



Consideration of a Startup in Residence (STIR) Program in the City of Toronto

Date: June 10, 2019

To: General Government and Licensing Committee

From: Chief Information Officer, General Manager, Economic Development and Culture, Chief Purchasing Officer, Director, Civic Innovation Office

Wards: All

SUMMARY

The purpose of this report is to respond to General Government and Licensing Committee's direction for staff to consider developing a Startup in Residence (STIR) Program or to consider joining the existing Municipal Information Exchange program. The report further outlines and highlights innovative procurement initiatives already in progress in the City of Toronto, and recommends that staff report back in Q2 of 2020 on the assessment of the costs and benefits of implementing a STIR Program as compared to the benefits from the existing innovative partnership and procurement programs currently being implemented.

The City of Toronto is committed to making procurement faster, more flexible, more inclusive, and easier to understand. The City also aims to enable a greater diversity of firms to develop new solutions that can help the City solve pressing civic challenges. One potential solution is a STIR Program, already adopted by many cities, which would aim to assist the City in rapidly addressing civic challenges where a solution is not readily available, and success is not necessarily guaranteed. To this extent, the City has already undertaken innovative procurement initiatives that produce similar benefits to a STIR Program.

The Civic Innovation Office and the Purchasing & Materials Management Division (PMMD) has developed an Invitation to Partner (ITP) procurement approach. ITP was based on the STIR program and provides an opportunity for proponents to collaborate with City staff and residents to co-create a solution to a civic challenge. In addition to the ITP, the City of Toronto supports Civic Hall Toronto; a program that strengthens the civic technology ecosystem in the Greater Toronto Area (GTA) by incubating solutions for various civic challenges through collaboration between the government and with Toronto's technology community. Finally, PMMD is also implementing Category Management, which will leverage the City's consolidated purchasing power to find the best possible values in the marketplace and further foster innovation.

As the current innovative procurement initiatives deliver similar benefits as a STIR program, City staff require time to assess the beneficial outcomes of these procurement initiatives before further efforts and new programs are considered. Implementing a new program may hinder the progression and focus on the existing initiatives. It is therefore strongly recommended to focus City efforts on the existing innovative procurement programs through ITP and Civic Hall Toronto, and that a new STIR Program be considered as a part of the 2020 Budget Cycle, once these other procurement initiatives have had time to operationally mature.

RECOMMENDATIONS

The Chief Information Officer, General Manager, Economic Development and Culture, Chief Purchasing Officer and the Director, Civic Innovation Office recommend that:

1. General Government and Licensing Committee direct that the Chief Information Officer, General Manager, Economic Development and Culture, Chief Purchasing Officer, and the Director, Civic Innovation Office to:
 - a. review and identify the operating costs and associated benefits of implementing a permanent Startup in Residence Program (STIR) for the City of Toronto or to joining the Municipal Innovation Exchange (MIX) or both;
 - b. compare the benefits of the STIR program with the benefits from the other innovative partnership and procurement programs currently being implemented in the City; and
 - c. report back to the General Government and Licensing Committee in the second quarter of 2020 with recommendations concerning whether the City should also implement a permanent STIR program or to join MIX or both.

FINANCIAL IMPACT

This report has no net financial impact on the City of Toronto.

The Chief Financial Officer and Treasurer have reviewed this report and agree with the financial impact information.

DECISION HISTORY

At its meeting on January 4, 2016, City Council adopted item GM9.14, Creation of a "Civic Hall," to review opportunities for the creation of a "Civic Hall" by assessing the concept of a "Civic Hall" based on the civic model which has been developed in New York City. Civic Hall was envisioned as a vibrant year-round program, collaborative work and event space, where diverse civic innovators work, network, learn and organize to solve civic challenges. It includes technologists, social entrepreneurs, government officials, organizers, philanthropy professionals, journalists, researchers, and is dedicated to cutting-edge problem-solving.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.GM9.14>

As part of the 2016 Operating and Capital Budget on February 16, 2016, City Council adopted EX12.2, 2016 Capital and Operating Budgets, and approved capital funding for the Supply Chain Management Transformation, as part of the Financial Services Capital Plan.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.EX12.2>
<http://www.toronto.ca/legdocs/mmis/2016/ex/bgrd/backgroundfile-89247.pdf>

At its meeting of November 14, 2016, Government Management Committee adopted item GM16.5, Purchasing and Materials Management Review: Strategy for Category Management and Strategic Sourcing (CMSS), a report outlining the Purchasing and Materials Management Division's (PMMD) work to transform its business practices to play a more strategic role in the procurement of goods and services and to include CMSS as part of the 2017 budget request.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.GM16.5>

At its meeting on June 7, 2016, City Council adopted GM12.2 - Provision of SAP Ariba - Proprietary Software as a Service from SAP Canada for the Supply Chain Management Transformation, which authorized the Treasurer and the Chief Information Officer to negotiate and execute an agreement with SAP Canada for the use of SAP Ariba.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2016.GM12.2>

At its meeting on April 24, 2018, City Council adopted item GM26.12, Civic Hall Toronto, to enable all City division heads to purchase memberships from and enter into any necessary agreements with Code for Canada to carry out delivery of training and innovation-related projects that advance Divisional goals, and to report to the General Government and Licensing Committee in the fall of 2019 with an update on the implementation of Civic Hall Toronto.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.GM26.12>

At its meeting on July 23, 2018, City Council adopted item EX36.20, Capital Budget Re-Allocation Request - Supply Chain Management Transformation Project, to reallocate \$2.7 million to the Supply Chain Management Transformation Capital Project. The implementation of SAP Ariba is a core tool for PMMD's business transformation that will introduce category management and strategic sourcing (CMSS) to the City's procurement process. CMSS is the process of managing key spend categories strategically across the organization to lower total cost of ownership.

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2018.EX36.20>

At its meeting on April 1, 2019, the General Government and Licensing Committee adopted item GL3.8, Startup in Residence (STIR) Pilot Project for the City of Toronto, to consider a STIR initiative to advance technological use in the City of Toronto municipal government, similar to those implemented by the City of Guelph and the Municipal Innovation Exchange (MIX).

<http://app.toronto.ca/tmmis/viewAgendaItemHistory.do?item=2019.GL3.8>

COMMENTS

Municipalities around the world are faced with the imperative to do more with less. Today, cities are operating in a wave of public service transformation shaped by human-centred services and the increased use of technology, particularly for civic engagement and decision-making. Cities are expected to encourage economic growth while safeguarding the public purse and meet growing expectations for efficiency and productivity.

General Government and Licensing Committee directed staff to consider adopting a Startup in Residence (STIR) program, similar to those implemented by the City of Guelph and the Municipal Innovation Exchange (MIX), and whether the City should join an existing STIR network or initiate its independent program, potentially in alliance with other local governments or agencies.

Public procurement is a critical tool to support the government's ability to provide services to its citizens. Under this lens, procurement becomes a necessary element for innovation, with the potential to develop new approaches and partnerships. The City of Toronto is interested in making procurement faster, more flexible, more inclusive, and easier to understand. This City also aims to enable a greater diversity of firms to develop new solutions that could help Toronto solve pressing civic challenges. The City has initiated several programs to increase innovation in the procurement process and to create new partnerships to foster new solutions. These programs and initiatives are detailed in this report below.

Startup in Residence (STIR) Program

A STIR Program aims to help governments rapidly address civic challenges where a solution (e.g. a software solution does not exist) is not readily visible, and success is not necessarily guaranteed. The initiation of the STIR Program begins with a government identifying a specific civic challenge. That particular civic challenge is then issued to the marketplace using a flexible form of a request for proposal process to select a startup to work with the government entity to solve for the problem. The selected startup then works with the government entity over 16 weeks to come up with a potential solution, which may be a new software application or other solution. During those 16 weeks, there are also opportunities for learning and training for the startup on different topics, and at the end, the government entity would then be in a position to choose to negotiate with the startup to use the solution. The startup owns the solution.

The initial STIR program was launched by the Mayor's Office of Civic Innovation in San Francisco in 2014. Since then, STIR 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. Through the formation of partnerships with startups, the government entity can receive assistance from expert tech firms in solving pressing issues. From a startup tech firm perspective, there are opportunities to access experienced mentors, launch pilot products, and forge long-term business relations. The vision of a STIR program is 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.

Since the initial STIR program that was launched by the Mayor's Office of Civic Innovation in San Francisco launch in San Francisco, a non-profit organization, (NPO-STiR), was created. The NPO-STiR offers the Startup in Residence (STIR) Program to government entities for a fee, and for those that sign up, the program assists by providing resources to write well-scoped civic challenges and provides procurement support for selecting the successful proponent. The civic challenge is issued to the market using an RFP process, and startups around the world are eligible to submit applications for the RFP. Start-ups that are accepted into the STIR program offer technology-based solutions, including software, mobile apps, and information technology hardware to address challenges in predetermined challenge areas. Both the government and the chosen startup gain access to the NPO-STiR Learning portal's access to training, webinars, workshops and mentoring.

Municipal Innovation Exchange (MIX)

The City of Guelph initially replicated the City of San Francisco's STIR program through the creation of the Civic Accelerator Program in 2016. Since the launch of the Civic Accelerator, the City of Guelph, working with the City of London and Barrie as well as MaRS Discovery District, created the Municipal Innovation Exchange (MIX).

MIX aims to run innovative procurement challenges in each city similar to the STIR Program, 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. To support this project, the MaRS Solutions Lab is acting as a collaborator, and the Brookfield Institute has been engaged to conduct policy research that will inform a framework for how procurement challenges could be designed. The MIX also benefits from the support of various partners along the innovation pipeline, including the Guelph Lab and Innovation Guelph. The City of Guelph aims to use this research to improve the understanding of innovation procurement in the Canadian context, how it has been incorporated into practice, and to identify what space there is for experimentation in procurement processes.

Innovation in the City of Toronto

The City of Toronto is committed to incorporating innovation into different aspects of City business, including through public procurement and efforts to support entrepreneurship and small businesses to flourish. Integrating innovation has been central to the Civic Innovation Office, Civic Hall and in the implementation of Category Management to the City's procurement process.

Innovation partnerships are useful as they enable the City 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 several additional considerations

and challenges, from designing clear evaluation criteria for each phase to ensuring a level playing field for proponents. 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 solution might not be created or that it will not match initial expectations. To this extent, the City has already undertaken initiatives that produce very similar processes and benefits to a STIR Program.

Civic Innovation Office: An Invitation to Partner (ITP) Procurement Approach

The Civic Innovation Office was designed to address traditional barriers to experiment in municipalities and deliver change more effectively to the residents of Toronto. Established in 2017 under the terms of a grant agreement with Bloomberg Philanthropies, funding for the Office is provided through the Bloomberg Philanthropies Innovation Program and ends in December 2019. The Civic Innovation Office has been mandated to:

- Introduce an agile approach to addressing complex City challenges;
- Improve services for the public using design thinking, data analysis, and technology; and,
- Facilitate collaboration across City divisions and with external partners.

The Civic Innovation Office, working with Purchasing & Materials Management Division (PMMD) investigated the San Francisco STIR program as well as the City of Guelph's Civic Accelerator program. Using those existing programs, the Civic Innovation Office and PMMD created a similar STIR program and developed a new procurement approach: an Invitation to Partner (ITP). It was publicly launched by the Civic Innovation Office and was met with strong support from many small- and mid-sized companies throughout Toronto. The City's overarching goal by piloting the ITP was to gauge the interest of this new procurement model with the private sector while embracing an innovative mindset and approach to addressing a business challenge.

The ITP was explicitly designed to promote creativity in the responses and provide an opportunity for proponents to collaborate with City staff and residents to co-create a solution. More specifically, it enables a means to engage Toronto's skilled technology and innovation community to create innovative solutions for civic challenges. Similar to STIR, any prototype created in consultation with the City is owned by the proponent. If the solution is feasible and there is a budget to purchase, the City would then create a separate purchase contract for the final product.

Status of the first Invitation to Partner (ITP) with the City

The Working Group (TWG) is a local agency in Toronto who was the successful applicant of the first Invitation to Partner (ITP). TWG considers themselves engaged and active members of the City and have always been seeking opportunities to apply innovative, collaborative solutions to civic challenges. TWG saw value in responding to the ITP and in making an impact on how 311 serves City residents, in addition to

learning about the City's processes, which are typically "hidden" or complicated in the public view.

Once selected, the Civic Innovation Office orchestrated the first project kick-off meeting between the TWG team and City staff. Over the next several weeks, the project team would identify their goals, prepare a research and test plan, and execute that plan with both residents and City staff. The result was a digital prototype for a new Knowledge Base System. The goals of the new Knowledge Base prototype included both Service and Satisfaction metrics for 311's internal operations, specifically:

- Service metrics: faster time to accurate results, improved readability, and increased predictability for service levels; and,
- Satisfaction metrics: increased article satisfaction score and increased knowledge base usage.

The cost and time reductions and other success metrics associated with the ITP and the proposed solution are still to be determined as the solution had not moved to the implementation phase, however, both TWG and City staff expect positive results. A case study for the first ITP is attached as Appendix 1 for more information.

The Civic Innovation Office is working with PMMD to identify the next divisional business challenge to issue the second ITP.

Civic Hall Toronto

In addition to the Civic Innovation Office and the ITP, the City of Toronto supports Civic Hall Toronto, a program of national non-profit Code for Canada, launched in May 2018, which strengthens the civic technology ecosystem in the Greater Toronto Area (GTA). Civic Hall Toronto is supported by twelve City of Toronto programs, including, Solid Waste Management Services; Children's Services; Economic Development & Culture; and the Toronto Police Service.

Civic Hall Toronto offers training, events, project support and collaboration space for government teams and the local civic tech community. Through its programming, Civic Hall Toronto builds capacity and builds connections between government innovators, entrepreneurs, technologists and residents and enables them to learn, share and collaborate on civic challenges using technology and design. This programming focuses on enabling cross-sectoral relationship-building and learning, and especially between public servants, entrepreneurs and residents passionate about using technology and design in the public interest.

Some of the accomplishments and outcomes of the first year for Civic Hall Toronto include using human-centred design to understand sentiments and behaviours around Blue Bin recycling contamination to improve the process in the future; and hosting Civic Tech Toronto hacknights to drive collaboration between public, private and non-profit organization. Further outcomes are detailed in Appendix 2: Civic Hall Toronto: Year 1 Summary.

Supply Chain Transformation, Category Management and SAP Ariba

The City's Purchasing and Materials Management Division (PMMD) is currently undergoing a Supply Chain Transformation that will transition City procurement from a tactical, transactional model to one that encompasses a Category Management and Strategic Sourcing (CMSS) Approach to securing the best value for the City on identified categories of spend. In addition, PMMD is implementing a new e-procurement tool using SAP Ariba to introduce automation and elimination of manual tasks, such as receiving physical bids in the procurement process, improving the number of compliant bids and improving the ability to analyze data in the procurement process. The implementation of SAP Ariba is also a critical enabling tool for CMSS.

Category Management is a strategic procurement approach that can produce efficiencies and benefits for an organization. At a foundational level, an organization differentiates its procurement spend into specific categories, based on the functions/uses of the good or service (e.g. vehicles, consulting services, etc.) purchased. By developing these categories, potential costs savings may be leveraged. The complete category management process is illustrated on the next page.

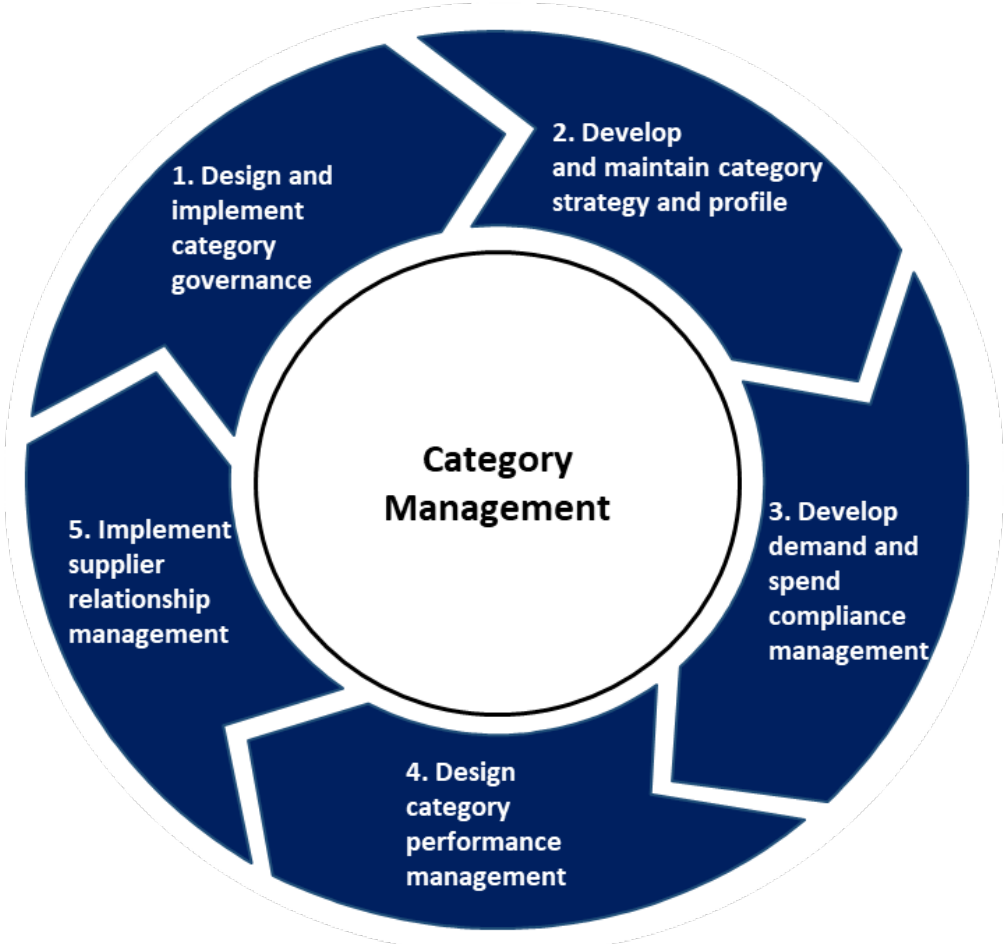


Figure 1. Graphical representation of the category management approach to procurement showing five sequential and continuous steps.

A component of Category Management includes Strategic Sourcing; a method of managing procurement processes such that the procedures, practices, and sources are re-evaluated continuously to optimize value. Strategic Sourcing relies on analyzing information about the goods and services that are purchased, namely the spend profile (volume and dollar value of purchases), as well as the make-up and dynamics of the supplier market to determine how best to approach the procurement. Innovation is introduced into the strategic sourcing process in different ways including earlier engagement with suppliers before the issuance of the strategic sourcing event, using commercial in confidence meetings during the process, and using non-binding negotiable request for proposals in the strategic sourcing event to negotiate with suppliers.

Fundamentally, Category Management is intended to leverage the City's consolidated purchasing power to find the best possible values in the marketplace and is a significant focus of PMMD's resources.

Considerations for a Startup in Residence Program

Through consultation with external agencies, City staff have determined that the successful integration of a STIR Program requires both a commitment of resources and time to mature within the City. As a strategic stakeholder, the Toronto Region Board of Trade (TRBOT) has indicated that it will engage and support the City through its resource network the development and implementation of STIR Program for the City. While the conception of a STIR Program for the City is relatively easy to envision, there is added complexity considering the size and intricacy of City policies and programs.

City staff are currently engaged and are in the process of implementing several innovative procurement approaches; including the Civic Innovation Office's ITP. The assessment of the outcomes and benefits of these approaches will take additional time after their implementation. In addition, staff need to assess the costs and benefits of implementing a STIR program or by joining the MIX. Further, the Civic Innovation Office is planning on issuing a second ITP in consultation with PMMD in late 2019. As a result, staff are recommending that the City report back to the General Government and Licensing Committee in Q2 of 2020 to provide recommendations on whether to continue with a STIR program in the City. During this time, staff will continue informal discussions with MIX. It is therefore recommended that the consideration of a STIR program for the City of Toronto be deferred until 2020. It is further recommended that the Director, Civic Innovation Office, in consultation with the Chief Purchasing Officer and the Chief Information Officer continue to review and identify the resources and operating costs required to be able to pursue a STIR program or a similar program. This will form part of the report back in the 2021 operating budget.

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ATTACHMENTS

1. Civic Innovation Case Study: The Invitation to Partner (ITP)
2. Civic Hall Toronto: Year 1 Summary