

# Canada's 'Amazing Race' of Smart Cities

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EDAC - Sunday, September 9, 2018



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# The World is Evolving

## Oslo

- **65,000 smart LED lights** reduces energy use and monitors area
- **License plate detectors** calculate congestion
- **Waste used as primary fuel**

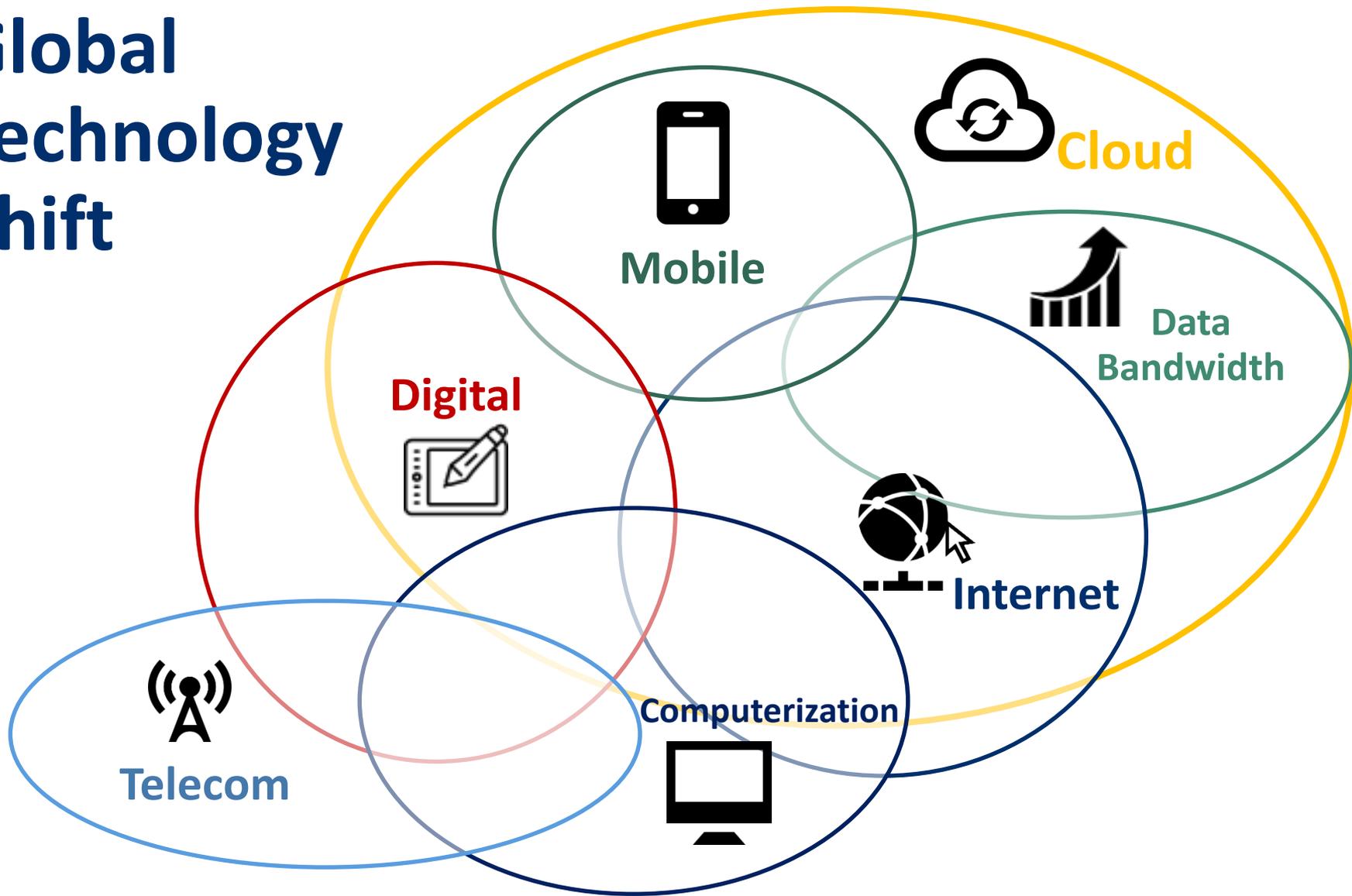
## Barcelona

- **Smart parking and traffic systems** to monitor congestion
- **Solar energy**
- **Transit app uses traffic cam** to help navigate clearest route
- **Open Data BCN service – completely open to the public**

## Singapore

**Data** from parking, lighting, waste disposal, etc., **monitored through sensors** provided by private companies

# Global Technology Shift



# Three Generations of Smart Cities

1

## Tech-Driven

- **Led by tech providers**
- Encourage city adoption of their solutions.
- Cities not equipped to properly understand the implications of the technology or how they may impact citizen quality of life.

2

## Tech-Enabled, City-Led

- **Led by cities**, as opposed to tech providers.
- The municipality takes the lead in determining what the future of their city is.

3

## Citizen Co-Creation

- **Citizens co-create with municipalities**

# Early Adopter of Startups/ Smart City Technology

Enabling **pay-by-phone** parking



Monitoring **pavement** condition

Piloting technology to provide **real-time transit route information**



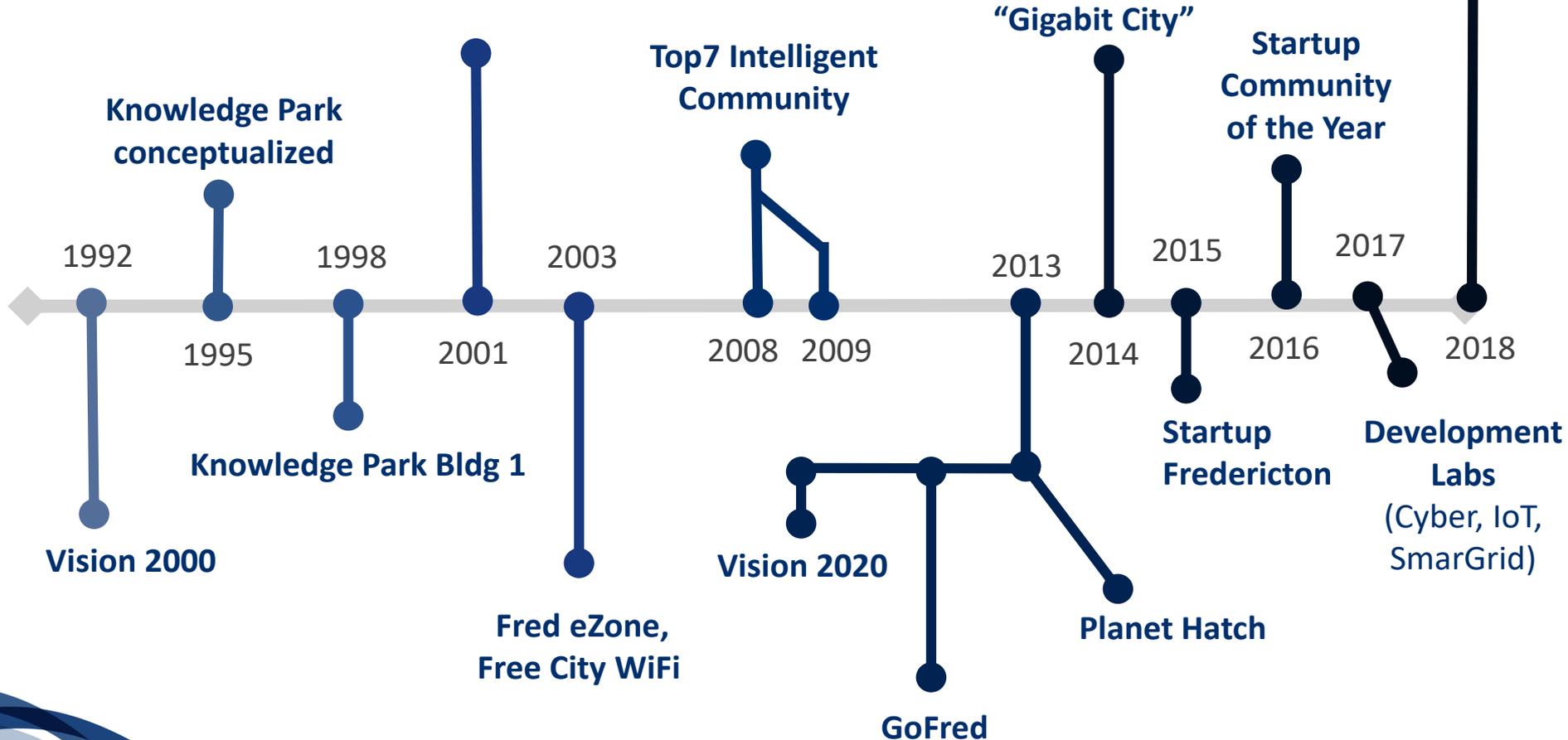
Piloting **automatic door-opening app** in City buildings to improve accessibility

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# Smart City History

**TODAY!**  
**Smart Cities Challenge**

City-owned fibre network,  
e-Novations



The City of Fredericton and Saint Mary's First Nation's submitted a **joint application** for Infrastructure Canada's Smart Cities Challenge

# SMART CITIES CHALLENGE

[#smartcitiesCanada](https://twitter.com/smartcitiesCanada)

Application centered on using data & technology to improve quality of life, based on **wide-ranging public engagement & guidance from the Smart City Task Force**



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Infrastructure Canada received **more than 200 applications** from communities across Canada



Total of **20 finalists** chosen to compete for four prizes  
(one \$50 million prize; two \$10 million prizes, one \$5 million prize)



**City of Fredericton & Saint Mary's First Nation**  
**selected as a finalist for the \$10-million prize level**  
(one of 10 communities competing for the two prizes at this level)



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# Smart City Task Force

City of  
Fredericton

Saint Mary's  
First Nation

Fredericton  
Public Library

Stan Cassidy  
Centre

University of  
New Brunswick

New Brunswick  
Community  
College

Ignite  
Fredericton

Greater  
Fredericton  
Social  
Innovation

Community Action  
Group on  
Homelessness

Deloitte

Rogers  
Communications

Opus  
International  
Consultants

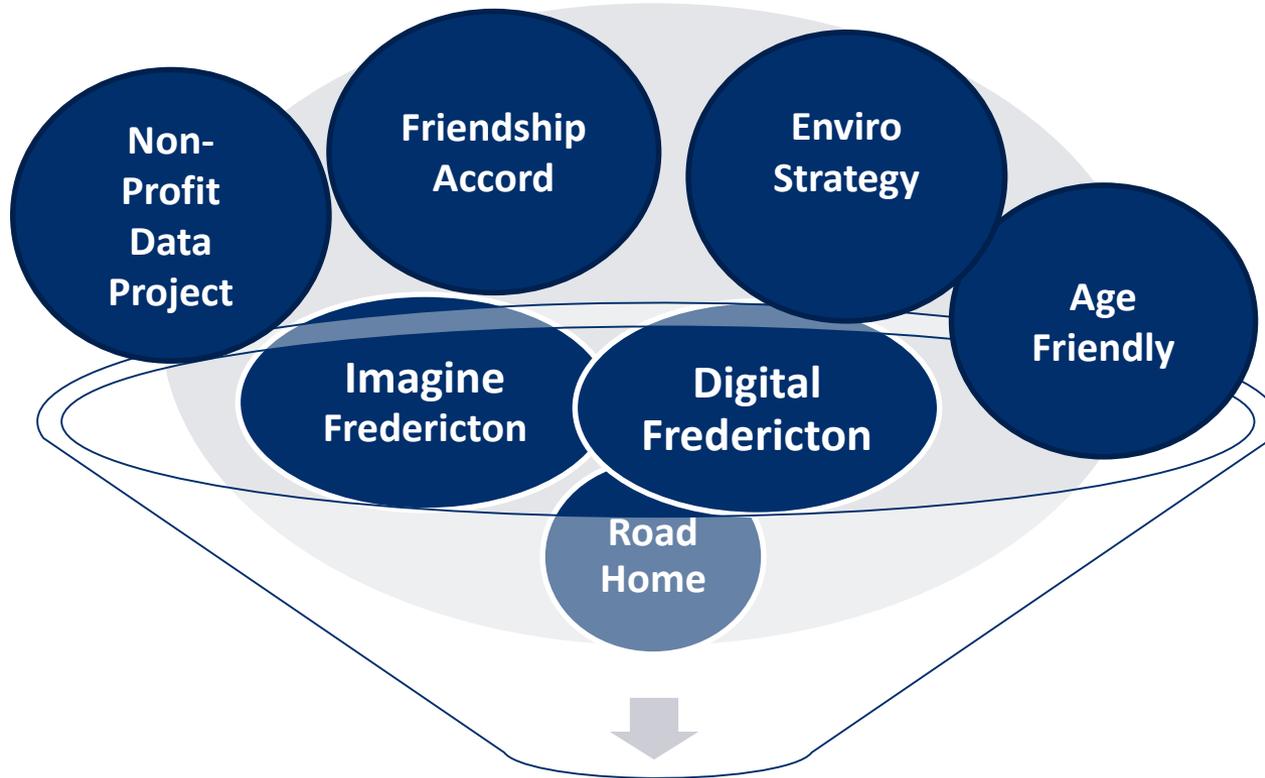
HotSpot Inc.

Appdigenous

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# Building on Existing Plans



5000+ participants



Smart  
Cities Challenge

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# + Engagement Process = 31% of population

## Target Audiences:

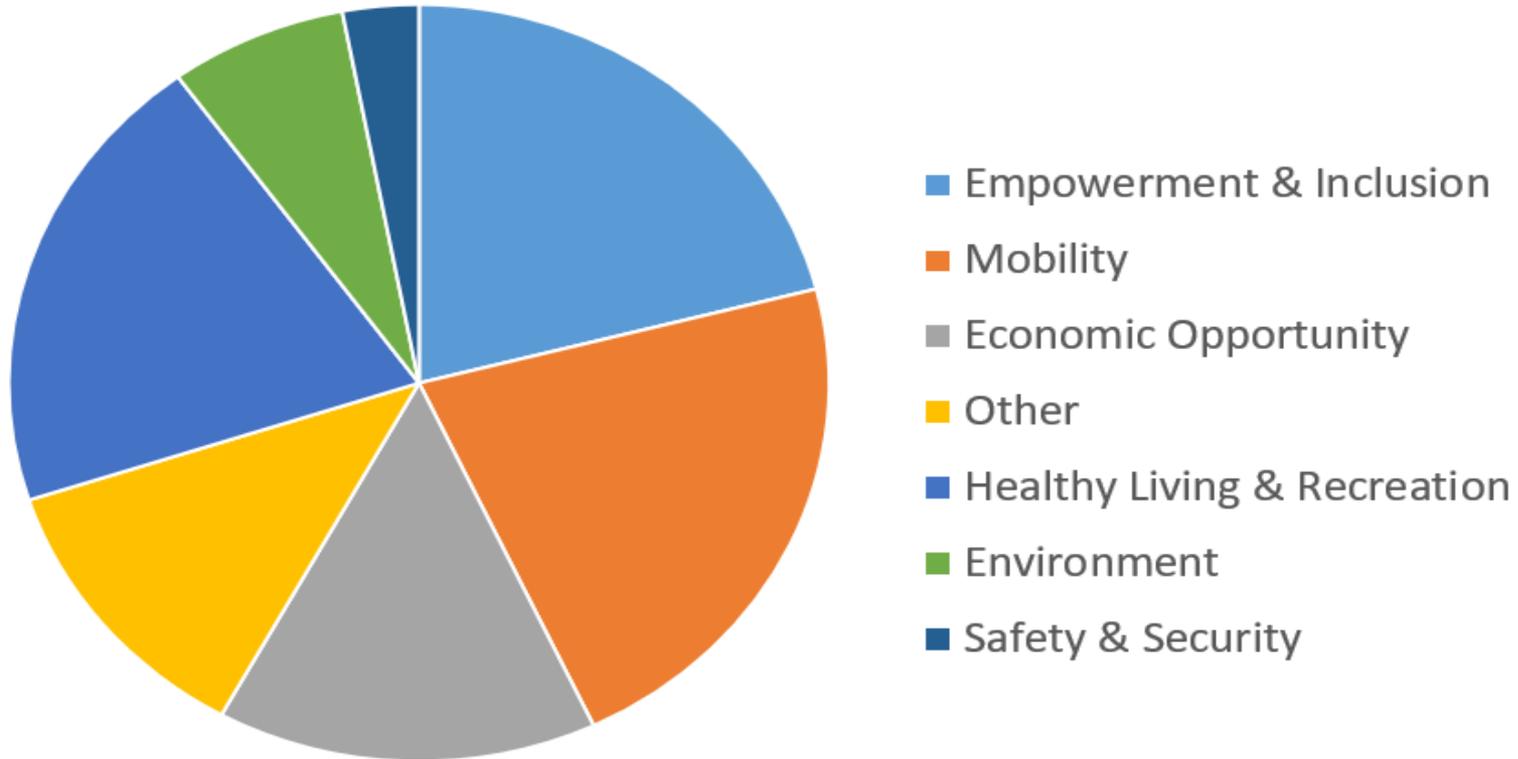
- Public at-large
- People with disabilities
- Newcomers
- Students K-12 & post-secondary
- Seniors
- Homeless & at-risk
- Business community



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# “The Survey Said...” Based on 6 Focus Areas



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# Our Challenge Statement & Focus Area 'Empowerment & Inclusion'

My city does not recognize me or connect me to what matters most; **Fredericton will collaborate with First Nations to create an accessible, welcoming, supportive city for youth, newcomers, and an aging population**, empowering everyone with a Personalized Inclusion Plan that connects people to create an exceptional quality of life.



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# Grant to Develop Proposal

Receiving **\$250,000** grant to explore **five pilot projects** & develop a **fully-implementable final proposal**

Each pilot project aims to create enhanced data tools to **identify citizens' unique needs & connect them to appropriate services & resources**



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# 5 Pilot Projects, Goals & Committees

## Digital Fredericton

to allow the City to **recognize citizens & connect them to the services/information that matters**

## Appdigenous

to address **full participation & independence of seniors & those with physical disabilities**

## Road Home Digital Platform

to help **end chronic homelessness & reduce the costs of homelessness**

## Non-Profit Data Collaboration

to improve **service delivery & sustainability of local non-profit organizations**

## Real-time Census / Smart City Dashboard

develop customer segmented inclusion plans by target audiences **to deliver targeted services**



# Digital Fredericton

Creating Canada's first cloud-hosted municipal digital core as well as e-government services & mobile apps.

## Outcomes:

- **Make it easier for citizens to access City services** & for the City to push out meaningful information to citizens
- **Create a more 'personal city'** though improving the efficiency & customer information & redirecting freed-up staff to customer-facing roles
- Increase **newcomer retention & decrease youth out-migration**

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# Appdigenous

Hardware & mobile applications that improve accessibility for persons with physical disabilities.

The technology will allow for self-identification of disabilities & gathering of data about current accessibility of public locations.

## Outcomes:

- Promote the **full participation & independence** of senior persons and those with physical disabilities
- **Develop more accessibility options** in public buildings, public transit & pedestrian routes

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# Road Home Digital Platform

Creating **common data platform for social service providers & increasing adoption of shared system; compile data sets & analytics that improve research & help create Personal Inclusion Plans for most vulnerable population.**

## Outcomes:

- Reduce **average length of stay** in emergency shelters
- Reduce number of people experiencing **chronic and episodic homelessness**
- Reduce **number of people who become homeless**
- Reduce **cost of homelessness** (e.g. emergency services)

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# Fredericton Non-Profit Data Collaboration Project

Providing non-profits with processes & templates to collect, integrate, & analyze **more meaningful, secure data**; building collaboration on data use & **community capacity to collect data, establish measures & integrate with other public data.**

## Outcomes:

- Better inform decision-making, policy development, program design and **help optimize service delivery**
- In the long term, **enable non-profits to identify gaps in services and successes and align their services** with municipal and provincial priorities to address long-term problems

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# Real-Time Census/Smart City Dashboard

**Collecting & analyzing data from citizen segments.** Combining data to develop detailed info about our citizens to create **Personalized Inclusion Plans for all segments and profiles.**

**Privacy operating protocols will also be developed to protect against the misuse of personal data.**

## Outcomes:

- **Better informed decision-making** supported by citizens' core needs
- A more proactive & inclusive approach in **servicing the City's customers and empowering citizens, creating a voice & channel for participatory democracy**

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# Issues to Address Across All Projects

- **Privacy issues**, security & 'Big Brother' fears
- **Adapt to new technology**, get in touch with new forms of social media analysis, DMPs, CRMs and advanced data analytics technologies
- **Restructure internal & external organization relationships** to share data and reconsider how information circulates
- **Search carefully to access the right data**, finding the right data sets and integrating them in a way that's practical takes a lot of work



# The 'Amazing Race' is on!

Two of these ten finalists will be awarded \$10 million!

- **Fredericton & Saint Mary's First Nation, NB**
- Airdrie and Area, AB
- Communities of Nunavut, NU
- Côte Saint-Luc, QB
- Greater Victoria, BC
- Guelph and Wellington County, ON
- Parkland, Brazeau, Lac Ste Anne & Yellowhead Counties, AB
- Richmond, BC
- Saskatoon, SK
- The Pas, Opaskwayak Cree Nation, and Kelsey, MB



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This is an incredible opportunity to build a **Smart Community that will recognize, connect and enable all citizens** across generations and cultures, in unique and different ways that are meaningful to them.



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# Thank You!

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