number of” participants mean that between six and eleven people provided similar answers, and findings that refer to “most”, “many”, and “the majority of” participants mean that twelve or more people provided similar answers.

### 6.2 MAIN THEMES

#### 6.2.1 THEME 1: ENHANCING FACTORS

In terms of factors necessary to achieving a successful strategic foresight practice, responses from participants were grouped into seven themes:

**Table 1: Factors that Enhance the Successful Practice of Strategic Foresight in Respondent’s Organization**

<b>Themes (Ranked, based on frequency of response)</b>	<b>Factors that Enhance the Successful Practice of Strategic Foresight</b>	<b>Response Rate</b>
<b>Level of Organizational Support</b>	Organizational leadership supports and endorses strategic foresight	16
	Organizational culture is open to, and supportive of, strategic foresight	5
	There is a strategic foresight training and awareness-raising function in the organization	6
	Foresight is given appropriate amount of time and resources	3
<b>Position of Foresight within Organizational Structure</b>	Strategic foresight is integrated with other organizational strategic functions (decision-making, operational, policy, business planning, etc.)	13
	Strategic foresight is tied to other organization priorities and issues	7
	Strategic foresight is kept separate from issues management	2
<b>Clarity and Applicability</b>	Foresight processes/projects/products have a clear purpose	8
	Foresight has processes/projects/products have clear outcomes	3
	Foresight processes/projects/products produce tangible actions	4

<b>Quality of Foresight Inputs</b>	Foresight exercises contain an adequate number of content experts	7
	Foresight exercises have an adequate diversity of viewpoints/participants with different backgrounds	7
	Strategic foresight exercises are informed using high quality information	6
	Strategic foresight is informed by high quality data and information	4
	Strategic foresight is connected to, and informed by, strong external networks	4
<b>Level of Capability</b>	Level of strategic foresight capability is high within organization	7
	Foresight team has appropriate skills, competencies and backgrounds	6
<b>Measurability</b>	Strategic foresight is subject to performance evaluation	1

Many respondents felt strongly that strategic foresight cannot be sustained without the support and endorsement of organizational leadership. One participant reported that “the only reason why strategic foresight is thriving is because it has the support, and interest, of a Deputy Minister”. Some others expressed concern that a change in leadership could result in the cessation of the foresight function. Another respondent surmised that, since government is still a highly hierarchical type of organization, “sanction and support from executives translates into sanction and support from the whole organization”. This often means that the foresight function is respected, used and well-resourced, due to the fact that it is being prioritized in planning and budgeting exercises. While there were some respondents who felt that foresight was thriving in spite of a low level of leadership support, most felt that executive sponsorship was integral to the success and survival of the foresight function. Some respondents also believed that training and awareness-raising initiatives were helping to increase organizational support, which in turn was causing the foresight function to be more frequently accessed, used and appreciated. A handful of respondents reported that foresight was still being given the appropriate amount of time and resources to complete successful products and processes, despite an evident lack of executive support.

Most interviewees felt that strategic foresight needs to be integrated into other strategic functions (decision-making, policy development, and planning) in the organization in order to be successful. A frequently occurring comment was that “if strategic foresight remains isolated from other strategic functions then it has no impact or relevance” for the organization. The purpose of strategic foresight is to foster a more strategic way of thinking about that future, but if that way of working is disconnected from how decisions about the future are executed then its value and impact is reduced and it will rarely be successful. A few participants also felt that it was important to keep strategic foresight separate from issues management since the immediacy, urgency and specificity of issues management undermines the long-term and holistic scope of strategic foresight. Also, the amount of time and energy that issues management requires in most organizations would leave no time for proper foresight activities. While both issues management and foresight play important roles in an organization, their purpose, value and role are very different.

Some respondents also believe that, in order to be successful, foresight products and processes must have a clear purpose and set of outcomes as well as tangible, actionable, next steps. One respondent suggested that, “without a clear sense of purpose, [foresight practitioners] get overwhelmed by the complexity of the issues that they are attempting to tackle and they get distracted from the original intended goals”. Another explained that “it is easy to get mired in the vast array of foresight methods and tools and all the tons of information that informs strategic foresight”. If practitioners do not stay focused on the purpose, the foresight exercise may not stay relevant or aligned with organizational needs and priorities, and participants may lose faith in the value of the exercise. Likewise, some interviewees stressed the importance of including measurable outcomes in any strategy, policy or plan resulting

from a foresight exercise. One person argued that, in order to demonstrate value, “foresight must not only inform our goals for the future, but also how we assess whether or not we have reached those goals”. Finally, a few respondents suggested that a successful foresight function produces tangible actions that an organization can implement. They suggested that, while foresight is useful in changing ways of thinking, unless this thinking can be translated into action, there will be little impact on the organization, and no way of tangibly connecting the future to the present.

As well, there was an interesting focus around the type and quality of information and inputs into foresight exercises. A few participants stressed that the quality of source information was important to ensuring that the extrapolations and insights drawn from foresight exercises are accurate, robust and reliable. A number of interviewees also discussed the importance of having content experts participate in foresight exercises. As one participant explained, “it is vital to have people who understand the subject intimately, who know its history, political implications, legal complexities, and can tell us where the potential landmines or opportunities are”. Content experts are there to add a level of accuracy, as well as appropriate background and contextual information that likely would not be available otherwise. However, a few participants stressed that this content expertise needs to be balanced by other non-content participants who can add a broader lens and bring in perspectives from other systems and environments. A few other participants highlighted the need to use external participants and networks to inform foresight. As one person explained, external networks can help “to prevent information from becoming too myopic”. A handful also suggested that if data is used, there must be checks in place to ensure that it is valid and accurate. As a whole, the importance of having a diverse set of participants and high-quality information inputs was a theme that was addressed by several participants.

Some respondents felt that a certain level of knowledge and experience with foresight was necessary in order to achieve success. Those who conveyed this idea mostly agreed that some level of training or formal education was necessary, although a few felt that informal training through exposure, experience and reading could be just as effective. There were also several interviewees who also felt that the background and viewpoint of foresight practitioners was also important. In particular, exposure to other cultures and different ways of thinking and behaving. One interviewee gave the following example: “speaking a different language or living in a different culture can enrich the level of insight and open-mindedness that [practitioners] can offer [to a foresight function]”. Several respondents also identified necessary competencies such as high emotional intelligence (or “good people skills”) and an ability to quickly synthesize and analyze large volumes of information, a “comfort with ambiguity”, and an ability to work and think in unconventional ways.

One participant also suggested that implementing a performance evaluation mechanism to assess foresight functions would be an effective way of achieving success. This respondent argued that “the impacts and effects of foresight are hardly even measured, and this [lack of evaluation] may be part of the reason why some foresight functions fail to achieve lasting success”. She suggested that, through the use of a performance evaluation mechanism, practitioners could assess whether foresight is achieving its intended goals and if not, course corrections could be implemented to improve outcomes and avoid pitfalls.

### 6.2.2 THEME 2: RESTRAINING FACTORS

In the third section of the interview, participants were asked about factors that they thought would restrain a successful strategic foresight practice, and to give examples of times when foresight was unsuccessful in their organization. They were also asked to provide advice on how the unsuccessful outcome could have been avoided.

**Table 2: Factors that Restrain the Successful Practice of Strategic Foresight in Respondent’s Organization**

Themes (Ranked, based on frequency of response)	Factors that Restrain the Successful Practice of Strategic Foresight	Response Rate
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<b>Level of Use</b>	Products/Insights from strategic foresight exercises are not used	18
<b>Level of Organizational support</b>	No support at leadership level	15
	Purpose/role/value of foresight is not adequately understood within organization	7
	There is a lack of faith in the results that strategic foresight exercises produce	3
	There is a lack of awareness of the existence of strategic foresight within the organization	3
	There is a lack of accountability for the results of strategic foresight exercises	1
<b>Sustainability</b>	Strategic foresight function within an organization is not sustained	14
	Foresight expertise rests with one or a few individuals	8
	Staff turnover is high	4
<b>Relevance and Applicability</b>	Strategic foresight function is isolated from other strategic functions and/or from organization's priorities	14
	There is no identifiable directive or purpose driving foresight exercise	3
	Foresight exercise fails to connect long-term to immediate	3
	Foresight exercise does not produce any concrete actions	3
<b>Focus</b>	Foresight exercise has an inappropriate or misdirected focus	9
	Outcomes of strategic foresight exercise are not well-defined	2
	Results of strategic foresight exercise are predetermined	2
	Foresight exercise is too focused on tools/methodologies	3
<b>Quality of Inputs</b>	Inadequate diversity of participants/viewpoints	8
	Failure to adequately understand context/environment	5
	Failure to adequately engage participants	2
<b>Expectations</b>	Expectations on what foresight can deliver are unreasonable	4
	Expectation that foresight will "solve" an issue	1
<b>Level of Capability</b>	Lack of expertise among those who practice strategic foresight	2

For the majority of participants, the lack of use of foresight outputs was the primary indication of a lack of success. Numerous interviewees used the phrases "sits on a shelf" and "collects dust" when asked to describe the results of an unsuccessful foresight practice. Many participants cited an experience in their own organization where foresight outputs were not used in any capacity, often because of a lack of awareness, a lack of perceived relevance to organizational priorities, or a lack of understanding about the nature and use of the foresight function.

In a related theme, many participants also identified the level of organizational support as a factor that can undermine a successful foresight practice. In particular, participants referenced a "lack of leadership support" as well as a "lack of awareness about the existence of strategic foresight" within the organization and "a lack of faith in, and accountability for, the results of foresight exercises". For most of these participants, the absence of a

supportive culture was directly connected to the level of use of foresight outputs. Without the supportive culture in place, the outputs are not used.

A third theme that was addressed by the majority of participants is the theme of sustainability and the vulnerability of foresight functions to changeovers in staff. Several interviewees felt that foresight capacity in their organization rested with only a few individuals and that it would not last if those people were to leave. As one person suggested, “this is the danger of not fully integrating foresight into the organization and with not doing a good enough job of implementing awareness-raising and training functions”. A few others felt that high rates of staff turnover were a result of a highly competitive job market where particular skills and talents are in high demand. They recognized the challenge of attracting and retaining high-functioning staff and acknowledged how important this is to maintaining a strong strategic foresight mechanism in the organization.

Several respondents also addressed the importance of having a foresight exercise that is relevant and applicable to the organization’s priorities and goals. In several cases, respondents cited examples from within their own organization where foresight was not successful because it was disconnected from policy, planning and/or decision-making, or because it did not result in any tangible next steps or actions. Similar to what was identified in the enhancing factors, several interviewees felt that, without these connections, foresight would always be viewed as an “academic exercise with little use or relevance” for the organization. Likewise, a few respondents cited examples of foresight exercises that were not driven by any identifiable need or directive from organizational leadership. Instead these exercises were “generated internally by the foresight team”, and therefore were disconnected with current organizational mandates and priorities, and lacked the necessary leadership support. The end result was that the exercises received little traction or attention and were eventually abandoned. A handful of respondents also provided examples of foresight exercises that did not connect long-term challenges to immediate actions. While these exercises were termed “interesting think-pieces”, they were disregarded “because they failed to build a logical path between current actions and future outcomes” and so were deemed unrealistic and unhelpful.

Several participants noted that a misdirected focus can quickly undermine a foresight function. A few participants also suggested that a lack of defined outcomes could lead to an unfocused and disorganized foresight process. According to a handful of interviewees, a lack of defined outcomes also meant that it was more difficult to assess the impact and effectiveness of a foresight exercise. Another challenge mentioned by a few participants was a foresight process where leaders (or foresight practitioners) have already determined the results of the foresight exercise. As one respondent concluded: “strategic foresight is an exploratory process and predetermining its results will always undermine its value”. A handful of respondents also cited experiences where a preoccupation with foresight tools and methodologies restrained the success of a foresight exercise. Focusing on the tools rather than the issues and the needs of the stakeholders meant that the exercise failed to deliver what the clients were looking for.

Some participants discussed the importance of ensuring high quality inputs into a foresight exercise. Of particular importance was ensuring that there is an adequate diversity of viewpoints and participants represented during each foresight process. One interviewee explained that this “supports the broader systemic view needed for high quality work and helps us avoid group think or expert bias”. A failure to adequately understand the context or environment that is framing the central foresight question was also addressed by a handful of participants. According to one person, “high quality foresight is dependent on a strong understanding of internal and external operating environments and so inadequate environmental scanning, or stakeholder input can really hamper that quality”.

A few respondents touched on organizational expectations of strategic foresight, particularly among senior leadership. In particular, respondents cited examples of foresight projects that had been given unreasonably short timelines, inadequate resources or an impossible scope. As one person suggested, the problem is that senior leaders expect that foresight will “solve an issue”. But, as this person explained, “foresight informs the strategies and recommendations that solve the issue but it isn’t, in itself, a problem-solving tool”.

A final restraining factor mentioned by a few interviewees was a lack of expertise among strategic foresight practitioners. A handful of interviewees believed that, without people who have the relevant experience and training to guide a foresight process, foresight tools can be misused and foresight functions may not be properly implemented within an organization.

### 6.2.3 THEME 3: EFFECTIVENESS MEASURES

#### 6.2.3.1 USE OF STRATEGIC FORESIGHT OUTPUTS

In this interview section, interviewees were asked to focus on the outputs of foresight exercises and processes (i.e. the information and products that are generated through foresight work). They were asked how the information, and products generated by foresight were used in order to assess whether level of use of outputs was connected with level of foresight success. They were also asked to assess which outputs were used most successfully and least successfully, in order to determine how their work was being received within the organization.

**Table 3: Primary Use of Strategic Foresight Outputs in Respondent’s Organization**

Primary Use of Strategic Foresight Outputs	Response Rate
Informs business plan (strategic context, or environmental context)	5
Informs other strategic foresight outputs or processes (e.g. scenarios, windtunneling)	3
Informs general contextual/environmental awareness to support identification of organizational priorities (including greater awareness of threats and opportunities and systemic nature of issues)	3
Informs policy, planning or strategy development	3
Simply read by people in organization but has no further use	3
Informs advice to senior leadership	2
Identifies assumptions and tests validity of assumptions	1
Tests strength of policy proposals, plans or strategies	1
Used to more deeply explore identified issues, gaps or questions	1
Facilitates collaboration/engagement	1

There was not a high level of consensus in terms of how foresight products are used in the respondents’ organizations, which indicates that foresight has yet to be fully integrated across all types of strategic functions (policy, planning and decision-making). A few respondents indicated that foresight was used to inform a particular aspect of planning (business plan), while a handful of others said that foresight played some role in informing policy, planning or strategy development. Others suggested that foresight was used in issue identification (i.e. initial stage of policy development), testing policy proposals (i.e. options development stage in the policy development), or advice to senior leadership (i.e. recommendations stage of policy development). However, just under half of interviewees believed that the primary function of strategic foresight in their organization was not directly related to policy, planning or decision-making.

**Table 4: Strategic Foresight Outputs that Were Used Most Successfully and Least Successfully in Respondent’s Organization**

Theme (Ranked, based on frequency of response)	Use of Strategic Foresight Outputs	Response Rate
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<b>Foresight Outputs that are Used Most Successfully</b>	Horizon scan/Environmental Scan/Context product	12
	Trend Decks	4
	Scenarios	4
	Change Drivers	2
	Risk Register	1
<b>Foresight Outputs that are Used Least Successfully</b>	Uncertain or unaware of any unsuccessful outputs	10
	Scenarios	9
	Trend sorts	3
	Surfacing assumptions	1
	Policy Windtunneling	1

According to the majority of interviewees, the most successful output for strategic foresight in their organization was a horizon scan, environmental scan or other type of product that enhanced contextual awareness. Trend decks and scenarios were mentioned by a few participants as the most obviously successful outputs, while a few other interviewees listed change drivers and a risk register as the most well-received product in the organization. In each case, participants were clear about the fact that the success that these products generated was not only due to the product itself but also because of the insight, awareness and intelligence that they contributed to the organization.

Outputs that were identified as least successful were scenarios, trend sorts, and exercises where organizational assumptions were surfaced. Interestingly, several participants were unable to name an output that was unsuccessful. This was either because they felt that all products/outputs had been used successfully or, as one person suggested, “even if a product itself is not successful, the shift in mindset and conversations that it generates means that it has led to some success. Even if a foresight exercise is able to get a small portion of [the organization] thinking more proactively about the future, or even more actively about foresight, then [the output is] successful”.

**6.2.3.2 ROLE OF STRATEGIC FORESIGHT IN KEY ORGANIZATIONAL FUNCTIONS**

Participants were also asked about the role that strategic foresight plays in the key strategic functions within their organization, specifically decision-making, policy development and planning. The degree to which foresight is integrated into these functions was identified in the literature review as both a success factor and a way of measuring how supported foresight is in the organization.

**Table 5: Role of Strategic Foresight in Decision-Making in Respondent’s Organization**

<b>Role of Strategic Foresight in Decision-Making</b>	<b>Response Rate</b>
Used to inform recommendations/advice	6
Does not play an identifiable role in decision-making	6
Informs identification of key organizational priorities	4
Plays challenge function that tests recommendations/advice	3
Informs challenges/opportunities conversations at leadership level	2
Uncertain about role in decision-making	2

In terms of the role that strategic foresight plays in decision-making, there was an even split between respondents who believed that foresight was used to inform recommendations/advice to senior leadership and those who felt that

foresight did not have any discernable role in decision-making. A few participants noted that foresight plays an after-the-fact role in testing recommendations that have already been developed, while others said that foresight played a role in informing which priorities decision-makers choose to focus on. Two participants said that foresight was used to inform conversations at the leadership level – although how those conversations fed into the decision-making process was less clear. A handful of respondents mentioned that they felt too disconnected from organizational decision-makers to be certain about what role foresight played in decision-making.

**Table 6: Role of Strategic Foresight in Policy Development in Respondent’s Organization**

<b>Role of Strategic Foresight in Policy Development</b>	<b>Response Rate</b>
Informs issue identification/framing	8
Informs options development	4
Informs policy recommendations	3
Plays little to no role in policy development	3
Uncertain/unaware of what role strategic foresight plays in policy development	3
Used to identify policy gaps	1
Tests strength of proposed or existing policies	1

In terms of policy development, the highest number of respondents reported that foresight informs issue identification, while a smaller number observed that foresight work is either incorporated into options development or policy recommendations. Three respondents felt that foresight played a very small role or no role at all in policy development, while another three respondents were uncertain or unaware of what role foresight played in policy development. This suggests that, again, foresight has yet to be fully integrated into policy development functions in many organizations. Finally, there were two respondents who believed that foresight was used to identify policy gaps or test the strength of existing policies.

**Table 7: Role of Strategic Foresight in Planning in Respondent’s Organization**

<b>Role of Strategic Foresight in Planning (Business Planning, Operational Planning, Strategic Planning, etc.)</b>	<b>Response Rate</b>
Used to inform context for business plan	7
Used to identify priorities for strategic planning	5
Used to identify concrete next steps in strategic planning	4
Not used to inform planning of any kind	4
Used to inform resource planning (ex. budget, human resources)	1
Used to inform redesign of business planning process	1
Foresight team helps to write organization’s business plan	1

Several respondents said that foresight is used to inform the strategic context section of their organization’s business plan (note: most of these respondents are based in the Government of Alberta, where organizational business plans are required to contain an overview and discussion of the external environment, including issues, trends and challenges). A few others reported that foresight plays a role in identifying priorities or next steps in the strategic planning process. A handful of interviewees suggested that foresight plays no role in any type of organizational

planning. For some organizations, foresight played a role either in the process design or in the writing of the business plan. In one other organization, strategic foresight was used to inform resource planning.

### 6.2.3.3 SUSTAINABILITY AGAINST ORGANIZATIONAL CHANGE

Interviewees were also asked to speak about the sustainability of foresight in their organization and how they anticipated that foresight would evolve in the future. Participants were also asked about any observed changes to the foresight function over the period of time that they had been in the organization. The purpose of this series of questions was to determine both past and present levels of sustainability within the participants' organizations. There were three themes identified under this section: conditions of negative sustainability (foresight will likely not be sustained); conditions of positive sustainability (foresight will likely be sustained) and; neutral sustainability (foresight sustainability is uncertain and may depend on changes).

**Table 8: Strategic Foresight's Sustainability against Organizational Change in Respondent's Organization**

Themes (Ranked, based on frequency of response)	Sustainability of Foresight Function Against Organizational Change	Response Rate
<b>Negative sustainability</b>	Is currently supported but sustained leadership support is uncertain	5
	High turnover in staff makes sustainability challenging	3
	Budget uncertainties will prevent it from being sustained	1
	Will likely wax and wane like it has in the past	1
<b>Positive sustainability</b>	Will likely be sustain because foresight is becoming more embedded in policy and decision-making processes	5
	Will likely become more centralized and systematized	1
	Is becoming more holistic, incorporating a broader view	1
<b>Neutral/Uncertain Sustainability</b>	Will likely last but not in the same form that it is in now	3
	Some elements will last (e.g. e-scanning) but not entire suite of foresight tools and processes	1
	Will depend on foresight function's ability to adapt	1
	Will need to be combined with more hard data to survive	1

In this section, a handful of respondents felt that foresight would not be sustained, and two people mentioned that it would likely "live and die with current organizational leadership". They felt that, while foresight currently had support from a Deputy Minister or Assistant Deputy Minister, if that person leaves the organization then the foresight function will leave as well. A few other respondents felt the same way about staff turnover. One person mentioned that foresight "is only attached to a few individuals" and if those individuals leave, then foresight will not be sustained. Unstable budget conditions were also cited by one person as the reason why he felt foresight would not last in the organization. Another respondent seemed resigned to the fact that foresight will probably "wax and wane like it has always done".

Those who felt more positively about the future of foresight in their organization explained that they saw it becoming more embedded within policy and decision-making and so it would survive as an integrated component of those functions. Another person felt that foresight was becoming "more centralized and systematized" within her

organization, which likely meant foresight would be sustained. One respondent said that, due to its expanding and more holistic focus, foresight would kept on in the organization so it “wouldn’t just be an IT function”.

There was also a third group of people who were uncertain about whether foresight would be sustained or not. A few people felt that sustainability was dependent on certain changes such as “combining it with more hard data” or “changing its level of adaptability”. Two other people believe that either some elements would last, or the entire discipline would “evolve into something different”.

There was a fairly even split between the three groups, with a slightly larger number believing in a negative future for their foresight function. This suggests that foresight is by no means a regular or sustained feature in many Canadian government organizations. And even when foresight is sustained, it seems that this condition is fragile and is dependent on changes to its current state (e.g. becoming more embedded in the organization, or incorporating a more holistic scope) in order to survive.

### 6.3 SUMMARY

There was a fairly high level of diversity in the interview responses, particularly around use of foresight outputs and role of foresight in key strategic functions. But, in response to key factors enhancing and restraining foresight success, there was a much higher level of consensus. From the perspective of interviewees, the main criterion for success is leadership support. Even for those who did not currently have leadership support, previous supportive conditions had helped to embed foresight more formally within the organization. This suggests that, in order to be successful, implementation of foresight cannot be a bottom-up exercise. Due to the hierarchical nature of government, there needs to be support from senior levels at some point. This may change if governments become more laterally structured but for now it is a highly important factor.

The other most commonly identified success factor was the level to which foresight is integrated into other strategic functions such as policy, planning and decision-making. According to participants, if a foresight function is kept isolated from core strategic functions and/or organizational priorities, it will have little relevance for the organization and will never be valued to the same extent as foresight functions that are fully integrated. It is interesting to note that only one person suggested some kind of evaluative function to measure the impact/effectiveness of foresight on an organization’s strategic capacity. This could be connected to the fact that foresight is relatively new so, in many cases, impacts are not yet evident. It could also be due to the fact that the time span between implementation and impact is so long.

According to most interviewees, the key restraining factor to a successful foresight practice is lack of use of foresight outputs. However, unlike most factors in the restraining section, the inverse of this factor (i.e. foresight outputs are used frequently) was not listed among the enhancing factors.

One factor that was not mentioned in the restraining factors section was time and resources. Although three respondents listed adequate time and resources as an enhancing factor, no one listed a lack of time and resources as a restraining factor, which suggests that interviewees believe that foresight still can be done successfully even with limited resources and time.

In terms of use of strategic foresight outputs, responses from interviewees suggest that, in most of their organizations, there is no systematic use of foresight outputs. It seems that use is ad hoc, and primarily project based. Some respondents had a regular scan or trend map that the organization used on a systematic basis, but for most, use was sporadic and need-driven. For some interviewees, how and why a foresight output was used had less to do with the information it conveyed and more to do with how that information was packaged. Two interviewees gave an example of a time when a report that had received primarily negative feedback was retitled and put into a different format. The second time around the report was received very positively.

Generally, interviewees seemed to agree that the use of engaging narratives, and interesting visuals helped to promote uptake of foresight materials. Also, the general consensus was that the value of the output was less in what was produced and more in the processes that had produced it. Interviewees agreed that it was the process itself that created the shift in mindset, the greater awareness of assumptions, the sense of common understanding, and many of the other values and benefits associated with strategic foresight.

In terms of tangible foresight outputs, trend decks and environmental scans were both most successful and most frequently used. Many interviewees felt that this was because they are the most easy to understand and engage with, and because they most closely resemble products produced through traditional strategic planning exercises. Likewise, scenarios and trend maps were least successful because they were seen as least accessible, most highly conceptual and least familiar.

For many, formally measuring or assessing the impact or role of foresight within the organization was difficult. They suggested that, since there is no universal measurement framework or tools to assess impact, they instead had to rely on their own perception of role and impact. Some mentioned that they did not feel closely enough connected to core strategic functions to know what role foresight plays. Others explained that the role of policy, planning and/or decision-making was not clear and so assessing how foresight relates to these functions was not possible. In many of the respondents' organizations, policy, planning and decision-making functions are nebulous and the areas where they intersect with each other are not clear cut. For example, in one organization, policy development and business planning are bundled together so understanding where foresight fits into these two functions is challenging. A few respondents also noted that foresight can be highly incompatible with some core functions such as business planning, because the timeframes of each function are so different. The issues and challenges identified in a three year timeline of a business plan are different than those in a twenty-five year timeline of a foresight exercise.

One final observation was that some respondents' organizations are still operating very much in the current timeframe and are primarily preoccupied with immediate issues and priorities, whereas some others are much more amenable to working in a future space. The difference this makes in terms of support for, and use of the foresight function, was strongly apparent. Respondents from more future-oriented organizations seemed to have no trouble with uptake or use of outputs, and their function seemed to be highly respected. Those that were in a more "current issues" focused organization expressed more frustration about a lack of support and traction for their foresight work. In some cases, organizations were more future-oriented because of the nature of their focus or the portfolios that they were responsible for (in general, resource and security-focused organizations seemed to have a more amenable futures culture). However, in other cases, the future-focus was due to a highly supportive leader (or leaders). This suggests that leadership support may be the primary and essential factor in supporting foresight success.

## 7.0 DISCUSSION AND ANALYSIS

In this section, the findings from the key informant interviews are compared with findings from the main themes of the literature review, in order to answer the central research question of this project:

Based on the insights, opinions and experience of those who practice strategic foresight within a Canadian government context, what are some key factors and measures that can support a successful government-based strategic foresight practice?

Factors that were identified frequently in both the literature and in the interviews were compared in order to identify similarities, differences and gaps. Based on areas of convergence between the literature and the interviews, seven factors were identified. This includes one *primary success factor*, which is considered to be the most essential factor in foresight success. One *secondary success factor* was also identified. This factor was defined as secondary

because it is highly important, but is also partially dependent on the primary factor. In addition, three *supporting success factors* were identified. These factors are important to strategic foresight success, and can help enhance or sustain a successful practice, but they are not essential and can be built as the foresight function is implemented. The final two factors have been termed *success measures and supporting success factors*, because they are not only factors that contribute to foresight success, but also represent ways by which foresight success can be measured.

## 7.1 FACTOR 1: LEVEL OF ORGANIZATIONAL SUPPORT (PRIMARY SUCCESS FACTOR)

Connection to, and support from, organizational leadership was viewed as the primary success factor by the majority of interview participants and by three of the four studies on foresight success. According to both the interviews and the literature, the reason why connection with leadership is so crucial is because of the particularly hierarchical nature of government, and specifically Canada’s Westminster model where decision-making powers are concentrated among the top tiers of the organization’s senior executives (Calof & Smith, 2010). Without the sanction and support of those who make the final decisions, foresight functions have little chance of success. Insights from the literature and the interviews reveal that leadership support has an impact on essentially every aspect of foresight’s ability to function – from the approval of adequate resources, to the willingness to incorporate foresight into decision-making, policy and planning functions (Cox, Swift & Rhisiart, 2015). Even in situations where foresight has notional support and buy-in from working level staff, this support is rarely translated into action without some level of approval from decision-makers.

**Table 9: Level of Organizational Support – Successful Strategic Foresight Practices**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Support from senior decision-makers	Successful strategic foresight practices have the support of organizational leadership	Organizational leadership supports and endorses strategic foresight

Likewise, without the support of leadership, foresight seems to be prone to failure, according to both the literature review and key informant interviews. In this case, the literature pointed more towards a lack of support from political leadership, rather than organizational leadership, but this may in part be due to the broader focus of the literature, as well as jurisdictional differences where political leadership is more closely tied to organizational decision-making (Cox, Swift & Rhisiart, 2015). Nonetheless, the common theme is that, without support from those who make the final decisions, strategic foresight is unlikely to achieve success.

**Table 10: Level of Organizational Support – Unsuccessful Strategic Foresight Practices**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Lack of political ownership	Unsuccessful strategic foresight practices do not have an adequate level of leadership support	Low level of organizational support

However, some interviewees suggested that leadership support is essential for a nascent foresight function but, as time goes on, this support becomes less essential. As foresight becomes more embedded in the organization and becomes less of a fringe function and more of a mindset and a habitual way of approaching strategic thinking, it seems to have a better chance of survival. Many interviewees spoke about foresight being as much a way of thinking as it is an activity. Some even suggested that, once this kind of thinking takes hold in an organization, it will continue to influence how people approach their work, regardless of whether leaders are supportive.

## 7.2 FACTOR 2: INTEGRATION OF STRATEGIC FORESIGHT WITH OTHER STRATEGIC FUNCTIONS (SECONDARY FACTOR)

Another common factor that emerged both in interviews and in the literature was the degree to which strategic foresight is integrated into other strategic functions such as policy, planning and decision-making. This factor is based on insights revealed through research on both enhancing factors and effectiveness measures. According to both the literature and the interviews, a close connection between foresight and policy, etc. is an essential component of foresight success. Likewise, research on the role of foresight in policy, planning and decision-making showed that more successful foresight functions are closely tied to the organization’s key strategic functions.

**Table 11: Integration of Strategic Foresight with Other Strategic Functions**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Close integration with current organizational policy priorities	Successful strategic foresight practices are closely connected with other strategic functions and organizational priorities	Position within organizational structure

The research also shows that this factor is closely connected with level of leadership support. In organizations where there is a higher level of support, foresight outputs are more likely to be endorsed and used by senior decision-makers (Kuosa, 2011b). In these situations, senior leaders are more likely to mandate the use of foresight in other activities where they do not customarily have direct involvement (such as issue identification or research and analysis) (Schmidt, 2015). A supportive leader can often help to sway organizational culture as well. Demonstrating trust in foresight at the highest levels can have a trickle-down effect within the organization and can help to eliminate traditional divisions and legacies of mistrust (Solem, 2011).

Interestingly, something that was not addressed in either the literature or the interviews is the idea of training foresight practitioners in policy. While many sources and respondents suggested educating the policy community about foresight, there was no mention of providing any kind of policy training to foresight practitioners. In order to achieve closer integration between foresight and policy, a strong understanding of both disciplines would likely help. Understanding the policy cycle and policy decision processes could help foresight practitioners identify windows of opportunity where foresight could help clarify or strengthen an issue. Therefore, a successful practice could also include some level of policy training.

## 7.3 FACTOR 3: CLEAR COMMUNICATION (SUPPORTING FACTOR)

There are two components of clear communication in this factor, the first being around clear articulation and management of expectations, and the second being a kind of translation exercise, where a potentially complex and method-heavy process such as foresight is made more accessible to the uninitiated.

Under the first component, both the literature review and the interviews indicate that managing expectations around foresight is highly important to ensuring its success. This includes providing clear outcomes, as well as being clear about the purpose of the foresight function, exercise, output, etc. This also includes tying the foresight activity to tangible next steps, or actions so that it is brought down from being a conceptual exercise to a practical and implementable function that produces measurable results. These results can be tied to the articulated outcomes, and can help to make the impacts of foresight more apparent (Miles, 2012). Therefore, being explicit about the goals/outcomes, purpose and next steps of a foresight exercise helps not only to increase understanding of foresight in the present but also with value articulation in the future.

**Table 12: Clear Communication**

<b>Literature Review</b>	<b>Literature Review and Key Informant Interviews</b>	<b>Key Informant Interviews</b>
Clear communication	Successful foresight practices clearly communicate about the value and purpose of strategic foresight within organization	Clarity and applicability of foresight processes and outputs

The other component of the Clear Communication theme is the importance of ensuring that foresight is accessible to everyone. Both the interviews and the literature stressed the importance of ensuring that foresight outputs and processes can be “translated” into something that everyone understands and feels comfortable with, regardless of their level of exposure to foresight. As Dreyer and Strang (2013) explain, “it is a challenge to translate complex and sometimes nebulous future issues into coherent documents that can usefully inform the policy process” (pp. 26 – 27). One interviewee phrased the issue as “making sure that we’re not just seen as a bunch of loonies off in the corner”. The whole purpose of foresight is to engage with the future, but the future is unknown, unquantifiable, and therefore often unsettling. If foresight practitioners help people engage with the future in ways that are not intimidating and can bridge the gap between current realities and the nebulous future, then are less likely to be branded as “the loonies off in the corner”. Therefore, the ability to translate future complexities into current action is important to successful foresight.

Research from the interviews also reveals the importance of ensuring that foresight exercises are not overwhelmed by theory and methodology. Although foresight is a theory and method-heavy discipline, it is usually the case that those who use foresight outputs or participate in foresight exercises are not interested in the particulars of foresight theory and methodology (Global Centre for Public Service Excellence, 2014). They simply want to know that foresight is going to work and is going to give them the information that they need (2014). In the government context, pragmatism is usually favoured over theory and so foresight practitioners must explain their tools and processes in very concrete, accessible language that can be easily understood and acted upon (Solem, 2011).

As one of the interviewees observed, achieving foresight success “is often less about what information is generated and more about how that information is conveyed”. Communicating clearly about expectations and being able to translate foresight’s complexity into something practical and accessible is important to ensuring a successful foresight practice.

#### **7.4 FACTOR 4: NETWORKING AND ENGAGEMENT (SUPPORTING FACTOR)**

This factor also has two connected components. The first is the importance of ensuring appropriate and sustained stakeholder engagement. The second is the need for foresight functions to be connected to external and internal networks.

Both the interviews and the literature review point to the need to continually involve stakeholders throughout foresight processes. In particular, both sources suggested that it is especially important to involve those who will be impacted by, or will use, the end output of a foresight process (i.e. the strategy, the recommendations, etc.). According to the research, continual involvement means that stakeholders should have input on the design of the foresight exercise, as well as the ability to provide feedback as the exercise progresses (Cox, Swift & Rhisiart, 2015). Ideally, this also means that stakeholders are active participants in the foresight process itself, although several interviewees reported that senior level stakeholders are often too busy to attend. Continual stakeholder involvement increases the chances that the final output will be appropriate to stakeholder needs (DaCosta, Warnke, Cagnin & Scapolo, 2008). It also helps to solicit stakeholder buy-in, which increases the chances that stakeholders

will advocate for, and use the outputs of the foresight exercise (2008). It also increases the chances that stakeholders will turn to foresight to support any future strategic needs.

The literature and interviews also emphasized the importance of having the appropriate mixture of participants in a foresight exercise. This includes a mixture of content experts to add subject area knowledge, foresight experts who can competently guide the process, stakeholders who will use or be impacted by outputs from the foresight exercise (often there is some overlap between stakeholders and content experts), and some external participants who can provide a different, and perhaps broader perspective (Cox, Swift & Rhisiart, 2015). While all these groups are not stakeholders in the traditional sense – i.e. they may not be directly impacted by the foresight exercise – they do have an investment in the outcomes and success of the foresight exercise, as it is based partly on their input and ideas. Therefore, both the users/beneficiaries of foresight and those who participate in the actual foresight work can be considered stakeholders. Continual engagement of all these groups is important to ensuring foresight success.

**Table 13: Engagement**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Continual stakeholder engagement	Successful foresight practices are informed and supported by the appropriate stakeholders	Quality of foresight inputs

Both the interviews and the literature also touched on the role of networking in strategic foresight. According to both sources, the ability to connect with other practitioners and the ability to be linked in with a broader community of people can enrich and deepen both the quality of foresight inputs and strengthen the methodology and tools used to support a foresight practice. Networking with those outside the organization (for example, in the private sector or in other governments) can help ensure that the information gathered during environmental scanning and other foresight input exercises is informed by a broader perspective and different types of knowledge and expertise (Cox, Swift & Rhisiart, 2015). Often those in other contexts are better positioned to understand the complexities of a situation, and often have a better sense of future disruptions and how they may unfold (Global Centre for Public Service Excellence, 2014). For example, someone in the natural resources sector will likely have more accurate insider knowledge about the possible disruptions in that sector, or someone in another province will have a better understanding of the specific trends that are occurring in that jurisdiction. Therefore, staying connected to broader external networks supports a more robust and comprehensive process of intelligence gathering and ensures a more coordinated path forward for foresight-based solutions and strategies.

**Table 14: Networking**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Strong external networks	Successful foresight practices benefit from connection to broader network/community	Strategic foresight is connected to, and informed by, strong external networks  It is important to build networks/community – both internally and externally

Building internal networks is also an important component of foresight work, according to many interviewees. This includes staying connected to the various policy, programming and operational areas within the organization. While this ties in to the theme of integration with other strategic functions, it is also about ensuring that foresight processes consider the needs and issues of the entire organization, not just the particular policy or planning priorities of the

day. Staying tapped in to budgetary, legal and information technology needs in the organization can help ensure that foresight exercises have the adequate resources and support, and that any implementation plans or strategies consider all the various capacities within the organization (Bootz, 2010). A strategy might have excellent ideas, but if the organization does not have the technology to support the implementation of those ideas, then it will not be successful. Therefore, both internal and external networking are important to foresight’s success.

Building networks is also important in terms of supporting a strong strategic foresight practice. Strategic foresight methodologies and tools are always evolving, and being able to keep abreast of the latest developments as well as sharing insights on what is and is not working can be highly valuable for a foresight practitioner. While best practices cannot be universally applied, there is still value in sharing advice and learning about how foresight is practiced in other contexts (Grim, 2009). It is often the case that, when applied at a general level, practices that work in one context can work in another (2009). Therefore, creating a network of practitioners can help to promote a successful foresight practice.

## 7.5 FACTOR 5: FORESIGHT CAPABILITY AND EXPERTISE (SUPPORTING FACTOR)

Research from both the literature review and the key informant interviews also indicated that foresight works best when it is supported by people who have a certain level of expertise and experience. This factor is especially interesting in the context of Alberta, where some foresight areas are being staffed by people who have little-to-no experience with foresight. While there were a few respondents who suggested that foresight skills could be acquired through reading, most of the respondents who spoke about this theme believed that some level of training was necessary. Likewise, all of the literature reviewed recommended that foresight be supported by trained experts. The authors believe that the complexity of foresight processes, as well as the challenge of integrating foresight into other strategic systems requires someone who has a strong understanding of the various facets of foresight work.

Accessing this kind of talent and expertise can be challenging, especially in Canada, where there is currently only one academic strategic foresight program (The Masters of Design in Strategic Foresight and Innovation at the Ontario College of Art and Design) (Berze, 2014), as well as some training courses offered through think tanks such as the Conference Board of Canada. Several interviewees reported that they had received their education through the University of Houston, which offers a Master’s of Science in Strategic Foresight, as well as several shorter professional courses. However, these type of credentials tend to be in high demand, and some interviewees expressed concern about the ability to keep highly trained staff, especially when competition from the private sector is high. Creating a foresight function that is sufficiently appealing to highly-trained – but also highly in-demand – practitioners is another important element of ensuring a successful strategic foresight practice.

**Table 15: Foresight Capability and Expertise**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Adequate expertise	Successful foresight practices need are supported by people who have adequate training and experience	Level of foresight capability

Some interviewees and some literature also spoke to the need to have a specific mindset. This mindset is different than the expertise gained through education. This mindset is characterized by competencies such as a high tolerance for ambiguity, an ability to spot weak signals and irregularities, strong inter-personal skills, open-mindedness, and exposure to other cultures and modes of behavior (Bishop & Hines, 2015). Some interviewees termed this set of skills a “foresight capability”. This capability seems to be especially conducive to foresight because it embodies the same level of awareness and openness to new and different ways of thinking and working. Although many practitioners develop this capability through their training, it seems to be innate in others. Therefore, it may be

important for foresight teams to include not only trained practitioners but also some untrained people who possess these particular capabilities.

## 7.6 FACTOR 6: SUSTAINABILITY (SUCCESS MEASURE AND SUPPORTING FACTOR)

Under the theme of sustainability, both the literature and interviewees suggested that a foresight function will never achieve true success unless it has the ability to last beyond a particular election or budget cycle. This is particularly true for environments such as Alberta where foresight is relatively new and government revenue streams tend to be dependent on a volatile natural resources market. While there are some foresight functions in the GoA that have lasted through various leadership and budget changes, others are facing an uncertain future.

Of course a foresight function’s level of sustainability is intimately tied to the level of support that it has from senior leadership, and the degree to which it is tied in with other strategic functions (Calof & Smith, 2010). As discussed above, without these two factors, foresight sustainability is challenging. In fact, the degree to which a foresight function is sustained is often a good indication of how successful foresight has been at achieving these two factors.

**Table 16: Sustainability**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
Sustainability against organizational change	Successful foresight practices are able to withstand organizational change	Positive sustainability

However, a sustained foresight function does not necessarily mean a static function. Both the literature and interviews touched on the need for foresight to evolve and be flexible to changing organizational needs. Many interviewees felt that the future of their organization’s foresight function lay in the ability to adapt and reflect the dynamic and rapid change that foresight practitioners study. They believed that a willingness to evolve and to be detached from the idea of “traditional” foresight could help the function survive in the organization. Therefore, built-in flexibility and adaptive capacity can also help foresight functions survive long enough to achieve success.

## 7.7 FACTOR 7: USE OF STRATEGIC FORESIGHT OUTPUTS (SUCCESS MEASURE AND SUPPORTING FACTOR)

The use of foresight outputs seems to be an important criterion for success, particularly among the interview participants. What is interesting about this theme is the difference between interviewees and the literature on *how* these outputs are used. For many interview participants, foresight failure was described as situations where foresight outputs “sit on a shelf”. In other words, they are not used in any way. On the other hand, the literature review pointed to an inappropriate use of foresight products (Cox, Swift & Rhisiart, 2015). That is to say, the authors are less concerned with whether the outputs get used, and more about whether they are being used in the right way (2015, p. 15). This suggests foresight practitioners from other jurisdictions seem to at least get their foresight outputs used, even if they are not always used appropriately. In contrast, for many of the Canadian practitioners interviewed for this project, getting anyone to even use foresight outputs can be a challenge. This could mean that in many cases, Canadian foresight is slightly behind other jurisdictions in terms of level of use for foresight outputs. This is certainly supported by evidence from countries such as Finland, the Netherlands and the United Kingdom, where foresight functions are highly established and evolved in comparison to Canada (Habegger, 2010).

**Table 17: Use of Strategic Foresight Outputs**

Literature Review	Literature Review and Key Informant Interviews	Key Informant Interviews
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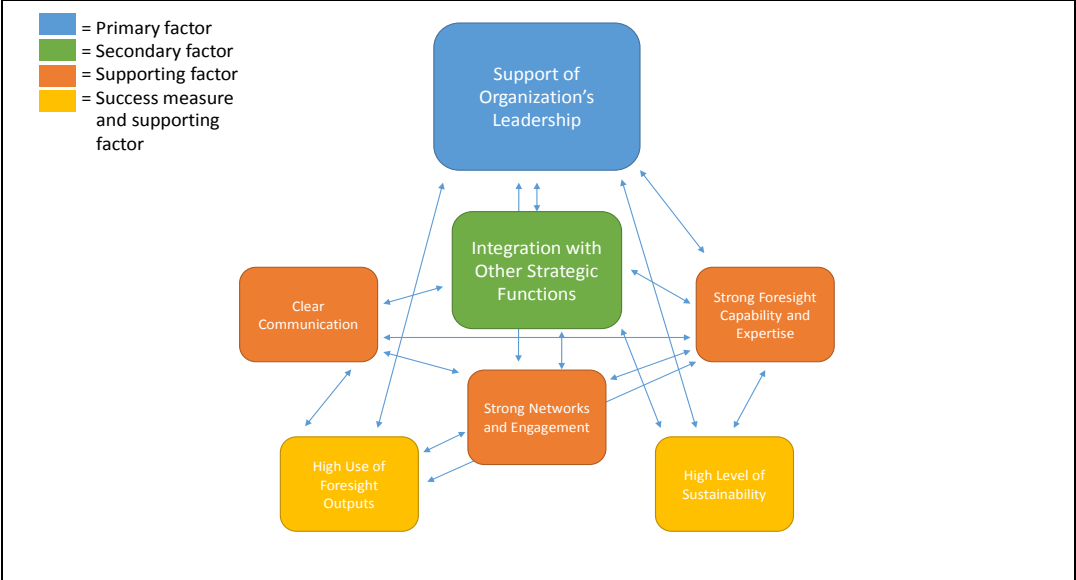
	Informant Interviews	
Appropriate use of strategic foresight outputs	Successful strategic foresight practices produce outputs that are used regularly and in different ways by the organization	Foresight products are used/do not “sit on a shelf”

It is clear that the degree to which foresight products are used can be a significant factor in foresight success. If outputs are not used, then the value and insights that foresight can provide are likely not being noticed. However, as the literature review highlights, the way in which outputs are used can be just as important. According to the literature, if foresight outputs are misused, then the value of foresight is often ignored or dismissed (Dreyer & Stang, 2013). For example, if a foresight strategy with a twenty-year outlook is used to create a three year business plan, it will likely only cause confusion since the scope, timeline and focus are so different. Ensuring that the right outputs are used in the right situation is another key component to ensuring foresight success.

### 7.8 SUMMARY

What was interesting to note about the factors listed above is the degree to which they are all connected. As is shown in Figure 8, each factor seems to be mutually dependent, or at least mutually influencing on the other factors. For example, level of leadership support seems to be closely connected to level of integration with other strategic functions, particularly decision-making. If leaders do not support foresight, then they are less likely to use it to inform their decision-making, and they are less likely to request foresight products to inform policy and planning processes. Likewise, clear communication is connected to how much foresight is used, since foresight outputs are more likely to be used if their purpose and value is effectively communicated. Level of use is also connected to how much training and education foresight staff have received, which would probably not be sanctioned or resourced without leadership support. In short, none of these factors can exist in isolation. Instead, each factor is necessarily dependent on the others and each factor has an impact on others.

**Figure 8: Connections and Influence between Key Success Factors and Measures**

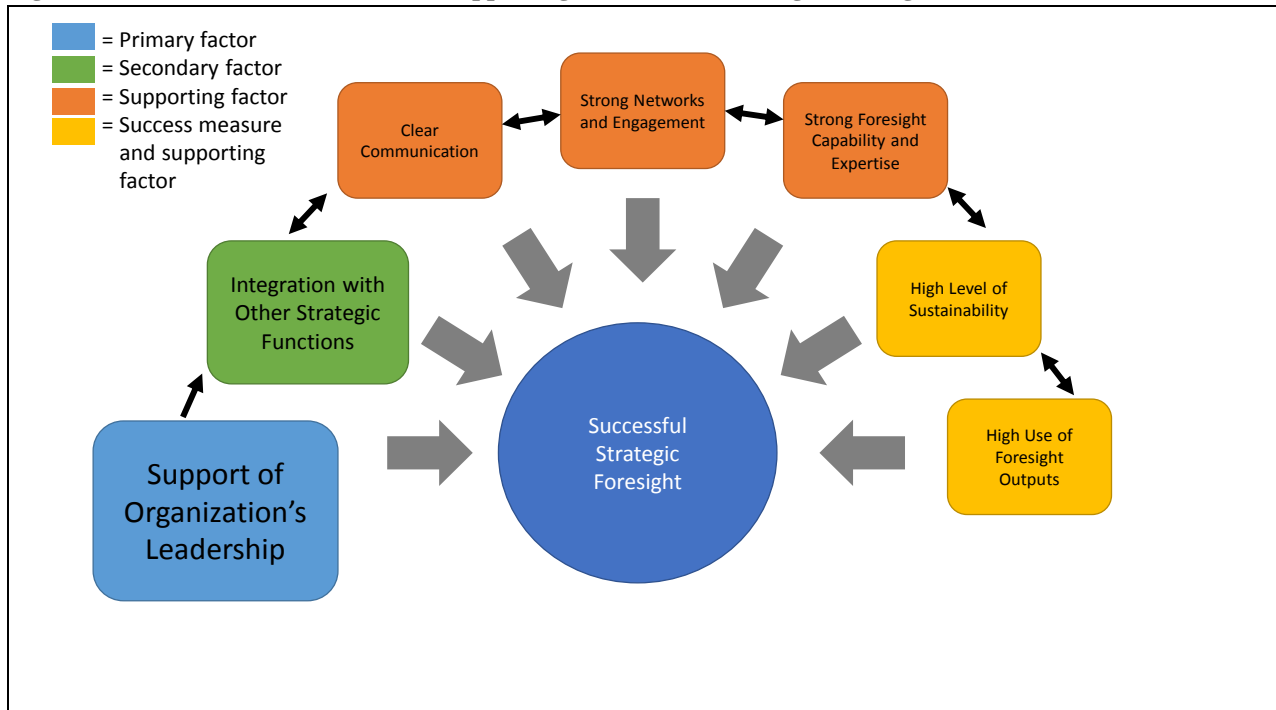


However, as Figure 8 also demonstrates, there are some factors that seem to be more important, or at least seem to act as precursors to other success factors. Support of organizational leadership seems to be the primary influencing factor in foresight success. Therefore, this factor is presented as slightly larger in the diagram, in order to represent

its importance to foresight success. Integration with other strategic functions is also an important factor, but seems to be partially dependent on support from leadership, and so is portrayed as slightly smaller, representing its dependence and slightly lower importance. The other five factors seem to have equal impact and importance and so are all displayed as the same size.

According to the high level of consensus between the literature and the interview participants, the seven factors listed above are almost always present in a successful strategic foresight practice. While it may be possible to have a successful practice without one of the supporting factors, the presence of all seven should be a guarantor for success. According to insights and advice gathered from the foresight practitioners interviewed, successful implementation or maintenance of foresight is dependent on being able to sustain these factors. While the process of sustaining these factors is not exactly linear, there are some factors that are more important than others and so should be attended to first. As shown in Figure 9, below, support of organizational leadership is the foundational success factor, and so should be the primary focus of success efforts. Once support of organizational leadership is developed or improved, secondary efforts should be focused on integrating foresight with other strategic functions. Efforts to build the supporting factors should also be made at this point, because they can help facilitate and build the success of the primary and secondary factors.

**Figure 9: Seven Identified Factors for Supporting a Successful Strategic Foresight Practice**



## 8.0 RECOMMENDATIONS

### 8.1 INTRODUCTION

The literature review and key informant interviews generated five recommendations for the project clients to consider. These recommendations are intended to help the project clients assess the strength of their strategic foresight practice, and identify areas for possible improvement. By implementing these recommendations, the foresight function at Alberta Environment and Parks should have a greater chance of remaining resilient in the face of organizational change, and should achieve sustained success.

## 8.2 RECOMMENDATION 1: ASSESS THE STRENGTH OF KEY SUCCESS FACTORS

In order to work towards a stronger foresight practice, it is important to first assess the current state. Without knowing exactly where there may be gaps and points of vulnerability, it will be difficult to know where to target time and resources toward improvement. Therefore, some type of assessment tool is needed. To support the clients in this endeavor, an assessment survey has been created (see Appendix F), which will help them assess how their practice is performing in the seven identified success factors. This assessment survey has been created as a Likert scale so that the clients can measure where they may have specific levels of strength and weakness. Based on the results of the survey, specific areas will either be identified as performing well, and therefore not in need of any targeted improvement measures, performing poorly, and therefore needing some targeted steps for improvement, or performing neutrally, which means that they will need to be closely monitored and assessed for any improvement or decline in status.

It is suggested that the assessment survey be administered using the following steps:

1. Take a few weeks to observe how the foresight function in the organization is working. Take notes about what you are observing. Some questions to guide this observation process could include:
  - Who is the foresight team working with?
  - What types of questions are they being asked?
  - What current work is the team focusing on?
  - What are the plans and priorities for the foresight group over the next few months/years?
  - What are the plans and priorities for the organization over the next few months/years?
  - What external events are happening that could influence foresight work (for example are there any budget announcements coming up)?
  - How are any current foresight outputs being used?
  - How much is the foresight group interacting with other strategic areas (such as policy areas, planning areas)?
  - How much interaction does the foresight group have with senior decision-makers?
2. Once the observation period has passed, then complete the assessment survey.
3. It is recommended that the survey be completed by each member of the foresight team.
4. If possible, the assessment should also be completed by people outside of the foresight team, to ensure that any internal bias is controlled for.

Once the assessment has been completed and the results tabulated, the next step will be to identify the areas that performed well, poorly or neutrally in the assessment. Those areas that performed poorly should be where the majority of time and efforts are focused. Areas that performed neutrally should be monitored for any changes. These areas should also be assessed to determine where improvements might be made, but should not be treated as urgently as the poor-performing areas. Areas that performed well should be further analyzed to determine why they have performed so well and if there are any elements or strategies that can be replicated in the poor-performing areas. These areas should also be continually monitored to ensure that their status does not change.

The recommendations that follow are dependent on the results of the initial assessment survey. Recommendations for improvement are based on the assumption that areas performed either poorly or neutrally in the following areas.

## 8.3 RECOMMENDATION 2: SOLICIT AND BUILD LEADERSHIP SUPPORT

The research identified leadership support as the primary success factor for strategic foresight in a Canadian government-based organization. If the assessment survey identifies this as a poor performing area, then attention should be focused urgently on remedying the situation, as performance in leadership support will likely make or break a practice. The following series of sub-recommendations are intended to help foster new leadership support and grow existing levels.

### 8.3.1 IDENTIFY A SENIOR LEVEL STRATEGIC FORESIGHT CHAMPION

The research has pointed to the value of having a supportive leader embedded in the organization, and so the first step in soliciting leadership support is to identify potential champions. These are people who can advocate for strategic foresight at senior levels and can act as an intermediary between the foresight team and senior decision-makers. Usually this is someone who has had previous exposure to foresight and so understands how it works and where its value lies. Having a senior leader as champion tends to be effective for several reasons. First, his/her opinions likely carry equal weight with senior colleagues and therefore support for foresight may be given more credence than it would from other lower-order colleagues. Secondly, senior decision-makers tend to be in fairly centralized positions, giving them access to a broad range of areas and networks. Being able to tap into these networks and spread support from the centre tends to be more effective than trying to solicit support from the edges of an organization. Finally, senior decision-makers have the power to influence opinion in the organization, not just at the senior level, but all across various levels and areas. Whether this is through mandating support, or simply through spreading awareness, the influence is strong, and usually highly effective.

### 8.3.2 EDUCATE SENIOR DECISION-MAKERS

A key aspect of foresight success is understanding the value and purpose that it provides to an organization. Therefore, it is recommended that options for educating senior leadership about foresight be explored. According to Fuerth and Faber (2012, p. 23), approaches that seem to resonate most with senior decision-makers are ones that focus on the value of foresight to the organization, as well as its purpose, and ways in which it can be tangibly used. In particular, approaches should emphasize how foresight connects with current policy priorities and other strategic considerations within the organization. Senior leaders are always looking for ways to add strategic value, as well as achieve efficiencies (Kuosa, 2011b), and so educational approaches that emphasize how both can be achieved through foresight, should help to solicit some support, as well as increase awareness and understanding.

There are a number of ways in which educating senior leaders could be approached, and will depend on the available resources of the foresight team, as well as the organizational culture, and expectations placed on senior decision-makers. Ideally, in-person training such as a workshop would be provided. Or, even more ideally, decision-makers would participate in foresight exercises. As with most types of education, full experiential immersion is a more effective way of learning about a concept than simply reading about it. Or, as Miles (2012) explains, “the impact of taking part in a scenario workshop is liable to be far more than that achieved as a result of being handed the report of that workshop” (p. 70)

However, the hectic schedules and competing priorities of many senior leaders mean that, in many situations, this type of in-depth training is not possible. Alternative methods of raising awareness include briefings, brochures, half-day training sessions, and conferences. It is also helpful to expose senior leaders to the outputs of previous foresight exercises so that they can see what the end result of a foresight process looks like. For additional examples of foresight educational materials, see the materials from Singapore’s Centre for Strategic Futures at <http://www.csf.gov.sg/>.

### 8.3.3 EXPLORE OPTION OF HAVING DIRECT CONDUIT TO SENIOR LEADERSHIP

In many successful strategic foresight functions, there is a direct reporting relationship between foresight practitioners and high-level senior leadership (usually a Deputy Minister). This is the arrangement that is used in Policy Horizons Canada, as well as several other successful government-based foresight functions. This direct conduit to high-level decision-makers ensures that the foresight function has the attention of senior leadership. A direct reporting relationship also helps to ensure that foresight practitioners have direct input into key strategic decisions and identification of policy priorities.

Direct reporting also ensures that insights generated by foresight can be shared in a timely manner with minimal intervention from other levels of government. This can be especially important to maintaining foresight’s challenge function and role in surfacing assumptions. Often foresight surfaces insights that can be uncomfortable and

challenging to think about. The more levels and approval processes that foresight outputs have to go through, the higher the chance is that many of the more uncomfortable insights will be weeded out (Solem, 2011). The end result is that, when foresight outputs have to pass through too many layers of command, the end product is often watered-down and lacking in the more challenging insights that often provide the most value to the organization (2011). While it may not be possible to be in a direct reporting position to a senior leader such as a Deputy Minister, it may be possible to directly send foresight outputs for review or for information.

#### 8.4 RECOMMENDATION 3: ENSURE SUSTAINED INTEGRATION WITH STRATEGIC FUNCTIONS

The second most important success factor identified through the literature review and interviews was integration with the organization's other strategic functions, such as policy development, planning and decision-making. This factor is particularly important in ensuring that foresight is able to provide maximum value-add in the organization. While this factor is most certainly connected to the leadership support factor, there are some independent steps that practitioners can take to help ensure strong and sustained integration.

##### 8.4.1 CREATE A STRONG STRATEGIC NETWORK

In some cases, formal integration with other strategic functions is not possible due to the rigid structures and processes that often characterize government (Leigh, 2003). However, it is still possible to influence integration in more informal ways. In particular, networking and engaging with other strategic communities. Integrating foresight with other strategic communities is one of the areas where networking is most valuable. When isolated from other strategic functions, foresight has a much lower chance of being supported and used (Dreyer & Stang, 2013). While some of this integration comes through formal organizational structures and processes, creating more informal networks is also a highly effective way of building trust and soliciting buy-in for foresight functions. This is particularly useful in large organizations, where functions are often kept separate, and many areas do not interact (Rijkens-Klomp & Van Der Duin, 2014). Having the ability to bridge organizational gaps through the creation of networks helps to reduce this barrier.

This means that foresight practitioners are required to be highly interactive and is one of the areas where the specific capability of inter-personal skills mentioned above becomes crucial. The ability to work well with people in other areas creates informal avenues for trust to build, and lays the foundation for a willingness to adopt foresight work in the future.

Some concrete suggestions for creating stronger internal networks include:

1. **Creating a Strategic Foresight Community:** The creation of an internal community of practice that includes members of policy and planning areas. The purpose of this community could be to review and provide input on ongoing foresight projects. This would give members from outside the foresight group an opportunity to engage with foresight work and be involved in the foresight process. This might also be a good place to solicit ideas for new projects.
2. **Include Members of the Policy and Planning Community as Participants in Foresight Exercises:** Again, this would help expose the policy and planning community to foresight and would help members of these communities to have a stronger understanding of how foresight works and why it is valuable.
3. **Establish Informal Connections:** Simple acts like taking people for coffee or lunch, or meeting with a policy or planning area to discuss their needs and priorities can go a long way in creating the necessary trust and support to underpin a successful strategic foresight practice.

##### 8.4.2 ENSURE TWO-WAY EDUCATION WITH STRATEGIC COMMUNITIES

Much of the research pointed to the need to educate policy and planning communities about foresight. However, it seems reasonable that if policy/planning communities could benefit from learning about foresight, then foresight communities could also benefit from learning about policy and planning. This is particularly the case with many areas that are only staffed with people specifically trained in strategic foresight. In many cases, those who have a

specific foresight background may not have the same level of exposure to policy and planning as people who work in those areas. Even if foresight practitioners have been trained in the theoretical aspects of policy and planning, the practical version found within government is often very different, and may have little resemblance to what was studied during training (Schmidt, 2015).

Likewise, policy and planning communities can be dismissive of foresight work and deem it “speculative and not relevant to their work” (Dreyer & Stang, 2013, p. 25). This attitude is usually attributed to a lack of understanding about foresight and what it can offer. It may also stem from past experience with failed foresight work, or is simply a result of mistrust of the unknown. Either way, it can be especially damaging to the success of a foresight practice. Therefore, it is important to ensure that policy and planning communities are educated about strategic foresight.

To ensure that education is available to foresight *and* policy/planning groups, it will be necessary to work in a coordinated way with the policy and planning communities. Possible steps to address this issue include:

1. Holding strategic foresight workshops with policy and planning staff.
2. Offering training sessions for policy, planning and foresight staff.
3. Creating secondements between foresight and policy/planning areas so that staff have the opportunity to work in each area.
4. Offering job shadowing opportunities where staff can spend some time observing the work and processes of the other area(s).

## 8.5 RECOMMENDATION 4: BUILD UP SUPPORTING FACTORS

The supporting factors identified through the research are important for enhancing strategic foresight success. Although it is possible to have functional strategic foresight processes without these factors, they likely will not be of a high quality and will not be nearly as highly valued or used as those that incorporate all of the supporting factors. As a result, the following recommendations should also be implemented, if possible.

### 8.5.1 CREATE A COMMUNICATIONS PROCESS FOR EACH FORESIGHT EXERCISE

The first step for this recommendation is to develop a project plan that can guide the foresight process and also clearly articulate the anticipated outcomes that the project will achieve. In addition, some kind of performance measurement framework should be included to ensure that the outcomes can be tangibly measured and assessed, post-implementation. This is an area where collaboration with AEP’s performance measurement area is recommended so that a proper structure can be put in place to develop and measure outcomes.

Once the outcomes have been developed, and performance measures identified, then the communications plan can be developed. The communications plan should include the identified outcomes and measures, as well as a clear purpose statement that articulates why the foresight exercise is being conducted. In addition, a description of the anticipated steps that will be taken throughout the process should be included, as well as a list of anticipated participants and resources. While this plan may not be shared outside of the foresight area, it will help to identify what needs to be communicated to whom.

After the communication plan has been developed, then communication materials should be shared with stakeholders, ministry staff and key senior decision-makers. The communication materials will have to be tailored for different audiences. For example, senior decision-makers will need something concise with information on strategic implications, and alignment with other organizational priorities. Stakeholders will need materials that discuss how their needs/issues/concerns will be met through the foresight exercise, what type and level of participation is expected of them, when and how they will be asked to provide input, and what the impacts of the anticipated outcomes will be. Ministry staff could receive a small information package explaining the purpose and processes of foresight, and also information on how their work connects to the foresight exercise. In each case, it is

important that materials are worded using as little foresight jargon as possible so that people who are unfamiliar with foresight can still understand the processes and tools that are used.

Developing communication materials that clearly identify deliverables, outcomes, purpose etc. of a foresight exercise will help to manage expectations and give stakeholders, staff and senior leaders a solid understanding of what the foresight exercise will and will not achieve. Clear communication will also help dispel misunderstandings and ensure that everyone involved has the information they need to make the exercise as successful as possible.

### 8.5.2 BUILD INTERNAL NETWORKS

Part of building a strong foresight function is ensuring that practitioners are as connected as possible to as many networks as possible. This includes broader foresight networks and communities, as well as internal networks with other areas of the ministry. The project clients are already very well connected with external communities such as the Government of Alberta Strategic Foresight Community of Practice, the Public Sector Foresight Network and several more informal networks of foresight practitioners. Therefore, this recommendation focuses exclusively on building internal networks.

Building and maintaining strong networks with other areas of the ministry is a key component of soliciting interest and support for foresight work. It also ensures that strategies and implementation plans that result from foresight exercises take into account the existing needs, resources and capacities of the entire ministry. Possible strategies to create stronger linkages with other areas include:

1. Inviting members of other areas to participate in foresight exercises.
2. Holding information sessions, training sessions or brown bag lunches on foresight that are open to all ministry staff.
3. Holding meet-and-greet meetings with other areas of the ministry in order to gather more information on what they do, how they work, what their biggest challenges and opportunities are, etc. These meetings should be followed up with regular “check-in” meetings, where updates on current work, as well as future plans can be shared.
4. Solicit input on topics for future foresight projects from all areas of the ministry.
5. Solicit input on existing foresight outputs from all areas of the ministry.
6. Include members of other areas on any foresight training exercises.

Over time, this level of outreach should help to strengthen relationships and create strong networks within the ministry. This will help ensure that foresight exercises are fed with the necessary internal intelligence to support successful foresight outputs and create a stronger overall foresight function.

### 8.5.3 ENSURE CAPACITY IS BUILT FROM OUTSIDE AND INSIDE THE ORGANIZATION

According to the research for this project, some level of foresight training is needed to ensure a successful practice. Therefore, it is important that members of a foresight team are trained, and when possible, have some amount of foresight experience. As a consideration for future hiring practices, people with formal foresight training should be given priority. Current members of AEP’s foresight team are highly trained, and this practice should continue in the future.

It is also worth considering providing training for any team members or even support staff who have not had a formal foresight education. Training opportunities will soon be offered through Alberta Energy’s strategic foresight team. AEP could take advantage of this opportunity by offering training to any interested members in the ministry, with first priority going to those who work most closely with the foresight team and/or foresight outputs.

#### 8.5.4 TRACK HOW OUTPUTS ARE USED

Many foresight functions around the world keep close track of how their outputs are used, in order to assess the success of their practice and monitor how well their work is addressing organizational needs (Calof & Smith, 2010). Tracking is usually done by administering surveys to the organization's staff. This would be an additional step to consider when assessing the success of AEP's foresight function. Surveys could be administered quarterly, and could solicit information on the level of use of foresight outputs (i.e. frequent, occasional, seldom, never) as well as how they are used (i.e. to inform the business plan, to inform issue identification, etc.). Questions posed in this survey could be similar to those asked in the key informant interviews.

Tracking use of outputs will help the project clients understand where their work is being successfully adopted and where it is having trouble gaining traction. This will give them a sense of how successful their practice is in meeting organizational needs and will also help them more effectively target and tailor their outputs for optimal use.

#### 8.5.5 TRACK PAST SUCCESSES AND FAILURES

It is also important to keep track of which foresight outputs and exercises were successful and which ones did not meet organizational needs and expectations in any sustainable way. The first recommended step in this process would be to define success and set some criteria for how success might be achieved. It is recommended that Calof and Smith's (2010) definition of success applied to this research project be used. It is also recommended that the key success factors identified in this research project be used as the main success criteria. Using the seven identified factors, each foresight exercise and output can be assessed. Based on how well they measure against the seven factors, they can then be categorized as successful or unsuccessful. Those that were successful can be analyzed to determine how the success factors were achieved and what conditions might be needed to replicate this success again. Those that were unsuccessful can be analyzed to determine what factors were missing and what conditions were in place to prevent those success factors from occurring. It will be important to be honest about where success and failure occurred, and view the process from an objective standpoint. This can be challenging when it relates to assessing one's own work, but is necessary for ensuring real and lasting success.

## 9.0 CONCLUSION

The purpose of this project has been to gather insights and advice on how to achieve foresight success, particularly from those who practice and use foresight in a Canadian government context. This research question was addressed through an extensive literature review as well as key informant interviews with twenty-three foresight practitioners in Canadian government settings. The research identified seven key success factors that, when present in an organization, should lead to a successful foresight practice. These factors were first identified through a review of the literature, and were then confirmed through the key informant interviews. Two of these factors were deemed primary, or essential, factors, three were deemed secondary, or supporting, factors, and the final two were deemed success indicators as well as supporting factors. These seven factors formed the basis for the recommendations offered to the project clients. In conclusion, insights and advice on key success factors suggest that support of organizational leadership and integration of foresight with other strategic functions are two key factors for success. Clear communication, strong engagement and networking, and strong foresight capability and expertise are also factors that support success. In addition, the sustainability of the foresight function, coupled with the level of use of foresight outputs can both support success and act as measures of foresight success.

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# APPENDIX A: OVERVIEW OF COMMONLY USED STRATEGIC FORESIGHT METHODS AND TOOLS (ALBERTA MINISTRY OF HEALTH)

June 28, 2013

Steps	Indicative Methods	Objective/Description
<b>Scoping</b>	Issues Trees	To formulate key questions that define the core elements of a topic of interest, thereby giving appropriate focus at the outset of a foresight investigation.
<b>Visioning</b>	Visioning	To identify a set of common objectives for a project and describe what the future will be like if they are delivered. Visioning differs from scenario planning in that it tries to construct a single, preferred future that can provide a shared aspirational goal for participants.
<b>Scanning</b>	Survey Environmental Scanning Jurisdictional Scanning Weak Signal Collection	To identify key trends and issues through expert opinions. To identify of patterns and events that may impact an institution through a scan of the external environment (encompassing stakeholders and social, political, economic, demographic, and environmental developments). To identify potentially relevant trends and best practices in other jurisdictions. To detect and collect anomalies that cannot be linked to any known trends or phenomena and signal significant change in the future.
<b>Analysis</b>	Trend Analysis System mapping Driver Analysis Cross-Impact Analysis	To study the historic performance to indicate possible future trends; identify of inter-relations and underlying drivers; and assess of the relevance and impact of the trend. To conceptually represent a system (a set of elements and the relationships between them) and illustrate how events in one part of it affect other parts. To determine which drivers are most critical for consideration for a given topic based on trend analysis and system mapping. To study how relationships between events would impact resulting events.
<b>Prospection</b>	Delphi Modelling and Simulation Scenario Planning	To gather expert opinions on the likelihood of events/topics occurring, within a range of time periods. To test (and, possibly, quantify) a number of hypotheses about a particular system. A model is a representation of a system, typically at a particular point in time. A simulation allows the model to play out over a number of timeframes. To articulate a number of plausible futures as a way to provide the means to consider today's policies in light of future developments.
<b>Interpretation</b>	Risk Analysis	To identify potential opportunities and threats implied by each scenario.
<b>Strategy Development</b>	Roadmap Backcasting Windtunnelling Reverse Engineering	To show the development strands of key elements, their connections with other strands, and potential applications that results. A roadmap also outline a response to this environment with an overall action plan, detailing key objectives to be met. To describe of a preferred future and of the steps required to deliver it. To guide people to imagine how they would meet their objectives in different scenarios. To formulate an agenda for forward action based on current and future threats and opportunities.

# APPENDIX B: UNIVERSITY OF VICTORIA HUMAN ETHICS RESEARCH

## BOARD CONSENT FORM

SCHOOL OF PUBLIC ADMINISTRATION  
UNIVERSITY OF VICTORIA  
PO BOX 1700 STN CSC  
VICTORIA, BC  
V8W 2Y2  
CANADA

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*PARTICIPANT CONSENT FORM*

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### **“Successfully Curating Long-Term Goals”: Advice and Perspectives from Those Who Practice and Use Strategic Foresight in A Canadian Government Context**

You are invited to participate in a study entitled “Successfully Curating Long-Term Goals”: Advice and Perspectives from Those Who Practice and Use Strategic Foresight in A Canadian Government Context that is being conducted by Lucy Banfield.

Lucy Banfield is a Graduate Student in the department of Public Administration at the University of Victoria and you may contact her if you have further questions by telephone at 780-850-8167 or email at banfield@uvic.ca.

As a graduate student, I am required to conduct research as part of the requirements for a degree in Public Administration is being conducted under the supervision of Dr. Barton Cunningham. You may contact my supervisor at 250-598-9878.

#### **Purpose and Objectives**

The purpose of this research project is to identify best practices in the field of strategic foresight within a government organization. This project will identify actions and conditions that support the successful practice of strategic foresight within a government context.

#### **Importance of this Research**

Research of this type is important because it will help government-based strategic foresight practitioners to identify possible steps and actions that they might take within their own organization to achieve success and avoid potential obstacles.

#### **Participants Selection**

You are being asked to participate in this study because of your experience in practicing strategic foresight within a government context.

#### **What is involved?**

If you consent to voluntarily participate in this research, your participation will involve an open-ended interview that will address your experience with strategic foresight. The interview should last approximately 30 to 45 minutes. You will be asked a range of questions that will cover your current role, your thoughts on necessary components for a successful practice and what you have learned throughout your experience with strategic foresight. Notes will be taken during the interview process and a transcript will be made after the interview is complete. With your permission, the interview will also be recorded. All participation will be anonymous and you will not be directly named at any point during the recording,

note-taking, transcript or final report process. However, your organization will be named. A copy of the interview questions will be sent to you in advance of the interview.

### **Inconvenience**

Participation in this study may cause some inconvenience to you since you will be required to provide a small time commitment (approximately 30 – 45 minutes) during work hours.

### **Risks**

There are no known or anticipated risks to you by participating in this research.

### **Benefits**

The potential benefits of your participation in this research include: the chance to reflect on your own strategic foresight practice, and to contributing to the state of knowledge around best practices.

### **Voluntary Participation**

Your participation in this research must be completely voluntary. If you do decide to participate, you may withdraw at any time without any consequences or any explanation. If you do withdraw from the study your data will be destroyed and not used in any way in the report's findings. If you do decide to withdraw, 24 hours' notice in advance of the scheduled interview is requested. While the initial notice of withdrawal may be made verbally, a written notice is also requested. If you have any questions or concerns regarding withdrawal from participation, you are encouraged to contact the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

### **Anonymity**

In terms of protecting your anonymity, pseudonyms will be used in the interview note-taking process, as well as in the transcription process following the interview. Your real name will not be included in any part of the final report, or interview notes or transcripts. However, the name or your organization will be included in interview notes, transcripts and in the final report.

### **Confidentiality**

Your confidentiality and the confidentiality of the data will be protected by use of pseudonyms in all materials related to the report and the interview.

### **Dissemination of Results**

It is anticipated that the results of this study will be shared with those participating in Lucy Banfield's Master's dissertation. Once the dissertation is complete, the final report will be made publicly available through the School of Public Administration. You may also have access to a final copy of the project report, if you are interested.

### **Disposal of Data**

Data from this study will be disposed of two-years after the final project report is complete and Lucy has passed her dissertation. Data will be obtained for 2-years to verify accuracy in case any information presented in the final report is contested. After two years, all data will be destroyed. Paper data will be shredded and electronic data will be permanently deleted.

### **Contacts**

Individuals that may be contacted regarding this study include Lucy Banfield (researcher) and Dr. Barton Cunningham (project supervisor).

In addition, you may verify the ethical approval of this study, or raise any concerns you might have, by contacting the Human Research Ethics Office at the University of Victoria (250-472-4545 or ethics@uvic.ca).

Your signature below indicates that you understand the above conditions of participation in this study, that you have had the opportunity to have your questions answered by the researchers, and that you consent to participate in this research project.

---

*Name of Participant*                      *Signature*                      *Date*

***A copy of this consent will be left with you, and a copy will be taken by the researcher.***

## APPENDIX C: INVITATION TO PARTICIPATE IN INTERVIEW

Potential Interviewee  
Address

Date, Year

### **Re: Participation in University of Victoria research project**

Dear Potential Participant,

As a Master of Public Administration (MPA) student at the University of Victoria, I will be conducting research on best practices in strategic foresight within the Canadian public sector context. This research is being conducted for two reasons: to satisfy the requirements of ADMN 598, a graduate course that will complete my MPA degree; and to provide information to my clients (Shauna Kryba, Director, and Christy Benedict, Foresight Strategist) at the Alberta Ministry of Environment and Parks. Although I use strategic foresight in my professional role, this research will not be conducted as part of my professional work, and I will be conducting interviews from the position of a prospective master's student.

To inform this project, I will be talking to people within various government organizations who either practice strategic foresight as part of their role, or use information generated through strategic foresight processes. As someone who engages with strategic foresight as part of your role, I am writing you today to request an interview with you to inform my report.

Participation in this research is important to the completion of my Master's degree and to the ongoing success of strategic foresight initiatives within the Government of Alberta. However, please note that participation is entirely voluntary, and can be withdrawn at any time without reason or explanation. I have obtained your contact information via publicly posted information, with permission from my academic supervisor. The proposed interview will take approximately 45 – 60 minutes, and will address questions related to your experience with strategic foresight and scenario planning and/or your experience with products/information generated through strategic foresight processes.

I will send you a copy of the questions that I will ask at least one week in advance for your review. By doing so, I hope that you will be able to prepare for our conversation, and feel at ease regarding the questions and subject matter that will be discussed. Please contact me prior to the interview if you have any questions or concerns, or require clarification regarding any question.

Any and all information collected during your interview will be treated confidentially, and your responses will not be identified at the individual level in the final report. However, your organization will be named in the final report, to add authenticity to my findings. Specific examples or quotes will be cited anonymously, as will the overall data presented.

As previously noted, if you decide to participate in this research you may subsequently withdraw at any time without reason or explanation. If you choose to withdraw, please do so one week in advance of your scheduled interview and please provide written confirmation of your request to withdraw. Upon your withdrawal, any information collected will be destroyed and not used for the report.

Please find attached to this email a copy of the free and informed consent form for participation for participation in this project.

Please confirm your participation for this interview. I look forward to hearing from you.

Kind regards,

**Lucy Banfield**

MPA Candidate  
School of Public Administration  
University of Victoria  
(780) 850-8167  
Email: [banfield@uvic.ca](mailto:banfield@uvic.ca)

## APPENDIX D: COMPLETE LIST OF ORGANIZATIONS REPRESENTED BY KEY INFORMANT INTERVIEW PARTICIPANTS

### Government of Alberta

- Alberta Culture and Tourism
- Alberta Enterprise Development and Trade
- Alberta Environment and Parks
- Alberta Energy
- Alberta Health
- Alberta Labour
- Alberta Municipal Affairs

### Government of Canada

- Canada Council for the Arts
- Global Affairs Canada
- National Defence and the Canadian Armed Forces
- National Research Council Canada
- Natural Resources Canada
- Policy Horizons Canada
- Treasury Board of Canada Secretariat

### Government of Ontario

- Elections Ontario

# APPENDIX E: INTERVIEW QUESTIONS

## Lucy Banfield - 598 Masters Project Interview Questions

### 1) Background Questions:

- a. How long have you been with the current organization?
- b. What is your current job title?
- c. What is your current engagement with strategic foresight?
- d. Do you have any previous experience with strategic foresight?
- e. How long have you been practicing strategic foresight and/or engaging with strategic foresight information/products?
- f. What was your introduction to strategic foresight?
- g. Do you have any specific training in strategic foresight?
- h. What is your educational background?
- i. How would you define strategic foresight, as it currently relates to your role?

### 2) Enhancing Factors for Successful Practice of Strategic Foresight:

- a. Could you give me an example of a time when strategic foresight provided value to your work?
- b. In your opinion, how would you define a successful strategic foresight practice within an organization?
- c. Could you provide some examples of factors that would be necessary to achieving this success?
- d. Could you provide a specific example of an experience where strategic foresight has been used successfully in your organization?
- e. If you were tasked with implementing a strategic foresight practice into a new organization, what are actions/steps would you recommend for successful implementation?
- f. What is some essential advice that you could offer to someone/team that is in the process of implementing strategic foresight into an organization?
- g. If you had limited time and resources, where would you focus your time and energy to ensure a successful strategic foresight practice?
- h. If you had unlimited time and resources, where would you focus your time and energy to ensure a successful strategic foresight practice?

### 3) Restraining Factors for Successful Practice of Strategic Foresight:

- a. In your opinion, how would you define an unsuccessful strategic foresight practice?
- b. Could you provide some examples of factors that inhibit the successful practice of strategic foresight?
- c. Could you give me an example of a time when strategic foresight was not used successfully in your organization?
- d. In light of the previous example, what are some ideas or suggestions for improving the outcome?

### 4) Success Measure 1: Use of Strategic Foresight Outputs:

- a. How do foresight products currently get used in your organization?
- b. How does the information generated by foresight get used in your organization?
- c. What strategic foresight products are most successfully used in your organization?
- d. What products are least successfully used in your organization?
- e. What strategic foresight products are used most often in your organization?
- f. How do you use products/information generated by foresight in your role?

- g. Are there ways in which foresight products could be used which are not currently occurring in your organization?
  - h. Can you think of any additional changes to current foresight products/information in your organization?
- 5) Success Measure 2: Role of Strategic Foresight Organization's Key Strategic Functions**
- a. What role does foresight play in the decision-making process(es) of your organization?
  - b. What role does foresight play in the policy development process(es) in your organization?
  - c. What role does foresight play in the planning process(es) in your organization?
  - d. Does foresight play any additional role in your organization?
- 6) Success Measure 3: Sustainability Against Organizational Change:**
- a. How do you see the role of foresight evolving in your organization? (i.e. what role will it play in 5 years? In 10 years?)
  - b. Have you observed any changes in the way that strategic foresight is practiced in your organization? If so, what are they?
  - c. Have you observed any external changes in the way that strategic foresight is practiced? If so, what are they? (These changes can be national or global)
  - d. How do you see the future of strategic foresight? For example, will it become common practice among most organizations or will it be replaced by something different?
- 7) Final Thoughts/Comments**
- a. Do you have any final comments?
  - b. Is there anyone else that you would recommend that I speak to? Any colleagues or associates who might have relevant advice and information?

## APPENDIX F: ASSESSMENT SURVEY FOR SEVEN FORESIGHT SUCCESS FACTORS

Questions	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
<b>Section 1: Support of Organizational Leadership</b>					
The Minister is supportive of the strategic foresight branch					
The Minister values the work of the strategic foresight branch					
The Minister understands that value of strategic foresight					
The Minister is supportive of the work that the strategic foresight team produces					
The Minister has used something produced by the strategic foresight team in the past month					
The Minister has used something produced by the strategic foresight team in the past 2 months					
The Minister has used something produced by the strategic foresight team in the past 3 months					
The Minister is aware of the role and purpose of the strategic foresight branch					
The Minister has participated in a strategic foresight exercise					
The Minister has reviewed outputs from foresight exercises					
The Minister has requested a report on a foresight exercise					
The Minister has personally requested support/work from the strategic foresight branch					
The Minister's office has requested support/work from the strategic foresight branch					
The Minister has personal experience with strategic foresight exercises/processes					
The Deputy Minister (DM) is supportive of the strategic foresight branch					
The DM values the work of the strategic foresight branch					
The DM understands that value of					

strategic foresight					
The DM is supportive of the work that the strategic foresight team produces					
The DM has used something produced by the strategic foresight team in the past month					
The DM has used something produced by the strategic foresight team in the past 2 months					
The DM has used something produced by the strategic foresight team in the past 3 months					
The DM is aware of the role and purpose of the strategic foresight branch					
The DM has participated in a strategic foresight exercise					
The DM has reviewed outputs from foresight exercises					
The DM has requested a report on a foresight exercise					
The DM has personally requested support/work from the strategic foresight branch					
The DM's office has requested support/work from the strategic foresight branch					
The DM has personal experience with strategic foresight exercises/processes					
Outputs from the strategic foresight team are used by AEP's Executive Team (DM and ADMs)					
The Assistant Deputy Minister (ADM) is supportive of the strategic foresight branch					
The ADM values the work of the strategic foresight branch					
The ADM understands that value of strategic foresight					
The ADM is supportive of the work that the strategic foresight team produces					
The ADM has used something produced by the strategic foresight team in the past month					
The ADM has used something produced by the strategic foresight team in the past 2 months					
The ADM has used something					

produced by the strategic foresight team in the past 3 months					
The ADM is aware of the role and purpose of the strategic foresight branch					
The ADM has participated in a strategic foresight exercise					
The ADM has reviewed outputs from foresight exercises					
The ADM has requested a report on a foresight exercise					
The ADM has personally requested support/work from the strategic foresight branch					
The ADM's office has requested support/work from the strategic foresight branch					
The ADM has personal experience with strategic foresight exercises/processes					
Section 2: Integration of Strategic Foresight with Other Strategic Functions					
Strategic foresight is used to inform issue identification activities in the ministry					
Strategic foresight is used to inform research and analysis activities in the ministry					
Strategic foresight is used to inform options development activities in the ministry					
Strategic foresight is used to inform recommendations activities in the ministry					
Strategic foresight is used to inform decision-making activities in the ministry					
Strategic foresight is used to inform implementation activities in the ministry					
Strategic foresight is used to inform monitoring and evaluation activities in the ministry					
Strategic foresight is used to inform stakeholder engagement activities in the ministry					
Strategic foresight is used to inform business planning activities in the ministry					
Strategic foresight is used to inform operational planning activities in					

the ministry					
Strategic foresight is used to inform strategic planning activities in the ministry					
Strategic foresight is used to inform other planning activities in the ministry					
Strategic foresight team is used to inform the ADM's decisions					
Strategic foresight is used to inform the DM's decisions					
Strategic foresight team is used to inform the Minister's decisions					
Strategic foresight is used to support other strategic activities (i.e. risk management, executive planning sessions, etc.)					
The strategic foresight team is familiar with, and understands the GoA policy cycle					
The strategic foresight team is familiar with, and understands the GoA planning cycle					
The strategic foresight team is familiar with, and understand decision-making processes in the GoA					
<b>Section 3: Clear Communication</b>					
Stakeholders understand the general purpose, value and nature of strategic foresight					
Stakeholders understand how strategic foresight is used in the ministry					
Stakeholders are clear on the purpose of each foresight exercise					
Stakeholders are clear on the expected outcomes of each exercise					
Stakeholders are clear on how the expected outcomes will be measured/assessed					
Stakeholders are clear on the processes involved in each exercise					
Stakeholders are clear on what is expected of them before during and after the foresight process					
Stakeholders are clear on how their needs and concerns will be met					
Stakeholders are clear about the scope of the foresight exercise					
Stakeholders are clear about the					

ways in which they will be asked to participate and/or provide input					
Stakeholders are clear about how their input will be used					
Senior decision-makers understand the general purpose, value and nature of strategic foresight					
Senior decision-makers understand how strategic foresight is used in the ministry					
Senior decision-makers are clear on the purpose of each foresight exercise					
Senior decision-makers are clear on the expected outcomes of each exercise					
Senior decision-makers are clear on how the expected outcomes will be measured/assessed					
Senior decision-makers are clear on the processes involved in each exercise					
Senior decision-makers are clear on what is expected of them before during and after the foresight process					
Senior decision-makers are clear on how their needs and concerns will be met					
Senior decision-makers are clear about the scope of the foresight exercise					
Senior decision-makers are clear about the ways in which they will be asked to participate and/or provide input					
Senior decision-makers are clear about how their input will be used					
Senior decision-makers understand the general purpose, value and nature of strategic foresight					
Senior decision-makers understand how strategic foresight is used in the ministry					
Senior decision-makers are clear on the purpose of each foresight exercise					
Senior decision-makers are clear on the expected outcomes of each exercise					
Senior decision-makers are clear on how the expected outcomes will be					

measured/assessed					
Senior decision-makers are clear on the processes involved in each exercise					
Senior decision-makers are clear on what is expected of them before during and after the foresight process					
Senior decision-makers are clear on how their needs and concerns will be met					
Senior decision-makers are clear about the scope of the foresight exercise					
Senior decision-makers are clear about the ways in which they will be asked to participate and/or provide input					
Senior decision-makers are clear about how their input will be used					
Ministry staff understand the general purpose, value and nature of strategic foresight					
Ministry staff understand how strategic foresight is used in the ministry					
Ministry staff are clear on the purpose of each foresight exercise					
Ministry staff are clear on the expected outcomes of each exercise					
Ministry staff are clear on how the expected outcomes will be measured/assessed					
Ministry are clear on the processes involved in each exercise					
Ministry staff are clear on what is expected of them before during and after the foresight process					
Ministry staff are clear on how their needs and concerns will be met					
Ministry staff are clear about the scope of the foresight exercise					
Ministry staff are clear about the ways in which they will be asked to participate and/or provide input					
Ministry staff are clear about how their input will be used					

**Section 4: Strong Networks and Engagement**

The strategic foresight team works closely with policy areas in AEP					
The strategic foresight works closely with planning areas in AEP					
The strategic foresight works closely with IT areas in AEP					
The strategic foresight works closely with legal and legislative areas in AEP					
The strategic foresight team works closely with programming areas in AEP					
The strategic foresight team works closely with executive offices in AEP (i.e. ADM, DM and Minister offices)					
The strategic foresight team works closely with evaluation/performance measurement areas in AEP					
The strategic foresight team works closely with finance areas in AEP					
The strategic foresight team understands the needs and priorities of the policy areas in AEP					
The strategic foresight team understands the needs and priorities of planning areas in AEP					
The strategic foresight team understands the needs and priorities of IT areas in AEP					
The strategic foresight team understands the needs and priorities of legal and legislative areas in AEP					
The strategic foresight team is closely connected to programming areas in AEP					
The strategic foresight team understands the needs and priorities of executive offices in AEP (i.e. ADM, DM and Minister offices)					
The strategic foresight team understands the needs and priorities of evaluation/performance measurement areas in AEP					

The strategic foresight team understands the needs and priorities of finance areas in AEP					
The strategic foresight team has strong connections to foresight networks in the GoA					
The strategic foresight team has strong connections to foresight networks in other governments					
The strategic foresight team has strong connections to other public sector foresight networks					
The strategic foresight team has strong connections to private sector foresight networks					
<b>Section 5: Strong Capability and Expertise</b>					
Every member of the strategic foresight team has formal training (i.e. from an academic institution, think tank or training course)					
Some members of the strategic foresight team have formal training					
No members of the strategic foresight team have formal training					
Every member of the team has spent more than 1 year in training					
Some members of the team have spent more than 1 year in training					
No members of the team have spent more than 1 year in training					
Every member of the team is self-taught					
Some members of the team are self-taught					
No members of the team are self-taught					
Formal education/training in strategic foresight is a requirement for employment					
Minimum of 1 year education/training is a requirement for employment					
Experience with foresight is a requirement for employment					
Minimum of 1 year experience is a requirement for employment					

Foresight capabilities such as open-mindedness, comfort with ambiguity, ability to synthesize large volumes of information are a requirement for employment					
Formal education/training is given priority over capabilities when hiring					
Experience is given priority over capabilities when hiring					
Capabilities are given priority over formal education/training when hiring					
Capabilities are given priority over experience when hiring					
Experience is given priority over formal education/training when hiring					
All foresight practitioners are provided with regular training and “refresher” courses					
Only new hires are provided with training courses					
Only members who have been on the team for 2 or more years are given training courses					
No team members are provided with training					
<b>Section 6: High Use of Strategic Foresight Outputs</b>					
Foresight outputs are used frequently by policy areas in AEP					
Foresight outputs are used infrequently by policy areas in AEP					
Foresight outputs are never used by policy areas in AEP					
Foresight outputs are used frequently by planning areas in AEP					
Foresight outputs are used infrequently by planning areas in AEP					
Foresight outputs are never used by planning areas in AEP					
Foresight outputs are used frequently by decision-makers in AEP					

Foresight outputs are used infrequently by decision-makers in AEP					
Foresight outputs are never used by decision-makers in AEP					
Foresight outputs are used frequently by other areas in AEP (i.e. risk management, legal, finance)					
Foresight outputs are used infrequently by other areas in AEP					
Foresight outputs are never used by other areas in AEP					
All foresight outputs are used successfully in some area of AEP					
Only some outputs are used successfully in some area of AEP					
No outputs are used successfully in some area of AEP					
<b>Section 7: High Level of Sustainability</b>					
The foresight function in AEP has been in existence for more than 1 year					
The foresight function in AEP has been in existence for more than 2 years					
The foresight function in AEP has been in existence for more than 3 years					
The foresight function in AEP has been in existence for more than 5 years					
There has always been the same number of staff in the foresight team					
There are less staff now than 1 year ago					
There are more staff now than 1 year ago					
Since its existence, the foresight team has grown substantially					
Since its existence, the foresight team has grown marginally					
Since its existence, the foresight team has not grown					

The average length of time that a team member stays is under 1 year					
The average length of time that a team member stays is between 1 – 2 years					
The average length of time that a team member stays is 2 – 3 years					
The average length of time that a team member stays is over 3 years					
The budget for the foresight team has not changed in the past 5 years					
The budget for the foresight team has grown over the past 5 years					
The budget for the foresight team has shrunk over the past 5 years					
The foresight team has access to more resources than it did 5 years ago					
The foresight team has access to fewer resources than it did 5 years ago					
The foresight function has been impacted by ministry budget reductions in the past 5 years					
The foresight function has not been impacted by ministry budget reductions in the past 5 years					