Planning by design

Applying design thinking to municipal planning
Acknowledgments

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Thank you to the 27 interviewees who took the time to provide insightful commentary for this research.

This project would not have been possible without supervision from John Lewis, President & Founder of Intelligent Futures, and Jordi Honey-Roses, Associate Professor at UBC SCARP. Thank you Jay Heule, Planning Intern at Intelligent Futures, for your support throughout this project.
Executive summary

This research explores how design thinking—a solution-oriented and human-centred approach to addressing complex challenges—can be applied to municipal policymaking. More specifically, it explores how a sprint methodology—a three to five day intensive workshop that employs design thinking—may be applied to the municipal planning process.

As the challenges facing our cities become more uncertain and complex, local governments must respond to urgent and ever-adapting demands. The recent onset of the COVID-19 pandemic has drastically increased the uncertainty and complexity of the modern world. The structure of bureaucratic organizations—which were built for a different reality in past centuries—inhibits the ability for municipal planners to keep up with complex, ever-changing challenges. Design thinking offers a set of processes, tools and methods that can help public servants respond to such problems. It can also help maintain a focus on empathizing with citizens, which can easily get lost in the ‘churn’ of typical planning processes.

Through an extensive literature review and interviews with 27 planners and designers, the research revealed four key insights.

Summary of insights

**INSIGHT 01: Sprints can accelerate and improve the municipal policymaking process**
Sprints hold the potential to add value to the municipal policymaking process by: focussing the attention of an interdisciplinary team; reducing the time required to circulate drafts; ensuring accountability for the decisions made; and providing a learning opportunity for new methods and tools.

**INSIGHT 02: Find a common language**
Although this report uses certain terms (design thinking, ideate, sprint, convergent thinking and prototyping), in practice, different terms may make more sense for participants and policymakers (thinking process, brainstorm, charrette, narrowing down, experimentation).

**INSIGHT 03: Design for equity**
Design thinking runs the risk of privileging the designer more than the end user, which can reproduce inequitable systems. To ensure the products, systems and institutions we design become more equitable, designers must build social and emotional awareness and continuously reflect on the impact of one’s emotions, actions and insights.

**INSIGHT 04: Measure the impact of design thinking**
Measuring the impact of design thinking is essential for understanding the value of the process and how it can be improved. Organizations that use a design approach should build an evidence base and impact measurements for design innovation.
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PART I

Introduction
“Problem-solving is no longer about inventing things; it is about recreating systems. And in a world that continues to increase in complexity and technology, design thinking can simplify, humanize, and order this chaos.”

- Hill, Molitor, and Ortiz 2016 p. 4

“Design is the intention (and unintentional impact) behind an outcome.”

- Creative Reaction Lab

This section introduces the research context and process; defines design thinking and sprints; and provides a snapshot of results from interviews with planners.
Introduction

As the challenges facing our cities become more uncertain and complex (Ito and Howe 2016; Hassan 2014; Raynor, Doyon, & Beer, 2017), local governments must respond to urgent and ever-adapting issues, including climate change, housing affordability and growing inequity. The recent onset of the COVID-19 pandemic, which has impacted cities and communities in unprecedented ways (Honey-Roses et al. 2020), has drastically increased the uncertainty and complexity of the modern world. COVID-19 has also demonstrated that our institutions often have no choice but to act quickly and decisively in times of uncertainty.

The effects of COVID-19 (as well as homelessness, climate change and food insecurity, among others) are complex social challenges. Such challenges are unpredictable, have a constant flow of new information, and actors are constantly adapting their behaviour. These challenges can be addressed from the international to community scale. At the community scale, these social challenges shape the need for municipal planning approaches that are adaptable, participatory and responsive. Yet, planning processes are not often designed to keep up with rapid change (Raynor, Doyon, & Beer, 2017; O’Toole, 2007).

The structure of bureaucratic organizations—which were built for a different reality in past centuries—challenges the ability for municipal planners to keep up with complex challenges (Innes and Borres 2018; Raynor, Doyon, & Beer, 2017). As Innes and Borres (2018 p. 2) write: “Bureaucratic agencies are hierarchical in structure, routinized in their practices and designed to fulfill limited missions. [...] They are not set up to look at cities or regions as wholes, nor to address complex, rapidly changing problems.”

Another workplace reality challenging bureaucratic organizations (along with all knowledge workers) is the cost of interruption. With endless email alerts, instant message pings, text buzzes and phone rings, public servants live in a world of distraction. A 2010 study at Harvard University found that the average knowledge worker spends 47 percent of their day in a state of semi-distraction (Killingsworth and Gilbert 2010). Another study found that knowledge workers switch tasks every three minutes and five seconds (Mark, Klocke, and Gudith 2008). These ongoing interruptions take a toll on productivity and mental health. The endless distractions lead to an increase in stress, frustration, mental effort and a feeling of time pressure (ibid). This lessened focus can negatively impact the depth and quality of problem solving.

As local governments grapple with complex challenges amidst inevitable financial constraints and workplace distractions, the public sector has increasingly turned to ‘innovation’ to address such complexity (Lewis et al 2017). While focusing on innovation, those working in (or with) the public sector have used design thinking—an approach to problem solving that can lead to innovation—to re-frame problems and test new solutions to policy issues (Lewis et al 2020; UK Design Council 2013; Kimbell 2016). Design thinking offers a set of processes, tools and methods that have the potential to help public servants respond to urgent, complex challenges.

This research explores how design thinking can generally be applied to municipal policymaking. More specifically, it explores how a sprint methodology—a three to five day intensive workshop that employs design thinking—may be applied to the municipal planning process.

Local governments must respond to urgent and ever-adapting issues, including climate change, housing affordability and growing inequity.
COVID-19 has demonstrated that our institutions often have no choice but to act quickly and decisively in times of uncertainty.
In the format of ‘how might we’ questions, the following objectives guided the research:

**How might we add value to municipal policymaking by applying design thinking?**

**How might we tailor a sprint methodology to add value to the municipal policymaking process?**

**Research methods**

_This research project_ is sponsored by Intelligent Futures and the Mitacs Accelerate program. Intelligent Futures, a Calgary-based group of complex community problem solvers, has been using design thinking and the sprint method in its planning work for the past many years. The Intelligent Futures team sees a great opportunity for design thinking in general, and sprints more specifically, to be applied to municipal policymaking. The intended audience for this report is planners (in the public or private sector) looking for new approaches to policymaking. It is also for designers who are interested in the intersection between policymaking and design thinking.

The original plan for this research was to draft, test, evaluate and refine the sprint methodology with a real-world planning project. In March 2020, the onset of COVID-19 disrupted the ability to follow-through with the proposed methodology. As a result, this research shifted to be more exploratory in nature, focusing on a literature review and interviews.

_Coined by Proctor & Gamble in the 1970s and popularized by IDEO more recently, ‘how might we’ questions are a useful way to frame questions, allowing for many possible answers. The goal with the ‘how might we’ frame is to create questions that provoke meaningful ideas._
Conducted from May to August 2020, this research consisted of three phases:

**Phase 1: Information gathering**
This phase consisted of a literature review, interviews with planners across Canada, and interviews with designers from around the world.

**Literature review**
The researcher reviewed books, academic journals, professional reports and articles about planning, design and policymaking. The literature review guided the direction of the research and the interview questions.

**Interviews with planners (16)**
All planner interviewees worked for local government, in various roles, from rezoning and parks planning to urban design and climate action. Participants had a range of experience (from five to 30 years). The size of municipalities also varied, from a small town of 2,500 to Canada’s largest cities. The goal with this sample was to gain a breadth of understanding across various municipal organizations.

General questions included:
- What are the characteristics of a successful planning process? What factors challenge this success?
- What steps in planning could take less time? Which steps could benefit from more time?
- Based on my description of the sprint, what would be most appealing about it for planning? Concerns?
- How familiar are you with design thinking?
- How has COVID-19 impacted municipal processes?

**Interviews with designers (11)**
Designer interviewees worked across sectors—including private consultants, public servants, scholars and non-profit employees. The participants were chosen based on their extensive design thinking and facilitation experience.

Questions varied with each designer, but general questions included:
- How do you measure the impact of design thinking, if at all?
- Does design thinking make innovation processes more efficient?
- How have you been applying design thinking in digital environments?
- What are the key pillars of design thinking (that should never be left out)?
- How does the sprint methodology operate in your field, if at all?

**Phase 2: Synthesis**
In phase 2, the researcher transcribed, analyzed and summarized the interviews. The researcher also facilitated two workshops with the Intelligent Futures team, to present preliminary findings and gain insights about how to best proceed with the research.

**Phase 3: Draft report**
This phase built upon Phase 1 and 2 to create a report that most effectively shares the insights from the research. The key findings, as seen in the following pages, will provide context and insights about applying design thinking methods to municipal policymaking processes.
What is design thinking?

Despite its growing popularity in the past decade, design thinking is not new—it was first coined in 1965 by Bruce Archer, who described design thinking as a systematic process. Since then, design thinking has taken on many definitions (Schmiegden, 2016), but can be simply understood as a way of thinking through problems (Dorland 2017). Design thinking can also be loosely understood as a solution-oriented and human-centred approach to addressing complex challenges (Brown 2008). It emerged from design professions (industrial and product design, particularly) but has been popularized in the tech and management sectors. Recently, it has been applied to service and policy design.

Design thinking as a process

Design thinking is frequently understood as a process. In the early 2000’s, design thinking morphed from a ‘way of knowing’ based in intuition and used to solve ‘wicked problems’ (Buchanan 1992; Rittel & Webber 1973) into a marketable skill for innovation and management. (Brown 2008; Martin 2009). At this point, design thinking became positioned as a valuable resource for organizations that could lead to innovation and organizational change. The design firm IDEO popularized the design thinking process, providing a frequently cited five-step process. The non-linear process includes empathizing with the user, defining the problem, ideating possible solutions, prototype and testing solutions.

The Interaction Design Foundation describes each step as follows:

**Empathize: Research user needs**
Gain an empathetic understanding of the problem that is to be solved, typically through user research. Empathy is crucial to a human-centered design process such as design thinking because it allows one to set aside their own assumptions about the world and gain real insight into users and their needs.

**Define: State users’ needs and problems**
Analyze the observations from the previous stage and synthesize them to define the core problems identified. These definitions are called problem statements. Designers can create personas to help keep the efforts human-centered before proceeding to ideation.

**Ideate: Challenge assumptions and create ideas**
The solid background of knowledge from the first two phases means the designer can start to ‘think outside the box’, look for alternative ways to view the problem and identify innovative solutions to the problem statement.

**Prototype: Start to create solutions**
This is an experimental phase. The aim is to identify the best possible solution for each problem found. The team should produce some inexpensive, scaled-down versions of the product (or specific features found within the product) to investigate the ideas that have been generated.

**Test: Try solutions out**
Evaluators rigorously test the prototypes. Although this is the final phase, design thinking is iterative: teams often use the results to redefine one or more further problems. So, designers can return to previous stages to make further iterations, alterations and refinements – to find or rule out alternative solutions.
Design thinking can be better understood by breaking it into three categories (Efeuglu et al 2014):

- Foundational elements
- Characteristics
- Methods or tools

**Foundational elements**

**Problem space and solution space**
In design thinking, a lot of time is spent working to understand the problem. This requires thorough analysis, where information is collected and the designer empathizes with the end user. After all, the solution can only be as good as the problem understood. Efeuglu et al (2014) suggests that as a general rule, about half the time is spent in the problem space (which is much longer than linear or technical approaches to problem solving). In the solution space, ideas and prototypes are created to tangibly solve the problem. Iteration between the problem and solutions spaces allows one to move back and forth, as problems and solutions both continuously shift.

**Convergent and divergent thinking**
Often referred to as the ‘double diamond’, design thinking always starts off with generating lots of ideas and information (divergent thinking), then narrows down to the best (convergent thinking). This process happens (at least) twice—defining the problem and creating the solution. Changing between convergent and divergent thinking allows for creativity to ensue.
Creativity and innovation
Design thinking uses techniques to foster creativity, which can lead to innovation. As George Cox from the UK Design Council says: “Creativity is the generation of new ideas. Innovation is the successful exploitation of new ideas. Design is what links creativity and innovation.”

Interdisciplinary teams
Interdisciplinary teams are a key component to any design thinking process to ensure that a diversity of voices are represented. Bringing together experts to provide different perspectives in the same room (whether it be virtual or in-person) allows assumptions to be challenged, and a more complete understanding of the problem and potential solutions. Design thinking “encourages the transcendence of organisational and procedural silos, established hierarchies, or bureaucratic categories” (Mintrom, & Luetjens, 2016) by creating an environment where a diversity of actors can contribute and co-create on a level playing field.

Characteristics

Tolerance to risk
Design thinking is a process highly tolerant to risk when compared to other thinking processes. Focusing on experimentation, iteration, and testing, design thinking supports the generation of innovative and riskier ideas in a low consequence environment. Because participants don’t feel the pressure to be perfect, they’re more willing to take risks, and learn from mistakes to develop better solutions. Additionally, design thinking reduces internal risks by involving key decision makers and stakeholders throughout the process, building buy-in.

Empathy towards the end user
Design thinking asks practitioners to imagine the world from “multiple perspectives — those of colleagues, clients, end-users, and customers” (Brown, 2008), creating empathy for the different perspectives that emerge. The inclusion of citizen or ‘end-user’ perspectives in the ‘problem space’ enables a richer understanding of the problem and directs attention to more nuanced solutions (Mintrom and Leutjens 2016). Over 75% of designers interviewed identified researching and empathizing with the end user as a critical component to the design thinking process. Empathizing with users goes beyond identifying their needs, to recognizing users as local experts in their own domain. Defining the end user is particularly challenging in municipal policymaking, as policy impacts large and diverse communities (today and into the future).

Iteration
As opposed to a linear thinking methodology, design thinking takes a fast, iterative, and experimental approach. Through tools like rapid prototyping, learning and reflection is built into the process to continually check back-in with objectives and evaluate outcomes. Design thinking uses an iterative approach to bring together the processes of ideation and testing through the concept of the minimum viable product, generating feedback from the minimal amount of time and effort.
Methods and Tools

Designers use a wide variety of methods and tools while working through a challenge. The following pages provide a few examples of tools, with focus on ones that have been used in public service and policy innovation (Lewis et al 2020; Design Council (UK) 2013; Mintrom and Luetjens 2016).

Prototyping
Prototyping is a great way to make ideas tangible and test them out when risk is low. It involves building out simple, scrappy ideas at low-to no-cost. By doing this, one can learn about what works and what doesn’t early on. Services can be prototyped by testing individual touchpoints, such as web pages or forms that must be filled. Policy can be prototyped by role playing the effects of different policy actions.

Mapping
This method can be used to understand how ideas relate to each other. Used in policymaking to explore the links between policy design and implementation, a concept map can help develop a framework to guide planning. This method allows the designer to visualize how connections and spot emerging patterns (Mintrom and Luetjens 2016). Journey mapping explores the user experience from start to finish, offering a holistic knowledge of users’ experiences.

Environmental scanning
This strategy explores the behaviours of different people, the outcomes of such behaviours, and the trends that may affect future outcomes. Environmental scanning is intended to fill gaps in knowledge and develop a holistic understanding of systems. When used in policymaking, this method casts a wide net, collecting knowledge not always considered in traditional policymaking processes (Mintrom and Luetjens 2016).

Observations
By watching and recording people in their daily lives, designers discover needs and behaviours that people may be unaware of themselves. Interviews, user diaries and observations can help bridge the gap between understanding what people actually do, and what they say they do.

Personas
Personas can be used to understand the needs of different end users. Defining the end user is particularly challenging in policy, considering the wide variety of users, as well as the long-range impacts of policy development. By using the concept of relevant extremes—focussing on needs of people at extremes such as gender, race, income and physical ability—everyone’s needs will more likely be identified.

Sprints
The following page describes the sprint methodology.
Sprints

Popularized by a team from Google Ventures (GV), the sprint is defined as a five-day process “for answering crucial questions through prototyping and testing ideas” (Knapp et al, 2016, p. 9). Sprints are packaged into a step-by-step process that use a design thinking approach.

Similar to the popular five-stage design thinking process (see page 7), the sprint method goes through the same stages:

- **Understand**: Map out the problem and pick an important area of focus.
- **Ideate**: Sketch out competing solutions on paper.
- **Decide**: Make decisions and turn ideas into a testable hypothesis.
- **Prototype**: Hack together a realistic prototype.
- **Test**: Get feedback from real users.

The sprint should be comprised of a team of around seven people, including (Knapp et al. 2016):

- **Decider**: The person who makes the final decisions.
- **Troublemaker**: Someone who will bring contrary opinions.
- **Facilitator**: A third party facilitator (who is not the decider).
- **Various experts**: This varies depending on the type of project.

According to the GV team, sprints are most useful in the following scenarios:

- **High stakes**: You’re facing a big problem and traditionally, the solution would require a lot of time and money.
- **Not enough time**: You’re up against a deadline.
- **Just plain stuck**: You are finding it hard to start, or momentum has been lost.

What would a sprint look like for a policy project?

Although sprints are traditionally used for product and service development, there is potential for the method to be tailored to apply directly to policymaking and strategic planning. Intelligent Futures has used sprints for multiple projects, including a long-range environmental master plan, a biodiversity strategy and a culture and heritage plan. Intelligent Futures defines sprints as a “three to five day structured approach to building and testing solutions through discussions with key stakeholders and focused collaboration with essential team members.”

Intelligent Futures has used the sprint to solve problems such as: **How can we continue environmental progress in the community after 5 years of action and measurement?**

The graphic on the following page provides an example of an Intelligent Futures sprint agenda. A similar agenda was used to solve the problem stated above. See page 22 to read a case study about this particular sprint. The agenda is inspired by the Knapp methodology, but varies slightly.

Although sprints are often used to prototype and test tangible products or services (such as a new chair or website), strategies can also be prototyped and tested. Intelligent Futures has used a strategy formula to expand on the meaning and responsibilities of ideas that emerge through their sprints. John Lewis, President & Founder of Intelligent Futures, explained how the firm prototypes strategies: “We have a list of watchwords/phrases that we try to avoid in our projects. Items like ‘endeavour to achieve’ or ‘explore’ don’t provide real clarity or commitment, but often end up in strategies. We design the process so that emerging ideas have a structure that is a prototype of sorts, so that participants can understand what the action really means, why it’s important, who is responsible and how would it be measured. The intended end result is a significantly higher level of clarity in the final plan.”

Five day sprint agenda

DEVELOPED BY KNAPP ET AL (2016)
Intelligent Futures has used the sprint method primarily for internal collaboration, inviting key knowledge holders and decision makers from within city departments. In some projects, on the final day of the sprint, Intelligent Futures will facilitate a public open house to discuss the sprint results with the community.

The sprint method is a valuable methodology as it can: bring together key players (knowledge-holders and decision-makers) to collaborate; establish a unique level of ownership of the results; be time efficient (and reduce the typical back-and-forth time it takes to review drafts) and it can build capacity and relationships through structured and intensive experiences.

To understand how this adapted sprint method might be most feasible and impactful in municipal policy making, the researcher interviewed planners to understand:

- At which step in the planning process could the sprint be most impactful?
- For planners, what is most appealing about the sprint? What are the key challenges?

Part III (page 25) of this report summarizes and discusses the responses to these questions.

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**Sprint agenda for developing policy actions**

**DEVELOPED BY INTELLIGENT FUTURES**

<table>
<thead>
<tr>
<th>DAY 1</th>
<th>UNDERSTAND the problem</th>
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<tbody>
<tr>
<td>DAY 2</td>
<td>IDEATE potential solutions</td>
</tr>
<tr>
<td>DAY 3</td>
<td>PROTOTYPE actions</td>
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<tr>
<td>DAY 4</td>
<td>TEST solutions by discussing results with the community</td>
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</table>

Define direction for the strategy and gain stakeholder insights

Brainstorm and prioritize potential actions

Build an “action table” to establish roles, accountabilities and timelines for prioritized actions

Present sprint results to councillors, community and other stakeholders (in a public open house or other format) and seek feedback
INTERVIEW RESULTS: A SNAPSHOT

Which design thinking characteristics should be applied to planning?

To understand if there is interest in applying design thinking characteristics to planning processes, 13 planners were asked their thoughts around the value of design thinking characteristics, and their applicability to planning. Most respondents agreed or strongly agreed that planning should be more: interdisciplinary, iterative, tolerant to risk, empathetic to its end users, creative and innovative. Further, most respondents disagreed that the current planning process effectively uses a systems-thinking approach, showing the opportunity for design thinking to be combined with systems-thinking to adequately address this concern.

“Most municipalities get stuck in a rut. But because what we’re doing is sufficient, and because we’re all busy as heck doing the day to day stuff, pursuing something new and innovative might not be a top priority.”
- Senior Planner in Saskatchewan

“Design thinking, the iterative processes, are better because they’re more transparent. People see the evolution of the plan.”
- Planning Manager in Alberta

100% of respondents agree or strongly agree that the planning process should be more interdisciplinary.

88% of respondents agree or strongly agree that the planning process should be more creative and innovative.

88% of respondents agree or strongly agree that the planning process is too risk averse.

81% of respondents agree or strongly agree that the planning process should be more iterative.

75% of respondents agree or strongly agree that time is a constraint for the planning process.

“Cost, scope and time are the three things that come into play [in planning projects]. For the most part, scope is most important. Time doesn’t always matter.”
- Planning Manager in Nova Scotia
Although design thinking is increasingly used in the public sector, the concept is not ubiquitous in planning. Based on interviews with 16 planners across Canada, most participants had not (explicitly) used design thinking before. The previous page demonstrated that most planners agreed that planning should encompass more characteristics of design thinking (iteration, creativity, innovation, etc), yet they are unfamiliar with the term itself. Interviewees who had heard of the concept learned about it from: students or interns; non-profits; IT departments; and innovation labs.

Although design thinking might not come up explicitly, municipalities may still use elements of it. There is opportunity to make design thinking a more conscious process—there are limitations to leveraging the potential of design thinking if it is used in an unstructured or unconscious way.

One planner thought that design thinking sounded like an academic term. When applying design thinking to planning, it’s important to describe the methods, processes and tools in a common language that all participants understand. The popular terms (design thinking, ideate, convergent thinking, prototype, etc) don’t need to be used if different terms are better understood (a thinking process, brainstorm, narrowing down ideas, experimentation, etc).

“[Design thinking] doesn’t come up explicitly. It feels like an academic term to me.”

- Director of Planning in British Columbia

“In terms of the City applying [design thinking] processes, I do think we do already do elements of that in our work, it’s just that we haven’t consciously called it design thinking.”

- Director of Planning in British Columbia

15% Never heard of it.
31% Used design thinking methods many times.
46% Heard of design thinking or something similar.
8% Used design thinking methods before (once or twice).
PART II

Design thinking in the public sector
“What makes design thinking so effective for innovation is the way it makes problems tangible through direct observation, visualisation and prototypes.

In many ways, this is why design thinking is especially useful for service and policy innovations: it renders these things, which can seem so intangible and therefore so difficult to approach, concrete, clear and easily intelligible to a wide variety of stakeholders.”

- UK Design Council, 2013

Based on an extensive literature review and interviews, this section discusses the opportunities and criticisms for applying design thinking and sprints in the public sector. This section also shares three case studies (which each apply design thinking to varying degrees).
Design thinking in the public sector

Opportunities

Design thinking is a useful approach for public-sector innovation and systemic change (Clarke and Craft 2019, Boyer, Cook, and Steinberg 2011). The foundational elements, characteristics and methods of design thinking can improve the agility of the public sector, enabling such institutions to respond quickly to complex problems across scales. As Moura Quayle, author of Designed Leadership, said in an interview for this research: “One of the reasons that I believe in design is that I think we all need thinking processes. The importance of having a process is that inevitably we get stuck in our thinking, and that takes time when we get stuck. And if we don’t have a clear process ... then we don’t know where we are.”

Design thinking can give policymakers a roadmap for tackling complex problems, which can lead to effective processes and impactful results.

Researchers at the University of Melbourne (Lewis et al 2020) sought to understand what’s new about design thinking in the public sector, how it challenges traditional approaches to policymaking and the impact it may have on the policymaking process. They found that design thinking incorporates imagination, creativity and playfulness into the philosophy of policymaking in a way that other approaches (rational and participatory processes) have historically struggled to do (p. 124). This allows policymaking to be more adaptable, reflexive and uncertain, which is representative of the nature of policy challenges.

The researcher asked planners about the factors that challenge the success of a municipal planning process. The result (as seen in the graphic below) is an interconnected web of challenges, some of which may be addressed by applying design thinking generally, and the sprint method more specifically.
**Why use design thinking and sprints in municipal policymaking?**

Based on literature review and interviews with planners, traditional planning processes can experience many interrelated pain points. Design thinking methods in general, and the sprint more specifically, can address some of these challenges.

<table>
<thead>
<tr>
<th>Pain points in planning</th>
<th>How design thinking and sprints may help</th>
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<tbody>
<tr>
<td><strong>Insufficient engagement</strong></td>
<td><strong>User-centred process</strong> Design thinking starts by empathizing with the user and identifying their needs, working with end-users to co-create and test solutions.</td>
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<tr>
<td>The public is not always meaningfully engaged, stakeholders are often inadequately resourced to effectively contribute and many engagement programs lack an equity lens.</td>
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<tr>
<td><strong>Unclear purpose and scope</strong></td>
<td><strong>Defining the problem</strong> Design thinking starts with defining the problem. Although sitting in the ambiguity of the ‘problem space’ may feel unclear at first, spending time here ensures that the right problem is identified, leading to a clearer scope and purpose.</td>
</tr>
<tr>
<td>If project objectives, timelines and deliverables are unclear, the project will likely be unsuccessful. To mitigate this, it’s key to spend time upfront preparing for the project.</td>
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<tr>
<td><strong>Lack of buy-in</strong></td>
<td><strong>Bringing people along</strong> When used properly, design thinking methods can provide transparency and facilitate collaboration between the public, staff and politicians.</td>
</tr>
<tr>
<td>Councillors are the final decision makers in local government. Their decisions are impacted by staff and the public—a lack of buy-in amongst these groups can lead to less political will, and projects get pushed to the side.</td>
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<tr>
<td><strong>Lack of trust and understanding</strong></td>
<td><strong>Collaboration</strong> Design thinking seeks to bring interdisciplinary teams together. Facilitation techniques and tools can help ensure collaboration, building trust and understanding between key players.</td>
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<tr>
<td>Delayed timelines, insufficient engagement, silo structures and political forces can all lead to a lack of shared trust and understanding between citizens, stakeholder groups, staff and councillors. As one interviewee said, “you can only plan as fast as the speed of trust.”</td>
<td></td>
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<tr>
<td><strong>Many people, documents and hand-offs</strong></td>
<td><strong>Focused attention, clear decisions</strong> Sprints help facilitate face-to-face (or screen-to-screen) discussions about draft plans between all key players. This can reduce the number of hand-offs and build a shared understanding for the project.</td>
</tr>
<tr>
<td>Planning processes involve many hand-offs between individuals, decision makers and documents. The multiple hand-offs, particularly while reviewing final drafts, can lead to a long and ineffective process (Loh 2012).</td>
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<tr>
<td><strong>Time delays</strong></td>
<td><strong>Embracing the prototype</strong> If sprints are used to draft a plan, plans may become ‘minimal viable products’—living documents that change with time—accelerating the process.</td>
</tr>
<tr>
<td>The multi-step process of planning, as well as the common need for perfection, frequently leads to time delays.</td>
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<tr>
<td><strong>Time crunches</strong></td>
<td><strong>Agile methods</strong> Sprints accelerate collaboration and decision making.</td>
</tr>
<tr>
<td>Depending on the issue at hand, some projects get pushed through quickly due to the perceived urgency.</td>
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<tr>
<td><strong>Silo structures</strong></td>
<td><strong>Multidisciplinary teams</strong> Sprints bring a diverse team together into the same room, offering proven techniques for helping diverse teams collaborate.</td>
</tr>
<tr>
<td>Government departments tend to work in silos, resulting in fragmented understanding of project objectives and ineffective commitment across departments.</td>
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Criticisms

Despite its potential, design thinking has drawn criticism from both practitioners who implement the concept and the academics who study it.

**Design thinking is a buzzword**

In the past two decades, design thinking has become increasingly more popular (from 2000 to 2008, the use of the term increased by 300%, according to Google’s NGram Viewer (Dorland 2018)). By surveying over 400 designers, Schmiedgen and his colleagues (2016) found that design thinking is defined in a myriad of ways. Further, IDEO (the firm that popularized design thinking in the 2000’s) has been criticized for providing an unclear definition of design thinking. It defines design thinking as “a human-centered approach to innovation that draws from the designer’s toolkit to integrate the needs of people, the possibilities of technology, and the requirements for business success” (IDEO Design Thinking n.d.). Unclear language causes confusion and can make these processes exclusionary to non-experts.

**Design thinking can perpetuate inequities**

Practitioners and scholars argue that design thinking runs the risk of privileging the designer more than the end user, which can reproduce inequitable systems (Iskander 2018). Further, design thinkers don’t tend to explicitly address how factors like race and gender impact the process. To ensure we design for equity, Hill, Molitor and Ortiz (2016) suggest that design thinking methods be redesigned to ensure they mitigate the causes of inequity—particularly, “the prejudices of the human designers in the process, both their explicit and implicit personal biases, and the power of mostly invisible status quo systems of oppression” (p. 4). Although designers bring valuable expertise to the process, the designer’s positionality, subjectivity, assumptions and implicit biases should be continuously reflected upon.

**Design thinking lacks evidence**

Measuring the impact of design thinking is rare and inconsistent (Schmiedgen et al 2016). Schmiedgen et al (2016) found that among 167 design firms, only 24 percent of respondents measure the impact of design thinking. Yet, 71 percent of respondents thought that design thinking improved their working cultures, and 69 percent agreed that design thinking makes work processes more efficient. Many practitioners who use design thinking rely on anecdotes and intuition to understand its impact. Anecdotes are helpful, but formal experiments (Honey-Rosés et al. 2020), ethnographic studies (Dorland 2018) and ongoing evaluation (Foglieni, Villari, and Maffei 2018) is essential if we want to truly understand the value of design thinking. However, it’s common practice across sectors to let measurements fall by the wayside. In local government, monitoring and evaluation is often underutilized in municipal plans (Guyadeen 2019).

To respond to these three criticisms, designers and policymakers can:

- Find a common language
- Design for equity
- Measure the impact of design thinking

See page 37 for further explanation of these three insights.
The three previous criticisms can be applied to product design, policymaking and everything in between. Beyond the aforementioned, scholars have also recently critically examined the impact of design thinking on policymaking (Lewis et al, 2020; Clarke & Craft 2018). In this context, design thinking faces challenges in four areas:

**Design thinking doesn’t usually address political factors.**
It can’t provide guidance on addressing politically controversial policymaking activities (hence, it’s not surprising that design thinking focuses on delivering services like recycling collection or business licensing). However, if policymakers “learn how to incorporate the insights and practices from design thinking into policy, and designers learn how to deal with the politics of the policy process, there could well be significant benefits for policy design and for everyone who is affected by it” (Lewis et al 2020, p. 126).

**Design thinking isn’t always the best choice for policy design.**
It tends to favour the user-centred, experimental approach, which isn’t desired for every policy. Lewis et al (2020) found that design thinking tends to focus on front-end challenges (developing more citizen focused solutions rather than involving the community in deciding what, how or whether programs and services should be delivered).

**The design thinking approach may treat policy as discrete projects.**
This ignores that policies are nested and combined with a range of interacting policies. That is, as one policy is adjusted or tweaked, designers who are “ignorant of the ripple effects of its adjustments on related policy designs may inadvertently create new policy problems, or undermine their efforts to achieve certain objectives” (Clarke & Craft, 2018, p. 16). By combining design thinking with other thinking processes, such as systems thinking, the interrelated nature of policy projects can be more clearly understood.

**Design thinking may not be scalable.**
Clarke and Craft (2018) argue that design thinking isn’t scalable as some policy problems won’t lend themselves to design thinking because they require immediate decisions, or the resources needed for extensive user testing, iteration and collaboration aren’t available. This point will be addressed again when discussing the sprint methodology, as it holds potential to address these exact issues of time and cost.

The relevant literature concludes that design thinking should not be seen as a mere set of trendy ‘tools’, nor as a wholesale replacement for traditional approaches (Lewis et al 2020; Clarke & Craft 2018; Mintrom and Luetjens 2016; Kimbell 2016). Rather, the best aspects of design thinking should be used to complement traditional approaches, to hopefully realize its potential (for fostering creativity, innovation and reshaping policymaking into a more democratic and participatory process) (Lewis et al 2020; Kimbell 2016). The above criticisms demonstrate that design thinking is not a ‘secret sauce’ or ‘silver bullet’ that can solve any complex challenge in local government. These criticisms should be kept at the forefront of a designer or policymaker’s mind, to ensure one doesn’t get swept away by the novelty of design thinking. When used appropriately, the approach holds potential for innovating the public sector.
Case studies

Design thinking can be applied in the public sector at various levels. The UK Design Council’s (2013) Public Sector Design Ladder has three steps, as seen below. Each step in the ladder can be understood across scales, from one department to an entire organization. The ladder also provides useful orientation for case studies, as seen on the following pages. Cases include: planning for a more sustainable future in Red Deer; improving the permitting and licensing process in Edmonton; and working towards a community of practice in Vancouver.

**Step 01: Design for discrete problems**

Design projects are one-offs and design thinking is not embedded in the commissioning organizations. Public sector service design projects, of which there are numerous examples, fit into this category. Projects can be very small or have wide systemic implications. They can tackle complex societal problems. This category also covers design’s application as a way of making technology useful and usable for people.

**Step 02: Design as capability**

Public sector employees not only work with designers, they understand and use design thinking themselves. Many design techniques are easily transferable to non-designers and can create significant efficiencies as part of day-to-day operations. Staff use the new skills to solve numerous problems too small to merit the hiring of designers; gain a shift in perspective in seeing things from the point of view of the citizens they serve; become more adept at hiring design teams when required.

**Step 03: Design for policy**

Design thinking is used by policymakers, often facilitated by designers. This is a relatively new discipline and much of the work on it so far has been experimental, but the logic of design’s application here is strong given it meets some key policymaker needs: a joined up process, from policymaking to implementation; a low-cost way of mitigating risk through prototyping; a way of getting an overview of a systems; a way of cutting across departmental silos and engaging people from outside government.
STEP 01 Planning for a more sustainable future in Red Deer

The City of Red Deer participated in a sprint to collaboratively prioritize actions for a long-range environmental master plan.

What was the challenge?
Like all cities today, the City of Red Deer faces many environmental challenges including the provision of clean water, air quality, and biodiversity as well as waste reduction, energy, and sustainable community design. In 2016, the Environmental Master Plan was due for its 5-year refresh. A key challenge the organization faced was fragmented understanding and commitment across departments to environmental issues.

What did they do?
Intelligent Futures worked with the City to develop strategic priorities that provide a roadmap towards the City’s environmental vision. The process included public, staff and stakeholder consultation; benchmarking and audit research; and a sprint with the Red Deer team. Design thinking was primarily used during the sprint—a three day workshop where ten City staff members (including engineers, planning managers and environmental strategists) developed environmental actions together (such as ‘develop a biodiversity strategy’ and ‘classify and inventory all city-owned trees’). Throughout the three days, participants brainstormed and prototyped potential actions and determined who was accountable for each action. The results from the sprint provided the content the team needed to draft the final plan.

What was the result?
The EMP has 20 priority actions that fall into two categories: City organization initiatives (actions that relate to what the City can do as an organization) and community initiatives (actions that are most impactful if the community is involved). The sprint allowed staff to explore actions more holistically. With Intelligent Futures facilitating the sprint, there was an ‘even playing field’ between departments, allowing people to build shared interests and gain buy-in. Senior managers walked away feeling confident to recommend the plan to Council. One staff member who was involved said that this was one of the first projects where people didn’t blame the consultant—the ideas clearly came from staff and the public.

“This is one of the first projects I ever worked on that people didn’t say, ‘where did the consultant come up with this?’...There was recognition that these were our ideas and it wasn’t just reacting to something a consultant presented. So I think that changed the dynamic. It made our own staff accountable.”

- City of Red Deer staff member
**STEP 02 Improving the permitting and licensing experience in Edmonton**

Guided by the ‘double-diamond’ approach, City staff in Edmonton are learning design methods to reimagine permitting and licensing.

**What is the challenge?**
The process of receiving a business license, development or building permit from the City of Edmonton is often frustrating, confusing and drawn out, according to applicants, stakeholders and staff. The inconsistency in the process and timelines do not meet the needs of staff or applicants. The goal of the permitting and licensing improvement project is to support the quality of life for Edmontonians and economic vibrancy of the City by enabling efficient and effective permit and licensing services in collaboration with stakeholders.

**What are the results (so far)?**
Although the project is still in early stages, the team has uncovered many important challenges in permit and licensing services. The team is finding it uncomfortable yet valuable to pause and sit in the challenges before quickly seeking solutions. Although it is difficult to self-learn a design approach, staff have found it incredibly useful to learn-by-doing. This design method is permeating throughout other departments and projects, including the City’s Zoning Bylaw Renewal.

**What is being done?**
The City’s project team has taken a ‘double diamond’ service design approach, which has four phases: discover, define, develop, deliver. In the ‘discover’ phase, staff worked to understand the customer and staff experience, through interviews, surveys, journey mapping, quantitative data analysis, and a ‘day in the life’ study. At the time of writing, the team is in the ‘define’ phase—digging deep to understand the challenges and opportunities. The team is learning this designed approach as they go, using online resources and learning from an existing service improvement team that has experience in service design.

“We’re learning as we go. And when you’re learning something it always takes time. Right now we are re-framing the problem and we under-estimated how challenging that is. Some of the tasks look easy on paper but are such a different way of thinking that it takes a lot more brain power than we expected.”

- City of Edmonton staff member
The City of Vancouver Solutions Lab (SLab) was created in 2016 with the intent to contribute to public service innovation at the City of Vancouver. SLab brings people together to be creative and innovative, seeking transformative solutions to some of the most complex challenges facing the city. The lab focuses on five policy domains: reconciliation, equity, healthy city, greenest city and climate emergency. It delivers two main activities: labs that focus on complex challenges; and communities of practice that focus on building capacities, competencies, and connections.

During its first iteration, SLab relied on external consultants working with a small team to deliver the labs. The team realized the most impactful learning was happening for a small group of people. To truly transform organizational culture and systems, this learning had to be ‘cracked open and democratized’ to challenge existing mindsets and build skills for a large group of people.

This realization led to the focus on a Community of Practice (CoP), designed to invert the idea of an expert team (common in many public sector innovation labs). With the goal to build social innovation leadership and expertise across the organization, the CoP is supporting a network of City staff to build capacities, competencies, leadership and connections with each other. This CoP model also helps ensure that the intent of SLab would stay alive even if the lab was shut down (as many labs have experienced).

The City of Vancouver Solutions Lab is working to transform organizational culture by creating a community of practice for social innovation.

Check out SLab’s Strategic Design Toolkit
PART III

How might sprints add value to planning?
This section explores the planning process (How long does each step take? What could take less time, and what could benefit from more time?); introduces the sprint methodology and examines the challenges and opportunities for using sprints in planning.
What does a typical planning process look like?

Broadly speaking, planning projects tend to go through a six stage process (see below). Often, different departments will be responsible for different stages in the process—for example, the ones who write policy don’t usually implement the actions. When asked ‘how long does each step take?’ almost all interview participants responded with ‘it depends’. The timeline for planning varies greatly due to the scale of the project—a comprehensive community plan will take much longer than a policy plan. Participants also worked in various areas of planning, providing a diversity of experience with the types of projects. Based on all interview responses, below is a range for how long each step tends to take.

1. Research
   1-3 months
   Collecting relevant information that relates to the project, including history, data, best practice and other initiatives.

2. Engagement
   2-7 months
   Consulting and collaborating with the public, key stakeholders and across departments within a municipality.

3. Draft plan
   2-9 months
   Synthesizing the research, engagement and decisions made into a useful document that meets the project objectives. This includes circulating the draft for revisions across departments.

4. Approvals & decision making
   1-6 months
   Gaining approvals from municipal decision makers, including senior staff and council. Ultimately, plans are approved by the city council, but planners’ recommendations influence these decisions.

5. Implementation
   Various timelines
   Turning the plan into action to accomplish strategic directions and goals.

6. Monitoring & evaluation
   Typically 1 or 5 year review cycle
   Regularly checking-in to see if the plan is still on the desired track, and adapting if need be.
What could take less time?

From project start to approvals, most plans take at least one year to research, consult and draft. Implementation can occur quickly after a plan is approved, but this step also often lasts months to years. By interviewing planners across Canada, the researcher sought to understand what steps could be accelerated and what steps could benefit from more time. Based on the interview results, the three top steps that could see efficiencies are:

Engagement
Although all interviewees stressed the importance of engagement (with community, stakeholders and across departments), many suggested that engagement is often conducted in a way that is time intensive and doesn’t add value to the process. Too often, local governments ask the community for feedback about decisions that have already been made, which is an ineffective use of everybody’s time. Many suggested the need for ongoing relationship building that goes beyond a singular project. The logistics of traditional engagement methods—sending out mail, booking space for open houses, etc.—is time consuming. Engagement that is unsuccessful will always seem onerous, so it’s important to find ways to ensure all voices are heard in a meaningful way.

Draft plan
Drafting could be more efficient, according to about 50 percent of the planners interviewed. Particularly, the time it takes to receive feedback on drafts is often drawn out and ineffective (it isn’t prioritized and people aren’t always focused). Further, many planners discussed the unnecessary need to create a ‘perfect’ plan (with zero spelling errors or other minor mistakes), which stalls the process, makes the plan less adaptive, and doesn’t necessarily add value.

Approvals & decision making
Multiple interviewees discussed the time consuming nature of approvals and decision making. However, the common thought was that this step is necessary and out of the planner’s control. One participant suggested the potential opportunity to build relationships with politicians throughout the entire planning process: “If we do a good job at building the relationship with Council so that they trust what their planners are recommending, then I think that [approvals and decision making] could be shortened” (Rezoning Planner in British Columbia).

“I don’t think [the drafting and circulation process of plans] needs to be nearly as lengthy. But the reason it’s lengthy is it’s going to other people, who have other priorities, commitments, time crunches. They’re all working in their silos, so we get comments back and the comments aren’t even relevant because they never bothered to pick up the phone and ask for clarification. All that could be resolved if there was much better integration.”

-Senior Planner in Saskatchewan
What could benefit from more time?

The interview results show that there is opportunity for sprints to expedite slow steps in the planning process—particularly drafting the plan—to help save resources that can be allocated to the neglected steps—monitoring, evaluation and relationship building.

**Monitoring & Evaluation**
This step is most often forgotten or under-resourced, according to the interviewees. Once a plan is completed, municipalities tend to go straight to the next project, and neglect the follow up and evaluation. Often, the team who writes the plan is different from the team who may evaluate whether or not it has been implemented.

**Relationship building/Engagement**
Although engagement was perceived by some as a step that could be expedited, others suggested that relationship building can always benefit from more time and effort. Focussing on conflict resolution and meaningful collaboration can be challenging and time consuming, but it can help build buy-in and a shared understanding about the project, ultimately saving time down the road.

"You can never spend enough time on is building relationships with the people you need to collaborate with”
- Planning Manager in Alberta

“The one thing that always seems to be lost in planning processes is the check-back, the follow up, did we get things right?”
- Planning Manager in Nova Scotia

For planners, what is most appealing about the sprint?

**Efficient and focused**
Most planners discussed that the sprint’s promise of efficiency and focus is most appealing. Focussing on the problem and gaining feedback in real time, as opposed to waiting on emails and written responses, is perceived to be a much more efficient and focused method (that is not often used in local government). A participant from the City of Red Deer’s sprint (see the case study on page 22) said: “I think the value was putting that chunk of time in to just concentrate on that project. And that’s not a technique that I’d ever really used before.”

**Collaboration that crosses silos**
Sprints that include the key people—including decision makers and knowledge holders—offers the opportunity for collaboration that builds understanding and crosses silos. This goes back to the benefit of working through problems, and testing solutions, in real time—a face-to-face discussion will be more impactful and collaborative than an asynchronous email back-and-forth. Further, by having the decision makers and subject matter experts in the same room (or Zoom), the sprint process can build understanding and buy-in for everyone involved.

“[With a sprint format], you’d get a deeper level of respect for other people’s opinions as you get to know them more and understand where they’re coming from.”
- Rezoning Planner in British Columbia

**Iterative and responsive**
As one planner who participated in a sprint said, “We didn’t have to chase perfection. We just had to get it done.”
Sprints provide the opportunity to test ideas and develop plan content that isn’t word-smithed to perfection.

**Creates an even playing field**
Interviewees who had participated in a sprint discussed the benefit of how (well facilitated) sprints created an even playing field between staff. By suspending the hierarchy between junior staff and senior directors (and everyone in between), all participants can openly express their opinions and thoughts, leading to more collaboration and input from everyone.
What challenges may arise with the sprint?

Scheduling
In any workplace, it’s challenging to block off three to five days for an intensive workshop, especially for senior staff in local government. Even if staff commit early on, participants may not be able to attend the entire workshop, due to other work demands. To mitigate these scheduling challenges, designers suggested that sprint organizers: schedule the sprint in advance; communicate that the time spent upfront will save time down the line; and ensure backup if certain participants can’t attend.

Choosing the right group
Building on the scheduling concern, choosing the right group can be challenging. When planning for a sprint, one must understand: Who makes the final administrative decisions for this project? Who holds the knowledge? How do we ensure these people attend the sprint?

Choosing the right project
A sprint is not a ‘cure-all’ method that is appropriate for every type of planning project. For example, one planner suggested that the speed of sprints may not work for Indigenous planning—accelerated decision making may be in direct contradiction with certain values and worldviews that municipalities should be making space for.

“With sprints, design thinking and all innovation work, you have to be careful—the biggest danger is that it becomes theatre.”
- Andrew PW McCarthy, designer + innovation consultant

Face-to-face interaction in a digital world
The global onset of COVID-19 has shifted almost all planning work to an online environment. If one of the benefits to design sprints is the face-to-face interaction, how might we replicate these qualities in digital spaces? Although digital events will never be quite the same as in person, some techniques can help ensure sprints are effective (and maybe even better) online. See below some tips for online facilitation.

Tips for online facilitation

Embrace analog
Notify participants ahead of time about the materials they’ll need (post-its, paper, markers). Just because we’re in a digital world doesn’t mean we can’t use analog tools.

Schedule short sessions (with breaks!)
Digital engagement is draining. To mitigate video chat fatigue, online sprints should be shorter with lots of breaks and more individual work time.

Provide technology training for participants
Ideally, sprints can use digital platforms that participants are already familiar with. If new technology is in use, ensure participants know the basics (such as where the mute button is!).

Use breakout rooms
Platforms such as Zoom offer breakout rooms, which are an effective way to foster meaningful discussions in smaller groups.

Set ground rules for collaboration
Ground rules ensure everyone is on the same page, and that all voices can be heard. This can include rules about maximum speaking time.

Get scrappy
Slideshows, presentations and other online tools don’t have to be overly designed—by using simple slides, participants will be more likely to embrace scrappiness, spending more time on ideas than making sure things look perfect.
PART IV

Insights and reflections

A common language can make design thinking more inclusive.

The value and process of sprints should be clearly communicated.

Equity, diversity, and inclusion can be measured.

Evaluation can help us understand the value of the sprint and how to improve it.
Insights

01 INSIGHT
Sprints can accelerate and improve the municipal policymaking process

The research reveals that sprints hold the potential to add value to the municipal policymaking process by: focusing the attention of an interdisciplinary team; accelerating the draft circulation process; and providing a learning opportunity for new capabilities, methods and tools.

**Focusing attention**
Unlike the ever-common approach of sharing ideas and circulating drafts via email, sprints demand intense focus from an interdisciplinary team who can co-create the key content for a plan while in the same room together. Most work environments are filled with distractions and competing priorities—a few days of facilitated and focused attention can have enormous impact on a project.

**Accelerating the draft circulation process**
One of the most valuable aspects of the sprint is the speed at which work gets done. This may accelerate many steps in the planning process, but it may be best applied to accelerate the ‘draft plan’ step. If the people who would usually review the draft document are all together during the sprint, city staff will gain feedback in real time about ideas, actions and strategies that may go into the draft plan. This can reduce the need for the asynchronous back-and-forth draft circulation process. Accelerating steps in the planning process may be particularly valuable in the time of COVID-19. As municipalities start to re-open projects that were paused to prioritize emergency responses to the pandemic, many projects may need to be accelerated to stay on track.

**Learning new capabilities, methods and tools**
Sprints can act as a learning opportunity for the design thinking approach. Learning-by-doing in this way is much more effective than undergoing a training session about design thinking, collective problem solving or capacity building. Well-facilitated sprints teach more than the high-level design thinking process. Sprints can also help build capacity in collaboration and strengthen positive relationships. Policymakers who are seeking to learn new methods and capacities can do so through a sprint methodology that is applied to a real-world project.

Further, a three to five day sprint is a relatively quick and low-cost way to test out a new process with policymakers. As Dr. Ceri Gorton, a designer in Wales, said: “[sprints have been a] proof of concept for the value of the design thinking methodology.”

If certain conditions are met (the right people are involved, an appropriate project is chosen and the facilitator is trained in delivering sprints), sprints can add value to policy projects.

Further research is needed to understand the detailed challenges, opportunities and specific contexts for when and how to best use sprints in policymaking.

Sprints will also likely be more successful if: there is a common language among participants and facilitators; equity is embedded into the process; and the sprint is evaluated (see the following three insights).
02 INSIGHT
Find a common language

The importance of language
Although this report uses certain terms (design thinking, ideate, sprint, convergent thinking and prototyping), in practice, there’s may be value in using different terms that make more sense for participants and policymakers (thinking process, brainstorm, charrette, narrowing down, experimentation).

As Andrew PW McCarthy, a Madrid-based designer, said, “Make sure that you’re using language that’s natural and appropriate to the people you’re working with. If calling it design thinking makes them uncomfortable? No problem, we won’t use the language of design thinking. Okay, what do you all talk about? You talk about experimentation? Okay, awesome. We’re going to talk about creating hypotheses and running experiments. We’re going adapt our language and frameworks to use that language.”

Common language can make design thinking more inclusive and can be used while still applying the foundational elements, characteristics and methods of design thinking (or whatever else you want to call it!).

03 INSIGHT
Design for equity

Embedding equity into the design thinking process
To mitigate the risk of perpetuating inequity, the Stanford d.school and National Equity Project adapted the popularized design thinking process into a ‘liberatory design process’, which includes two new steps: notice and reflect. The ‘notice’ phase helps designers develop social and emotional awareness before entering any context. It’s about practicing self-awareness of one’s own identity, values, emotions, biases and assumptions. The ‘reflect’ phase is ongoing and transparent throughout the entire design thinking process. It allows you and your team the time to reflect on your actions, emotions, insights and impact as designers and humans.

There are many great resources for embedding equity into the design process, from the Liberatory Design toolkit and Equity Centred Community Design Field Guide to the Inclusive Design Guide and EquityXDesign: A process for transformation.

Liberatory design process
Measure the impact of design thinking

**Evaluation techniques**
Measuring the impact of design thinking is essential for understanding the value of the process and how it can be improved. Organizations that use a design approach should “build the evidence base and impact measurements for design innovation.” (UK Design Council 2013 p. 89) However, similar to traditional community planning approaches (Guyadeen 2019), there is no standardized approach to measuring the impact of design thinking.

It’s challenging to measure innovation approaches—how does one know what to evaluate when venturing into the unknown? (Schmiedgen et al, 2016). Design thinking is also hard to measure because it’s understood and practiced in many ways (ibid). Furthermore, the more that design thinking is embedded into an organization’s culture, the harder it is to isolate and measure. Despite the power of anecdotes and intuition, developing a standardized evaluation strategy can give consistency to the design process and build an evidence base for the approach. It can also help designers continuously improve their methods.
Reflections

When this research project was being conceptualized (in late 2019 and early 2020), the plan was to draft, test, evaluate and refine the sprint methodology that was to be applied to a real-world planning project. In March 2020, the onset of COVID-19 caused institutions, cities and workplaces to shift gears and go online around the world. Similar to all practitioners and academics, the researcher had to adapt to the rapidly shifting realities and change the research methodology. The result is a report that explores design thinking and the sprint methodology at a high level.

At a high level, design thinking holds potential to help local governments navigate complex social challenges in a time of great uncertainty. It is not a ‘cure-all’, but the tools, methods and mindsets can help guide the way for local governments seeking innovation. Further, sprints may be a very useful tool for planners looking to make up for lost time on projects that have been disrupted by COVID-19.

Limitations
This research is exploratory—the results are not conclusive. Due to the constraints imposed by COVID-19, the sprint methodology could not be tested or formally analyzed.

More formal research is needed to understand the detailed challenges, opportunities and specific contexts for when and how to best use sprints in policymaking.

Further, if time was not a constraint, this research would have explored in greater depth how design thinking and the sprint methodology can best be applied in digital environments, given our new realities. A key element to the success of the sprint methodology is perceived to be its ability to get people in the same room together. Do virtual gatherings have the same impact? What will engagement look like in the future? When can we gather together again? These are questions left unanswered.

Next steps
To build off this research, practitioners and academics should conduct a formal experiment, comparing a sprint process with a traditional planning process (Honey-Roses et al 2020). An ethnographic approach would also be valuable (Dorland 2018).

Complementary to formal experiments and ethnographic research, the researcher hopes academics, planners and designers will measure, test and evaluate design thinking methods. Thoughtful measurement and examination would allow practitioners and scholars to further understand the impact and value of these methods.

The intersection of design thinking and policymaking is an emerging field of inquiry. As local governments continue to seek innovative approaches to complex challenges, the researcher hopes that professionals and scholars will continue to formally study how design thinking methods can be best applied to policymaking.
Appendix


City of Vancouver. 2018. “Navigating Complexity: The Journey of the City of Vancouver Solutions Lab (so far)”. Vancouver: City of Vancouver.


