

As the world around us evolves, be it with our economies, the communities we live in and the fabric of our society, or environmentally, Canadian local governments must keep up.

Whether by modernizing how work is carried out, delivering services in digital ways, or experimenting with exciting emerging technologies, local governments are embracing these changes in order to adapt.

More and more, citizens can engage with service providers in a variety of ways by using smartphones, portable devices and laptops, as well as connected cars and homes.

From these experiences, it is now expected that there will be self-service convenience, the ability to obtain information that is both personalized and up-to-date, a means to submit requests through user-friendly digital platforms and above all, to have processes that are centred around their needs.

Meanwhile, local government employees want the ability to utilize the systems and tools they need to carry out their work from anywhere on any Internet-enabled device.

Where do you start? It's a question consistently asked by local governments of all sizes. The answer comes from self-assessment, identification of strategically aligned initiatives and understanding where the organization's passion lies. An engaged project champion, a culture of innovation and partner relationships all help shape the way forward.



HOW MNP DEFINES INNOVATION

The concept of innovation has been used within local governments for many years. Historically, innovation has been seen as mainly driving process efficiencies in all areas of program and service delivery. From making better use of staff time within road maintenance operations to the reengineering of permitting processes, changing how and when things are done to improve effectiveness and better meet citizen expectations is innovation.

This historical view of innovation has expanded as our world has progressed to include more creative uses of technologies and data along with the socialization of change with staff, councils and communities. Today, innovation often means disrupting the way services and information traditionally have been offered and delivered to citizens. Think about local governments implementing digital platforms as their primary way of engaging citizens and collaborating with others in the community; using sensors to determine traffic patterns that then shift peoples commuting behaviors; deploying tablets to by-law officers to enable their work in the field while maintaining real-time connections with the office; and utilizing augmented reality to visualize area redevelopment plans.

The emergence of data as an asset has expanded the realm of innovation as well. As data is reviewed, analyzed and merged, it turns into valuable information to help make better decisions.

If the people side of innovation is overlooked, as has often been the case in the past, then the foundation for success with these efforts will be eroded, even when there is ample funding. This has given rise to the strategic management of resistance to change which has now evolved to the fostering of a staff culture as much as communities that embrace change.

Irrespective of which definition of innovation is used, the creative application of technology, data, forms of engagement, and partnerships to improve any aspect of a local government is considered core to being a smart community. Local governments within Canada are in a unique position to embrace innovation and work together to create a better place for Canadians. This national advantage comes from a conducive environment for embracing new technologies; access to a diverse entrepreneurial mindset; the enablement of managers, staff, citizens, and community partners to further change in meaningful ways; and, the presence of programs, be they provincial, territorial, or federal, that encourage data and technology innovation.

HOW MNP DEFINES A SMART COMMUNITY

The foundation of a smart community lies with the recognition that local governments are only one aspect of an ecosystem that is marked by engaging with citizens on all levels, working with partners who can collaboratively advance initiatives and data-driven decision making. In addition, all aspects of security, privacy and ethics must be considered within this ecosystem for it to be considered beneficial to society.

Smart communities are user-centric, with citizens being singularly important to success. Smart communities also serve businesses, visitors, people who work in the community but live elsewhere, those who live in the region but use community facilities sporadically and the marginalized.

Smart communities must do several things in order to fulfill the expectations of all these interests:

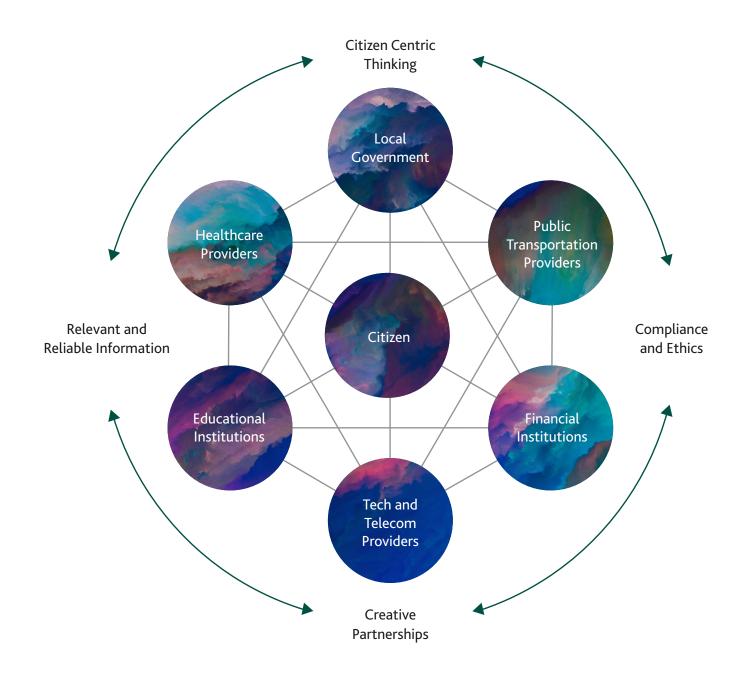
- Define a clear direction for the community that includes setting out a vision and a strategy to realize it.
- Protect the interests of citizens while drafting new regulation that allows the community to become a hub for innovation and encourage the entrance of new business and business models.
- Develop and maintain modern transportation infrastructure, energy grids and reliable digital networks.
- Create partnerships with a diverse range of parties to deliver innovative solutions.

Correspondingly, citizens have multiple expectations in the context of smart communities:

- They expect good quality of service, availability of information, access to digital service platforms, reasonable waiting times and affordable fees for services provided.
- As tax payers, citizens expect that local governments manage and spend tax money efficiently.
- Citizens expect to be able to obtain certain services when needed, such as transit, and to enjoy a good quality of life, green areas and clean air.
- Citizens expect that elected politicians have a clear vision for the community and fulfill their commitments.

Taken together, these principles and actors guide the strategy and roadmap for advancing a smart community.

FIGURE 1 - MNP'S DEFINITION OF A SMART COMMUNITY





Determining where you are on the journey to becoming a

SMART COMMUNITY

Every day, examples of the innovative use of technologies and data by local governments within Canada and around the world are shared. Some are simple uses of existing platforms while others are more complex partnerships with high capital investment requirements. Assessing maturity within six areas can help guide each local government to understand where to start. It is worth mentioning that local governments may be at differing levels of maturity across these six areas. This is usually the result of areas evolving independently from each other in an environment with no formal innovation strategy or roadmap.

SMART COMMUNITY JOURNEY









Initial

Operational

Transformative

Disruptive

Engaging Citizens

Developing an Innovation Culture

Understanding Privacy and Ethics

Ad hoc and inconsistent approaches to citizen engagement across the organization that are largely compliance based.

Repetitive, documented approaches to citizen engagement that are aligned to the current plans of the organization.

Coordinated and consistent organization-wide adoption of leading practices for citizen engagement which allows for diverse voices to be heard in a way that is meaningful and accessible.

Recognition that citizen engagement improves the achievement of the organization's strategic goals and citizen engagement may be best done through alternative means, such as external partnerships.

Innovation is understood to improve processes and offer better citizen service.

Pockets of innovation occur in a siloed approach with no formal organizational plan or vision.

Innovation is stated as a cultural value and the application of new ideas to traditional practices is encouraged. Expertise in strategic areas is developed in-house or acquired externally.

Innovation is the cultural norm. Initiatives are managed by an Innovation Office sponsored by a project champion. Creative service models and partnerships are embraced. Tolerance for failure is high and accepted as a prerequisite to advancing and meeting citizen expectations.

Issues and challenges regarding data privacy, ethics, and relevant government regulations are understood in a general way.

Efforts are focused on developing early stage frameworks, processes, and policies that aim to match citizen's privacy and ethics' expectations and government regulation.

Application of targeted initiatives based on an assessment of risk. Proactively developed processes to identify considerations and exceed citizen's privacy and ethics expectations and government regulation.

Expanded organizational views on what privacy means and ethical requirements which also include abroad base of partners. Developed intellectual thought leadership on how to ensure citizen privacy expectations and evolving government regulations are met in an uncertain future.

Relationships are ad hoc and formal partnerships are infrequent.

Pilot partnership initiatives are undertaken on an opportunistic basis. Success is varied and project outcomes often unclear.

Broad engagement with a wide variety of stakeholders is occurring. Local government staff consistently consider how to work with partners to achieve goals.

Advanced collaboration through shared outcomes that drives innovation and transcends organizational boundaries.

logy Developing Creative Partnerships

Embracing Data and Technolo

Connecting Strategy to Execution

No portfolio management or categorization of investments. Focus is largely operational and project based. No overall roadmap for innovation (including digital transformation) exists yet.

Limited portfolio management within siloed departments and areas. Limited tools and capability. Focus is largely operational. A vision and strategy may be established by siloes still exist in practice.

Maturing portfolio management practices and capability. Portfolio managers help with cross-integration of projects into programs. Investments are operational and transformational with some disruption. An innovation vision, strategy, and roadmap are in place at an organization-wide level.

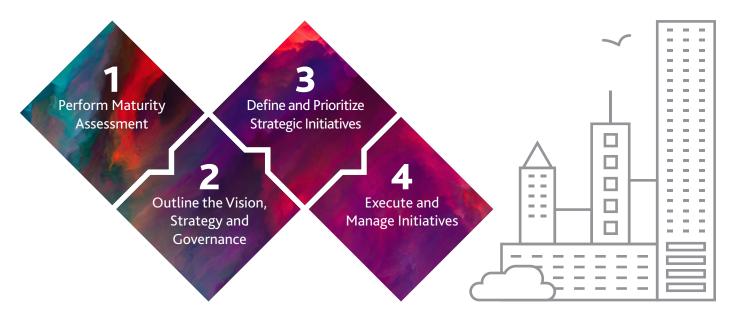
Investments in platforms are made to enable future innovation. There is a formal consideration of a range of measures that are financial and non-financial in nature (e.g., customer experience or accessibility and engagement) as well as strategies and organizational priorities. The existing innovation strategy is optimized and evolves based on clear evidence of impact relative to local government aims.

Data management and adoption of technology is based on historic models. Tools and techniques are siloed within various departments or areas. Data governance processes are beginning to be developed. Focused, organization-wide initiatives are prioritized above individual departmental and area needs. The formal management along with use and application of data to solve problems is well understood. Selective use of emerging technologies adopted in conjunction with community partners.

Data as a strategic asset is embraced. Cross-organizational data sharing to solve problems occurs. Adoption of emerging technologies is visible to citizens and funded through capital budgets and partnerships.

BUILDING YOUR ROADMAP TOWARDS AN INNOVATIVE SMART COMMUNITY

Delivering innovation not only requires creativity but also discipline. Without discipline, innovations cannot deliver sustainable value to a local government and are often treated as independent efforts separate from the organization. Developing a holistic innovation approach and roadmap will require commitment from all levels of the local government and should include the following steps:



Steps:

1. Perform a Maturity Assessment:

- a. Determining the maturity levels of each of the relevant dimensions will help guide a local government on where to start.
- b. Completing the maturity assessment will set a strong baseline from which communities can measure and track progression on specific areas over time.

2. Outline the Vision, Strategy and Governance:

- a. Defining a vision for the innovation program so that initiatives are prioritized based on a common understanding of outcomes and benefits.
- b. Outlining a strategy that aligns with the established vision.
- c. Defining robust governance practices and outlining roles along with responsibilities.
- d. Establishing a framework for initiating and managing partnerships with other entities and organisations.

3. Define and Prioritize Strategic Initiatives:

a. Using creative methods to meaningfully engage employees, residents and stakeholders to generate ideas and define possible initiatives (e.g. design thinking workshops).

- b. Defining which strategic initiatives will be pursued by creating a business case for each:
 - i. Perform a value assessment to measure the benefits of the proposed initiative, including the client experience (e.g., respectful treatment, ease of service and information accessibility and extent to which needs are fulfilled), financial implications like cost savings, gained employee efficiencies and economic along with social and environmental impacts.
 - ii. Perform a technology assessment which includes a fit-gap analysis, change management strategy and project timeline.

4. Execute and Manage Initiatives:

- a. Validating ideas by developing prototypes. This will allow for the testing of initiatives as well as the means to iterate and strengthen them.
- b. Implementing initiatives at a manageable scope as a proof of concept and then scaling of the validated initiatives to other parts of the organization and the community.
- c. As initiatives are deployed, progress is tracked through performing maturity re-assessments.

CASE STUDIES

City of Ottawa (2020 pop. 934,243)



Business problem: The City of Ottawa wanted to invest heavily in Smart City initiatives, but the city's approach to innovation was siloed by department and focused heavily on operational improvements versus a desired move to digital services and innovation.



Solution: The city worked with the information and communications technology sector, businesses, Invest Ottawa - its economic development agency, academia and many others to create its Smart Cities 2.0 Strategy, a multi-year roadmap of priorities and investments for innovation. The goal was to improve access to city services by leveraging and rapidly piloting new technologies using a common platform. Their strategy focused on three key themes: delivering a mobile client experience, developing analytics driven and responsive operations and building intelligent infrastructure.

To help guide their decision-making and find areas that will have the largest impact for citizens, the city worked closely with MNP to develop a Digital Services Strategy and Data Analytics Strategy.



Outcome: The Digital Services Strategy in combination with the Data Analytics Strategy allows the city to confidently make impactful and efficient investment decisions. Their path to innovation is clear and the city is in process with implementing new digital solutions for elected officials, by-laws and regulatory services, community and social services, public information and media relations, public health on a new digital cloud platform.

City of Vaughan (2019 pop. 323,223)



Business problem: The City of Vaughan wanted to improve the services it provides to its citizens and other members of the community. Nevertheless, it lacked a structured approach to innovation and digital transformation that would enable them to achieve the desired service levels.



Solution: Partnering with MNP, the city performed an assessment of the current state of citizen service across the city. The insights obtained during this initial exercise were leveraged to develop a digital strategy and implementation plan that provided a vision for the future state of the citizen experience, including improvements to services and processes.



Outcome: The digital strategy and implementation plan provides a roadmap for the deployment of initiatives aimed to enhance citizen's digital experience and online services, such as the implementation of a citizen relationship management solution. Additionally, an innovation program was established allowing the city to follow a formal and structured approach to innovation.



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