

The background of the cover is a photograph of a modern cable-stayed bridge with a large, curved arch. The bridge's structure is illuminated with warm, golden light, suggesting a sunset or sunrise. In the distance, a city skyline is visible, including a prominent skyscraper. The foreground shows the bridge's walkway and a metal railing.

UNLOCKING OUR URBAN FUTURES:

A Practical Toolkit for Infrastructure Planning

Executive Summary

It is estimated that \$11-\$22 trillion will be invested in infrastructure and real estate over the next 50 years in Canada. To maximize the impact of this investment, it is critical that we understand the changing needs of our cities, and how to make future-ready investment decisions today. Many governments, recognizing the scale of required investment, are now taking steps to understand and address infrastructure needs in more long-term and comprehensive ways. With this in mind, Evergreen launched Our Urban Futures, to explore a new approach to long-term infrastructure and real estate planning using strategic foresight tools.

Strategic foresight provides a range of methods to explore alternative futures and push the horizons of planning for infrastructure and real estate. Drawing from strategic foresight, design thinking and systemic design tools, Our Urban Futures developed regional scenarios used for action planning for three regions in Canada. The purpose of this was to catalyze longer-term thinking to ensure infrastructure and real estate investment decisions are informed by an understanding of the future of our cities, not simply current-day assumptions.

Understanding the value of this novel approach, Evergreen has translated Our Urban Futures' process into a model that can be replicated and scaled to additional jurisdictions. As examples of long-term planning crop up elsewhere, such as Australia's Infrastructure Assessment, this tool provides concrete and replicable steps to inform an assessment and to define strategic next steps to address gaps and opportunities. To support continued use and adoption, the Our Urban Futures toolkit provides a

seven-phased guide, including key resource requirements, steps, fieldnotes, Indigenous inclusion recommendations to adequately address reconciliation and include Indigenous perspectives in planning processes like this, and additional resources.

The first part of the Our Urban Futures process focuses on developing a baseline understanding of the current state of infrastructure and real estate planning in Canada, as well as current projections to 2067. To accomplish this, there must be an understanding of the stakeholders involved, emerging future trends, as well as an understanding of expert perceptions of the change and priority areas. This part of the process includes three phases - the first focused on understanding the domain and developing a challenge statement to activate stakeholders; the second explores future focused trends that have the potential to shift our perspectives of what the future of cities may hold; and the third engages two groups of experts to advise and provide input to the project.

The second part of the process focuses on building future scenarios and a shared understanding of a vision statement. This requires scenario development using a strategic foresight method, and consensus building among key stakeholders to develop a shared vision. This part of the process entails two phases - the first focused on scenario worldbuilding and scenario development to generate four alternative future scenarios; the second uses these scenarios to identify preferred aspects, resulting in vision statements that articulate the future we aspire to in 30 years.

The final part of the process focuses on translating insights into action by developing strategic action plans and supporting documentation. This part of the process entails two phases - the first works with both expert groups to develop an action plan through the identification of the policies and practices necessary to enact the vision statement; the second develops the necessary communication materials to support advocacy and action.

Our Urban Futures has led to a more robust understanding of infrastructure, thinking about infrastructure and real estate in systems, and a deeper understanding of the futures we are planning for. As Canadian cities respond to calls to "build back better" in a post-COVID-19 era, this is an opportune time to think differently about how we design our cities. COVID-19 and its impacts have demonstrated to us the importance of planning for the unknown, how the unimaginable can overnight become reality, and how quickly things can change in the face of disruption. With \$11-\$22 trillion to be invested in infrastructure and real estate over the next 50 years, Our Urban Futures presents a promising new approach that can ensure this significant investment enables the cities we want in 2067.

Acknowledgements

Future Cities Canada and Evergreen want to express our gratitude to the McConnell Foundation, Suncor Energy Foundation, and an anonymous foundation for their support of Our Urban Futures. Their commitment made the Our Urban Futures project possible.

Future Cities Canada and Evergreen would also like to thank the following people and organizations for their engagement and support in this work:

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Scenario Sets (June 2020 – March 2021):

Ayana Webb (GTA Scenario Set)
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About Future Cities Canada

Future Cities Canada (FCC) is a collaborative platform that harnesses the momentum for change already in progress in cities. Convened by Evergreen in partnership with Community Foundations Canada, J.W. McConnell Family Foundation, TD, Suncor Energy Foundation, and the Canada Mortgage and Housing Corporation, FCC brings together people, ideas, platforms and innovations from across sectors to address two of the most pressing issues of our time: inequality and climate change and the consequential challenges facing cities.

In 2018, Evergreen launched Our Urban Futures as part of the broader FCC initiative, to explore a future-focused approach to infrastructure and real estate planning in cities. This project is part of FCC's thematic area exploring the use of strategic foresight tools to support municipal staff, city builders and other decision-makers to look ahead and anticipate emerging trends, issues, opportunities, and threats facing cities. Through strategic foresight capacity building, pilot projects, and toolkits such as this one, Future Cities Canada aims to accelerate innovation to build regenerative, inclusive cities of the future. Learn more: <https://futurecitiescanada.ca>

Introduction

What does the future hold for Canadian cities? While a range of factors will shape our futures, the infrastructure and real estate investments made over the next 50 years will play a key defining role. The challenge before us requires alignment and collaboration among all orders of government and the convening of cross-sectoral stakeholders to define and advance favourable futures for Canadian infrastructure. Understanding this impact, Our Urban Futures set out to explore a range of possible scenarios in order to activate future-focused infrastructure and real estate planning. In doing so, a promising new approach to planning emerged, one which can easily be replicated by other jurisdictions with the support of this toolkit.

The following toolkit provides an overview of Evergreen's Our Urban Futures project, followed by a How-to Guide to facilitate scaling and replication of the approach. The How-to Guide is divided into Three Parts, and describes seven project phases. Part One explores how to develop a baseline including understanding the current state, understanding future trends, and what key experts currently perceive to be the key priorities over the next 50 years. Part Two builds on this understanding to develop data-driven scenarios which challenge perspectives on what is possible and even likely to shape our future. These scenarios facilitate a discussion of what key stakeholders want for the future, culminating in a vision statement. Part Three translates visions to action, identifying a policy action plan to ensure the vision catalyzes change. The three core products of this process, as well as the process as a whole, has great utility in informing an infrastructure assessment and catalyzing a multi-sectoral collaboration to seize opportunities and address gaps in long-term strategic infrastructure planning.

As Canadian cities respond to calls to “build back better” in a post-COVID-19 era, this is the moment to enact innovative approaches to how we design our cities for our changing future needs. Our Urban Futures presents a promising new approach that can ensure the significant infrastructure and real estate investments planned over the next 50 years unlock the cities we want and need in the future.

Our Urban Futures

A Project Overview

This section describes the Our Urban Futures project in brief detail to provide context for the toolkit. For a more detailed overview of this project, (see) [<insert link to final report deck>](#).

Our Urban Futures (OUF), a Future Cities Canada project led by Evergreen, aims to provoke a new direction for strategic investment in Canada's urban infrastructure and real estate over the next half century. The project distinguishes infrastructure investment as a key enabler of Canada's economic prosperity and demonstrates a need for more sophisticated and inventive decision-making tools to help Canadians maintain or improve their standard of living over the next several generations.

The project initiated with a focus on developing a baseline understanding of the current state of infrastructure and real estate planning in Canada, as well as current projections for infrastructure investment to 2067 (50 years from the conception of the project). The research process made evident the scarcity of reliable and cohesive data about the scale of infrastructure and real estate in Canada. Even with incomplete data for many forms of Canadian infrastructure and real estate, the analysis produced an estimate of \$11 to \$22 trillion investment in infrastructure and real estate to 2067.

With a need to build on available data sets, the project explored scenarios of the future in three Canadian regions: Calgary-Edmonton, the Greater Toronto Area, and Metro-Montréal. These scenarios explore how trends might shape our urban regions, and how we expect our infrastructure to mitigate or support our preferred futures.

The process then translated insights into action through the development of policy action plans that mobilized vision statements, followed by a policy scan to identify appropriate windows of opportunity to advance change.

The result: An action plan for each region.

The key components of the project were:

- A report, co-published with Deloitte setting a national baseline projection of real estate and infrastructure investment over the next 50 years. Find it here: [Building Our Urban Futures: Inside Canada's infrastructure and real estate needs](#)
- An expert process in each region shaping:
 - provocative scenarios that feature possible futures of urban development in 2050,
 - a collaborative visioning process to define the elements of a promising vision for urban development,
 - an urban infrastructure and real estate action plan to achieve the vision.

Our Approach

The project's structure, process, and expert participation were informed by three regional advisory groups of 8-12 infrastructure and real estate experts each.

A broader expert process engaged over 75 experts in a process adapted from the Delphi method (see Phase 3 for details). The process used a series of questionnaires with open-ended questions designed to collect information relevant to guiding questions: What should we be planning for? What do we actually need and want from the future? What do we need to do to get us there? What actions might help Canada shift to long-term strategic investment in infrastructure?

In all but the first round, the responses were organized and sent back to experts for anonymous peer commentary. The process was intended to draw out contrast and where appropriate, build consensus among experts to refine responses. The outcomes from the questionnaire were used to shape a set of provocative and contrasting regional scenarios that broadened experts' perspectives on the futures they were planning for. Through the same questionnaires, we used the scenarios to support a visioning process which led to a set of core policies and practices to support strategic investment in Canada's urban infrastructure and real estate.

Our Urban Futures has shifted the mindset of key infrastructure and real estate professionals to consider a broader range of futures in planning, to collaborate across difference, and to evolve their definition of urban infrastructure.

What is Strategic Foresight?

Our Urban Futures leverages a variety of strategic foresight tools. Strategic foresight is a structured and systematic way of using ideas about the future to anticipate and better prepare for change. Strategic foresight provides a set of tools for making sense of complex changes and exploring possible futures that may unfold as a result. Learn more:

- Policy Horizons Canada - [*Introduction to Foresight*](#)
- Centre for Strategic Futures, Singapore - [*Foresight: A Glossary*](#)
- The Royal Society for Arts, Commerce and Commerce - [*A stitch in time: Realizing the value of futures and foresight*](#)

Our Approach



How-to Guide



To support further use of this approach, this section provides a step-by-step user guide. Organized by three parts, the approach entails seven phases. Each phase of the process details the required resources, phase duration, steps to follow, as well as links to further resources. This guide is not meant to be a stand-alone document, as this process relies on content expertise and process skills, as described in each step. This guide includes tips and tricks to maximize success, including principle-level learnings from a cycle of implementation by Evergreen. This guide also includes Indigenous inclusion recommendations from Samantha Matters, Founding Director of Future Ancestors Services, to adequately address reconciliation and include Indigenous voices and perspectives in the planning and execution of such a process. A woman of Métis and mixed-settler descent, Samantha was a member of the Calgary/Edmonton expert group of the Our Urban Futures project. She was asked to provide recommendations in regards to adequately address reconciliation and improve collaboration with Indigenous peoples for this specific and similar projects in the future.

Please note that these steps have been articulated to maximize the replicability and impact of this process, and are not an exact account of the process followed by Our Urban Futures.

Overview of Process:

- Part 1:** Developing a Baseline
 - Phase 1:** Understanding the domain
 - Phase 2:** Exploring the changes
 - Phase 3:** Engaging experts
- Part 2:** Exploring Future Scenarios
 - Phase 4:** World building and scenario development
 - Phase 5:** Visioning
- Part 3:** Catalyzing Strategic Action
 - Phase 6:** Action planning
 - Phase 7:** Synthesis and Communication

FIELD NOTE

No two processes are the same - The methods described herein were loosely defined at the outset of implementation. Still, many smaller adjustments were made to manage the input of the expert and advisory groups, and to accommodate involvement from a range of stakeholders. Because it is based in design thinking, an inherently iterative approach, the process is designed to be adapted to meet the needs of each new context. To make each phase effective as you adapt it, it is important to understand the purpose of each element.

Example: Many organizations and governments have their own tools for conducting stakeholder analysis, some much more robust than those used in this process. Swap out suggested tools for those that are familiar to you, but ensure you understand how they were applied so you can get the same results. Avoid swapping out unfamiliar tools, particularly those rooted in strategic foresight, as they are critical to the integrity and replicability of the process.

Part 1: DEVELOPING A BASELINE

In order to understand what is possible in the future, it is critical to start with an understanding of the current state and historical trends. Part 1 blends desk and participatory research methods to gain a deep understanding of the current state of infrastructure and real estate planning, and the stakeholders involved. This part has three phases, described in detail below.

Phase 1: Understanding the Domain

The first step in the process involves identifying existing research and studies about the current state of infrastructure and real estate investment planning, as well as an understanding of the broad stakeholders involved. This phase takes time, as the goal is to gain a thorough understanding of the focus area, while engaging a diversity of stakeholders to participate and contribute to the process. This phase will result in the identification of existing knowledge products synthesized into a challenge statement, which has been vetted by key expert stakeholders.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Research team - to uncover relevant research studies and current projections
- Stakeholder map - to illuminate the various stakeholders involved in infrastructure and real estate investment planning. *(See Appendix A for details)*
- Expert focus group - to provide guidance on the ecosystem and overall project
- Process designer and facilitator - to design and deliver expert focus group

Duration: 12 - 20+ weeks

How-to guide:

Step 1: Define project plan - Develop scope of work, timeline, roles and responsibilities of project team.

Step 2: Scan literature - Desk research to uncover existing research and projections related to infrastructure and real estate planning.

Step 3: Map stakeholders - Based on research, identification of categories of stakeholders, the relationship between them, and their relative influence. *(See Appendix B for more details)*

Step 4: Draft challenge statement - Development of a draft statement that articulates the problem the project seeks to address, and the scale of opportunity. *(See Appendix A for example)*

Step 5: Expert focus group engagement - To refine the challenge statement and gain insight and advice from key stakeholders, delivery of a 2-hour workshop to facilitate their input. *(See Appendix A for sample agenda)*

Step 6: Refinement of challenge statement - Incorporate feedback from focus group and finalize challenge statement.

When to move to the next phase: The challenge statement will likely evolve throughout the following phases of work as more stakeholders are engaged, which is why this phase finishes with “refinement” and not “finalization”. As such, it can be challenging to know when to move on from this phase. This phase is complete once a challenge statement incorporates feedback from the focus group. It is also possible to start Phase 2 anytime after Step 4 is completed.

Tool spotlight: Design Thinking

This step, as well as the following 7 leverage design thinking tools. Design thinking is a flexible roadmap to develop strong solutions for complex social problems. Generally, design thinking cycles through divergent and convergent processes aimed at translating the needs of end users, in this case communities and residents of urban regions, into solutions. Design thinking is essential to this process as it informs the approach to working with an Advisory Group to develop effective tools, questionnaires, and knowledge products that meet the needs of the broader Expert Group while helping them shape the outcomes of the project. Design thinking also focuses on the end user, the person directly affected by decision-making.

Learn more:

- Global Centre for Public Service Excellence - [Design Thinking](#)
- Friedrich Ebert Stiftung - [A Practical Guide to Design Thinking](#)

FIELD NOTE

Infrastructure by any other name... - Defining what is meant by infrastructure is an important first step in the process. Consider what is included and excluded from your definition, and which stakeholders should be engaged as a result of this decision. Think of infrastructure as an integrated system that is only effective if it considers housing and real estate, alongside social, green, transit, trade, and transportation infrastructure.

Example: Throughout the Phase 1 baseline research there was not one, but many different opinions of how infrastructure should be defined. There was also limited data on some categories of infrastructure and some disagreement about the inclusion of real estate as part of infrastructure. On one hand, government budgets and jurisdiction clearly differentiate among real estate, housing, and infrastructure categories. On the other, these all collectively make up an integrated system and built environment which must be considered together. The project intentionally casts a provocatively broad net to ensure a systemic approach to long-term planning, in the hopes of nudging those who work in this sector to redefine and further embrace cross-sectoral collaboration.

Indigenous Inclusion Recommendation

Engaging Indigenous peoples in all stages of the project requires capacity building right from the project start (ideally even before that), and a genuine approach to build reciprocal relationships with Indigenous communities (versus just showing up once you need something from them). Authentic relationships often begin by showing a genuine interest in Indigenous communities beyond a working relationship - this has to come from your own time and from an individual and personal interest. In efforts to move towards genuine reconciliation, it requires both an individual and collective approach to learning and unlearning. Attending Indigenous celebrations and ceremonies, or events where Indigenous designers and urban planners are displaying their work, can reflect meaningful effort. If there is anxiety around protocol that should be honoured in attending certain events, contact the organizer to clarify.



Phase 2: Exploring Changes on the Horizon

Once there is an understanding of the domain area and resulting challenge statement, the next step is to identify the broad changes with the potential to impact infrastructure and real estate planning in the next 50 years. The purpose of this phase is to identify and synthesize trends that may broaden expert perspectives on the future cities are planning for. During this phase it is important to understand the social, technological, economic, environmental, political and values based changes that may unfold. Using a strategic foresight method called horizon scanning, this phase focuses on uncovering and articulating future trends that may impact the domain in the next 50 years. The output of this phase is a trends report that will inform Phase 3.

Resource requirements

- Project team -2-3 people to manage and coordinate the process
- Foresight researcher(s) - to conduct horizon scanning research and synthesize results
- Scanning framework - to organize trends in information

Duration: 6 - 8 weeks

How-to guide:

Step 1: Familiarize yourself with the organizing framework

- The goal of horizon scanning is to identify data from a broad range of sources, covering a broad range of subject areas. To avoid data overload, use STEEPV as an organizing framework. STEEPV stands for social, technological, economic, environmental, political, values.

Step 2: Data management - Devise a system for capturing data that aligns to the final output. A simple spreadsheet with appropriate fields may suffice. (*See Appendix A for example*)

Step 3: Horizon Scanning - Review a range of data sources including academic journals, popular media, and fringe sources to identify changes that have the potential to

impact infrastructure and real estate in the next 50 years. Organize data based on Step 1 and 2.

Step 4: Affinity mapping and distillation - Once data has been collected, organize related data and identify emerging themes.

Step 5: Articulate trends - Reviewing the key themes, name the change, and identify its maturity. It may be a mature trend (plenty of data to support its existence), emerging trend (growing amount of data to support its existence), or weak signal (limited data). It is important to have a mix of maturity trends.

Step 6: Draft trends report - Synthesize trends identified in Step 5 into a report. The report should explain the trend, its maturity, and why it is relevant to the domain area. [See example.](#)

Step 7: Refinement of trends report - Once completed, review trends to ensure they are appropriate for the time horizon, and that you have included a trend from each category identified in Step 1. If possible, test the draft report with 2 or 3 key stakeholders to ensure it is not missing any key topics. Refine report based on feedback.

When to move to the next phase: Identifying trends of change can seem like a never ending process, as new trends emerge every day. Move on to the next phase when you've identified at least 3 trends per identified category, and have a mix of maturity.

Tool spotlight: Horizon Scanning

This step uses a strategic foresight tool called horizon scanning. Horizon scanning is a future-focused search process that uncovers and validates signals of change and then groups them into trends. According to the Institute for the Future, a signal of change may be a small innovation or disruption that has the potential to grow in scale, a new product, practice or technology, and event or local trend, or something that catches our attention

at one scale and in one locale and points to larger implications for other locales or even globally. Horizon scanning involves the review of a range of different data sources including academic journals, popular media, and fringe sources.

Learn more:

- UK Government Office for Science - [*The Futures Toolkit*](#)
- Alberta CoLab - [*A Field Guide to Strategic Foresight*](#)
- Policy Horizons Canada - [*Scanning*](#)

Tool spotlight: Affinity Mapping & Thinking in Systems

Affinity mapping is the process of clustering qualitative data to develop themes. This makes it easier to surface findings and develop insights. When affinity mapping during horizon scanning, it is important to think about the themes as a system. Systems thinking is a tool for understanding and addressing this complexity, and involves a shift in mindset from a focus on events and objects, to the relationships and connections between them. Systems thinking is commonly associated with mapping activities which aim to provide a visual account of complex information, reducing the amount of tacit information people need to manipulate mentally. From stakeholder mapping to horizon scanning, to action planning, processes must use systems thinking to adequately capture the challenges inherent in civic issues.

Learn more:

- 18F Methods - [*How to do Affinity Mapping*](#)
- OECD - [*Systems Approaches to Public Sector Challenges*](#)
- Policy Horizons Canada - [*Systems Mapping*](#)

FIELD NOTE

“But, that will never happen” - Identifying future trends requires challenging our assumptions and understanding of what the future may hold. No one can predict the future, and while some changes may seem more probable than others, dismissing a change as unlikely can weaken planning and exacerbate future risks. As such, it is

important to consider a range of changes, even if they come from fringe sources or have limited evidence (weak signals).

Example: The OUF trend report included “Wild in the City” and “State-Assisted Relocation” as two weak signals. Some participants felt these trends were too obscure to include. However, both trends represent a change that could have a significant impact on how we plan for infrastructure in the future. While limited in their impact today, failing to acknowledge these changes could result in oversights and uninformed decision-making.

Indigenous Inclusion Recommendation

It is important to remember that much like many other fields, futures studies is grounded in a western worldview and therefore has privileged (primarily white) western voices and results in the exclusion of non-white people from envisioned futures. As participatory foresight practices grow, there is a risk that they may be viewed as a tool to empower the public by bringing them into the decision-making process. However, this inclusion could inadvertently remove those who hold power of their responsibility for the future they help create (Nikolova, 2013). Essentially, participatory foresight practices may enable those in power to shift the blame if favourable outcomes are not achieved.

Phase 3: Engaging Experts

The last phase of creating a baseline is engaging experts for their input, to ensure the following phases and project outcomes are reflective of a range of stakeholder opinions, and there is shared ownership to carry it forward. During this phase, two expert groups will be established. The first, a broad and diverse Expert Group who will provide input through questionnaires; the second, an Advisory Group who will provide ongoing guidance and feedback on the design of questionnaires and the synthesis of questionnaire results. The experts engaged during this phase of work will continue to be involved throughout the remainder of the project.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Trends deck - outlining future trends
- Researcher(s) - to develop expert questionnaires and synthesize results

Expert group - 20 - 25 experts that are representative of the stakeholder groups identified in Phase 1. *(See Appendix A for sample profiles)*

Advisory group - 6 - 8 experts with a breadth and longevity of experience who refine the project's engagement strategies and shape its outputs. *(See Appendix A for sample profiles)*

Facilitation - to design and deliver advisory group sessions

- Survey tool - a method for distributing questionnaires and collecting results

Duration: 1 - 3 months

How-to guide:

Step 1: Identify experts - Develop participant profiles for expert and advisory groups that prioritize a balance of infrastructure and real estate professionals, with diverse politics and broader community orgs who have a stake in infrastructure and real estate.

Step 2: Develop outreach plan - Define the value

proposition to each stakeholder category, particularly if they do not perceive themselves as part of the infrastructure system. Develop recruitment materials and an MOU. *(See Appendix A for sample MOUs)*

Step 3: Engage and confirm experts - Reach out to a balance of stakeholders, a greater number than is required for the process. For 25 confirmed experts, consider reaching out to 40. Confirm their engagement through the MOU.

Step 4: Design drafts of expert questionnaires - Using the trends report as a reference, develop draft questionnaires which engage experts to identify the changes they believe will define the region in 50 years. *(See Appendix A for examples)*

Step 5: Send questionnaire #1 and supporting materials - Send the questionnaire and instructions to the expert group. Provide a deadline for responses and follow-up as required. *(See Appendix A for sample questions and sample instructions)*

Step 6: Analyze results - Analyze and synthesize questionnaire results to identify key themes and principles.

Step 7: Advisory input - Share questionnaire results with the Advisory Group for input. This will be used as the key input into phase 4. *(See Appendix A for sample agenda)*

When to move to the next phase: Once input has been collected from both expert groups, scenario development can commence.

Tool spotlight: The Delphi Method

This step draws from a strategic foresight tool created in the 1950s by RAND, the Delphi Method. This is a framework that uses multiple rounds of questions sent to experts for a response to test and distil insights. An expert panel responds to the first round of questions, which are distilled, then sent back for further response. Typically this process has multiple rounds until there is consensus between experts. For this project, consensus was not the goal, as

there was interest to showcase a range of perspectives about the future.

Learn more:

- RAND Corporation - [*Delphi Method*](#)
- UK Government Office for Science - [*The Futures Toolkit*](#) (see page 15)

Tool spotlight: Value Proposition

This step requires an understanding of what might engage partners from across sectors. A value proposition can be built from a stakeholder mapping exercise and participant profiles to make engagement an attractive option to all stakeholders. Value propositions help translate the merit and usefulness of the project to people with contrasting needs and perceptions.

Learn more:

- National Academies Press - [*Value propositions for multi-sectoral engagement*](#)
- Resonance Global - [*Cross-sector collaboration*](#)

FIELD NOTE

Engage the right people - Projects such as this one naturally attract values- and vision-aligned collaborators. The hard sell is to those who view the challenge differently. In this exercise, homogeneity and technocracy are not your friends. Resist the urge to pad the process with experts with similar worldviews. Invite groups representative of the urban region being served, including and maybe especially those affected by decision-making: residents. Strengthen your outcomes with a balance of sectors, domains, and lived experience, making sure to counterbalance your own perspective and biases. Maybe more important: value input equally from all of these stakeholders. Outcomes will only be meaningful and usable if they reflect the broadest base of experience.

Example: The project purposely included community hubs and practitioners whose core purpose was to meet the needs of end users of infrastructure: residents. In Phase 5 of the process, the

expert group scrutinized the scenarios to define a vision for regional infrastructure. This is inherently a values exercise. The real estate and infrastructure professionals engaged as experts had more in common than they had differences. Some of the most interesting and challenging input in this phase came from those who were thinking about their communities from the perspective of end users. What do I need around me? What are my day-to-day pain points? See Consider winners and losers for an example.

Indigenous Inclusion Recommendation

Hire Indigenous consultants and explicitly state the responsibilities of the consultants, and outline proper compensation protocols that are agreed to by the consultant. Indigenous consultants should be brought into a project at its earliest stages. Also, having Indigenous Elders participate in workshops and professional development training can enhance the experience of learners in many ways. It is further recommended to support emerging Indigenous designers and planners. Often, systemic barriers to education and hiring result in a lack of Indigenous representation in urban design and planning. These barriers could be dismantled by partnering with post-secondary institutions to offer scholarships or internship opportunities and decolonizing hiring processes to recruit Indigenous candidates.

Part 2: EXPLORING FUTURE SCENARIOS

Once a baseline understanding is created, the next part of the process focuses on creating an understanding of the potential futures that may unfold. This begins with an understanding of the range of possible options that might exist, and concludes with a shared understanding of the preferred scenario, defined through a vision statement. This vision statement is critical for the last part of the project, which develops an action plan and policy agenda.

Phase 4: World Building & Scenario Development

Using inputs from Phase 3, develop four possible scenarios that may unfold in 50 years using a strategic foresight scenario development method. The goal of these scenarios is to describe four alternative possibilities, each with negative and positive aspects. These scenarios will be used in the next phase to identify a preferred future and vision statement.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Foresight researcher(s) - to develop and refine scenarios
- Scenario development method - to support development of the scenarios and world building process
- Expert focus group - to provide feedback
- Advisory group - to provide feedback and guidance
- Facilitation - to design and deliver advisory group sessions

Duration: 6 - 8 weeks

How-to guide:

Step 1: Design the scenario development process - Given the goal of the scenarios is to provoke an understanding of the range of possible futures that may unfold, Generic Images of the Future method created by Jim Dator provides four future archetypes: grow, collapse, discipline and transform. *(See Appendix A for more details.)*

Step 2: Develop the scenario framework - Using Dator's method and the inputs from Part 1, develop an outline of each scenario.

Step 3: Worldbuilding - Develop a broader understanding of the dynamics in each scenario. This understanding will ensure each scenario has logic and depth.

Step 4: Generate draft scenarios - Draft scenarios. *(See Appendix A for sample scenarios)*

Step 5: Test logic - Review scenarios to test logic and

ensure scenarios are provocative, plausible, and contrasting.

Step 6: Engage expert group - Send draft scenarios to experts with an invitation to comment and revise.

(See Appendix A for sample questions)

Step 7: Engage advisory group - Collect responses from experts and share with the advisory group for input.

(See Appendix A for sample agenda)

Step 8: Scenario refinement - Refine draft based on feedback from experts and advisors.

When to move to the next phase: Provocative scenarios will likely sit uncomfortably for some experts and advisors because they challenge assumptions about what the future may hold. Further refinement may be requested as a result, making it unclear when to move to the next phase. However, this discomfort is part of the process. Once four contrasting, provocative and plausible scenarios have been created, move on to the next phase.

Tool spotlight: Scenario Development

This step uses the strategic foresight tool scenario development. Scenario development is the process of using research and evidence to develop concrete stories that occur in the future, with clear associated timelines of how they came to be. While this process uses [Generic Images of the Future](#) scenario development method, there are a range of scenario methods.

Learn more:

- Evergreen - [Foresight for Resilient Cities Scenario toolkit](#)
- Policy Horizons Canada - [Scenarios](#)
- Multiverse Design - [Building Brave New World](#) (World building approach)

FIELD NOTE

Scenarios are an exploratory tool, not a prediction -

The purpose of these scenarios is to explore four possible futures that could unfold. Using Dator's archetype method, the four scenarios should contrast, and no one scenario

should seem preferable to the others, as each should contain good and bad. Scenarios may be met with resistance from participants who are uncomfortable with elements of these futures, or feel that some may be less probable than others. Remember that these scenarios are a tool to provoke thinking about what could unfold in the future, not what will unfold. This step is critical for the next phase of the project which will explore what is most preferable, resulting in an understanding of an ideal scenario, articulated as a vision statement.

Example: The collapse scenario in the GTA featured a repealing of the Greenbelt Act and mass development of critical agricultural land. Particularly because of the climate resilience focus of this work, this was not well received. It became a point of fixation for many participants. Core to building a vision was encouraging participants to look at the scenario set as a whole rather than focusing on one, and to challenge discomfort and consider the range of events that might lead to such an unfavourable outcome. This questioning led experts and advisors to consider a wider range of risk and to build a more robust vision and action plan to address it.

Major Milestone: This phase will culminate in the development of a major output - a set of scenarios. While this phase is part of a broader process, for some, this may be an appropriate off-ramp for the project. Scenarios are a useful tool for provoking strategic conversations about how current plans may need to shift and account for a range of different outcomes. Concluding at this step may be appropriate for those who lack authority over broad investment decisions, and would prefer to focus efforts on planning for a range of possible futures.

Indigenous Inclusion Recommendation

As mentioned in phase 2 (Exploring Changes on the Horizon), it is important to critically examine the euro-centricity of tools and methodologies in place, such as Strategic Foresight. There are robust Indigenous futurism

methodologies that need to be surfaced. We encourage you to explore them! Indigenous futurism is a means by which to explore futures beyond the binds of colonialism through concepts of time, culture, and community. The term was first described by Anishinaabe scholar Grace Dillon who explained that Indigenous futurism is a genre of art, media and literature that uses the imagery and themes of science fiction to imagine a future from an Indigenous perspective. Many of the ideas presented in Indigenous futurism are reflective of Afrofuturism, which explores the Black experience through art, music, philosophy, technoculture and science fiction. Both Indigenous and Afrofuturism provide important lessons for practitioners of foresight to find avenues from which to explore many possible futures in a way that acknowledges the past, draws on the importance of tradition and culture and makes way for new possibilities. It is important that Indigenous-and-Afro-futuristic approaches are not being co-opted by the project team. Rather, these approaches should be led by Indigenous and Black peoples with the experience, expertise and lived experience necessary to support respectful implementation of non-White visions of the future.

Learn more:

- [*Strategic Foresight in Métis Communities: Lessons from Indigenous Futurism*](#) by Samantha Matters
- [*MST Futurism*](#)

Phase 5: Vision Setting

Phase 4 will result in a discussion amongst key stakeholders about the possible scenarios that may unfold in the future, to facilitate a shared understanding of what a preferred scenario may be. This preferred vision comes from the consideration of a set of contrasting scenarios, and an articulation of the opportunities and desired outcomes across them. It culminates in the development of a vision statement that is supported by the advisory committee. This will be used in Part 3 of the process to define strategic action.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Advisory group - to provide guidance and confirm vision statements
- Expert group - to provide input and feedback on vision statements
- Facilitator - to design and deliver advisory group sessions
- Survey tool - a method for distributing questionnaires and collecting results.

Duration: 4 - 6 weeks

How-to guide:

Step 1: Refine questionnaire #2 - Work with the advisory group to refine questionnaire #2 which helps the expert group identify risks and opportunities inherent in the scenario set.

Step 2: Engage expert feedback - Share the questionnaire with experts to get their feedback. *(See Appendix A for sample scenarios)*

Step 3: Refine questionnaire #3 - Use raw data from questionnaire #2 to identify areas for further inquiry. Work with the advisory group to shape questionnaire #3 to address these gaps and to allow experts to respond to each other's input.

Step 4: Re-engage expert feedback - Organize

questionnaire data and share it with the expert group for validation. Have experts agree, disagree, and comment on each others' contributions. *(See Appendix A for sample questions)*

Step 5: Draft vision statement - Use affinity mapping to cluster questionnaire data into vision statement headings. Summarize input into vision statement descriptions. Work with the advisory group to draft a vision statement that articulates a hopeful scenario for the future. *(See Appendix A for sample statement)*

Step 6: Refined vision statements - Incorporate feedback from experts and advisory group to finalize vision statements. Beware of personal bias as you complete this step.

When to move to the next phase: The vision statement from this process is meant to facilitate stakeholder investment in the steps needed to make this future possible, and catalyze action. Move to the next step once there is evidence that key stakeholders feel ownership and a sense of urgency to act.

Tool spotlight: Counterbalancing Bias

When synthesizing qualitative data, we inherently add our own biases. Though it is impossible to eliminate bias, it is possible to be aware of it and to counteract it. Part of being aware of bias is understanding which biases you are more likely to hold.

Learn more:

- Visual Capitalist - [*Cognitive Biases Influencing Politics*](#)
- The Behavioral Insights Team - [*Behavioral Government*](#)

FIELD NOTES

Consider winners and losers - In most cases, meaningful policy and practice innovation will be met with adopters and opposers - winners and losers. Always carefully consider the losers. Ensure decisions do not reinforce current systems of inequality. Strive to counterbalance these systems by emphasizing the needs

of underrepresented groups. On a more practical level, do not discard opinions that are in the minority. Strive to understand and account for why they are underrepresented before making a decision to include or exclude.

Example: When testing one of the regional vision statements, the Calgary-Edmonton group received feedback that it did not adequately address reconciliation in the way it positioned the sovereignty of First Nations & Métis communities. Though only one voice in the process, it triggered a convening to engage more community refine the vision and ensure important voices are carried forward.

Major Milestone: This phase will result in the development of a vision statement which articulates preferred elements of future scenarios. While this phase is critical for enabling the development of an action plan, and the remainder of the process, for some, this may present another off-ramp from the project. In the event that there are not sufficient stakeholders activated to co-develop and activate an action plan, this vision statement can be used as a communications tool to engage and catalyze this participation, to build towards the remaining steps in future.

Indigenous Inclusion Recommendation

Acknowledging and respecting the land on which we find ourselves, and maintaining a reciprocal relationship with the land are fundamental elements of Indigenous worldviews around the globe. When building a vision statement, project leads should seek to learn about the

history of the land in the region, both before and after European contact in the area. This history and its impacts should be acknowledged in the vision statement and include language that speaks to how the history of the land informs the region's future, the amends that need to be made and the responsibilities of all who live in the region to creating a just and equitable future. Further, is it important that a vision statement acknowledges the specific Nations who are the original stewards of the region and who continue to exist there. A generalization of Indigenous partners, leaders, and communities contributes to pan-Indigeneity rhetoric which fails to acknowledge the unique cultures, histories and protocols of the many Indigenous Nations and communities across what is currently known as Canada. Responsibility lies with the project leaders to understand whose territory the project region is on, develop a relationship with these Peoples, and adequately acknowledge them in the vision statement.



Part 3: CATALYZING STRATEGIC ACTION

Once a vision has been developed, the next part of the process focuses on identifying strategic action toward the vision. This begins with an exploration of a range of possible policy and practice innovations that could protect the desired outcomes. These are then filtered and refined into an action plan with clear invitations to stakeholders positioned to advance it.

Phase 6: Action Planning

Phase 6 will result in a discussion amongst key stakeholders about the actions required to support a preferred future. This phase is focused on defining and refining these actions, determining which stakeholders need to be involved, and sequencing these actions. This will be one of the final outputs of the project and provide a basis for conversations with decision-makers in Phase 7 of the process.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Advisory group - to provide guidance and confirm action plan
- Expert group - to provide input and feedback on policy agenda
- Policy researcher - an expert in the field who understands the interplay among levels of government
- Facilitator - to design and deliver advisory group sessions
- Survey tool - a method for distributing questionnaire and collecting results

Duration: 8 - 12 weeks

How-to guide:

Step 1: Refine questionnaire #4 - Work with the advisory group to refine questionnaire #4 which helps the expert group identify policies and practices necessary to enact the vision statement.

Step 2: Engage expert feedback - Provide questionnaire #4 to the expert group alongside the vision statement for input. Crowdsource a robust list of promising policies and practices. *(See Appendix A for sample questions)*

Step 3: Refine questionnaire #5 - Use raw data from questionnaire #4 to identify areas for further inquiry. Work with the advisory group to shape questionnaire #5 to address these gaps and to allow experts to respond to each other's input.

Step 4: Re-engage expert feedback - Organize questionnaire data and share it with the expert group for validation. Have experts agree, disagree, and comment on each others' contributions. *(See Appendix A for sample questions)*

Step 5: Develop draft action plan - Refine the list with the advisory group by eliminating those that are impossible and refining those that are improbable or unclear. *(See Appendix A for sample agenda)*

Step 6: Conduct research - Research the current policy landscape and engage key policy makers to identify possible leverage points for action. Identify non-policy leverage points with the help of cross-sectoral champions. These are people identified in your stakeholder mapping who were interested in the process but who were not engaged in it.

Step 7: Finalize action plan - Finalize the action plan based on the opportunities identified through research.

Tool spotlight: Backcasting

The design of the questionnaires in this phase draws from the backcasting method, a strategic planning and foresight tool used to plan realistic and successful outcomes. Backcasting involves the identification of a desired future state, followed by working backwards incrementally to identify initiatives and actions that support its actualization. Backcasting is a useful tool for aligning present day and near term actions to a future vision.

Learn more:

- Department of the Prime Minister and Cabinet, New Zealand - [Policy Methods Toolbox](#)
- Autodesk - [Backcasting](#)

FIELD NOTE

Make sense of actions at different levels - In a crowdsourcing model of populating an action plan, contributions will be inevitably diverse. Some may focus on investment in specific categories of infrastructure, specific areas of the region, or specific community needs. Others will provide insight into which mechanisms may enable the strategic investment process, what partnerships should form, and how coordinated investment can be incentivized. This is a reflection of the needs and perspectives of diverse stakeholders. In this phase, clustering is key - nobody wants an intelligible jumble of ideas. Cluster ideas into (1) upstream drivers, enablers, or leverage points for change, and (2) specific needs and outcomes of change. You may choose to focus on one level or to work on both. Either way, make it clear which ideas belong to which category.

Example: Policy suggestions from this exercise in the GTA include 1) Funding metropolitan transit systems rather than specific transit lines, 2) Using citizen's assemblies as an important deliberative/decision making body, and 3) Value/outcome-based procurement rather than market cost-based. These intervene at different levels. Number 1 influences what is funded (downstream), number 2 influences how we evaluate what we fund (upstream), and number 3 influences how decisions are made (upstream). Note: not all of these proposed policies advanced to the action plan; they are used to illustrate a range of intervention points.

Indigenous Inclusion Recommendation

Planning actions is also important when it comes to building more inclusive processes. For an organization to genuinely commit to restorative action, it is important to name accountability for what needs to be done for future projects. Planning actions is also important when it comes to building more inclusive processes. For an organization to genuinely commit to restorative action, it is important to name accountability for what needs to be done for future projects. This can include a range of action such as committing to have Indigenous voices at the table in all stages of a project,

building capacity to engage with Indigenous communities through prioritizing relationship building, holding a series of compensated Indigenous engagement sessions, building capacity to hold ethical space, supporting emerging Indigenous designers and planners, and to critically assess whether your organization is best positioned to lead a project or if it would be better to reallocate funding towards Indigenous-led initiatives (and many other actions).

Phase 7: Synthesis and Communication

So far, the process has yielded a list of strategic actions, without amassing the support from stakeholders in a position to drive these actions forward. Phase 7 addresses that gap by socializing the content with key stakeholders. This phase covers the synthesis of both the process undertaken and its outcomes, for quick consumption by outsiders to the project. Referring back to early stakeholder mapping, this is an opportunity to test and relay progress to those who were defined as decision-makers or end users but may not have been engaged on an ongoing basis in the process.

Resource requirements

- Project team - 2-3 people to manage and coordinate the process
- Advisory group - to provide guidance and feedback
- Report writer(s) and designers (as necessary) - to draft and visualize reports
- Challenge statement, completed trends, scenarios, vision statements, policy action plans - to include in reports

Duration: 6 - 8 weeks

How-to guide:

Step 1: Develop report outline - Develop a regional report outline including key messages, intended audience, and overall tone.

Step 2: Draft report - Using outline and various project inputs (trends, scenarios, vision statement), develop draft report.

Step 3: Test report - Share draft with advisory group and broader champions for feedback and to prepare champions to carry forward and support its action plan.

Step 4: Refine report - Refine draft based on feedback.
(See Appendix A for sample report)

Step 5: Disseminate - Develop and activate a report dissemination strategy to ensure key stakeholders receive the project results. This should include all project participants, but also key decision-makers identified during the Phase 1.

Step 6: Convene stakeholders - Invite broader stakeholders and champions, representative of sectors and diverse affiliations, to a workshop to identify how they can leverage project outputs.

Step 7: Drive stakeholder action - Articulate next steps and package directives to each stakeholder group that help them advance the outcomes of the project.

Tool spotlight: Strategic Communication

A report is only as useful as its ability to be digested and understood. The intended audience of this report are busy people who have limited time to review materials. As such, it is critical that the report is communicated in a strategic way, to maximize its readability and impact.

Learn more:

- Stanford Social Innovation Review - [*Eight Tips for Communicating Ideas to Busy Policymakers*](#)
- Apolitical - [*How an aspirational narrative can sell your policy*](#)

FIELD NOTE

Socialize the outcomes - This process is layered and fruitful. It can be a transformative experience for those involved (see Impact section); those who were not will require more information. Remember, the process is designed to result in tangible change in the way infrastructure is planned. It cannot do this without the right champions. To put theory into action, shop the results around to champions who are in a position to advance them. Start with people who were connected to the process but not directly engaged. Share with them what has emerged. Ask them which outputs are particularly relevant to their roles and how the products might be packaged for similar stakeholders. You may choose to host a larger event to have this conversation among diverse stakeholders, or to host smaller test sessions with individuals with similar roles. Regardless of the approach, get the outcomes in front of a broad base of people and organizations in the infrastructure ecosystem. Use the information you discuss here to influence your final promotion, outreach, and packaging of the outcomes. This step is absolutely critical.

Indigenous Inclusion Recommendation

We acknowledge that the Our Urban Futures project failed to clarify to which extent Indigenous voices would influence the project and its outcomes (i.e., the relative weight of the inputs provided by Indigenous peoples and the evaluation criteria for how pieces would be considered for inclusion in the final output remained unclear). Despite participation of Indigenous Peoples in the expert groups of the project and Evergreen's efforts to add more Indigenous voices, no Indigenous Peoples were involved in the Advisory Groups, resulting in a lack of Indigenous perspectives especially in the planning stages of the project. Acknowledging limitations and shortcomings can be a challenging endeavor, especially when we are particularly proud of a project and our work. However, it is equally important to admit and acknowledge failure as it is to celebrate success. This starts by acknowledging the lack of Indigenous participation and perspectives in a project, and continues with naming accountability and commitment to restorative action, i.e., through a failure report along with a commitment to improve relationships and build long-term trust with Indigenous communities.



Impact

This section will describe how this approach can change the future of our cities, and the value it provides.

It is clear that our urban regions face complex futures, with accelerating and interdependent challenges. With the right leadership cities can shape collective strategy, coordinate private and public actions, and set in motion priority investments, toward a desirable future. This toolkit precedes the release of the final outcomes from this work, yet early evidence of key changes are already taking shape on a regional level, justifying its adoption.

Our Urban Futures has led to

A more robust definition of infrastructure - the project intentionally broadened the definition of infrastructure from systems like transportation, wastewater, and roads to include housing and other forms of real estate. This provoked a conversation about the challenges of siloed budgetary, planning, procurement, and development systems and the lack of coordination among actors within urban built form.

Thinking in systems - in part because of how infrastructure was defined, the project purposely brought stakeholders to the table who worked in vastly different areas of infrastructure and real estate to work collaboratively and challenge short-sighted planning processes, creating opportunities for collective impact.

Understanding the futures we're planning for - the process introduced a strategic foresight methodology that addressed the tendency to build incrementally from current practices. Many experts engaged in the process noted the value of broadening their perspectives on what cities are planning infrastructure for, what risks need to be mitigated, and what opportunities could be seized with a much more comprehensive view of how cities move forward. Two of the regions engaged in this work have begun exploring how to integrate these methods into municipal planning processes and academic research. This trend is likely to continue as products from the process are released.

The bottom line: this project has triggered a mindset shift for engaged stakeholders which will be instrumental in guiding future infrastructure development. Of note, COVID-19's legacy is an awakening to the need to plan better, build back better, and to bring everyone along, particularly those made most vulnerable among us. In an era of building back better, the value proposition of cities needs to evolve. This toolkit offers one avenue for finding the answers cities need to seize this opportunity to build a resilient, functional, and future-ready Canada.

Conclusion

This toolkit shares a novel approach for long term infrastructure and real estate planning that leverages a range of tools including strategic foresight, design thinking, and systemic design. This approach was designed for Evergreen's Our Urban Futures project that ran in three regions between 2019 - 2021. To support continued use of this approach, this toolkit lays out seven phases, which each include a step-by-step guide, resource requirements, and links to further learning.

As Canadian cities respond to calls to "build back better" in a post-COVID-19 era, this is an opportune time to think differently about how cities are designed. COVID-19 and its impacts have demonstrated to us the importance of planning for the unknown, how the unimaginable can overnight become reality, and how quickly things can change in the face of disruption. With \$11-\$22 trillion to be invested in infrastructure and real estate over the next 50 years, Our Urban Futures presents a promising new approach that can ensure this significant investment enables the cities we want in 2067.



Get in touch

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Indigenous Inclusion Recommendations:

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Appendix A - Referenced examples

Phase 1	Phase 2	Phase 3
Stakeholder map Challenge statement Expert Focus Group agenda	Data management Trends report	Advisory group participant profile Expert group participant profile MOU Advisory group agenda Round brief
Phase 4	Phase 5	Phase 6
Scenario development framework Scenarios Questionnaire #1 Advisory group agenda	Questionnaire #2 Questionnaire #3 Risks and opportunities Vision statement	Questionnaire #4 Questionnaire #5 Policies and practices Action plan
Phase 7		
Regional report		

APPENDIX B TOOL SPOTLIGHT

Tool spotlight: Stakeholder Analysis

This step uses systems thinking to analyze, categorize, and map stakeholders to determine who to involve and who to consult as key decisions are made. The analysis process identifies the various types of people and roles involved in a domain area, their relationships to one another, and their relative influence and interest in the challenge. The value of this tool is its ability to identify stakeholders who are important to the domain, instrumental to the success of the project, yet are often left out of the conversation.

Learn more:

- Government of Canada - [Canada Beyond 150](#)
- Daten Treiber - [Stakeholder Analysis Print](#)

Tool spotlight: Engagement Design and Facilitation

To deliver a high-value expert focus group, it is important to engage a skilled facilitator and engagement designer who is an expert at harvesting valuable inputs from a range of perspectives in a short amount of time. This process purposely invited infrastructure and real estate professionals with differing perspectives and goals to the table to collaboratively shape its outcomes. The success of the process involved scoping engagement effectively and actively drawing out difference and building consensus throughout the session.

Learn more:

- Government of Canada - [Design an engagement experience toolkit](#)
- HC Link - [Facilitation for Healthier Communities](#)

Tool spotlight: Consensus Building

The development and finalization of a vision statement will require consensus building among diverse stakeholders and interests present within the Advisory Group. Consensus building means that alignment is created between the stakeholders so that shared interests are met and aligned to a shared and agreed upon goal.

Learn more:

- Clean Air Strategic Alliance - [Consensus Decision Making Toolkit](#)
- Seeds of Change - [Consensus Decision Making - A short guide](#)

Appendix C - Summary of Spotlighted Tools

Phase 1	Phase 2	Phase 3
<p>Design Thinking</p> <ul style="list-style-type: none"> Global Centre for Public Service Excellence - Design Thinking Friedrich Ebert Stiftung - A Practical Guide to Design Thinking 	<p>Horizon Scanning</p> <ul style="list-style-type: none"> UK Government Office for Science - Futures Toolkit Friedrich Ebert Stiftung - A Practical Guide to Design Thinking Alberta CoLab - Field Guide to Strategic Foresight Policy Horizons Canada - Scanning <p>Systems Thinking</p> <ul style="list-style-type: none"> OECD - Systems Approaches to Public Sector Challenges Policy Horizons Canada - Systems Mapping <p>Affinity Mapping</p> <ul style="list-style-type: none"> Government of Ontario - Affinity Mapping 18F Methods - How to do Affinity Mapping 	<p>Delphi Method</p> <ul style="list-style-type: none"> RAND Corporation - Delphi Method UK Government Office for Science - The Futures Toolkit (see page 15) <p>Value propositions</p> <ul style="list-style-type: none"> National Academies Press - Value propositions for multi-sectoral engagement Resonance Global - Cross-sector collaboration
Phase 4	Phase 5	Phase 6
<p>Scenario Development</p> <ul style="list-style-type: none"> Evergreen - Foresight for Resilient Cities Scenario Toolkit Policy Horizons Canada - Scenarios Multiverse Design - Building Brave New World (World building approach) 	<p>Counterbalancing bias</p> <ul style="list-style-type: none"> Visual Capitalist - Cognitive Biases Influencing Politics The Behavioral Insights Team - Behavioral Government 	<p>Backcasting</p> <ul style="list-style-type: none"> Department of the Prime Minister and Cabinet, New Zealand - Policy Methods Toolbox Autodesk - Backcasting
Phase 7	General	
<p>Strategic Communication</p> <ul style="list-style-type: none"> Stanford Social Innovation Review - Eight Tips for Communicating Ideas to Busy Policymakers Apolitical - How an aspirational narrative can sell your policy 	<p>Stakeholder Analysis</p> <ul style="list-style-type: none"> Government of Canada - Canada Beyond 150 Daten Treiber - Stakeholder Analysis Print <p>Engagement Design and Facilitation</p> <ul style="list-style-type: none"> Government of Canada - Design an engagement experience toolkit HC Link - Facilitation for Healthier Communities <p>Consensus building</p> <ul style="list-style-type: none"> Clean Air Strategic Alliance - Consensus Decision Making Toolkit Seeds of Change - Consensus Decision Making - A short guide 	
<p>References from Samantha Matters' report</p> <p>Nikolova, B. (2013). The rise and promise of participatory foresight. <i>European Journal of Futures Research</i>, 2(1), 33.</p> <p>Richardson, C. (2006). M tis identity creation and tactical responses to oppression and racism. <i>Variegations</i>, 2, 56-71</p>		



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