

Calgary



Smart Calgary Strategy

(draft: Feb 2023)



“Smart Cities achieve meaningful outcomes for residents using data and connected technology. However, it isn’t just how The City of Calgary delivers services or solves community problems, it’s also how we enable businesses, entrepreneurs and communities to create solutions.”

- Jan Bradley, Chief Information Technology Officer, The City of Calgary

Purpose

The Smart Calgary Strategy enables The City to make people-centered, future-focused decisions for our corporation and community, to build the capacity to prepare for these changes, and help inform investment decisions. The strategy serves as an ambitious, achievable, and measurable overarching vision for The City of Calgary to ensure The City is well positioned to meet future needs. This work will also produce a high-level implementation work plan of strategic vision and priorities to deliver.



In a world of many competing priorities, this strategy serves as the “north star” to help The City prepare for the ever-evolving future of technology and data. It lays out how we set goals and priorities, determine actions to achieve and secure resources to meet those goals. It will be reviewed annually or as needed to ensure the priorities are meeting Calgarian's needs.

Introduction

In alignment with The City's "Rethink to Thrive Strategy" directive to implement different ways of working while remaining nimble, there lies an opportunity for The City to embrace experimentation and consider a different approach – with a **Smart Calgary Strategy**.



This opportunity aligns with **The City's vision** by:

- working with our community to find smart city solutions
- fostering positive, collaborative, and productive relationships
- being innovative, tech savvy and future-focused
- being champions for business success and enabling others to innovate

This opportunity aligns with The City **Information Technology's subservice** of Technology Infrastructure for Future Economic Development, by:

- researching and identifying new and emerging technologies with City business units to enhance City services and experiences
- promoting connectivity between City services and the broader community
- providing proof of concept and implementation guidelines for new and emerging technologies while expanding infrastructure to support network / connectivity required for emerging technology





Definition

There are many definitions of what a smart city is, but generally ...

A smart city improves the overall quality of life for people at home, work and play by integrating technology and data solutions in community building.

Other supporting definitions include ...

In the updated **ISO standard 37106:2021**: Sustainable cities and communities – Guidance on establishing smart city operating models for sustainable communities -- “a city that dramatically increases the pace at which it improves its sustainability and resilience by fundamentally improving how it engages society, how it applies collaborative leadership methods, how it works across disciplines and city systems, and how it uses data and integrated technologies in order to transform services and quality of life to those in and involved with the city (residents, businesses, visitors).”

The **Government of Canada** defines it as “a city where all sectors and residents collaborate in mobilizing data and technologies to develop their communities through fair, ethical, and transparent governance that balances economic development, social progress, and environmental responsibility”.

Overview

The City of Calgary has been investing in digital infrastructure to deliver smart city initiatives since 2000. Information Technology has led the Smart Cities initiative since 2017, including a proposal for the federal Smart Cities Challenge in 2018-2019. This work engaged both internal (cross-corporate) and external stakeholders (Calgarians, academia, civic partners, non-profits) to create a proposal on behalf of the Calgary community. This work set a solid foundation for today. The successful Living Labs program, which offers access to City assets (physical, digital, data) to businesses and academia to test and try their products and research, is a direct result of work done through smart cities.

Our world is undergoing significant shifts (public health, economic, technological, environmental and social crises) and it is more important than ever for The City of Calgary to be ready for the velocity of complex change. We are in the early stages of disruptive technologies influencing the way all sectors and individuals operate.

Information enables us to create benchmarks and find insights to improve City operations and public service offerings through better data-supported decisions. However, this can come with some challenges, such as corporate-wide data integration, data privacy, individual's rights to information, and the security of that information.



Benefits of a Smart Calgary Strategy

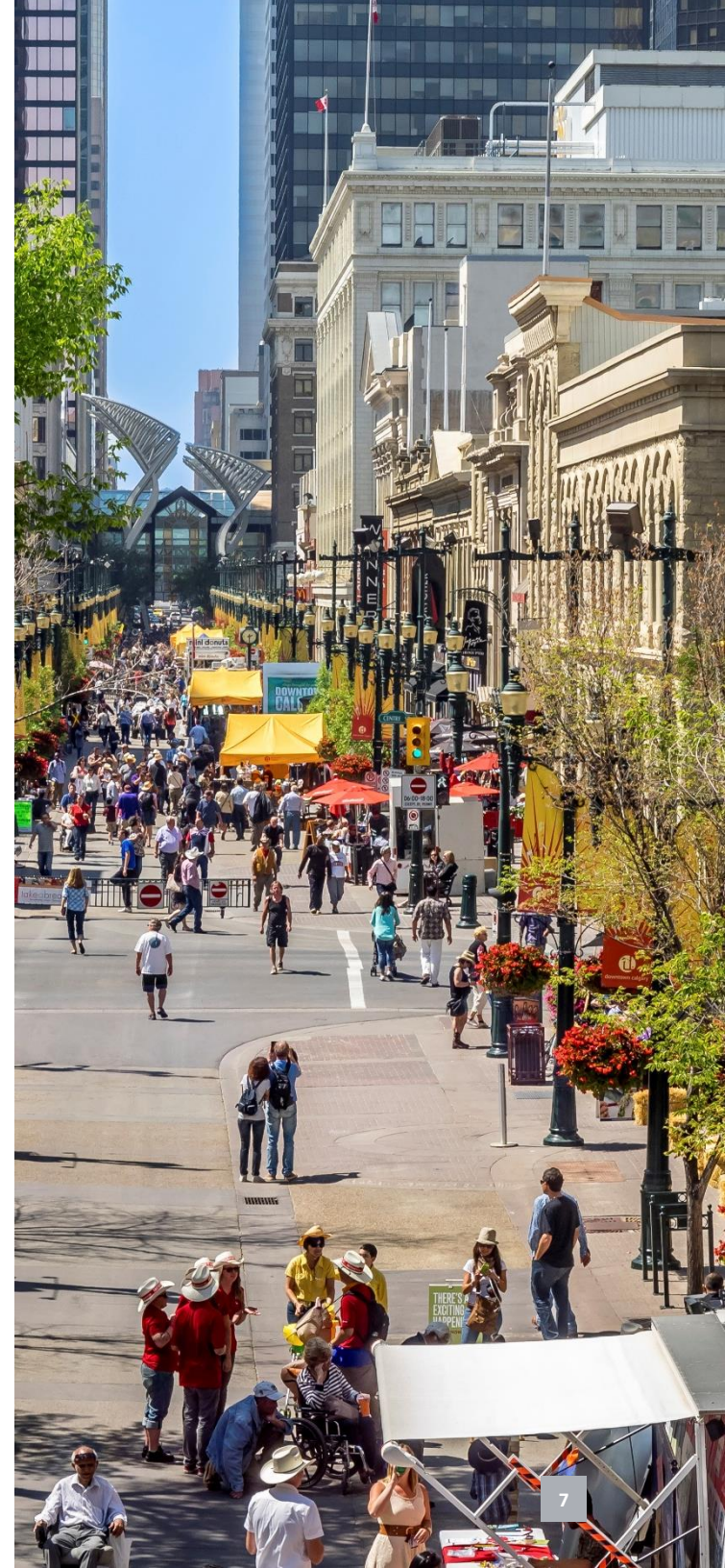
Ultimately, taking a smart cities approach has significant benefits, including:

- Increased connectivity
- Expedited technological innovation
- Increased social innovation
- Improved service delivery
- Increased efficiencies
- More economic development opportunities

Deloitte states in their article *Future-proofing cities in a post-pandemic world*, that with the velocity of change cities are experiencing, the ability to future-proof smart cities is key.

They recommend the following priority aspects to build resiliency:

- **Nimbleness:** The way a city acts and reacts to situations with speed, decisiveness, and changes direction as the situation demands.
- **Scalability:** A city's ability to respond to an unanticipated, and sometimes exponential, increase or decrease in demand in a short period.
- **Stability:** A city's ability to remain firm in the present with its operations while also experimenting and scaling solutions for the future.
- **Optionality:** The way a city can augment its operations and services by tapping into a broader ecosystem of players, including the private sector, start-ups, technology companies, academia, and non-profit organizations, and in turn, allowing it to be even more nimble, scalable, and stable.





Vision: Calgary is a **smart community** that is a great place to make a living, a great place to make a life.

Mission (external): To make Calgarian's lives better every day by coordinating smart city efforts, harnessing the power of data and technology to connect, engage and future-proof our community and services, and collaborate and share our successes with the world.

Mission (internal): To dramatically increase the pace at which The City improves resiliency and sustainability by providing technological tools, resources, expertise and a collaborative environment to accelerate the transformation of services, reduce risks from disruptions, and improve quality of life for our community.

Guiding Principles/Values:



People first

Everything we do must have a direct outcome or benefit tied to Calgarians' needs.



Co-creation

We work with Calgarians and communities to understand their needs and design solutions together.



Evidence based

We use information and evidence to get ahead of Calgarians' needs before they're even asked for.



Fueled by technology

We solve community problems by deploying technology where needed so Calgarians can be connected and interact where and when they want.



Open to innovation and experimentation

We open our eyes and infrastructure to new and innovative ideas to find the most efficient and effective solutions.



Privacy and security are crucial

We build trust with Calgarians and care about their privacy and security.



Prioritize climate impacts

We put green initiatives and climate impacts at the forefront of projects and investments as part of our Smart City imperative.

Strategic goals

Taking a nimble and agile approach enables us to keep up with the rapid pace of change and to create a coordinated approach to smart cities projects and investments with these strategic goals:

Calgary has a thriving, diverse and stable economy

Support Calgary's economic diversity opportunities and build capacity for others by reducing barriers, creating partnerships, empowering our innovative ecosystem and coordinating support mechanisms.

All Calgarians have digital equity

Ensure programs and supports are in place so that Calgarians have access to the devices, internet connection, and skills needed to connect online the way they want to

Calgary is recognized as a Smart City

Share Calgary's smart city success stories with the world to increase business attraction, retention and reputation.

Our community's Smart City needs are met

Co-create solutions while listening to Calgarians with an ethical approach to privacy and security.

Strategic priorities

Through Strategic Foresight exercises, four key strategic priorities were identified.

1. **Digital equity** Ensure digital equity for all Calgarians. Build a collective, community approach to ensure Calgarians have the hardware, access, and digital literacy skills they need to fully engage and participate online in our community, economy and society.
2. **Experimentation** Support and enable an experimental culture and approach to solving challenges with technology solutions. The Living Labs program and the implementation of the Technology Integration Centre are leading the way.
3. **Storytelling and engagement** Share Calgary's smart city success stories with our community. Collaborate and engage with the global community for smart municipal solutions.
4. **Partnerships and regional collaboration** Build partnerships and collaborate within our community and surrounding regions to leverage co-creation opportunities.

Conclusion

The Smart Calgary Strategy serves as the “north star” to help guide our community through the complexity and shifting changes of the world together with a smart city lens. Ongoing learning, connections, collaboration and engagement are key to continued improvements and setting the stage for success as a smart community.

These guiding principles remind us of how we will approach smart city obstacles and challenges by remaining people-focused, taking an evidence-based, co-creation approach with our community, embracing experimentation in technology solutions while ensuring crucial climate, privacy and security impacts.

As we move forward, a workplan will be built using this strategy as a blueprint. We will also determine a measurement mechanism to create meaningful metrics for success.

We look forward to working as a community to continue to build a Smart Calgary that is a great place to make a living, a great place to make a life!

