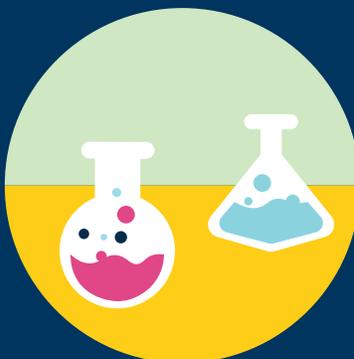


# What's in the MIX:

Challenges and Opportunities for Municipal  
Innovation Procurement

February 2019



## AUTHOR



**ANNALISE HUYNH**  
Policy Analyst + Designer

Annalise supports the Brookfield Institute's research on policy and public-sector innovation, as well as research about creating a more inclusive innovation-driven economy. She is interested in how careful research, design, and design thinking approaches for policy can reach people who wouldn't otherwise be a part of decision-making processes. As an illustrator and UX enthusiast, she enjoys using visual design to effectively communicate complex information and data. Annalise holds a Bachelor of Arts in Politics and Governance from Ryerson University.

[annalise.huynh@ryerson.ca](mailto:annalise.huynh@ryerson.ca)  
[@hausofhuynh](https://www.instagram.com/hausofhuynh)

## CONTRIBUTORS

Michelle Park, Projects Officer  
Heather Russek, Director, Policy Innovation Platform  
Peter Rose, Senior Associate, Solutions Lab  
Nisa Malli, Senior Policy Analyst  
Tea Hadziristic, Research Assistant  
Erin Warner, Communications Specialist  
Vivian To, Graphic Designer  
Jessica Thomson, Digital Content + Marketing Coordinator

## SPECIAL THANKS +

## ACKNOWLEDGEMENTS

The Brookfield Institute's research is supported by external reviewers who provide subject matter expertise and linkages to both policymaker and practitioner perspectives. For their contributions and insight into this report, we would like to thank:

- + Mike Gerrior, Executive Committee Member, Ontario Public Buyers Association
- + Zachary Woodward, Director, Procurement, Government of British Columbia and the BC Developers' Exchange

The report benefited from the expertise and knowledge of procurement experts at the City of London, City of Barrie and the City of Guelph, which helped shaped the report. The authors would like to thank the following for sharing their expertise and contributing to this report:

- + John Freeman, Manager of Purchasing and Supply, City of London
- + Jeanette Munshaw, Chief Procurement Officer, City of Barrie
- + Bill Stewart, Manager of Procurement, City of Guelph



## PARTNERS

**MaRS Solutions Lab** is a Public and Social Innovation Lab that helps intervene in complex challenges to bring about large scale positive change with partners across society, that helps governments modernize policies and services, and builds capacity for system change.

For more information, visit [marsdd.com/systems-change/mars-solutions-lab/](https://marsdd.com/systems-change/mars-solutions-lab/)



@solutions\_lab



MaRS Discovery District

101 College Street  
Toronto, ON M5G 1L7

**The Brookfield Institute for Innovation + Entrepreneurship (BII+E)** is an independent and nonpartisan policy institute, housed within Ryerson University, that is dedicated to building a prosperous Canada where everyone has the opportunity to thrive due to an inclusive resilient economy. BII+E generates far-sighted insights and stimulates new thinking to advance actionable innovation policy in Canada.

For more information, visit [brookfieldinstitute.ca](https://brookfieldinstitute.ca)



/BrookfieldIIE



@BrookfieldIIE



The Brookfield Institute for  
Innovation + Entrepreneurship

20 Dundas St. W, Suite 921  
Toronto, ON M5G 2C2

**The Guelph Lab** is a collaboration of The College of Social and Applied Human Sciences, University of Guelph, and the City of Guelph. The purpose of the Lab is to address challenges that have direct impact and relevance to the community. The Lab is focused on “public innovation” — developing solutions to the challenges faced by the community that cannot be solved without some form of government intervention. The Lab does this by bringing together municipal, community, and university expertise and knowledge.

**The City of Guelph** is a growing, diverse and vibrant community of about 132,000 people, located about 100 kilometres west of Toronto. Guelph is among the most livable cities in Canada and has a well-earned reputation as a city that’s willing to do things differently. Guelph has earned this reputation through innovative programs like the ground-breaking Civic Accelerator model, which has inspired and been adapted by Cities across Canada.

This report will support the Municipal Innovation Exchange (the MIX) and its work on innovation procurement. The MIX is an emerging virtual centre of excellence by the [City of Guelph](#), [London](#) and [Barrie](#), as well as [MaRS Discovery District](#) working to run innovation procurement challenges in each city, explore multi-city procurement challenges, conduct policy research, develop a peer-network of municipalities, and codify learnings into a best practice Municipal Innovation Procurement Framework. The MIX benefits from the support of various partners along the innovation pipeline including the Guelph Lab and Innovation Guelph. This report was commissioned by the MaRS Discovery District to support the work of the MIX.

For more information, visit [guelph.ca/mix](https://guelph.ca/mix)



@mixontario



mixontario@guelph.ca

## TABLE OF CONTENTS

Introduction	2
Background	3
Methodology	3
Defining Innovation Procurement	4
Interpretations of Innovation Procurement	5
Legislation, Policies, + Guidelines: What Do They Say About Innovation Procurement?	7
Buying local	7
Allowances for flexible approaches	8
Competitive bidding + approval thresholds	9
Managing Risk	12
Exploring Procurement Approaches + Flexible Formats	13
What's Out There: Emerging Models for Innovation Procurement	18
Mapping Innovation Procurement Insights	28
Recommendations	35
Conclusion	36
Endnotes	37

# INTRODUCTION

Governments around the world are facing the imperative to do more, but with limited resources. Today, they are operating in a wave of public service transformation shaped by user-centred services and the increased use of technology, particularly for public engagement and decision-making. They are expected to deliver economic growth while safeguarding the public dollar and meeting increasing expectations for efficiency and productivity.

Public procurement has always been the way that federal, provincial, and municipal governments provide essential services to people in Canada, and obtain the goods and services that allow government to function: from computers and software to fire trucks and road salt. In this context, public procurement is an important lever for innovation with the potential to access new tools and approaches, and engage new types of partners such as entrepreneurs and members of the creative economy.<sup>1</sup> Governments are interested in making procurement faster, more flexible, more inclusive, and easier to understand, as well as enabling a greater diversity of firms to develop new solutions that could help governments solve pressing issues.

## WHAT IS PUBLIC PROCUREMENT?

Public procurement is the formal process through which government organizations purchase goods and services, including construction, consulting services, and public works. It includes various phases of the purchasing process, from describing requirements, selecting suppliers, and evaluating offers, to creating and awarding a contract, as well as dispute resolution.

Across Canada, the US, and the EU, public procurement experts are working to shift and adapt procurement approaches by experimenting with digital platforms to connect to vendors and manage the buying process, finding more efficient ways to track and evaluate contracts electronically, procuring research and development for new solutions, updating processes, templates, and tools to reflect the ways that technology is changing (e.g., the progress of wifi technology in the past 10 years) and building flexibility into requirements for cases when the potential solution is unknown.

As innovation procurement practices emerge and continue to be tested by practitioners inside and outside of government, we aim to use this research to improve the understanding of innovation procurement in the Canadian context, how it has been put into practice, and—as federal, provincial, and municipal governments work to adopt new approaches—what space there is for experimentation in procurement processes. In this particularly emergent period in the evolution of innovation procurement, experts argue that public institutions need to establish “guardrails” to ensure that procurement evaluation and award processes are transparent and defensible.<sup>2</sup> What are the opportunities in building innovation procurement practices and what are the challenges? Situated in the context of designing and testing approaches at the city level, this research focuses on the Ontarian cities of Guelph, London, and Barrie to reflect the insights, barriers, and opportunities presented by innovation procurement.

## BACKGROUND

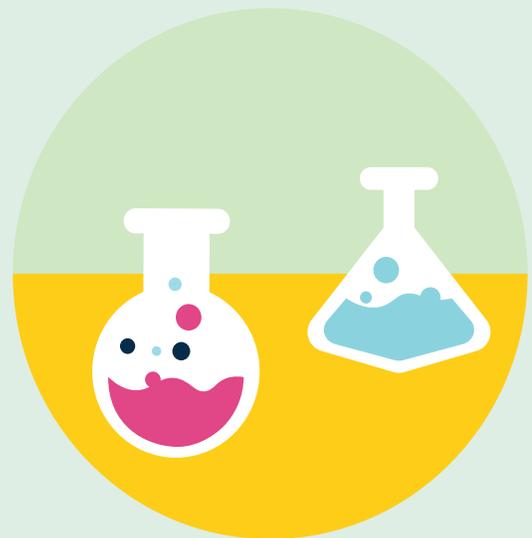
In the spring of 2016, the City of Guelph launched the [Civic Accelerator](#), a pilot project developed by the Guelph Lab that enabled it to engage in open innovation with entrepreneurs, students, and companies to create solutions for complex municipal problems. For example, challenge statements from the Civic Accelerator's inaugural round included how Guelph Water Services could enable citizens to detect leaks and reduce water use, how to maximize the value of parking space in the City's downtown, and how to make it easier for the public to provide feedback on planning decisions.<sup>3</sup> The next year, Guelph worked with the Brookfield Institute for Innovation + Entrepreneurship to capture the approach and learnings from the Accelerator in a case study report, [The Civic Accelerator: A Guelph experiment](#). Moving forward, the City of Guelph is looking to build on the learnings from the Civic Accelerator project in partnership with two collaborating municipalities, Barrie and London.

The Municipal Innovation Exchange (MIX) aims to develop a preliminary innovation procurement framework to support multi-city procurement processes. To support this project, the MaRS Solutions Lab will act as a collaborator to facilitate the three-year MIX, and the Brookfield Institute has been engaged to conduct policy research that will inform a framework for how procurement challenges could be designed.

## METHODOLOGY

Our research includes a literature review focused primarily on academic literature, grey literature, and policy frameworks from the EU and Canada. Additionally, twenty-one expert interviews were conducted for this project, with a diversity of procurement-focused policymakers at the federal, provincial, and municipal levels using a wide range of procurement approaches, as well as academics, consultants, companies providing digital platforms for procurement, and one legal expert. Interviews focused on barriers to and enablers of innovation procurement, including cultural and legal barriers, approaches and tools being used, products and services being procured, and opportunities to help make innovation procurement happen more effectively.

An initial discussion paper was created from the expert interviews, summarizing our insights and findings to date. We hosted a roundtable with each of the three municipalities to discuss the insights further. A draft policy insights map was discussed during in-person sessions in London and Barrie. All of the discussions to date have been synthesized into the insights and recommendations presented in this report.



# DEFINING INNOVATION PROCUREMENT

At a high level, innovation procurement focuses on purchasing a solution to a problem, in contrast to purchasing a solution with predetermined requirements. In practice, the ways in which innovation procurement are adopted and implemented are fragmented and subject to interpretation—it varies across cities, sectors, and geographies. There is no consensus on how the term itself is defined, and there are multiple perspectives on the topic. As such, we found a wide breadth of interpretations and a range of practices surrounding innovation procurement.

“How you make purchases can have a significant impact on what gets bought and delivered...there’s lots of interest in procurement and people trying to overlay their values on top of the procurement process.”

—Municipal government interviewee

Across existing literature and in practice, there is semantic spillover between understanding it as the procurement of innovative solutions (new goods and services that governments or departments have not yet tried) and understanding it as innovative ways to procure. In expert interviews, we often heard that what is considered innovation in one jurisdiction might be common in another. Existing definitions of innovation procurement often focus on the purchase of innovation solutions.

+ In the MGCS Interim Broader Public Sector (BPS) Primer on Innovation Procurement, it is defined as “the purchase of solutions that do not exist in the market, or need to be adapted or improved to meet specified needs and create value for users and the procuring organization.”<sup>4</sup>

+ The OECD defines the “public procurement for innovation” as “any kind of public procurement practice (pre-commercial or commercial) that is intended to stimulate innovation through research and development and the market uptake of innovative products and services.”<sup>5</sup>

However, based on our interviews and discussions to date, we found that what practitioners inside and outside of government often perceive to be innovation procurement does not always align with these definitions. In practice, understandings of how innovation procurement is defined are much broader.

For the purposes of this report, we use the term “solution” to describe goods and services as well as consulting and construction services that are the subject of a procurement. There is some variation in the way these are described by expert interviewees and stakeholders, since they are set out in the procurement policy or bylaw for each municipality or procuring body.

Additionally, we use the term “procurer” to refer to government business units responsible for leading purchases across all levels of government.

Different interpretations of the term “innovation procurement” result in a wide range of practices and approaches. While we present four possible interpretations below, they are not mutually exclusive and can reflect the objectives of procurement practitioners in any number of combinations. See [What’s Out There: Emerging Models for Innovation Procurement](#) for possible applications.

# INTERPRETATIONS OF INNOVATION PROCUREMENT



**Innovation procurement can be understood as practices that increase cross-sector and cross-jurisdictional collaboration in procurement processes and open more opportunities for sharing solutions.**

“A huge part of innovation in municipalities is partnerships.”

—Municipal government interviewee

“We came to realize that our challenge isn’t to invent new things, the challenge was to scale across cities.”

—Non-government expert interviewee



**Innovation procurement can be understood as the co-creation of solutions.**

“When you don’t have a solution available on the market, and you have to engage market to develop new solutions...you can’t commit yourself to a result because of the uncertainty inherent to [co-development]. It’s something that you can’t always control.”

—Non-government expert interviewee



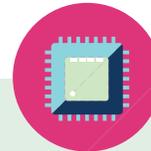
**Innovation procurement can be understood as practices that make a procurement process more flexible and iterative.**

“I would look at innovation procurement as different ways of trying to source a product or service that moves away from the traditional contract A, contract B, public procurement law that we have...How do we build the allowance for vendors to actually propose stuff? How are they building and using whatever [we] happen to need?”

—Municipal government interviewee

“[I define innovative procurement as] a process not traditionally used for procurement.”

—Legal expert interviewee



**Innovation procurement can be understood as the procurement of new technology or of solutions that do not (yet) exist on the market.**

While “new solutions” can include any types of solutions that do not exist on the market, there is currently a strong focus on technology-centred solutions.

“We’re pretty sure we can bring this process into the digital age and improve outcomes.”

—Legal expert interviewee

“We’re not talking about buying pencils or computers. We’re talking about buying complex products that have a unique long-term component to them, and real differences to the services provided.”

—Academic expert interviewee

## PROBLEM-BASED PROCUREMENT

While innovation procurement is defined quite broadly, one approach that has been gaining traction among procurers is problem-based procurement, particularly for complex and non-traditional processes and solutions. Problem-based procurement uses more high-level problem statements and outcomes (as compared to more narrow and prescriptive procurement approaches) with the aim of opening up the bidding process to a larger community of suppliers and generating more proposals. The intent is to avoid specifications that are too rigid and narrow, which could prevent vendors from proposing innovative ways of delivering outcomes.

“Problem-based procurement” and “challenge-based procurement” are often used interchangeably to refer to approaches where procurers outline the challenges and the needs (rather than prescribing a solution), and invite bidders to propose a variety of innovative solutions. This is a guiding principle in the [Guelph Civic Accelerator](#), as well as programs such as the federal [Innovative Solutions](#) program. Other approaches centred on problem-based procurement include [Code with Us](#) and [Sprint with Us](#) by the Government of British Columbia, the [CivTech](#) program in Scotland, the [Digital Fredericton](#) initiative in New Brunswick, and the [Startup In Residence](#) (STIR) model launched by the Office of the Mayor in San Francisco (which has also been adopted in jurisdictions including British Columbia and Amsterdam).

While there is overlap between the terms “problem-based procurement” and “challenge-based procurement,” in the context of the MIX initiative, the terms have been distinguished as follows:

- + Problem-based procurement may only result in one vendor being selected to work on a problem.

- + Challenge-based procurement invites more than one vendor to compete for better outcomes using a challenge model.

## OUTCOME-BASED SPECIFICATIONS

With the growing significance of innovation procurement and problem-based approaches, outcome-based specifications are also becoming more widely adopted. Outcome-based specifications describe the end performance or function expected from a solution; they describe what should be achieved. The use of these specifications is intended to create room for flexibility in meeting specific procurement needs. In response to the common feedback from proponents that specifications that are too prescriptive restrict their ability to offer innovative solutions, outcome-based specifications focus on performance and descriptions of what should be achieved.<sup>6</sup>

In its [Outcome-based Specification Guide](#), the Healthcare Supply Chain Network (a Canadian industry association of healthcare suppliers and providers) shares a number of guiding principles for developing outcome-based specifications, including:

- + Ensuring that requirements such as staffing level, years of training, insurance cover, and the financial standing of the firm appropriately reflect the size and complexity of the potential solution and contract;
- + Considering how to include small- and medium-sized firms by excluding requirements that demand previous experience with public contracts;
- + Specifying standards as necessary, as opposed to including a standard list as routine; and
- + Avoiding descriptions of how suppliers should meet desired outcomes.<sup>7</sup>

## LEGISLATION, POLICIES, + GUIDELINES:

### WHAT DO THEY SAY ABOUT INNOVATION PROCUREMENT?

Innovation procurement is not exempt from the overarching concerns of procurement more broadly. Ontario cities designing innovative procurement approaches are subject to the same policies, bylaws, guidelines, and trade agreements that govern procurement across the province and within Canada. For instance, according to [Ontario's Broader Public Sector Procurement Directive](#), all procurement in the province must be accountable, transparent, maximize value for money, deliver quality service, and use standardized processes to create a neutral environment in which all potential suppliers have opportunities to fully participate.<sup>8</sup>

### BUYING LOCAL

Federal, provincial, and municipal organizations, as well as other broader public sector organizations, are required to recognize trade agreements. As of the writing of this report, the most recent agreements to be introduced are the Canada-EU [Comprehensive Economic and Trade Agreement](#) (CETA) and the [Canadian Free Trade Agreement](#) (CFTA), both introduced in 2017. The United States-Mexico-Canada Agreement (USMCA), which has been announced and will replace the North American Free Trade Agreement once ratified, does not contain government procurement provisions that apply to Canada.<sup>9</sup> As such, procurement between Canada and the US will continue to be governed by the World Trade Organization Agreement on Government Procurement after the ratification of the USMCA.

At a high level, CETA focuses on trade more broadly between EU member states and Canada; in the context of government procurement, it aims to widen the scope of opportunity for procurement of potential solutions from the EU. Procurement obligations outlined in CETA, in line with other international and trade agreements, are based on the principles of non-discrimination, equal treatment, accountability, and transparency. To adhere to principles of open competition and free trade, procuring bodies from both Canada and the EU, including sub-regional actors, are required to treat all goods, services, and suppliers equally. Under CETA, EU suppliers are able to bid on public tenders issued by Canadian provinces and municipalities. While these provisions allow government procurers to access more potential suppliers across the EU as well as Canada, this also poses some challenges to innovation procurement. From interviewees, we heard that this can include navigating differences in privacy laws and technology standards between the EU and Canada, as well as challenges to collaborative work such as prototyping and testing related to distance, such as travel costs and time zone differences.

The CFTA aims to reduce barriers and provide equal opportunities to Canadian goods, services, and suppliers. For instance, under CFTA, criteria that favour goods and services from a specific province or region in Canada is not permitted. Article 503.4 of the CFTA does contain permission to limit procurements to Canadian vendors, as well as favour Canadian value-add; however, in practice this is subject to competitive bidding thresholds of applicable trade agreements.<sup>10</sup>

Dollar thresholds set under CETA and CFTA determine whether the provisions set out in the agreements apply to a procurement. Any procurements that have values less than the amounts in the table below are exempt from CETA and CFTA obligations. For example, the purchase of goods and services under \$365,700 and construction services less than \$9.1 million are exempt from CETA obligations.

## CFTA and CETA Dollar Thresholds as of January 1, 2018

	Procurement type	Municipalities, school boards, publicly funded academic, health, and social services	Ministries and most provincial agencies	Provincial agencies of a commercial or industrial nature*
CFTA	Goods	\$101,100	\$25,300	\$505,400
	Services	\$101,100	\$101,100	\$505,400
	Construction	\$252,700	\$101,100	\$5,053,900
CETA	Goods	\$365,700	\$365,700	\$649,100
	Services	\$365,700	\$365,700	\$649,100
	Construction	\$9,100,000	\$9,100,000	\$9,100,000

\*e.g., Liquor Control Board of Ontario, Workplace Safety and Insurance Board

Source: [Information for Buyers, Ministry of Government and Consumer Services, Ontario](#)

## ALLOWANCES FOR FLEXIBLE APPROACHES

In Ontario, municipal bylaws stem from provincial guidelines and the Ontario Municipal Act. At the provincial level, legislation and guidelines do not directly suggest the use of flexible measures, but neither are they outlawed outright, which suggests considerable room for experimentation in the application of procurement policies. The Ontario government’s [Procurement Guide for Publicly Funded Organizations in Ontario](#) does not specify the use of a negotiated RFP, but it does state that a

Request for Information (RFI)<sup>11</sup> may be used when looking for solutions that are not available on the market—or when there is a lack of clarity about what is available—and when looking for “advice for an innovative technological solution.”<sup>12</sup>

<sup>11</sup> An RFI is a document issued to potential suppliers to collect general supplier, service, or product information that could help procurers better define a problem or need, as well as potential solutions. It is strictly for information purposes and is not an avenue to procure.

Innovation procurement approaches are not restricted by Ontario’s existing procurement rules in the BPS Procurement Directive, as long as they are conducted in a process that is fair, transparent, and accountable to all stakeholders.<sup>13</sup>

### Request for proposals (RFP)

An RFP document asks vendors to propose solutions to address complex challenges. This format outlines predefined evaluation criteria and specifications, and is used when the selection of a proponent cannot be made only on the consideration of price.<sup>14</sup>

This seems to be reflected in procurement policies and bylaws for Barrie, London, and Guelph, where the restrictions do not limit the use of flexible formats and approaches, aside from dollar thresholds. The City of Guelph’s procurement bylaw states that, wherever possible, the city will “develop specifications that are not restrictive and allow for open competition from the marketplace.”<sup>15</sup> In the City of London’s procurement policy, innovation and the use of technology in procuring are encouraged, provided that they “meet city specifications and industry standards in order to ensure the utilization of the most efficient and effective procurement processes and practices.” Additionally, the City of London’s procurement policy explicitly mentions “innovation solutions” as a condition under which an RFP process can be used.<sup>16</sup> In the City of Barrie, the procurement manual also seems to leave room for requirements that “cannot be clearly defined before the solicitation document is issued (i.e., proponents will be proposing creative solutions or proponent specifications will be evaluated during the competitive process)” when determining solicitation formats.<sup>17</sup>

## COMPETITIVE BIDDING + APPROVAL THRESHOLDS

It is important to consider that, in addition to existing bylaws, policies, and guidelines, competitive bidding thresholds dictate what can be procured and the procurement instruments available to procurers.

In the context of medium- to high-dollar procurements, competitive bidding thresholds usually require the use of a competitive procurement process, which may be either open or invitational.

### Invitational Competition

An invitational competitive process requires a minimum of three qualified suppliers to submit a written proposal based on specified requirements issued by the procuring organization.

### Open Competition

An open competitive process enables all suppliers to compete in a fair and open environment in response to a call for bids from the procuring organization. The process is meant to attract bids from the widest possible range of suppliers to yield a higher level of responses and provide procurers with greater insight regarding market opportunities.<sup>18</sup>

## Competitive Bidding Thresholds for Barrie, Guelph, London, and the Ontario provincial government

	Ontario	Barrie	Guelph	London
<b>Low or medium-cost procurement thresholds</b>	Low-cost procurements include goods and services valued at less than \$25,000.	Low-cost procurements have a value of up to \$10,000.  Goods, non-consulting services and construction valued between \$10,000 and \$50,000 are subject to an invitational competition process, with a solicitation document issued to a minimum of three suppliers. This also applies to consulting services valued between \$10,000 and \$100,000.	Low-cost procurements have a value of \$35,000 or less.  For medium-cost procurements valued at between \$35,000 and \$100,000, the city may use competitive bidding, single sourcing, or sole sourcing (using RFIQ <sup>19</sup> , RFP, RFQ <sup>20</sup> and RFT <sup>21</sup> ).	Low-cost procurements are for amounts up to \$15,000. <sup>22</sup>  For procurements valued between \$15,000 and \$50,000, an informal request for quotation should be used to obtain three written bids obtained from separate suppliers.
<b>High-cost procurement thresholds</b>	“Goods contracts valued at \$25,000 or more and service and construction contracts valued at \$100,000 or more must use open competition.” <sup>23</sup>  Consulting contracts of any value are required to use competitive tendering.	Procurement of goods, non-consulting services, and construction valued at \$50,000 or more are subject to an open competition process. <sup>24</sup>	For high-cost procurements with a value of over \$100,000, the city may use competitive bidding through an RFP or RFT. <sup>25</sup>	High-cost procurements are valued at over \$50,000.

<sup>19</sup> A Request for Informal Quotation (RFIQ) is a document used to request informal quotes for supplying goods or services where defined requirements for a clear solution are provided in the request.

<sup>20</sup> A Request for Quotation (RFQ) is a document used to solicit quotes from potential suppliers where procurers provide defined requirements for a clear solution.

<sup>21</sup> A Request for Tender (RFT) is a document used to solicit supplier responses for goods or services where a clear solution has been identified. As such, RFTs typically focus on price and delivery requirements.

<p><b>Purchases requiring city council approval</b></p>		<p>Any contract requiring approval from the Ontario Municipal Board.</p> <p>Any contract prescribed by statute to be made by city council.</p> <p>Where the procurement by-law is being waived.</p> <p>Where there is an irregularity or unresolved challenge in connection with the procurement process and the award of the contract is likely to expose the city to legal, financial, or reputational risk.</p>	<p>Medium-cost procurements that do not have an approved council budget must be approved by city council and the CAO<sup>26</sup> or Deputy CAO.</p> <p>High-cost procurements that do not have an approved council budget must be approved by city council, the CAO or Deputy CAO, and the General Manager Finance.</p>	<p>RFPs greater than \$100,000.</p> <p>RFTs greater than \$3,000,000.</p> <p>Sole source procurements greater than \$50,000.</p> <p>Professional consulting services greater than \$100,000.</p>
---	--	--	--	--

<sup>26</sup> Chief Administrative Officer of the city.

## MANAGING RISK



While risk management is not reflected in existing rules or legislation, it is a major consideration in every procurement. A common theme across existing literature, as well as interviews conducted for this research, identifies government risk aversion as a significant barrier to innovation procurement. However, interviewees and stakeholders also noted that pointing only to “risk aversion” may be an oversimplification. Rather than avoiding risk at all costs, challenges for public procurers are centred on managing new kinds of risks related to innovation. The increased emphasis on collaboration and flexibility, and the RFP approach itself, point to more shared responsibility between the public and private sectors, which also means sharing the risk presented by procurement processes. Particularly from the perspective of procurement offices, risk transfer and management is at the core of all procurement efforts. Procurement processes become more risk-laden if government procurers do not assign the right risks to the right supplier, or if there is no clear understanding of who retains which risks.

There are a number of risks that governments are not able to transfer to suppliers. Among these, the predominant risk is the political risk of failure. While failures in business can occur even in the best of circumstances, failures associated with governments almost always carry political consequences.<sup>27</sup> Governments are held responsible

“It’s about managing risk, not avoiding it. You can never avoid it. How you can manage to do that and have a successful process without compromising.”

—Municipal government interviewee

for delivering essential public services—this risk is both reputational (involving the potential erosion of public trust in government), and operational (in potential impact on service delivery). As such, requests for proposals must begin with a clear understanding of which responsibilities private sector partners are able or unable to deliver on. Two other risks that are the sole responsibility of government include any risks associated with Indigenous claims, and environmental assessment risks—from potential impacts on communities to preserving heritage sites.<sup>28</sup>

Risks that governments are able to transfer to or share with a private sector partner include:

- + Risks associated with the design or development of solutions, including ensuring that the solutions fall within specifications and existing rules;
- + Construction risk;
- + Risks associated with financing projects;
- + Market risks associated with sales or leasing; and
- + Risks associated with responsibility for management and operating costs.<sup>29</sup>

# EXPLORING PROCUREMENT APPROACHES + FLEXIBLE FORMATS



## LOW-COST PROCUREMENTS

Procurement thresholds are the defining boundary between the scale and formality of procurement processes. Below the organization-specific thresholds, low-cost and sometimes medium-cost procurements are subject to fewer advertising and process requirements, although obtaining competitive quotes is often considered to be good business practice. As such, the overall process of low-cost procurements tends to be subject to shorter timelines.

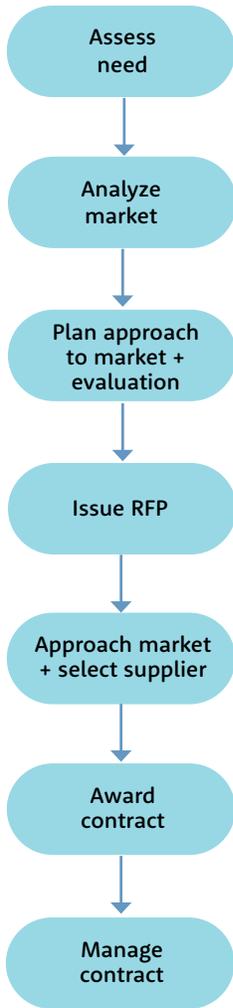
## FLEXIBLE RFP FORMATS

For medium- to high-value procurements where competitive processes are required, flexible RFP formats are becoming more widely adopted. In Canada, there is currently no fixed list of formats that limits a government procurer's options for conducting an open competitive process. Existing literature describes a growing trend of flexible formats with several stages and dialogue between suppliers and procuring organizations. In practice, this is reflected in burgeoning interest from policymakers and practitioners both inside and outside of government in problem-based procurement and flexible RFPs for fostering competitive innovation.<sup>30</sup>

Flexible formats help procurers seek out solutions based on pre-identified government objectives, criteria, and process rules. They help government procurers strike the right balance between innovation and competition, and are a way for suppliers to propose solutions to government in contrast to government procurers approaching the market with predetermined solutions. They are also a way to facilitate discussions that help refine potential solutions against transparent criteria before a solution is selected and contract award is negotiated. In particular, experts have pointed to flexible RFP formats as a way to adapt to quickly changing technology solutions.

In flexible formats, treating suppliers in a fair and equitable manner, and confidentiality regarding solutions are important. The processes must be thoroughly documented for the purposes of auditing and dispute resolution; a fairness monitor can be engaged to ensure that each supplier is being given the same information and opportunity.

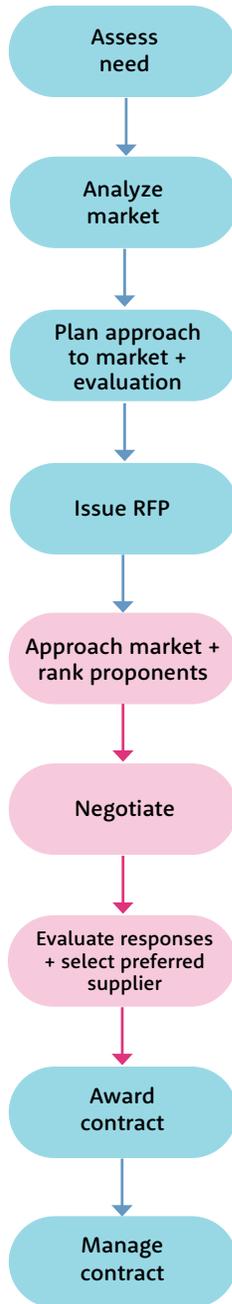
**A. Traditional RFP Process**



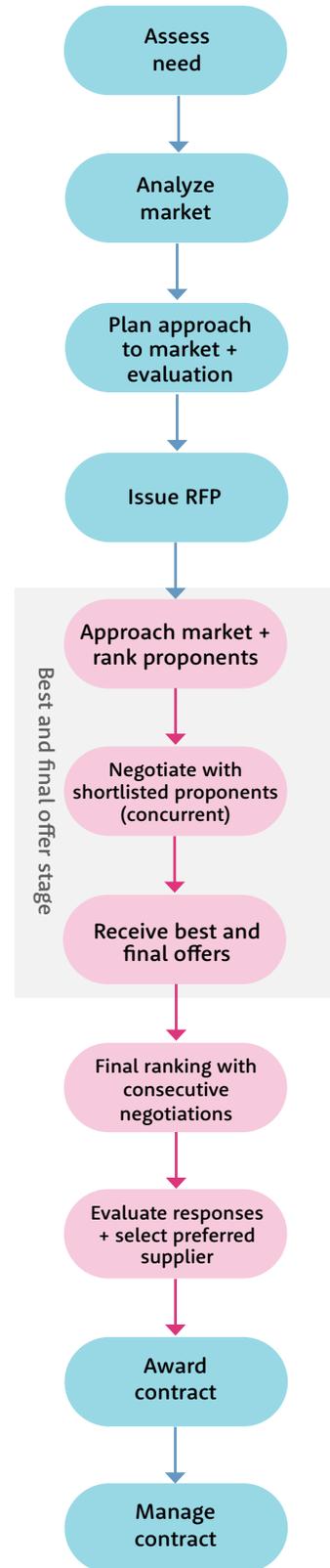
In contrast to the traditional RFP process, the procurement processes for the competitive dialogue, innovation partnership, and negotiated RFP approaches are carried out differently.

The major differences are highlighted in pink.

**B1. The Negotiated RFP Process Consecutive / "Rank and Run"**



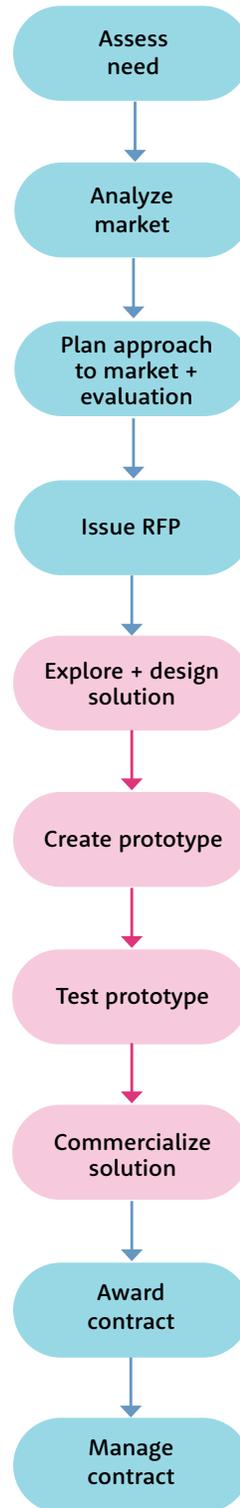
**B2. The Negotiated RFP Process Concurrent / "Best-and-Final-Offer"**



### C. Competitive Dialogue Process



### D. Innovation Partnership Process



## A. Traditional RFP

An RFP document asks vendors to propose solutions to address complex challenges. This format outlines predefined evaluation criteria and specifications, and is used when the selection of a proponent cannot be made only on the consideration of price.<sup>31</sup>

In a traditional competitive procurement process, a procuring organization identifies the solution that is required, describes that solution in detail, and invites proponents to bid for the opportunity to provide it. In other words, government defines a solution and seeks out the most appropriate vendor to provide it.

## B. Negotiated RFPs

Broadly, negotiated RFPs are used for complex procurements where solutions exist in the market and procuring organizations have the flexibility to work with proponents to discuss the terms of their agreement.<sup>32</sup> Canadian procurement experts have suggested that negotiated RFPs are an emerging standard following the Canadian Supreme Court decision in *M.J.B. v. Defence Construction* that confirmed that procuring organizations are able to exercise their freedom to use traditional contract law to negotiate flexible and low-risk competitive bidding.<sup>33</sup>

Negotiated RFPs can help procuring organizations create a regulated environment where both they and the supplier can refine project details and objectives, clarify contractual responsibilities, and address any potential risks before signing a binding agreement.<sup>34</sup> They are particularly helpful as an alternative to traditional RFPs because they give both procuring organizations and suppliers a chance to refine solutions to better suit procurer needs and therefore get the best value for the purchase.

## Consecutive Negotiation RFP (Rank-and-Run)

The consecutive negotiation RFP allows proposals to be ranked based on both price and non-price factors, and typically ends with a contract award to a top-ranked proponent. If the parties involved are not able to agree on terms, the procuring organization can move down the ranking list to negotiate with the next-ranked proponent.<sup>35</sup>

## Concurrent Negotiation RFP (Best-and-Final-Offer)

After a preliminary screening process of proponents to identify finalists, the concurrent negotiation RFP approach allows parallel discussions to take place between the procuring organization and shortlisted proponents. When this dialogue phase ends, the shortlisted proponents are invited to submit their best and final offers, which are ranked to determine which will be awarded the final contract.<sup>36</sup>

In comparison with competitive dialogue (below), the Best-and-Final-Offer format requires the procuring organization to create specifications and issue an RFP before the negotiation stages. Additionally, it differs from the Rank-and-Run format, which only allows procurers to negotiate with one proponent at a time. The Best-and-Final-Offer approach allows procurers to simultaneously consider and compare bids, which can also be iterated upon before a final ranking decision is made. In contrast with the Rank-and-Run format, this format is a two-stage process. The second stage focuses on the shortlist of suppliers (or the top supplier), allowing them the opportunity to revise their proposals in specific areas (e.g. cost). These revised proposals become the best and final offers, which are then subject to final evaluation before the selection of a proposal.

## C. Competitive Dialogue

Competitive dialogue is a multi-stage procurement process that enables procuring organizations to thoroughly discuss each aspect of a procurement with suppliers before creating detailed specifications and before inviting full tenders or proposals from suppliers.<sup>37</sup> In contrast to the Best-and-Final-Offer RFP, procurers using competitive dialogue do not issue an RFP until specifications have been developed with suppliers. Competitive dialogue is useful where procuring organizations have a complex procurement in which they sense what their needs are but are unsure if those needs can be met.

This format can vary in methodology, particularly when it is used in different jurisdictions with different regulatory contexts. The competitive dialogue process was initially developed in the EU.<sup>38</sup> In Ontario, competitive dialogue usually starts with an open competitive Request for Supplier Qualification (RFSQ) to build a shortlist of vendors that will participate in a dialogue process.<sup>39</sup> At a high level, the RFSQ describes the procurer's needs, the estimated value of the procurement, evaluation criteria, and the treatment of intellectual property and ownership. Potential solutions are submitted by suppliers and refined throughout the dialogue process. Based on the terms in the RFSQ, pre-defined criteria can be used to reduce the number of suppliers in each round of dialogue.

During dialogue sessions, all aspects of the procurement contract can be discussed, including commercial requirements and technical terms. The sessions continue until the procuring organization has identified the solution that best meets its needs. The procuring organization then formally closes the dialogue and finalizes the requirements, and invites suppliers to bid on the resulting contract opportunity using an RFP. This RFP stage can be an invitational process that involves only the suppliers remaining at the end of the dialogue stage, or an open competitive process.<sup>40</sup>

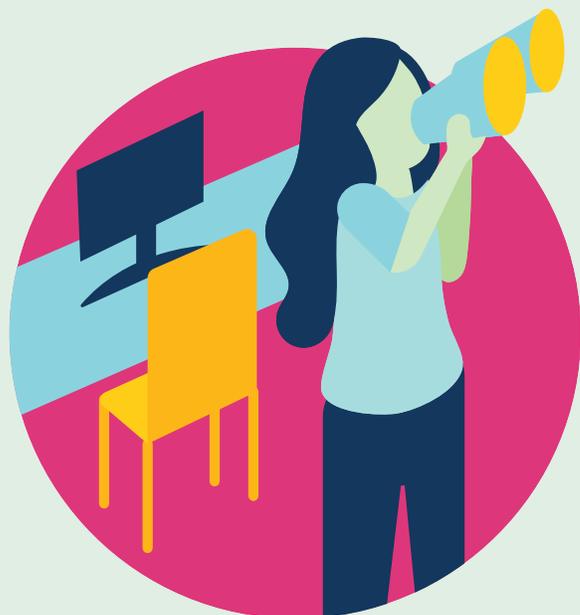
## D. Innovation Partnership

In innovation partnerships, procuring organizations work with one or more proponents to research and develop—and purchase—a solution that meets an identified need. This approach can be used to create an entirely new solution, or modify existing solutions. Collaborating with suppliers to work through phases of exploration, design and development, prototyping, and production of a solution allows risks and rewards of the process to be shared, and supports the uptake of innovations in cities.<sup>41</sup>

Innovation partnerships are useful for procuring organizations as they allow procurers to work directly with proponents to co-develop solutions and potentially meet more specific criteria. However, the invention or co-creation of new solutions carries a number of additional considerations and challenges, from designing clear evaluation criteria for each phase to ensuring a level playing field for proponents. Innovation partnerships may have much longer timeframes than other formats. Since the approach is based on a set of staged procurements where the outcomes of each stage determine the next steps, there is a chance that a final product might not be created or that it will not match initial expectations.

## WHAT'S OUT THERE: EMERGING MODELS FOR INNOVATION PROCUREMENT

In this section, we have highlighted a number of interesting and emerging approaches that reflect work that is being done in Canada, the US, and the EU to both innovate procurement processes and procure new solutions. While this is not a comprehensive list of existing models, it aims to be illustrative of the different types of innovation procurement that have been put into practice.



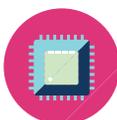
### Innovation procurement can be defined as:



Innovation procurement can be understood as practices that increase cross-sector and cross-jurisdictional collaboration in procurement processes and open more opportunities for sharing solutions.



Innovation procurement can be understood as practices that make a procurement process more flexible and iterative.



Innovation procurement can be understood as the procurement of new technology or of solutions that do not (yet) exist on the market.



Innovation procurement can be understood as the co-creation of solutions.

## STARTUP IN RESIDENCE (STIR)



### What is it?

STIR is a 16-week program that connects startup companies with government agencies to create technology-centred solutions to solve civic challenges. The program was launched by the Mayor's Office of Civic Innovation in San Francisco in 2014, and has grown to include about 30 government partners, including cities such as Amsterdam, states and provinces including British Columbia, metro transit authorities, and regional planning authorities.

### What challenges does it aim to address?

The STIR program aims to help government procuring organizations access a growing market of technology-based solutions, enable startups to build their understanding of how to work with government customers, and empower government actors to experiment with new approaches to civic challenges.<sup>42</sup> STIR participants worked with government agencies to tackle a number of civic challenges that include: creating chatbots to simplify procurement processes, using mapping technology to provide services to people in need, creating visualizations of data from community centres, and streamlining the process for people to become foster parents.<sup>43</sup>

### What types of solutions?

Companies that are accepted into the STIR program typically offer technology-based solutions including software, mobile apps, and information technology hardware to address challenges in predetermined challenge areas. For example, STIR San Francisco's 2019 cohort will include a "mobility track" of civic challenges centred on transit including managing customer experiences in stations and bus stops, reducing travel times, and providing online training for public transport operators.<sup>44</sup>

## How does it work?

STIR is an alternative approach to the RFP competitive bidding process that does not require changes to existing procurement rules. The program aims to make it easier for startups to work with cities. It facilitates problem-based sourcing of solutions and presents the competitive bidding process in a more user-friendly way. The STIR application for startup companies is deliberately designed to resemble an application to an accelerator rather than a traditional RFP document.<sup>45</sup>

### *A page from the 2017 [STIR RFP](#).*

Request for Proposals for

2017 San Francisco Startup In Residence Program

#### I. INTRODUCTION AND SCHEDULE

##### A. General

The City and County of San Francisco's ("City's") Start-up in Residence ("STIR") Program aims to connect City agencies with innovative technology start-ups to develop technology based solutions to address challenges facing City government. The Program builds upon Mayor Lee's successful 2014 "Entrepreneurship in Residence" pilot initiative which produced six exemplary technology product innovations designed to meet local government needs. In 2016, six start-ups participated in the STIR Program in San Francisco. In addition, the cities of Oakland, San Leandro and West Sacramento implemented their own STIR programs in 2016, working with 7 start-ups total.

Historically, and particularly in the San Francisco region, technology has been a driver of increased productivity and innovation gains in many sectors - with government being a notable exception. The barriers to government adopting new technology are plentiful but the most significant is a shortage of public sector-specific solutions and more fluid pathways for governments to work with smaller technology companies. This has typically left government with two primary options: (1) utilize technology intended for Fortune 500 companies and large enterprises, or (2) develop a collection of customized solutions that require significant investment of time and resources.

The STIR Program aims to bridge this gap by connecting public-sector agencies directly with technology entrepreneurs to seed product development that is specifically tailored to address public sector needs. With thousands of policy challenges, government has the potential to support a large ecosystem of best-of-breed technology solutions helping catalyze public sector innovation and productivity.

The City is soliciting proposals from start-ups for technology based solutions to address 14 specific "Civic Challenge Areas" facing several City agencies. (See Pages 4-9 of this RFP for a description of the Civic Challenge Areas.) "Technology based solutions" means on premise software, mobile apps, hosted software, information technology hardware, and/or any combination thereof. The highest scoring responsive proposals for each of the 14 Challenge Areas will be selected to participate in a four-month long "residence period" to work with the relevant City department to develop their proposed technology based solution. The residence period will run from May 2017 to August 2017.

The STIR Program will include an educational component during the residence period for the selected participants and corresponding City agencies consisting of in-person and web sessions with leaders in the business, legal, finance, investment, and consulting sectors, as well as government executives, innovators, academics, and researchers. The educational component aims to help STIR participants learn about navigating government partnerships, the government procurement process, open data and systems integration, and civic tech trends, while helping City leaders learn about the technology marketplace, how to develop technology product solicitations, and how to approach building a technology product.

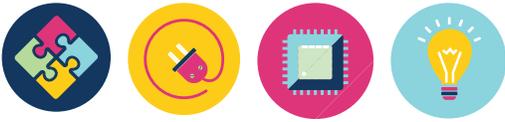
STIR RFP 2017

Page 2 of 17

March 9, 2017

At the end of the program, startup companies are able to move directly into competitive contract negotiations with the city.

## SPRINT WITH US



### What is it?

Sprint With Us is a project run by the Government of British Columbia under the BC Developers' Exchange, which is committed to experimenting with new ways for government to work with the tech community to deliver better services. It is a procurement model that enables the provincial government to bring on agile sprint teams for IT projects.

### What challenges does it aim to address?

The agile model used by Sprint with Us aims to introduce open source IT products into government, reducing the long-term service contracts that have typically restricted governments. This allows procurers to iterate on the solution as needs change or new partners emerge, and reduce communication barriers between procurers and suppliers by directly allowing both to work together to co-design IT solutions.

### What types of solutions?

Sprint With Us focuses on the creation and adoption of IT solutions for government. Products are created by interdisciplinary teams with skills including front-end and back-end development, user experience research and design, security engineering, agile coaching and delivery management, technical architecture, and DevOps engineering.

### How does it work?

Interested teams must [apply](#) through an RFQ to become qualified suppliers in order to participate in Sprint with Us opportunities, proving that they have the capabilities listed above. After becoming qualified suppliers, they become eligible to apply to an RFP. Both RFQ and RFP forms have been designed to be filled out online on the Sprint with Us website. Active projects and opportunities are also posted on the [website](#), along with a description, a dollar-value, location, and whether in-person work is required.

Supplier teams work closely with trained government product managers and use agile phases, starting with understanding the business problem and then building a proof of concept to demonstrate the feasibility of the solution before building the solution itself in the implementation phase. The supplier team is able to charge a fixed price for each phase of the project.<sup>46</sup>

Off-ramps are built into contracts under Sprint With Us that protect the product from being derailed. For example, if the supplier is not performing their responsibility to the specified product roadmap, the government partner is able to procure another team since all coding done with the government is developed through an open source license.

## Who owns the intellectual property?

Supplier teams own the code for their solutions. However, all solutions that are created under Sprint With Us are published in GitHub under an open source license, and are openly available for other organizations and governments to access and adopt.

## PRE-COMMERCIAL PROCUREMENT



### What is it?

Pre-commercial procurement (PCP) is an approach to procuring R&D that is primarily used in the EU. Public procurers buy R&D from competing suppliers to identify the best value for money solutions that can address their needs.

### What challenges does it aim to address?

This approach addresses barriers to entry into public procurement markets, and helps government procurers and suppliers share the risk burden of purchasing new tech solutions. Through PCP, local firms can increase their competitiveness and potentially attract new investors, and public procurers are able to test new and innovative solutions.<sup>47</sup>

### What types of solutions?

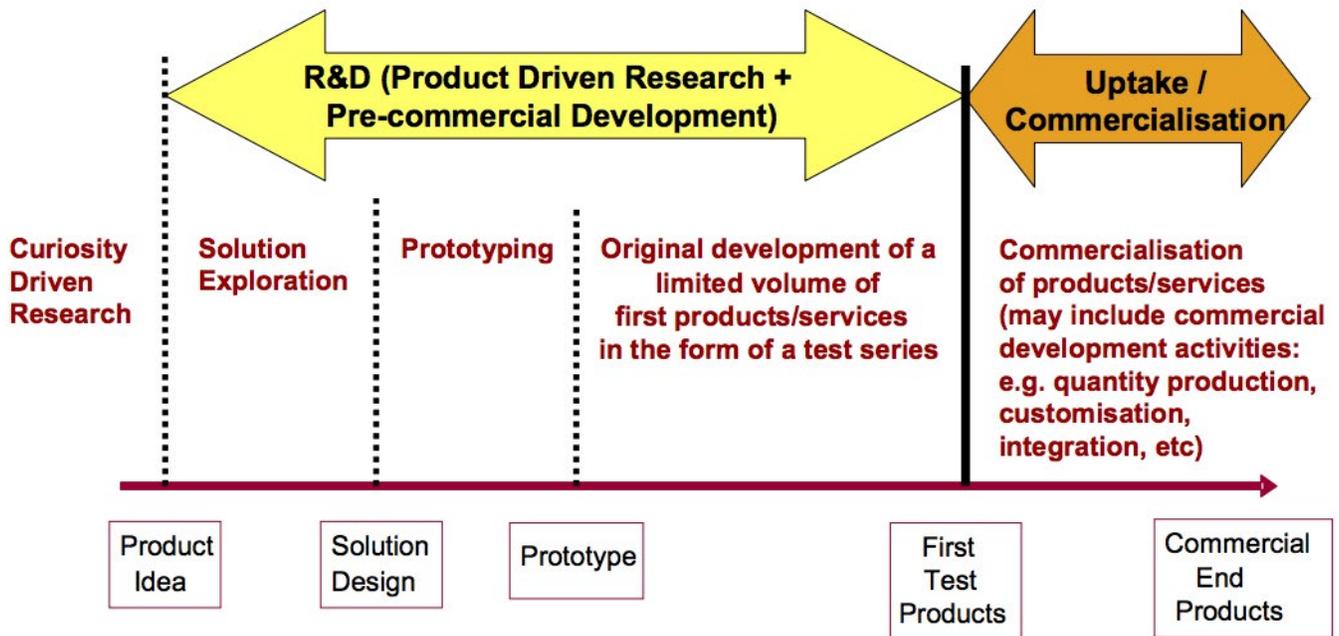
PCP primarily focuses on developing technological solutions to address societal challenges such as healthcare and wellbeing, security, clean energy, and climate change.

### How does it work?

Typically, market sounding to gauge supplier interest takes place at the outset of the process, after which procurers can use an open or invitational competitive process to engage suppliers.<sup>48</sup> The PCP approach is separated into phases: solution design, prototyping, original development, and validation and testing, with the number of suppliers reduced at the end of each phase.<sup>49</sup> The process tends to cover the development of solutions.

The purchase of the solutions produced in PCP, as well as other solutions that may address the problem that procurers are hoping to solve, happens in a separate process that is referred to as the public procurement of innovation (PPI). The separation of PCP and PPI is intended to allow room for competition from companies that have developed potential solutions outside of a PCP process, and avoid issues around foreclosing competition and crowding out other R&D financing sources.

## The Phases of the Pre-Commercial Procurement Model



## Typical Product Innovation Life Cycle

Source: Pre-commercial Procurement: Driving innovation to ensure sustainable high quality public services in Europe

### Who owns the intellectual property?

Suppliers retain ownership rights over intellectual property, while procurers keep some usage and licensing rights.

## CITYMART



### What is it?

Citymart is an online platform that aims to help municipal governments procure and deliver better services by connecting them to solutions, projects, and peers globally, and focusing on challenge-based procurement models. Citymart is based in New York City, and the online platform is available globally to interested municipal governments.

The platform shares case studies and increases exposure to innovative solutions and problem-based procurement approaches in order to build capacity for innovation among government procurers. Citymart also works with cities to surface vendors beyond the “usual suspects,” building a larger and more diverse pool of potential solutions.

### What challenges does it aim to address?

Citymart was created to address barriers to sharing and scaling innovative solutions faced by cities. It was formed on the premise that there are opportunities for cities to adopt solutions that already exist in the market or solutions that have been used by other cities around the world.

### How does it work?

To guide problem challenges, Citymart offers support to cities at various points in the procurement process, from launching a challenge to connecting with vendors with potential solutions. It offers two integrated products:

- + **Opportunity Builder:** software that helps cities craft questions, explore global solutions, share learnings with other cities, refine proposal documents, and engage a database of potential vendors. The Opportunity Builder helps government partners generate the first draft of the RFI and RFP processes.
- + **BidSpark:** a platform that allows cities to post projects to potential suppliers and see solutions that have been posted by suppliers.

CityMart’s platform also includes a solutions database in which suppliers can post their existing solutions free of cost.

## Citymart's Platform Offerings

# Opportunity Builder



**Opportunity Statement** Updated Apr 9, 2018, 19:22

**Rehabilitating Georgian Buildings**

Julie Phillips, City Success Manager, City Success

• IDCA

THEME	AUDIENCE	DOMAIN	BENEFITS
Community Development	Public Safety	Adults	Employee
		Commercial Facilities	Affordability

**DESCRIPTION:**  
LCDC and DCC are seeking to address one of the key issues relating to the redevelopment of Georgian Buildings within City Centres of Limerick and Dublin. We are looking for innovative ways to deal with fire safety in the adaptive reuse of Georgian Buildings for mixed-use residential occupancy while retaining the architectural fabric and integrity of the buildings and to create a more efficient development model for these historic structures.

**MEASURES OF SUCCESS (KPI):**

- A decrease in number of rehabilitated buildings
- An increase in fire safety

**RESOURCES:**

- E.g. \$100,000 from City Hall
- E.g. Sponsorship from Community College
- E.g. Sponsorship from Transport
- E.g. City open data platform
- E.g. Neighborhood identified for potential sale from City Hall

**Who & When**

STAKEHOLDERS	CONTACTED	NOT YET CONTACTED	START	END
Bill James	Stephane Richard	Mark Housley	Jul 17, 2018	Nov 23, 2019
			Oct 26, 2018	Oct 26, 2018

**MILESTONES:**

- Jul 17, 2018: Draft Plan
- Oct 26, 2018: Email Stakeholders
- Oct 26, 2018: Final Prototype

**Team Members:**

CREATED: Jun 26, 2018 | UPDATED: Jul 9, 2018

Print / PDF | Delete | Save & Close

The Opportunity Builder ensures that you've identified your key problem and then helps you develop your procurement documentation.

By adding projects to the Opportunity Builder you can:

**Refine** your problem statement

**Connect** to other innovators and see how similar projects have been completed in other cities

**Explore** the vendor market.

These tools are great for projects at all phases.

CONFIDENTIAL. © Citymart US Inc.

## The BidSpark Process



Submit your opportunity URL to BidSpark



BidSpark matches your opportunity to thousands of vendors



BidSpark runs custom workflow to notify vendors



Vendors access your opportunity page



Vendors rate your procurement and provide feedback



BidSpark reports what happened

Source: [Citymart](#)

## DIGITAL FREDERICTON



### What is it?

Digital Fredericton is a multi-year initiative run by the City of Fredericton in New Brunswick. It aims to transform the way that internal government operations run and improve the user experience of city services.<sup>50</sup> Digital Fredericton seeks to adopt modern government business solutions using technology-based solutions and innovative approaches. Approaches ideally use well-integrated systems (such as dashboards displaying key metrics), draw on best practices, and are user friendly and cost-effective.<sup>51</sup>

### What challenges does it aim to address?

Digital Fredericton aims to reduce barriers for people using public services in the city and for firms that might have interest in working with the municipal government. Internally, the initiative is also working to adopt more tech solutions and more collaborative ways of working within government.

### What types of solutions?

The initiative focuses on three categories of business improvements centred on technological innovation:

- + Core systems, focusing on the way that city staff work with internal systems, tools, and IT infrastructure;
- + E-government, focusing on how users connect and engage with city services; and
- + An innovative connected community, focusing on making data more open and enabling online collaboration with the public to increase government transparency.<sup>52</sup>

Digital Fredericton seeks out any solutions tied to these categories—while this includes tech, it also invites other solutions such as business and consulting services.

### How does it work?

In June 2017, the City of Fredericton issued an RFP to invite potential suppliers to work with the City to develop solutions to advance its smart city goals. While the document had a stipulated end date, the challenge remains open to companies that might have solutions to offer the City. Specific challenges posted on the Digital Fredericton website include how the City might use open data to highlight issues that communities face, how to better understand people using targeted services, and what data collection or additional services could be provided by waste management trucks.<sup>53</sup>

Across the approaches that we have seen in the course of this research, there appear to be key commonalities: in addition to adopting problem- or challenge-based procurement approaches and outcome-based specifications, most models focus on how government procuring organizations can build stronger relationships with smaller firms, more quickly and effectively adopt tech-based solutions and connect with tech talent, and find ways to open-source or scale solutions. Many existing models follow similar principles, such as:

### The Build in Canada Innovation Program (BCIP)



The BCIP is a federal first-purchase program that matches suppliers with tech-based solutions to government departments. It helps potential suppliers move solutions from the final stages of R&D to the market, and allows government procurers to test potential innovative solutions.<sup>54</sup> Once approved to participate in the BCIP, suppliers can be awarded a contract of up to \$500,000 for non-military solutions or \$1 million for military and defence-focused solutions.

### The AI Justice Challenge



InnovateBC, the Ministry of Citizens' Services, and the Ministry of Attorney General in British Columbia have partnered to create a challenge engaging the innovator community to use artificial intelligence-based solutions to provide people with better access to the justice system. The challenge seeks out solutions including a smart online guide to help people complete forms easily and accurately and which responds to people in their preferred language, an auto-transcriber for fast and more cost-effective transcription, and a chatbot to provide legal guidance and information.<sup>55</sup>

### The CivTech Program



As a component of the Scottish Government's Digital Directorate, the CivTech program works with government agencies to define problems and release them as challenge briefs on which potential suppliers can bid. Shortlisted suppliers are paid to further develop their proposals with

the government agency—which is referred to as the challenge sponsor. Afterward, the successful supplier is invited into an accelerator stage where they work directly with the challenge sponsor to develop a minimum viable product, with the eventual goal being a larger contract and extended relationship with the challenge sponsor.

### CoProcure



CoProcure is a US-based startup that works to connect government procurers with startups and small businesses. It works with government staff to help them identify, purchase, and share tech-based solutions through cooperative purchasing approaches.

It is interesting to note that innovation in procurement does not always take the form of a discrete model or platform and can be reflected in internal shifts in process. One example is an approach used by the City of West Hollywood's innovation team, which uses bench contracts<sup>56</sup> to procure services from a pre-qualified list of vendors. The City of West Hollywood's innovation team identified long procurement timelines as a challenge to connecting city staff with the innovation, technology, communications, and creative talent that they needed.<sup>57</sup> To address this barrier, they issued a request for qualification for a set of suppliers to provide support on innovation and communications products. They received about 60 submissions and awarded 10 contracts. As a result, staff are able to request a scope of work from suppliers when support is needed, select a supplier, and issue a purchase order in two to four days. In contrast, initiating a new procurement process often takes two to four weeks. This approach also gave the city opportunities to work with smaller firms and suppliers that might not have been able to compete for larger projects and to build those firms' capacity to work with government partners.

<sup>56</sup> A "bench" of suppliers is a group of suppliers that have already undergone a competitive process and been awarded an RFQ to provide solutions to the procuring organization.

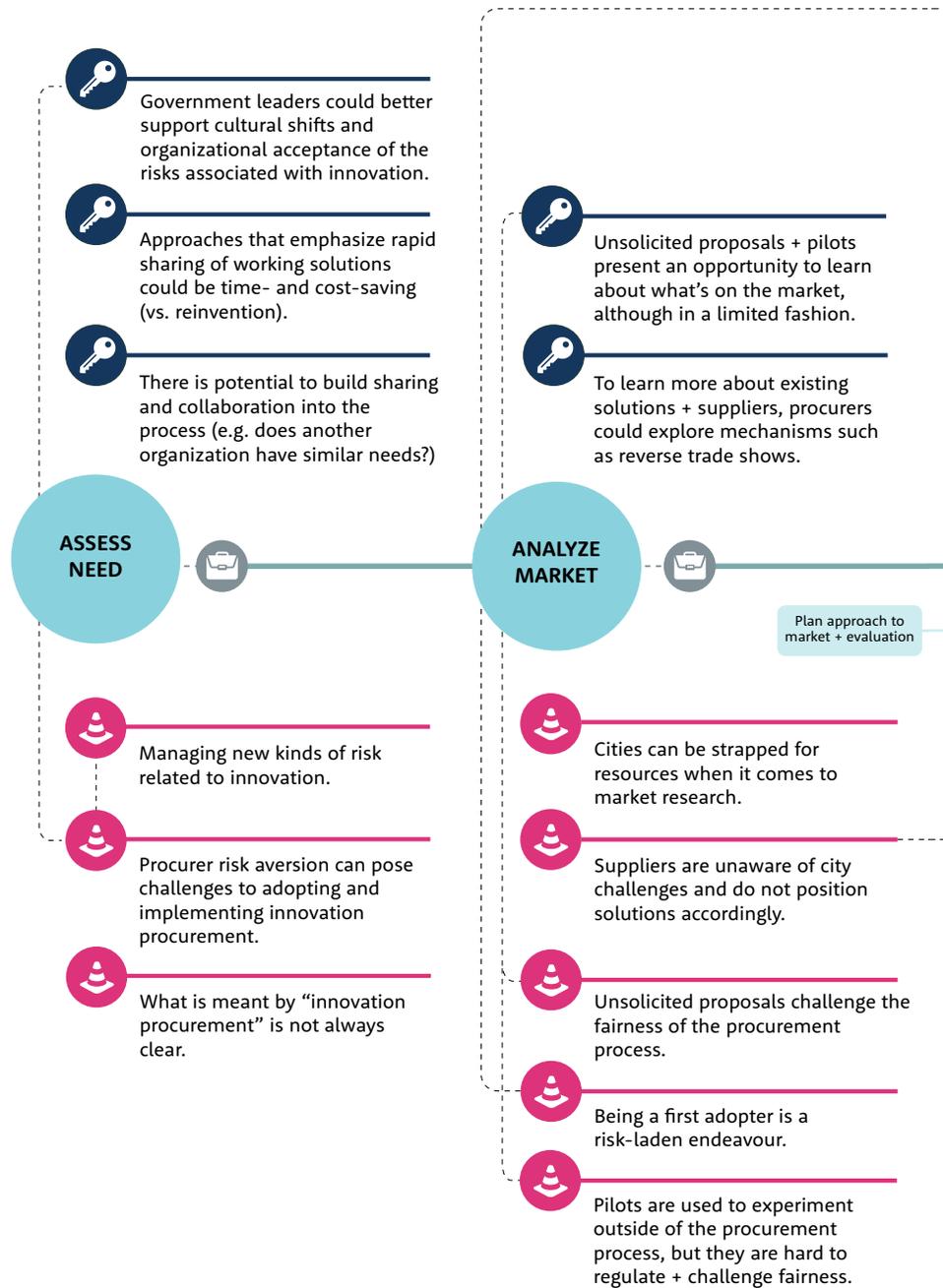
# MAPPING INNOVATION PROCUREMENT INSIGHTS

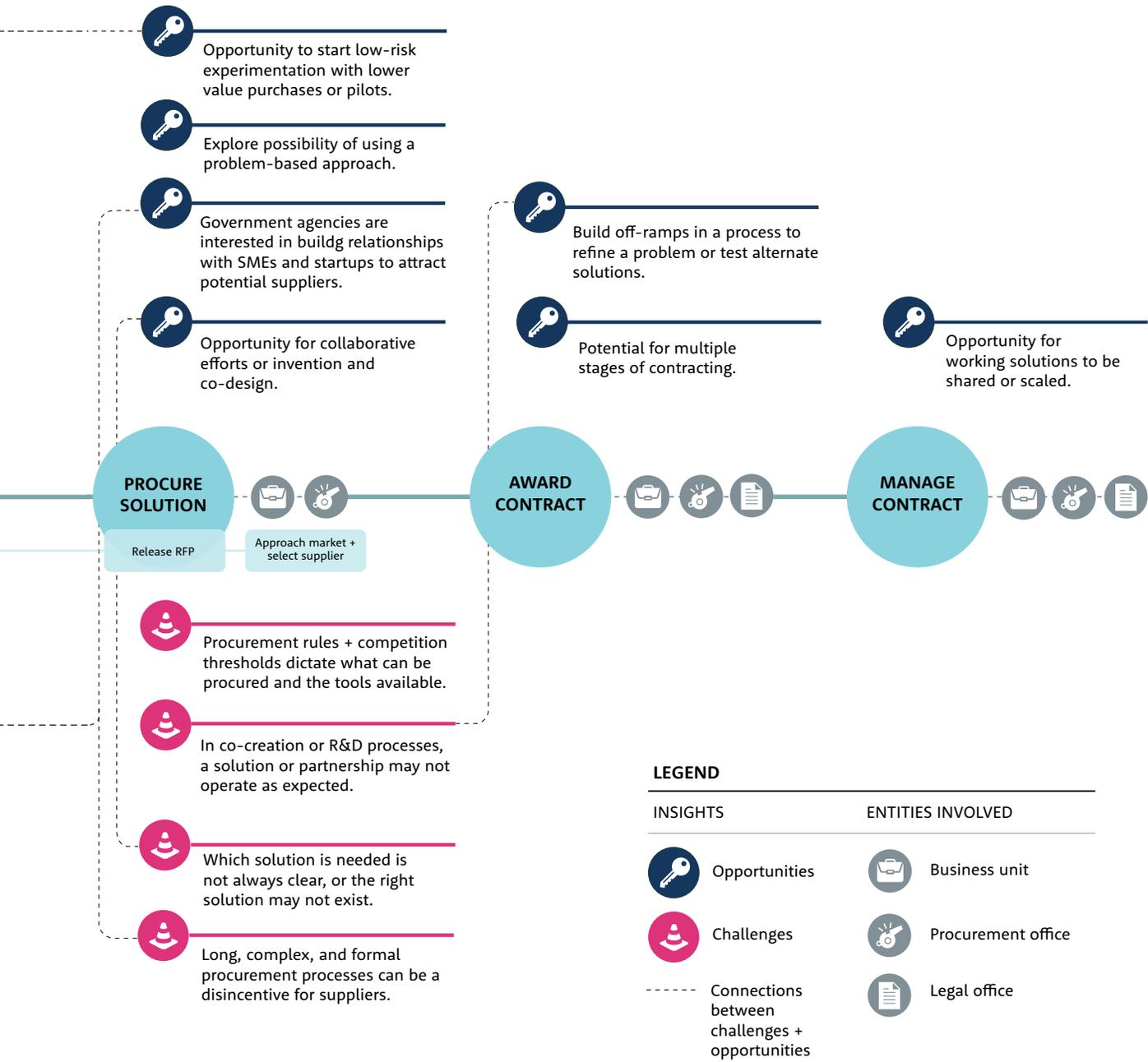
With the lens of exploring innovation procurement opportunities and challenges in municipalities, we mapped insights from our research across high-level procurement processes. In the course of this work, we found that opportunities and challenges exist at each stage. While these insights are not comprehensive, they represent the breadth of experiences shared by stakeholders and expert interviewees.

The procurement process is complex and involves a number of entities beyond procurement offices, including but not limited to the business unit (the department that is driving the purchase) and other affected departments, such as information technology and legal departments. While business units are engaged and lead the initiative from beginning to end, procurement offices are looped in after the needs assessment and market research stage.

“The biggest challenge is getting procurement [offices] involved early on...Some people think it’s the last stop but it should be the first to have a collaborative process and to guide the process to get a better result.”

—Municipal government interviewee





## TAKING AN INCREMENTAL APPROACH TO INNOVATION

With the lens of exploring innovation procurement opportunities and challenges in municipalities, we mapped insights from our research across high-level procurement processes. In the course of this work, we found that opportunities and challenges exist at each stage. While these insights are not comprehensive, they represent the breadth of experiences shared by stakeholders and expert interviewees.

Managing new kinds of risk related to innovation can be a challenge for procuring governments. Expert interviewees noted that the directives for innovation procurement often emerge from the political level. We also heard that procuring organizations may wrestle with the question of whether or not government actors should play the role of “first adopters”—or at least open supporters—when it comes to solutions new to the market. While being “first” would reflect positively on the capacity of government to innovate, it is also a risk-laden move to adopt solutions that are relatively untested. There is no consensus from different organizations and departments on what role government procurers should play in this case; however, there is a shared sense that government procurers should have some controlled space to experiment with approaches and solutions, manage risk, and anticipate new challenges related to innovation.

Taking an incremental approach to innovation can be one way to test tools and approaches and to manage risk: it can be beneficial to start with low-cost procurements to explore opportunities and constraints before trying more formal higher-cost, higher-risk procurements. For instance, we heard from expert interviewees that a number of practices focused on innovation procurement are happening at the level of lower-cost procurements that fall below open competition threshold

requirements. Research from the EU found that small- and medium-sized enterprises, particularly startups, were interested in smaller value contracts but were wary of being overburdened with paperwork.<sup>58</sup> While many innovation efforts are focused on the more complex high-value procurements, one insight that has emerged from this research is that the work taking place in the realm of lower-cost procurements should not be overlooked.

“Where we have innovative tools, we need a process guideline of how the tools work and the risk assessment—what do we need to watch for? Are there lessons? [We need] a bit of a risk lens, and a legal lens on it as well. Is it how to implement and use these new tools? There’s not a lot out there that tells us how to use them.”

—Municipal government interviewee

We have heard from expert interviewees that while low-cost procurements can help both procuring organizations and suppliers avoid a longer competitive process, this approach also raises concerns about fairness, since there are fewer chances for other suppliers to participate. These concerns can be compounded when procurement offices are not included in the process. From interviews, we heard that business units tend to include procurement offices only when stipulated by process guidelines in an effort to avoid additional paperwork and red tape. Low-cost procurement experimentation is happening in business units while procurement offices are usually engaged in higher-value processes that require formal RFPs. For business units that are looking to procure an innovative solution or approach procurement in an innovative way, looping in procurement offices early on could be seen as an opportunity to better manage risk and share learnings that could be applied in future work.

## THERE IS MORE SPACE FOR EXPERIMENTATION AT THE MARKET RESEARCH STAGE

Market research is carried out differently across sectors, jurisdictions, and departments. Expert interviewees noted that thorough market research is critical, for instance where procurers might need to verify whether a solution to an identified challenge already exists. However, we heard that this can be a challenge for a number of reasons: cities are often strapped for resources to dedicate to market research and, particularly in the context of innovative solutions, it is not always clear how much needs to be done or how. Available solutions change quickly, and new ones are constantly entering the market, so the search for solutions—and the ways in which they are procured—needs to be flexible and iterative. Market research is a key consideration in determining whether the selected procurement approach is suited for a given challenge, and useful in deciding whether an existing solution should be adopted or a new solution should be developed. On this topic, we heard from interviewees that the need to invent solutions is a rare one. Since many cities share similar challenges, they do not need to independently solve the same problem with a new invention each time.

“Somebody comes to you and sells you something that nobody else has. It may be true at that point, but I won’t sign a 20-year agreement. I don’t know what’s going to be around the bend in a year. I want to research and make sure it’s true.”

—Municipal government interviewee

Expert interviewees mentioned that suppliers often do not know what challenges cities are trying to solve so they cannot develop or position solutions accordingly. Insights drawn from interviews reflect a need for government procuring organizations to share information about challenges with a wider set of problem-solvers. However, government procurers often face tensions around how to ensure that all of the right problem-solvers are able to access information equally and

feel prepared to bid, not just the ones that are geographically close, or have more access to relevant information or connections.

In the emerging practices of innovation procurement, conflicts of interest can arise when engaging with unsolicited proposals from vendors that are eager to share their solutions. While unsolicited proposals challenge the fairness of the process, they can be a partial stand-in for market research, since they allow cities to gain some understanding of solutions that are on the market.

“One challenge of being innovative is startup companies and pilots where companies approach us to work with them on something...A competitive process isn’t possible since it’s a one-off. People try to make a case for a sole source, but then there’s no way [for us] to level the playing field.”

—Municipal government interviewee

Additionally, a number of expert interviewees suggested that many challenges faced by government procurers have existing solutions that could be shared; for instance, another city might have developed a solution for a similar challenge. Interviewees suggest that an approach that allows for rapid sharing of working solutions to deliver the best possible services would be more time- and cost-efficient than reinventing solutions for different jurisdictions. However, opportunities for collaboration and sharing often need to be designed and built into agreements from the start of a procurement process to engage partners in a meaningful and productive way.

At the local level, [we’re trying to] prevent cities from making bespoke software city by city, and creating a marketplace where all the needs are the same. Cities should be networking with other cities [to share solutions]...How do we let [other cities] know that we have this product and that they can use it?”

—Non-government expert interviewee

“How many procurements are being done where two ministries are procuring the exact same piece of software, but because they don’t communicate, there are two contracts going out for the same thing?”

—Provincial government interviewee

## CULTURE BUILDING IS A PART OF THE INNOVATION PROCESS

From interviewees, a recurring theme we heard was centred on the evolving role of governments as innovators: staff in business units, procurement offices, and legal offices feel a constant pressure to innovate while ensuring that public dollars are protected and spent wisely and transparently. The culture of procurement is driven and characterized by the necessity of stringent risk management balanced against a desire to innovate and test new solutions and practices. There are further challenges that stem from the complexity of procurement, from differences in interpretation of process guidelines to different ways that subjectivity can affect implementation.

“People are being tugged in a lot of directions; they’re told to be creative and not to be boring, and also to not allow for corruption.”

—Municipal government interviewee

“We’re the fairness monitor. We have to play both sides [and] make sure everyone is treated fairly. Look at the scores. If two players did good work but one scores four and one scores five, what happened? We are the referees.”

—Municipal government interviewee

The definition of innovation procurement is not always clear, nor is innovation procurement always desirable or applicable to procurements across all sectors and governments, or even across all departments. The adoption and implementation of innovation procurement is uneven and subject to interpretation. As such, it may not be surprising

that the often risk-averse culture of procuring organizations was a consistent theme in many expert interviews; one that appears to be woven through both opportunities and challenges. In examples across the US, EU, and Canada, interviewees shared a variety of cultural barriers from risk aversion to a perceived reluctance of government organizations to explore space for experimentation within existing boundaries. From other interviewees, we heard that culture did not pose additional barriers to innovation. These differences in experience did not seem to be tied to geography or level of government, but to the presence of internal champions and in some cases, to proximity to the tech sector. In particular, we found that interviewees who worked in environments where government agencies regularly engaged the local tech ecosystem faced fewer cultural barriers to experimentation with innovation procurement.

“When you’re [looking to] procure something, but you’re looking for more ideas on how it can be done...We might think that’s obvious, but when you’re in an agency that has never been involved in something like that, that is innovation. It’s done in baby steps, but to have people come to you asking how we can do this differently, that is innovation and it’s a big accomplishment, for what it’s worth.”

—Municipal government interviewee

Considering the pace of change in the challenges that cities face and the constant evolution of existing solutions, we found that some interviewees emphasized an opportunity for capacity building for procurement teams and business leads. In complex procurements, particularly the processes that span across ministries and years, staff in both government business units and procurement offices can be faced with a wide range of challenges and subjects where in-house expertise is not always present. For example, business units and procurement teams do not always have the expertise to evaluate complex tech solutions—in some cases, procurers are facing this challenge with different models

for hiring external tech talent. This challenge is not necessarily a new one; business units and procurement offices constantly face procurements of vastly different sizes and scopes that they cannot always know intimately. However, the innovation conversation has brought additional nuance to this challenge.

Ultimately, cultural shifts and organizational acceptance of the risks associated with innovation need to be supported by political leaders as well as legislative and administrative bodies across all levels of government. The challenges posed by equipping business units and procurement staff with the right tools, capacity building for innovation, and building risk aversion through exposure cannot be driven solely at the staff level—culture change must come from the top.

## BUILDING RELATIONSHIPS WITH SUPPLIERS AND THE TECH ECOSYSTEM

As aforementioned, many emerging models for innovation procurement that we encountered in the course of this research are designed around adopting tech-based solutions and practices and opening bidding processes to smaller firms. We heard from interviewees that government procurers across all levels of government are interested in engaging smaller businesses as a new set of potential problem-solvers. Emerging models for innovation procurement have been challenging ideas of which companies can do what kinds of work.

This included lowering barriers to participation in government procurement processes, as smaller businesses face a number of barriers. Recent research found that the majority of Canadian SMEs do not see the Government of Canada as a potential customer, citing that they were unaware of contracting opportunities or that they found the application process too time-consuming.<sup>59</sup> Even for successful SME suppliers, complex contracts are accompanied by challenges associated with long processing times, rigid requirements, and lengthy proposals that inexperienced suppliers do

not have the capacity to understand and write. For suppliers that are unaccustomed to working with government partners, the ability to win contracts are an entirely separate skillset requiring external support.<sup>60</sup>

“The fact that procurement is so slow, complex, and risk-averse is a deterrent to companies with solutions that could be useful but can’t afford to break into the govtech market.”

—Non-government expert interviewee

“If you are getting people to solve the problems, who is it? Big companies or consultancies? Or should we open ourselves up to everyone? If we are doing that, what are the procurement laws and rules and guidance around that?”

—Government interviewee

## SUCCESS DOES NOT ALWAYS MEAN MAKING A BIG PURCHASE

Innovation procurement practices in Canada are emergent and fragmented. Many opportunities to work with innovation procurement are characterized by trial and error, and underpinned by concerns about how to stay compliant with procurement principles. Interviewees and stakeholder engagement have demonstrated that significant learnings and successes can occur anywhere in a procurement process. While not all efforts will lead to a purchase, both procurers and proponents are well-positioned to benefit from burgeoning relationships (particularly with suppliers who are not familiar with working with governments), building mutual awareness and understanding of how public, private, and non-profit organizations can collaborate, and growing the pool of future proponents.

Additionally, we heard that consideration should be given to how a relationship with a proponent could be safely and appropriately terminated if

the relationship is not productive. Government procurers that go through a procurement process that does not end in a purchase may also take away a greater understanding of the problem they are hoping to solve, or of the types of solutions that exist in the market. For instance, it may be desirable to pursue a pilot project to test the potential of a solution rather than undergoing a full procurement process. As such, when procuring organizations are looking to explore innovation procurement, processes should be designed with off-ramps and multiple stages of contracting in mind.

“Sometimes it can’t work because of the [procuring organization]...or on the other side because of the company in question. Maybe they didn’t have the aptitude or attitude to take it forward. [If that does happen], take into account what happens when we get the intellectual property back from the failed project. There are always lessons to learn there.”

—Provincial government interviewee



## RECOMMENDATIONS

In the context of working in or with cities to design innovation procurement approaches such as the Municipal Innovation Exchange initiative, we offer the following set of recommendations to support the development of ongoing and future innovation procurement approaches, and spur broader conversation on the subject within Ontario and across Canada.

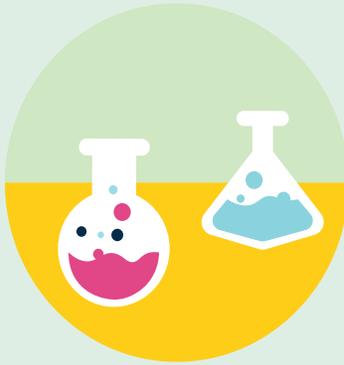
- 1. “Innovation procurement” should be defined by organizations at the outset of a challenge design process.** While there are existing definitions of innovation procurement in literature, we have found that, in practice, it is still understood in any broad spectrum of ways. It can be interpreted as the increased collaboration and the sharing of solutions; as more flexible and iterative processes; as the procurement of new technology or a solution that does not exist on the market; or as the invention or co-design of a new solution. Many innovative processes will include the application of more than one interpretation. A shared understanding from the outset of the process will help set clear objectives and a mutual understanding of success.
- 2. Create space for incremental approaches to innovation—such as starting with lower-risk or low-cost solutions to manage and anticipate risk.** In the world of government procurement where risk management is paramount to protect the public dollar and maintain fairness and transparency, experimentation can be seen as overburdened with risk. Cities could benefit from using low-cost procurements, which fall below open competition thresholds, or initiatives such as the MIX as lower-risk spaces for experimentation and opportunities to test co-designed approaches.
- 3. Political leaders, executives, and councils need to be involved in innovation procurements so that the processes and associated risks are well understood and accepted.** Building top-down support for innovation procurement will help pave the way for culture shifts and help eliminate risk aversion to lead to more innovation in procurement processes.
- 4. Take into account the unique contexts and rules of each city.** Solutions designed for one city may not work for another, and what is considered to be innovative may vary across cities and departments. Every city operates under different policies, bylaws, and procurement dollar thresholds. Additionally, every city exists in a different ecosystem of firms (tech and otherwise) and organizations. A key consideration is that there will seldom, if ever, be a one-size-fits-all approach to innovation procurement that will be optimal for all cities and all types of solutions.
- 5. There is more room for experimentation at the market research and assessment stages of the process.** There is opportunity to explore how cities conduct market research and explore the ways that it can be expanded. Because available solutions are constantly growing and changing, and cities may share similar problems, expanding market research could be a way to engage suppliers and identify potential areas for collaboration with other cities. Market research is important to determine the procurement approach needed and avoid the reinvention of solutions that may exist elsewhere.
- 6. Build relationships with suppliers and the tech ecosystem.** Many smaller businesses and startups face barriers to participation in government procurement processes. However, there is potential for more government procurers to adopt tech-based solutions and practices, and open bidding processes to smaller firms.
- 7. When designing innovation procurement processes, build off-ramps.** While not all efforts will lead to a purchase, both procurers and proponents are well positioned to benefit from relationship-building, and developing mutual awareness and understanding of how public, private, and non-profit organizations can collaborate, as well as growing the pool of future proponents.



## C O N C L U S I O N

Across Canada, the US, and EU, governments are finding ways to adapt to the need for new solutions, new partners, and new opportunities to collaborate in order to drive innovation. Innovation procurement presents a big opportunity for governments to respond to a marketplace of solutions and ways of working, one that is rapidly evolving.

Many of the approaches shared in this report are not entirely new—in many ways, innovation procurement draws on established conventions and the layers of rules that aim to keep procurement fair, open, and transparent. The opportunity for innovation lies in understanding how governments can add value while continuing to comply with trade agreements, policy, and procedures. As the MIX initiative launches and builds on its learnings over the next three years, we hope that this report can contribute helpful insight to upcoming innovation procurement challenges and set the stage for future efforts.



## ENDNOTES

1. Mariel Reed, “Public Servants Are Hacking Procurement to Drive Innovation,” Medium, May 16, 2018, <https://medium.com/coprocure/public-servants-are-hacking-procurement-to-drive-innovation-8bcc5ae4a5dd>.
2. Paul Emanuelli, Trends and Developments in IT Procurement, Presentation, May 4, 2015, [www.cantechlaw.ca/wp-content/uploads/Trends\\_Developments\\_IT\\_Procurement-Emanuelli.pptx](http://www.cantechlaw.ca/wp-content/uploads/Trends_Developments_IT_Procurement-Emanuelli.pptx).
3. Caitlin Cassie, The Guelph Civic Accelerator: A Public Procurement Experiment, Report, May 2017, [https://brookfieldinstitute.ca/wp-content/uploads/GuelphCivicAccelerator\\_CasesStudyReport\\_BrookfieldInstitute.pdf](https://brookfieldinstitute.ca/wp-content/uploads/GuelphCivicAccelerator_CasesStudyReport_BrookfieldInstitute.pdf).
4. Government of Ontario, BPS Primer on Innovation Procurement: Interim, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/\\$FILE/BPS\\_Primer\\_on\\_Innovation\\_Procurement\\_Interim.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/$FILE/BPS_Primer_on_Innovation_Procurement_Interim.pdf).
5. OECD, “Public Procurement for Innovation: Good Practices and Strategies” (OECD Public Governance Reviews, 2017) 15-25, doi:10.1787/9789264265820-en.
6. Innovation Procurement: Outcome-based Specification Guide, July 7, 2015, <http://www.hscn.org/Data/Sites/1/resources/innovationprocurement/hscn-innovation-procurement-outcome-based-specification-guide-new-logo.pdf>.
7. Ibid.
8. Management Board of Cabinet, Broader Public Sector Procurement Directive, Government of Ontario, July 1, 2011, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/Attachments/001-BPS\\_Procurement\\_Directive/\\$FILE/BPS\\_Procurement\\_Directive.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/Attachments/001-BPS_Procurement_Directive/$FILE/BPS_Procurement_Directive.pdf).
9. Office of the United States Trade Representative, United States-Mexico-Canada Agreement, United States of America, 2018, <https://ustr.gov/sites/default/files/files/agreements/FTA/USMCA/13%20Government%20Procurement.pdf>.
10. Mark J. Fecenko, “The CFTA and Innovation Procurement – A Primer for Broader Public Sector Entities in the Healthcare Sector” (Toronto: Borden Ladner Gervais, June 14, 2018), [http://blg.com/en/News-And-Publications/publication\\_4964](http://blg.com/en/News-And-Publications/publication_4964).
11. An RFI is a document issued to potential suppliers to collect general supplier, service, or product information that could help procurers better define a problem or need, as well as potential solutions. It is strictly for information purposes and is not an avenue to procure.
12. Ministry of Government and Consumer Services, Procurement Guideline for Publicly Funded Organizations in Ontario, Government of Ontario, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/\\$FILE/Procurement\\_Guideline\\_for\\_PFOs.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/$FILE/Procurement_Guideline_for_PFOs.pdf).
13. Government of Ontario, BPS Primer on Innovation Procurement: Interim, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/\\$FILE/BPS\\_Primer\\_on\\_Innovation\\_Procurement\\_Interim.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/$FILE/BPS_Primer_on_Innovation_Procurement_Interim.pdf) Ibid.
14. Ministry of Government and Consumer Services, Procurement Guideline for Publicly Funded Organizations in Ontario, Government of Ontario, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/\\$FILE/Procurement\\_Guideline\\_for\\_PFOs.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/$FILE/Procurement_Guideline_for_PFOs.pdf).
15. City of Guelph. By-law Number (2018) – 20259, 2018, <https://guelph.ca/wp-content/uploads/Purchasing-Bylaw.pdf>.
16. City of London, Procurement of Goods and Services Policy, June 19, 2018, <https://www.london.ca/city-hall/by-laws/Documents/scheduleC.pdf>.
17. City of Barrie, Procurement Procedural Manual, May 2, 2016.

18. Ministry of Government and Consumer Services, Procurement Guideline for Publicly Funded Organizations in Ontario, Government of Ontario, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/\\$FILE/Procurement Guideline for PFOs.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/$FILE/Procurement%20Guideline%20for%20PFOs.pdf).
19. A Request for Informal Quotation (RFIQ) is a document used to request informal quotes for supplying goods or services where defined requirements for a clear solution are provided in the request.
20. A Request for Quotation (RFQ) is a document used to solicit quotes from potential suppliers where procurers provide defined requirements for a clear solution.
21. A Request for Tender (RFT) is a document used to solicit supplier responses for goods or services where a clear solution has been identified. As such, RFTs typically focus on price and delivery requirements.
22. City of London, Procurement of Goods and Services Policy, June 19, 2018, <https://www.london.ca/city-hall/by-laws/Documents/scheduleC.pdf>.
23. Ontario Shared Services and Ministry of Government and Consumer Services, "Procurement Policies and Trade Agreements," Government of Ontario, <https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/English/procurement.html>.
24. City of Barrie. By-law 2016-035, Procurement By-law, <https://www.barrie.ca/City%20Hall/ByLaws/BylawDocs/2016-035%20Procurement%20By-law%20NEW.pdf>.
25. City of Guelph, By-law Number (2018) – 20259, 2018, <https://guelph.ca/wp-content/uploads/Purchasing-Bylaw.pdf>.
26. Chief Administrative Officer of the city.
27. James McKellar and David Gordon, Discussion Paper on the RFP Process for the Disposition of Publicly-owned Real Estate Assets, Report, National Executive Forum on Public Property, 2007.
28. Ibid.
29. Ibid.
30. Michael Power, Procurement Law Trends, Report, March 2017, <http://procurementoffice.com/wp-content/uploads/2017/03/Procurement-Law-Trends-article.pdf>.
31. Government of Ontario. Procurement Guideline for Publicly Funded Organizations in Ontario, Government of Ontario, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/\\$FILE/Procurement Guideline for PFOs.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/993aef5394e028c38525803d00618598/$FILE/Procurement%20Guideline%20for%20PFOs.pdf).
32. Government of Ontario, BPS Primer on Innovation Procurement: Interim, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/\\$FILE/BPS Primer on Innovation Procurement Interim.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/$FILE/BPS%20Primer%20on%20Innovation%20Procurement%20Interim.pdf) Ibid.
33. Paul Emanuelli, Trends and Developments in IT Procurement, Presentation, May 4, 2015, [www.cantechlaw.ca/wp-content/uploads/Trends Developments IT Procurement-Emanuelli.pptx](http://www.cantechlaw.ca/wp-content/uploads/Trends%20Developments%20IT%20Procurement-Emanuelli.pptx).
34. Paul Emanuelli and Jennifer Marston, Demystifying Dialogue RFPs, Report, June 2015, <http://procurementoffice.com/wp-content/uploads/2016/06/Demystifying-Dialogue-RFPs-Final.pdf>.
35. Ibid.
36. Ibid.
37. Ministry of Business, Innovation and Employment, Government Procurement Branch, Competitive Dialogue: How Competitive Dialogue Works in New Zealand, Government of New Zealand, July 2013, <https://www.procurement.govt.nz/assets/procurement-property/documents/guide-competitive-dialogue.pdf>.
38. Ibid.

39. Government of Ontario, BPS Primer on Innovation Procurement: Interim, [https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/\\$FILE/BPS\\_Primer\\_on\\_Innovation\\_Procurement\\_Interim.pdf](https://www.doingbusiness.mgs.gov.on.ca/mbs/psb/psb.nsf/o/df738830of40aec68525814d004a00bf/$FILE/BPS_Primer_on_Innovation_Procurement_Interim.pdf) Ibid.
40. Ibid.
41. Jay Nath, “US Cities Are Bringing Tech Startups into City Hall to Take on Social Issues,” Apolitical, December 22, 2017, <https://apolitical.co/solution/article/us-cities-bringing-tech-startups-city-hall-take-social-issues/>.
42. “Startup in Residence (STIR),” Government of San Francisco, <https://startupinresidence.org/>
43. Ibid.
44. City and County of San Francisco, Request for Proposals for 2017 Start Up In Residence (STIR) Program, March 9, 2017, <http://startupinresidence.org/wp-content/uploads/City-of-San-Francisco-final-STIR-2017-RFP-03-09-2017.pdf>.
45. “BC Developer’s Exchange, “Roadmap: Sprint with us,” Government of British Columbia, <https://bcdevexchange.org/roadmap#Sprint With Us>.
46. “Pre-Commercial Procurement,” European Commission, February 28, 2014, <https://ec.europa.eu/digital-single-market/en/pre-commercial-procurement>.
47. Charles Edquist and Jon Mikel Zabala-Iturriagagoitia, “Pre-commercial Procurement: A Demand or Supply Policy Instrument in Relation to Innovation?,” R&D Management 45, no. 2 (2014): 147-60. doi:10.1111/radm.12057.
48. “Pre-Commercial Procurement,” European Commission, February 28, 2014, <https://ec.europa.eu/digital-single-market/en/pre-commercial-procurement>.
49. “City Seeks Interested Parties to Help Enhance Its Digital City Position,” City of Fredericton, June 14, 2017, <http://www.fredericton.ca/en/news/city-hall/city-seeks-interested-parties-to-help-enhance-its-digital-city-position>.
50. Ibid.
51. Ibid.
52. “Digital Fredericton,” City of Fredericton, 2017, <http://www.digitalfredericton.com/>.
53. Public Services and Procurement Canada, Acquisitions Branch, “Understanding the Build in Canada Innovation Program,” Government of Canada, September 4, 2018, <https://www.tpsgc-pwgsc.gc.ca/app-acq/picc-bcip/ppicc-abcip-eng.html>.
54. Tracy Connery, “AI Justice Challenge,” KAST, August 21, 2018, <http://kast.com/ai-justice-challenge/>.
55. A “bench” of suppliers is a group of suppliers that have already undergone a competitive process and been awarded an RFQ to provide solutions to the procuring organization.
56. Mariel Reed, “Public Servants Are Hacking Procurement to Drive Innovation,” Medium, May 16, 2018, <https://medium.com/coprocure/public-servants-are-hacking-procurement-to-drive-innovation-8bcc5ae4a5dd>.
57. Kath Ringwald, Chris Lee, Huw Williams, Dermot Cahill, Gary Clifford, and Ceri Evans, Barriers to Procurement Opportunity Research, Government of Wales, March 2009, <http://icps.bangor.ac.uk/brochures/BarriersToProcurement.pdf>.
58. Diane Liao, Barbara Orser, and Allan Riding, “Canadian Federal Procurement as a Policy Lever to Support Innovation and SME Growth. Report,” Telfer School of Management, University of Ottawa, 2017, [http://telfer.uottawa.ca/assets/documents/2017/Federal-Procurement-and-SMEs-report-Telfer\\_web.pdf](http://telfer.uottawa.ca/assets/documents/2017/Federal-Procurement-and-SMEs-report-Telfer_web.pdf).
59. Geoff Orazem, Greg Mallory, Matthew Schleuter, and Danny Werfei, “Why Startups Don’t Bid on Government Contracts,” Boston Consulting Group, August 22, 2017, <https://www.bcg.com/publications/2017/public-sector-agency-transformation-why-startups-dont-bid-government-contracts.aspx>.