

WHAT'S A SMART CITY?

Quayside Civic Labs

1

The Quayside Civic Labs Info Sheet Series

This is the first in a series of Info Sheets Waterfront Toronto has developed to support a meaningful public discussion about the potential future of Quayside – specifically, its digital future.

What does that mean exactly? This Info Sheet explains the ways and places that technology can influence a city. Info Sheet 2 focuses on digital laws and regulations and Info Sheet 3 looks at data collection and use.

A new kind of city

A smart city introduces something new to cities: *digital technology aimed at improving decision-making and service delivery.* Smart cities have ubiquitous networks, internet-connected sensors that collect data, computers that receive, analyze, and store data, and services that respond to that data. Just like smartphones or smart thermostats, the big idea behind smart cities is that data can enable new services that can make life better. The picture below shows some examples.

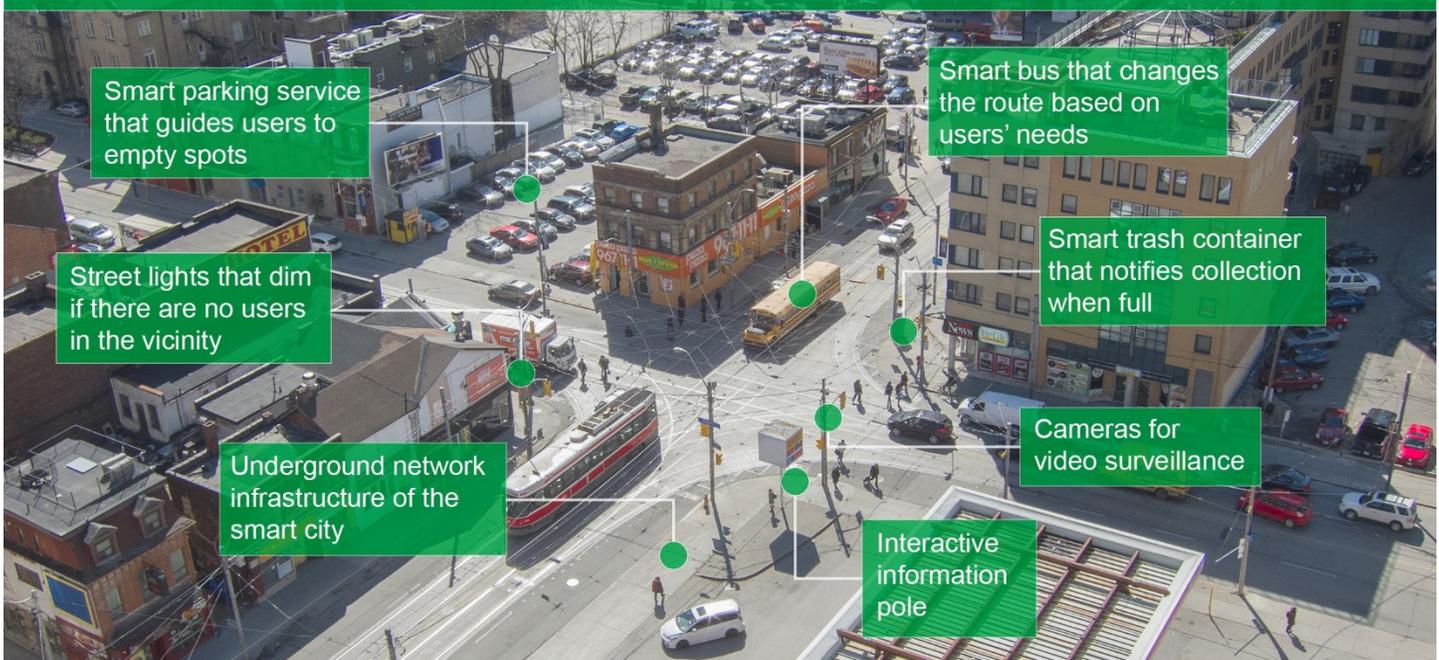
Cities around the world in Europe, Asia, and North America are “going smart.” In Trikala, Greece, smart city screens tell citizens about the availability of parking spaces and the town hall’s monthly budget. In Glasgow, energy costs have gone down as the result of streetlights that dim when there is no activity around them. Barcelona, Singapore, Vienna, San Francisco, and Copenhagen are all implementing smart sensors and big data analytics to optimize management of city services from trash collection to transportation to air quality.

A new kind of discussion

Smart cities introduce a host of new opportunities and risks for city building, provoking the need to have new conversations about the consequences associated with different choices. Waterfront Toronto is working with some of Canada’s leading thinkers – governments, academics, industry leaders, advocacy organizations, and others on its Digital Strategy Advisory Panel – to ensure that decisions related to the digital future of Quayside are based on a solid understanding of these consequences. But that alone is not enough. Waterfront Toronto’s commitment to working in the public interest means that public feedback about choices and consequences is also critical.

Read on to find out what feedback Waterfront Toronto needs from you. To learn more, visit our website: www.waterfrontoronto.ca.

A Smart City could include:



A recent history of Quayside (and the introduction of Sidewalk Labs)

About Waterfront Toronto Waterfront Toronto was created by the three levels of government to act as a catalyst and steward for the revitalization of Toronto’s waterfront. Early in its existence, the organization identified ambitious goals, setting high standards for innovation in environmental sustainability, urban design, public realm design, and affordability. Guided by these goals, Waterfront Toronto helped shape the transformation of areas like the West Don Lands, East Bayfront, Queen’s Quay, and more.

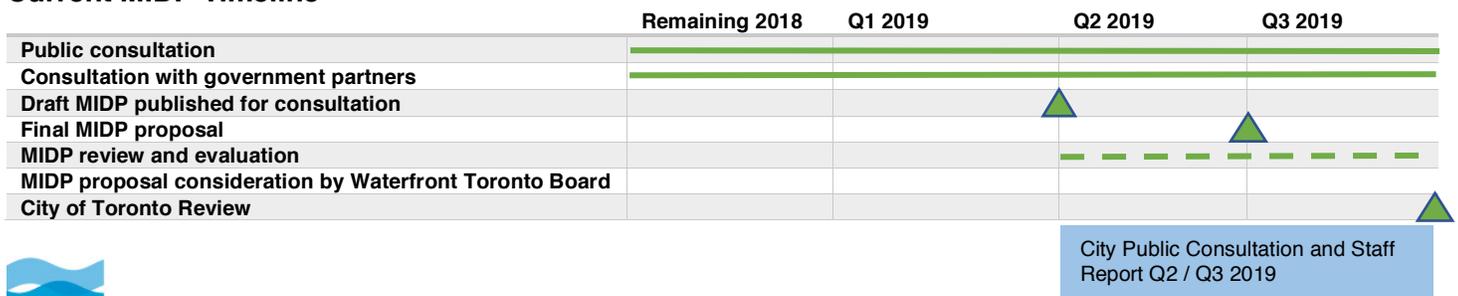
About Quayside and finding an “Innovation and Funding Partner” Waterfront Toronto owns a large part of the 12-acre parcel of land at the eastern edge of the central waterfront known as Quayside. In 2017, looking to once again raise the bar for innovation in city building, Waterfront Toronto issued a Request for Proposals seeking an “Innovation and Funding Partner” for Quayside. The Request for Proposals sought a unique partner, one with invention ingrained in its culture. Waterfront Toronto was not looking for a “smart city” vendor, but a company or consortium that would provide broad perspectives, deep expertise, and significant financial resources to be able to meet the ambitious goals outlined in the RFP.

About Sidewalk Labs Six companies responded to the RFP, and after a rigorous selection process, overseen by a Fairness Monitor, Sidewalk Labs (an Alphabet company and sister company to Google) was awarded the right to create a plan for Quayside. The Sidewalk Labs proposal included ideas that were familiar — high-quality public spaces, a focus on public transit, walking, and cycling — and ideas that were unique, most notably a digital element that would make Quayside a community that would benefit from technology.

About the Plan Development Agreement (PDA) Waterfront Toronto and Sidewalk Labs created a Plan Development Agreement (PDA) to guide their working relationship, including roles and responsibilities related to developing the plan for Quayside. The PDA includes a schedule that identifies initial digital governance principles that would serve as guidance during the preparation of the MIDP proposal.

About the MIDP Sidewalk Labs has been working on a Master Innovation and Development Plan (MIDP) plan for Quayside that will ultimately be submitted to Waterfront Toronto’s Board of Directors for review and consideration. Waterfront Toronto has been developing a rigorous framework to evaluate the MIDP. Sidewalk Labs will submit the MIDP to Waterfront Toronto staff, who will evaluate the MIDP in detail and make a recommendation on approval to the Waterfront Toronto Board. Any implementation of the ideas in the MIDP would be subject to Waterfront Toronto’s Board approval and negotiation of further implementation agreements.

Current MIDP Timeline



What does “smart city” mean?

Smart cities apply digital technologies to entire neighbourhoods, offering a range of urban services like weather protection (awnings that extend when sensors recognize that it’s raining), responsive transit service (if sensors recognize a group of people is waiting at a transit stop), water management (such as only triggering sprinklers if sensors read that soil is dry), and more. Smart city advocates see data as another utility — like water or electricity — that can help improve urban life.

Smartphones and smart thermostats can help us better understand smart cities: they use sensors, the internet, and data to provide “smart” services. In order to receive these services, users must accept terms of service that consent to the company or organization that makes the product collecting and using the data. Many people accept these terms, excited to receive the benefits the products offer (though they may not understand or pay close attention to terms of service they are agreeing to); others do not, concerned about the amount of information the company or organization could collect about them, how secure the information is, and what other uses the company may have with the data. The table below shares more detail about these products and the spectrum of opinions about them.

What the product is	Example of smart service	How it works	Example of what gets people excited	Example of what concerns people
Smart thermostat 	Automatic temperature control based on a user’s location	A user gives the thermostat permission to monitor their location using their smartphone and modifies the temperature based on their movements.	The thermostat monitors when the user leaves work and turns the furnace on at their home to make sure the space is comfortable when they arrive, therefore saving money, energy, and reducing unnecessary energy use.	The company that makes the thermostat collects and stores data about the user’s location or schedule, which could be used for things other than controlling the house’s temperature.
Smartphone 	Navigation services	A user gives the phone and an application permission to see their location and destination. The application helps the user navigate to their destination.	The smartphone and application can read traffic patterns in real-time and help them find the most efficient route to their destination, saving them time.	Private companies amass large datasets about public traffic patterns and then sell it to local governments to inform transportation planning, charging taxpayers to receive benefits from public data.

Key issues related to the digital elements of a smart city

In conversations about Quayside to date, a number of key issues have emerged, including digital laws and regulations and data collection and use. Info Sheets 2 and 3 look at these topics in more detail.

Info Sheet 2: Digital laws and regulations

Digital laws and regulations refer to the public policies and legal frameworks that regulate how individuals, governments, and corporations can collect, access, store, and use digital information and data. These policies and frameworks are important tools that governments use when striving to serve and protect the public interest as digital products and services become more integrated in people's private and public lives.

Digital Laws and Regulations matter to many people interested in smart cities because they see the Quayside proposal as initiating a new frontier in public policy and see Canada, Ontario, and Toronto's current laws as outdated and potentially insufficient to protect the public interest.

Info Sheet 3: Data collection and use

Data collection and use refers to how data could be collected and used in smart communities. Beyond environmental data (such as the temperature, current weather conditions, number of parking spots occupied by cars, etc.), there is also personal data (who is in the park, how much time did they spend there, what did they just throw into the garbage).

While some see data collection and use as being necessary to providing new services that can improve urban life, reduce the costs associated with service delivery, and reduce environmental footprints, others are concerned about issues like privacy, racial profiling, surveillance, and the privatization of public data.

What do you think?

Waterfront Toronto will be reviewing the Master Innovation and Development Plan that will be submitted by Sidewalk Labs and will need to determine how well it reflects the public interest. Our questions for you:

1. What issues would you like to see Waterfront Toronto consider as they review the digital proposals related to Quayside?
2. How do you think Waterfront Toronto can best determine what's in the public interest when dealing with the opportunities and challenges that are associated with smart cities?
3. Do you have any other feedback or advice related to smart cities that you'd like to share with Waterfront Toronto?

You can provide this feedback by emailing us at CivicLabs@waterfronttoronto.ca with a written submission. **Please send your thoughts by December 21, 2018** so that we can feed them into our decisions making process. A summary of all written feedback received will be shared publicly early in early 2019.

In addition to the Quayside Civic Labs Info Sheet series, there are a wealth of resources available online reflecting the range of perspectives and ideas that are being discussed around the world related to smart cities. We've highlighted only a few here to get you started:

Civic Tech Toronto www.civictech.ca • Cities for Digital Rights www.citiesfordigitalrights.org
Open North www.opennorth.ca • Centre for International Governance Innovation (CIGI) www.cigionline.org
Sidewalk Labs www.sidewalklabs.com • Office of the Privacy Commissioner of Canada www.priv.gc.ca
City of Toronto www.toronto.ca • Information and Privacy Commissioner of Ontario www.ipc.on.ca/
Decode www.decodeproject.eu • Smart Cities Challenge www.infrastructure.gc.ca/cities-villes/index-eng.html
Future Cities Canada www.futurecitiescanada.ca/ • Intelligent Community Forum www.intelligentcommunity.org

There are many public opportunities to learn more about the more traditional city-building elements being considered at Quayside, whether that be roads or buildings, parks or waste management, or housing and public realm. **Visit the Waterfront Toronto website to learn more:**

www.waterfronttoronto.ca

