



**SmartCities**  
Challenge - London

**#SmartCityLDN**

# Smart Cities Challenge Proposal City of London

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## Table of Contents

Community Information.....	1
Prize Category .....	1
Challenge Statement .....	2
Outcomes .....	2
Engagement .....	8
Activities and Projects.....	13
Strategies .....	18
Community Readiness.....	20
Plan for \$250,000 Grant.....	22
Partners.....	23
Letter from Mayor Matt Brown.....	25

# Community Information

**Name of community:** London

**Province/Territory:** Ontario

**Population:** 383,822

**Indigenous community:** No

## Prize Category

\$10 million (population under 500,000 residents)

# Challenge Statement

London will be the most connected, empowered and democratic city in Canada. All residents will have a strong sense of civic belonging and the ability to shape community decision-making, supported by the use of technology, data and culture of innovation.

## Outcomes

### Overarching Outcome Statement

London will be the most connected, empowered and democratic city in Canada where resident participation and decision-making shape our community, supported by the use of technology, data and a culture of innovation.

We will create a culture of resident empowerment and participation which supports continuous improvement through community collaboration. Supported by accessible technology platforms, the residents of our city will be the most connected and empowered in all of Canada. We will create a new model for democracy and public engagement; a collaborative city that puts residents first.

This is more than a branding exercise; it is about changing the roots of how we think about and implement civic engagement and information sharing in our community. Currently, barriers to civic engagement mean that resident input is not always representative of the community as a whole and is driven by complaint and problem identification instead of ideas and engagement. We will build an environment in our city where that is no longer the case. We will transform how we communicate, organize and utilize information by introducing a digital identity for residents, and change how we conduct our communications and engagement processes through accessible technology and platforms to enable Londoners to be connected, empowered and informed.

We will create a culture of participation in our city by empowering residents, strengthening community connections, and opening up greater opportunities for engagement with democracy.

### Outcome 1: Connected City

London will be a connected city where residents feel like they are part of their community and have a digitally supported relationship with their neighbourhoods, City services and broader regional programs.

A connected city improves communication between and among the City of London, neighborhood associations, residents, businesses and regional organizations. It creates a city of neighbours who will co-create and curate their own city experience.

This will be accomplished by creating a personalized digital identity platform that will be used to connect residents to the services and agencies they use frequently.

Whether they are newcomers to Canada or just new to the neighbourhood, people often struggle to find their place in a new community. It can be difficult to settle in, access relevant information, and develop connections to their neighbourhoods, city and region. To address this, part of implementing the digital identity would be an enhanced 'welcome wagon' that would allow newcomers to receive information tailored to their new location and to their interests. Personally relevant information would empower newcomers to get involved with their neighbors, access City and local services, connect with local public engagement opportunities, and make their voices heard.

The digital identity will enable the City to provide predictive recommendations about services, supports and interests within and beyond city boundaries. Our connected city will use predictive machine learning to provide recommended next services, tailoring information, collaboration opportunities and engagement requests to residents' interests and needs, as well as ensuring multi-lingual, multi-medium technology is used to deploy those communications.

The connected city will require robust and comprehensive data management policies and procedures, complimented with open data sharing with residents and regional partners. Our connected city will enable regional and local partners to plug into vast open data resources to aid in decision making.

Finally, a connected city will support all Londoners by recognizing the unique and varied ways that individuals interact with services. While the digital identity is technology-based, it is grounded in the principles of user first and user-centric design. It provides continuity and consistency in service delivery, and recognizes user choice, preference, and ability. For example, an individual may use the application directly, or indirectly through a community connector or navigator, or by accessing digital resources at a local civic space (i.e. library, community centre, etc.).

## Outcome 2: Canada's Most Democratic City

As the most connected city in Canada, London will also become the most democratic city; one that empowers its citizens through direct digital participation in decision making.

There is currently a high barrier to participation in community and civic life. Participation requires you to actively follow and be aware of every opportunity for public engagement. The systemic barriers are compounded by the fact that legislated public engagement promotion typically uses dated communication mediums (e.g. newspapers and signs) that have not kept up with how we now consume news and information.

London has been a national leader in using digital tools and platforms to engage city residents in decision making (outlined in question 5). Despite this, residents are asking us to do better and we have the opportunity to deliver more.

Through public engagement, we have consistently heard that Londoners want to see services and opportunities which are open to everyone – regardless of age, gender, sexuality, ethnic or cultural background, or socioeconomic status. Building an inclusive and diverse community through equal access to opportunity is fundamental to how Londoners want to see our city grow. It's why we've focused our Smart Cities Challenge application on Empowerment and Inclusion, and it's what we're striving for as we plan for the future.

We will meet residents where they are, leveraging the digital and physical spaces where they already connect to enable participation in the most important decisions happening in our democracy. Our city will ensure residents are able to participate using the mediums they are familiar and comfortable with. Our community will be made up of residents who are informed and aware of what is happening in their neighbourhoods, their city and their region. They will be able to access information in a format and language that ensures their full understanding and engagement. We will be a city where barriers to engagement have not only been structurally removed, but where an active approach to engagement will be embedded throughout civic and community processes.

Through day-to-day use of City services, interactions with their urban environment, and connectedness to their neighbourhood, combined with active, democratic engagement, residents will create a public engagement narrative that will contribute to shaping their city experience not only for themselves, but for their community. Public engagement will not be something you do, it will be something you are.

Residents will influence and shape the important decisions being made every day. This will provide politicians and City staff with access to near real-time information about services and the key issues affecting the community. As a result, we will be able to collectively plan and design an inclusive resident-centric city.

#### Ambition and Achievability of Outcomes:

Our outcomes are ambitious but achievable. They are ambitious because they require connecting an enormous number of data sources and building channels to ensure residents are able to access and use this data. It would be a city-wide initiative requiring broad buy-in to move it forward. The outcomes are not only technical, but also require culture and process change across organizations.

Our proposal is achievable because it comes at a time when the world is experiencing massive shifts in how we connect to one another and with services. Just as we have seen disruptions in business and private organizations, residents are expecting changes in how their cities grow, function and support them. This proposal serves to accelerate the cultural shift that is emerging in the hearts and minds of Londoners; how they self-identify, how they connect with their neighbourhoods and how they want to contribute to their city democracy. We have a hunger for deeper and more engaging connections, we want to leverage emerging technology to support that and we want to create a resident-centric city.

## Necessity of a Smart Cities Approach

One of the barriers to engagement is the sheer volume of information. How to analyze it, how to segment it, and how to put it in formats that meet resident needs is an enormous task that was impossible until recently with developments in big data analytics, accessible web and mobile applications, machine learning and artificial intelligence. Further, the ability to directly and digitally engage with real-time decisions and public participation is only possible with an integrated digital communications tool built on open data.

London's Smart City approach is to be a city that uses technology, data and a culture of innovation to improve the quality of life for all its residents. Modern technological infrastructure, combined with a new way of thinking about the processes and practice of public engagement, is the very essence of our proposal.

## Evidence of a Reflection of London's True Needs

Residents have consistently expressed a need to be more connected to each other and to their city. They have also expressed a desire to participate in the democracy of our city by engaging in decisions that affect their neighbourhoods, city and region.

We have strong evidence to support the community's desire for these outcomes. Citizen advocacy has provided input into numerous strategies across London, but the most direct example can be found in the detailed feedback from the 4,500 residents who participated in the development of the London Strengthening Neighbourhoods Strategy, 2017-2020 (see attached London Strengthening Neighbourhoods Strategy 2017-2020 Report Dec 7.pdf). The focus of LSNS 2017-2020 is based on Council's strategic direction **to support neighbourhood driven activities and decision making**, and build upon the many other city building initiatives that have taken place over the last five years.

The following themes and strategies were identified, which will guide the collective efforts of City staff and community partners to support neighbourhood driven activities and decision making.

## Engagement in Neighbourhoods

**Strategy 1:** Increase awareness of resident-identified neighbourhoods

- **Action:** Target under or non-represented neighbourhoods (including newly built or dormant) with engagement opportunities and support, including communication, events and facilitation

## Communication

**Strategy 1:** Improve and coordinate communication within and amongst neighbourhoods

- **Action:** Install resident-managed bulletin boards in neighbourhood “bumping places” which are identified on a publicly accessible online map
- **Action:** Improve neighbourhood maps – interactive with community association contacts where available
- **Action:** Continue to improve and promote the [NeighbourGood website](#)

**Strategy 2:** Increase and improve communication between the City of London and residents

- **Action:** Create opportunities for City staff and Councillors to share timely information with neighbourhoods/wards in a variety of ways including email, newsletters, community bulletin boards, web apps, mail
- **Action:** Explore the development of a web application that residents can subscribe to receive “city” information – zoning applications, minor variances, road construction, environmental assessments, emergency alerts, waste collection days that impact their local neighbourhood
- **Action:** Develop a tool to enhance community feedback and input related to city issues, opportunities

**Strategy 3:** Increase and improve communication between the City of London and neighbourhood associations

- **Action:** Explore consistently including of neighbourhood associations in the notifications process for items such as zoning applications/variances that impact work being done in the association’s geographical area of interest

## Tools and Resources to Support Neighbourhoods

**Strategy 3:** Support the development of a virtual hub that stores a variety of tools/resources/ideas/etc. that is available for neighbourhoods to access

- **Action:** Identify a virtual hub/website that could be used to store information and acts as a portal for all tools and resources
- **Action:** Create a “Welcome Wagon” toolkit which connects new residents to their neighbourhood

## Overarching Strategies

**Strategy 1:** Develop a plan to broaden engagement with diverse communities

- **Action:** Develop resources in other languages that are AODA compliant and cover all other dimensions of diversity
- **Action:** Develop tools to connect neighbourhood groups with communities of interest
- **Action:** Increase awareness of neighbourhood groups to organizations who are settling people into neighbourhoods and/or represent other communities of interest

## Measuring Outcomes and Progress

Resident participation and empowerment are central to the proposal, and measuring those themes will be an ongoing activity. We have a number of surveys and measures that will allow us to quantify our progress toward becoming the most connected, empowered and democratic city in Canada.

- LSNS survey (ongoing evaluation of LSNS key initiatives through resident surveys, focus groups, and community conversations)
- Annual Citizen Satisfaction Survey (baseline on quality of life, satisfaction with overall level of City services, satisfaction with aspects of city services (quality, accessibility, timeliness), value for tax dollars, experience and satisfaction with city staff, communications)
- Municipal voter turnout
- Headcount data (digital and in-person) on public engagements activities across the entire City (e.g. planning applications, public participations, input into Service area strategic plans, etc.)

There will also be project-based outcome measurements. These include:

- Adoption and usage rates of platform
- Customer feedback on platform
- Increase in number of residents receiving location or interest based notifications (in any medium, e.g. app notifications, SMS or emails)
- Increase in any format public participation and direct democracy interactions
- Increase in number of residents prompted and converted to take a next City or regional service step
- Success and value of recommendation and referral engine
- Satisfaction with new services based on referral and demand-based interactions

# Engagement

There are four engagement processes and plans that have been foundational to the development of our Challenge Statement and preliminary proposal. We believe that we have “a jump” on other municipalities based on the significant engagement work we’ve done on the subject of smart cities in London.

## **ReThink London and The London Plan**

ReThink London, one of the largest community engagement processes around an Official Plan in Canada, saw more than 20,000 Londoners become directly involved in an advanced city-building conversation about London’s future. The program had a reach to 240,000 people throughout the community. Through that discussion, there was a substantial and ongoing dialogue on the role of technology in delivering our future city-building. Stemming from this public engagement, there is an entire chapter within the new Official Plan, “The London Plan,” dedicated specifically to smart cities. This is a unique aspect of an Official Plan in Canada and demonstrates the community’s and Council’s interest in advancing London as a smart city.

The Smart City chapter in The London Plan includes the following sections and desired outcomes:

### What are we trying to achieve?

- Provide customer-centric public services that leverage digital infrastructure, people, and processes to serve all residents and businesses.
- Facilitate open government by using technology that will make the city more transparent and inclusive to encourage the participation and involvement of all stakeholders in decisions faced by the city.

### Information sharing for a smart city

638\_ Convenient access to civic information and analytics tools should be provided to residents, businesses, and visitors to the city.

639\_ Digitally enabled services may be pursued to give residents and businesses better access to information and options for how they use the city. Where appropriate, mechanisms will be created that allow residents and businesses to give feedback and report on city infrastructure and services to enhance real-time data.

640\_ Platforms may be created to allow for real-time data sharing to support analytics and decision making in a variety of formats suitable to mobile and other platforms and accessible by all.

641\_ Data collection and sharing should be coordinated among municipal departments to inform decision making, business strategies and ensure delivery of cost-efficient and high-quality city services.

644\_ The City may collaborate with regional partners to explore the development of a digitally connected region for southwestern Ontario to enhance access to rich sources of information and the means to share and analyze it to generate knowledge and encourage collaboration across the area. This collaboration may extend to community partners such as education and health care institutions, research and development organizations, high-tech businesses, senior levels of government and other potential collaborators within our communities.

## **London's Smart City Strategy**

Council's 2015-2019 Strategic Plan identifies the Smart City Strategy within the strategic areas of focus 'Growing Our Economy' and 'Leading in Public Service.' This set the Smart City Strategy as an important priority project for Council and the development of the strategy was subsequently funded through the corresponding four-year budget.

City Council, through its multi-year budget process, funded their portion for the development of the strategy, endorsed a terms of reference and embarked upon an innovative partnership with LARG\*net (Western University, Fanshawe College, London Health Science Centre and St. Joseph's Health Care Centre), London Hydro, and the London Economic Development Corporation to prepare the strategy. The preparation of the strategy was funded collaboratively by all of these partners. Within the City, the strategy has been jointly led by senior leaders in Planning Services, Engineering Services, Information Technologies and Community and Economic Innovation.

Engagement sessions with residents, businesses, organizations, institutions and other stakeholders were held from December 2016 to April 2017. Activities included two online surveys, presentations and six focus groups to garner a significant amount of community input on smart city gaps, needs and future opportunities.

Many themes emerged from this process and those most relevant to our Challenge Statement are listed below:

- Establishing and driving a culture of Smart City thinking throughout the Corporation
- Citizen-centred service delivery
- Navigating bureaucracy and having a voice in city decisions
- Digital inclusion/capacity/literacy
- Using analytics to make planning decisions
- Knowledge of/access to city services, notices, programs, and news
- Connected city as a lever for good (physical, mental) health
- Supporting the digital (sharing, autonomous, connected) economy and attracting talent for that workforce

## London Strengthening Neighbourhoods Strategy

The heart and essence of every city are its neighbourhoods. The London Strengthening Neighbourhoods Strategy is fundamentally a resident driven strategy that encourages resident participation and engagement to help make all of London's neighbourhoods stronger.

In 2008, over 100 London residents came together to form a resident task force to participate in a process that developed London Strengthening Neighbourhoods Strategy (LSNS) and Implementation Plan (2010-2015). This five year plan served as a guide for the work of residents and City staff toward stronger neighbourhoods across the city.

In December 2015, the City and community celebrated the successful completion of LSNS (2010-2015) and began the conversation about what would come next.

LSNS significantly contributes to the "Strengthening our Community" Area of Focus in the City of London's Strategic Plan. The Strategy recognizes that neighbourhoods are about people and places, and how they work together to make great places to live, work, and play. Strong neighbourhoods are vibrant, connected, and engaged – they form the backbone of our diverse, inclusive and welcoming community. LSNS empowers residents to work with the City to create healthy, safe, and accessible places.

Through 2016 City staff engaged over 4,500 residents from all of London's neighbourhoods to inform the development of a new London Strengthening Neighbourhoods Strategy. The focus of LSNS 2017-2020 is based on Council's strategic direction **to support neighbourhood driven activities and decision making**, and build upon the many other city building initiatives that have taken place over the last five years.

Following are the themes and strategies that are most relevant to the challenge application:

### Engagement in Neighbourhoods

**Strategy 2:** Encourage and support collaboration and information exchange between neighbourhood associations across the city

**Strategy 3:** Support the creation and sustainability of neighbourhood associations

### Communication

**Strategy 1:** Improve and coordinate communication within and amongst neighbourhoods

**Strategy 2:** Increase and improve communication between the City of London and residents

**Strategy 3:** Increase and improve communication between the City of London and neighbourhood associations

### Tools and Resources to Support Neighbourhoods

**Strategy 3:** Support the development of a virtual hub that is available for neighbourhoods to access

### Overarching Strategies

**Strategy 1:** Develop a plan to broaden engagement with diverse communities

**Strategy 2:** Evaluate London Strengthening Neighbourhoods Strategy

**Strategy 3:** Report annually on progress made

### **Smart Cities Challenge**

The City of London continued its tradition of strong community engagement by partnering with the city's active and robust civic tech/open data advocacy community to help design and lead a variety of engagement sessions specific to the Smart City Challenge which were open to all Londoners and promoted widely through postcards and all social media channels by Members of Council, City staff and community and industry partners.

### GetInvolved

Building upon the work of The London Plan and London's Smart City Strategy, the City initiated a community conversation about the focus of our Smart Cities Challenge application. Using the [www.getinvolved.london.ca](http://www.getinvolved.london.ca) platform, residents had the opportunity to identify the area(s) of focus they wished to be considered for the Challenge application, as well as provide thoughts, ideas and project proposals. In total there were 695 unique visitors and 98 contributions to the getinvolved platform.

### Open Houses

Open House sessions were held in the evenings of March 29 and April 4 from 7:00-9:00 p.m. at central locations in the city's downtown. These sessions included a broader discussion of London's Smart City strategy and ambition and a review of inspiration from other community across Canada and around the world. Suggestions, ideas and visions were collected through familiar engagement techniques and collated with the input gathered through GetInvolved.

### Hackathon and Ideation Session

Our final community-wide engagement activity was an ambitious day-long hackathon and ideation session. On Saturday April 7, community members, civic leaders, businesses, non-profits and interested residents gathered at Innovation Works and worked collaboratively to review the public input gathered through the Smart Cities Challenge engagement as well as the City's Smart City Strategy engagements. This process led to the selection of 'Empowerment and Inclusion' as the theme and honed our application into the document presented here. Our community has been an active and ongoing part of the writing process including producing the Challenge Statement, developing outcomes, and recommending specific projects.

## **Looking Ahead**

The attainment of our Challenge Statement and the outcomes outlined in this proposal will not be achievable without ongoing collaboration with residents and external partners. This includes technology design and development, testing, minimal viable products, etc. Furthermore, residents are at the heart of London's Smart City Strategy and will continue to be engaged in smart city conversations, hackathons, strategy evaluation, technology design and development, etc.

# Activities and Projects

To become the most connected, empowered and democratic city in Canada, London will build a culture of digital participation and resident empowerment through the development of accessible technology platforms, the transformation of processes and ongoing collaboration with residents and partners that will increase the sense of civic belonging.

We will develop a series of civic apps - tools and platforms - that create stronger and more empowered connections between residents, organizations and the City. To accomplish this we need to build a data-driven, networked urban environment where the city is a platform that hosts a variety of services, structures and organizations that collaborate together for the benefit of its residents.

This will be a decentralized system, not owned or controlled by a single organization, but managed and secured by the individual resident whose information and identity it represents. Users will be able to curate their own civic experience and have the ability to easily opt-in to participation and select the level of engagement they wish to have and/or be involved in.

Consequently, our city will be known as a fully connected, empowered and democratic city, built on a sharing culture that enables every resident to program their experience and to create a customized relationship with services, organizations, data and their community. We have identified a number of specific projects and activities that will allow us to achieve this goal as a Smart City. These include:

## **Project #1: Create a 'Digital Identity' for residents**

We will create a digital identity system for all residents of London in order to facilitate and manage their information and create a consistent experience across points-of-contact in their neighbourhoods, city and region.

The digital identity is a centrally stored and managed collection of private identifiable information, demographic details, services accessed, preferences and unique elements that form a distinct avatar or representation of each resident.

All of the information used to form the digital identity will be controlled by the resident through preference identification. How the information will be used, the services it integrates with and the opportunities presented will be determined by the residents' selections. Residents have the right to control how and where their personal data will be accessed and shared.

For residents, the result is as much a change in mind-set as it is the transformation of everyday transactions. Seamless 24/7 interaction with the government and public services will become the norm.

## **Project #2: Develop a localized neighbourhood platform and application**

The digital identity will require a fully integrated digital ecosystem. The first of these will be a localized neighbourhood application which will be host to various types of city, community and regional data in order to facilitate residents' connectedness to each other and to city services. The application will be transformative to our community and will help residents to be more informed about what is going on in their neighbourhood and across the city. It will feature resident profiles, information about city services, city-wide initiatives and programs and user-opt-in third party services. Login will be managed through the newly developed digital identity and will help further continuity of service as a resident moves between services and agencies.

This application will be web-based and mobile friendly. Residents will curate their own experience by indicating what content they are interested in having on their platform. Residents will opt-in to interest and location based content and notifications. For example a resident or business owner will be able to select that they are interested in neighbourhood association updates within a 2 kilometer radius, specific recreation activities and assets across the city, various City transactional services or construction and planning applications within 500 meters of a self-determined location. They might want to be kept informed of the variety of public engagement processes, Council and Standing Committee meetings and outcomes, Ward meetings or roadworks around their business or home. All of this information will be pushed to the application for notifications, or on-demand consumption.

### User Acquisition Strategy

Many civic technology projects have great focus on features, but little time or effort spent on developing a sustainable distribution channel in order to attract and retain new users. User acquisition is deprioritized with few resources applied beyond an initial marketing push. This often leads to great applications and services with very few users.

With that in mind, we have developed a user acquisition strategy based on the measureable and sustainable growth of our city. Every year over 20,000 new residents move to London.

These newcomers will directly benefit from a platform and application designed for connectedness and the development of resident and neighbourhood identity.

In order for residents to see value in the platform and application, it must be developed with the end user in mind. By default, community resources tend to be designed under the assumption that the end user knows what information they are looking for; this is rarely the case. In order to support residents to be more connected, included, and engaged in our community, it is critical that any technological solution be developed in collaboration with the end user to make certain the end product will benefit the population it is intended to serve.

Technology sector inspired “growth hacking” strategies will also be used. In addition to newcomers, we will use the thousands of ‘touch-points’ that residents have with the City and other services as an opportunity to promote and direct inquiries into the application. Every resident interaction can become an opportunity to provide access to information, connections to services and engagement opportunities.

Other acquisition opportunities include enhancing current applications and portals such as: Service London portals, service desks, utility billing, property tax and assessment interactions, public engagements initiatives, etc. Over time every physical-place interaction would connect residents to their broader community using the innovative digital platform.

### Change Management

The success of this project will require deploying change management resources into the communications and engagement processes of current Service Area’s resident touchpoints strategies. We will introduce a more interconnected resident engagement experience that will be a transformation of how the city collaborates internally around those touch points and thus will require careful analysis and augmentation of internal business practices where applicable.

Further, a Lean approach to product development will be adopted. This means finding minimum viable product implementations, measuring the results and iteratively improving or pruning away features which are ineffective at creating the desired connectedness.

### Platform for Direct Democracy and Engagement

The application will be leveraged to engage Londoners in the largest direct democracy undertaking ever conducted in Canada. Building on the application’s notification infrastructure, we will build functionality which allows residents to give feedback on the various plans, applications, City improvements and decisions – all of which the resident will curate based on their desired civic experience.

In order to support application use, we will need to adapt data and information commonly provided at public engagement sessions for mobile and remote digital mediums and also ensure that digital feedback is included and considered in municipal public engagement processes. Natural language processing and sentiment analysis (both forms of artificial intelligence technology) will be used to aggregate themes, trends and to articulate quantitative information from the soon to be vast amount of qualitative engagement data to aid decisions at all levels of the municipality.

### **Project #3: Recommendation Engine and Referral Platform**

As residents use the application and platform for more and more of their civic engagement and neighbourhood development, we can begin to identify areas of “frustrated demand”; that is, areas where there is demand for some service (inferred from users asking for notifications about those services/interests in areas where it is not provided). This allows program and service delivery expansion to follow highly targeted and localized demand driven paths. With this demand data, we can begin running more advanced artificial intelligence and predictive analytics to forecast demand and give decision makers a highly accurate picture of resident, business and community needs.

Inspired by the success of artificial intelligence-enabled features such as Amazon’s “recommended products” and Netflix’s “recommended movies” we will develop a City service recommendation engine and referral platform. Using usage data from the over 100 City services and the artificial intelligence technique of collaborative filtering, we can begin to predict what services a resident is likely to need next after accessing a sequence of previous services.

In addition, using the notification service and other communications means, we can recommend next steps to a resident rather than waiting for them to hit a barrier and be forced to search for that next step themselves. As a result services will be intuitive, predictive, accessible, and meet residents where they are as opposed to waiting for them to come to us. We will continue to build a city that is both resident centric and co-created.

### **Project #4: Commitment to Smart City Technology Principles**

1. Resident-centric design
2. Inter-operable between departments, agencies and organizations
3. Be Open: accountable and transparent
4. Develop repeatable and scalable standards
5. Adapt and transform through iterative design

### **Open, Interoperable, Scalable and Replicable**

Our projects will build on our foundational open data strategy which will enable open access to the various data sets, map layers, and both qualitative and quantitative data that will inform the resident experience. This project will also support the merging of a large number of disparate regular/tabular and geospatial data sets together into a common data warehouse, as supported by our current open data strategy.

Technical applications will be fully open-source, allowing it to be shared and scaled with other municipalities and communities; not only as users but also contributors. Open standards will allow other municipalities to “fork” the code and customize it to their particular needs (saving development costs). Using open source platforms will also allow the City to leverage the large number of libraries and code-sources already available in the commons and also will invite the public and third parties to be a part of the development process.

We will also be committed to documenting and sharing the IT infrastructure architecture required to run this application as well as any Information Security assessments, standards and associated best practices. This further aids in scalability in helping other municipalities de-risk an investment in this kind of localized notification application.

We will open source all working documents, data pre-processing workflows, and our learnings and results from building the recommendation engine. This will include all scripts and code used to actually run the recommendation engine. This will allow municipalities to quickly fork the code, plug in their own data sources, pre-process them according to our method and be up and running with a beta of the recommendation engine for their own services within a relatively short iteration of time.

The project management, change management and policy templates used in adding these resident opt-in processes across a variety of city services will all be open-sourced and shared. For example, any opt-in language, commonly requested interests categories, commonly requested geospatial data layers, blanket internal data sharing policies, service area readiness assessments to determine the readiness of potential resident-contact distribution channels, etc.

Not only is the technology infrastructure open sourced but so is the process by which a municipality would go about conducting these process changes which are essential to the success of the technology application. The documentation of this will similarly be open-sourced to allow other municipalities to upload, edit, share learnings and policy implementation templates as they go about adopting these new communications/engagement processes in their business unit. Often technology projects shy away from the massive cultural, organizational and process level change required to make these technology enabled smart cities initiatives a success; we will not do this. Instead, by open sourcing the governance and implementation assets we set a foundation for the national scalability of this project across a wide variety of other communities.

We hope that very quickly other municipalities can adopt the technical resources and learnings from this project and subsequently launch similar projects for the benefit of their own communities.

# Strategies

## Council's 2015-2019 Strategic Plan

Council's vision for our London is 'A leader in commerce, culture and innovation – our region's connection to the World.'

### Strengthening our Community

**Strategy:** Vibrant, connected and engaged neighbourhoods/ **sub-strategy:** Support neighbourhood driven activities and decision making

**Strategy:** Diverse, inclusive, and welcoming community/ **sub-strategy:** Support all Londoners to feel engaged and involved in our community

### Growing our Economy

**Strategy:** Local, regional, and global innovation/ **sub-strategy:** Use new and emerging technology to improve quality of life and grow London's economy

### Leading in Public Service

**Strategy:** Open, accountable, and responsive government/ **sub-strategy:** Make community engagement a priority. Make the public a partner who has access to our information and helps make decisions with Council

**Strategy:** Excellent service delivery/ **sub-strategy:** Deliver great customer experiences to residents, businesses, and visitors

## The London Plan

The London Plan contains an entire section that is dedicated specifically to [smart cities](#).

## London Strengthening Neighbourhood Strategy

### Engagement in Neighbourhoods

**Strategy 1:** Increase awareness of resident-identified neighbourhoods

- **Action:** Target under or non-represented neighbourhoods (including newly built or dormant) with engagement opportunities and support, including communication, events and facilitation

## Communication

**Strategy 1:** Improve and coordinate communication within and amongst neighbourhoods

- **Action:** Install resident-managed bulletin boards in neighbourhood “bumping places” which are identified on a publicly accessible online map
- **Action:** Improve neighbourhood maps – interactive with community association contacts where available
- **Action:** Continue to improve and promote the NeighbourGood website

**Strategy 2:** Increase and improve communication between the City of London and residents

- **Action:** Create opportunities for City staff and Councillors to share timely information with neighbourhoods/wards in a variety of ways including email, newsletters, community bulletin boards, web apps, mail
- **Action:** Explore the development of a web application that residents can subscribe to receive “city” information – zoning applications, minor variances, road construction, environmental assessments, emergency alerts, waste collection days that impact their local neighbourhood
- **Action:** Develop a tool to enhance community feedback and input related to city issues, opportunities

**Strategy 3:** Increase and improve communication between the City of London and neighbourhood associations

- **Action:** Explore consistently including of neighbourhood associations in the notifications process for items such as zoning applications/variances that impact work being done in the association’s geographical area of interest

## Tools and Resources to Support Neighbourhoods

**Strategy 3:** Support the development of a virtual hub that stores a variety of tools/resources/ideas/etc. that is available for neighbourhoods to access

- **Action:** Identify a virtual hub/website that could be used to store information and acts as a portal for all tools and resources
- **Action:** Create a “Welcome Wagon” toolkit which connects new residents to their neighbourhood

## Overarching Strategies

**Strategy 1:** Develop a plan to broaden engagement with diverse communities

- **Action:** Develop resources in other languages that are AODA compliant and cover all other dimensions of diversity
- **Action:** Develop tools to connect neighbourhood groups with communities of interest
- **Action:** Increase awareness of neighbourhood groups to organizations who are settling people into neighbourhoods and/or represent other communities of interest

# Community Readiness

Through many comprehensive community planning processes, our community has demonstrated the ability and drive to work together to develop innovative solutions for the problems with which we are faced. We have demonstrated the ability to work collaboratively with diverse stakeholder groups including residents, community organizations and other government partners in order to achieve common goals. Through resident and community participation, it is possible to develop stronger, more nuanced solutions. In order to solve complex challenges, residents with lived experience must be involved in the decision making process, from defining the problem, to supporting the development and implementation of solutions. In recent years, there have been several examples of our community coming together around complex problems, including:

- **London's Child & Youth Agenda** – Bonded together under the common vision to improve outcomes for children, youth, and families in London, more than 170 partners that comprise the Child & Youth Network developed a five year action plan, and led the implementation of recommendations outlined in the Child & Youth Agenda.
- **London for All: A Roadmap to End Poverty** – London for All represents our community's plan to end poverty in a generation, developed through the engagement of more than 1000 Londoners with lived experience, as well as the support of community organizations. Over the last year, individuals with lived experience and representatives from organizations across the community have been working collaboratively to push forward the strategies outlined in the plan.
- **London Strengthening Neighbourhoods Strategy (LSNS)** – LSNS was developed through extensive engagement with residents across the city. More than 100 residents in each of 42 planning districts gave their feedback about how to strengthen our city's neighbourhoods. A fundamentally resident-driven strategy, LSNS supports neighbourhood driven activities and decision making, and builds on many other city building initiatives that have taken place over the last five years.
- **Age Friendly London Action Plan** – Through the leadership of London residents, in 2010, London became the first city in Canada to join the World Health Organization Global Network of Age Friendly Cities, promoting an inclusive and accessible urban environment that promotes active ageing. The Age Friendly London Action Plan (2017-2020) represents the combined vision of older adult community members, service providers, organizations, working group chairs, and members. Their ideas, solutions, and contributions made the development of this plan possible, and will guide the work to continue to improve age friendliness in London.

What is common across these examples is the level of collaboration with community partners. Beyond initial engagement, community involvement is central to the implementation of solutions to make our city a great place to live, work, and play. In order to drive and support resident and community-driven work, the City has acted as backbone support, providing staff resources and the necessary support to continue to empower the community to lead and implement the work.

## **Moving Forward**

We are committed to supporting the ongoing development of the Smart Cities initiative, and will provide the necessary support to residents to participate throughout the life cycle of the initiative. To implement this proposal, we will leverage the experiences of the above listed examples to continue to facilitate collaborative work in our community, bringing together diverse perspectives.

The City of London's Official Plan contains an entire chapter dedicated to smart cities, a first in Canada. The 2015-2019 Strategic Plan references the development of a smart city strategy, as well as the corporate values of collaboration and innovation. Therefore, it should be noted that smart city initiatives are a priority for the City of London.

In terms of an implementation structure, in addition to continuing to collaborate with residents and the community innovators involved in the development of this proposal, we will also leverage the existing Smart City Strategy Steering Committee, an innovative partnership which includes: LARG\*net (Western University, Fanshawe College, London Health Science Centre and St. Joseph's Health Care Centre); London Hydro; London Economic Development Corporation; and the City of London (City Manager's Office, Planning, Engineering and Information Technology Services).

One of the key challenges in implementing such a complex proposal is managing the scope of work. In order to ensure success, special attention will be given to risk mitigation and project management best practices. The City of London has also recently adopted a continuous improvement program, which allows us to identify process inefficiencies and enables, engages and empowers the delivery of customer-focused services.

# Plan for \$250,000 Grant

We will use the money in the following ways:

1. Collaborate with local post-secondary institutions to establish reliable methods for measuring our desired outcomes relating to connectedness and democratic decision-making. Through this work we will develop high quality baseline data that we can use to measure our progress in achieving these outcomes over time. [Internal Staff Time]
2. Scope out initial capital and operating costs of technology infrastructure and costs for localized neighbourhood platform and application, as well as the City and Regional Recommendation Engine. [Consulting]
3. Conduct public engagement to engage the community in what data layers and interests would be most requested to prioritize our feature and data roadmap (user driven features). [Events, Internal Staff Time/Consultant Time]
4. Assess internal corporate readiness and change readiness across various service areas for augmenting engagement/communications opt-in user acquisition processes. This is used to prioritize a roadmap of where to devote resources to developing those engagement/communications processes. [Internal Staff Time/Consultant Time]
5. Assess any ongoing operational and capital (e.g. maintenance, support, replacement) costs associated with all projects and build the business case and funding model. [Internal Staff Time/Consultant Time]
6. Information Security Review of proposed infrastructure. [Internal Staff Time/Consultant Time]
7. Build open-sourced prototype City service Recommendation engine using city data. [Direct Technology/Development Costs/Internal Staff Time/Consultant Time]
8. Find minimum-viable-product target for Regional Recommendation Engine by consulting with various high volume regional partners to assess readiness and opportunity to pursue a broader regional service recommendation engine. [Internal Staff Time/Consultant Time]
9. Build open-sourced beta and small-scale pilot of the localized neighbourhood platform and application proof of concept [Direct Technology/Development Costs/Internal Staff Time/Consultant Time]

# Partners

The City will benefit from the partnerships already in place as part of the existing Smart City Strategy development. Steering Committee members include:

- LARG\*net (Western University, Fanshawe College, London Health Science Centre and St. Joseph's Health Care Centre)
- London Hydro
- London Economic Development Corporation.

Each of these organizations have an active role in the successful delivery of smart city projects and have significant, demonstrable expertise in the areas of innovations in customer service delivery, data collection and analysis, and civic engagement and inclusivity. London's proposal will be supported by this built-in governance body whose roles and responsibilities in achieving the Smart City Strategy have already been well defined.

One of London's key smart city strengths is a vibrant and diversified digital, creative and technology community. From marketing agencies, to gaming studios and hardware companies this project will be supported by a diverse cluster of premier technical and creative talent. Commitments of meaningful involvement have been received from:

[Arcane](#)  
[InfoTech](#)  
[rTraction Canada](#)  
[Start.ca](#)  
[THiNQ](#)  
[Web.isod.es](#)  
[Voices.com](#)

London is privileged to have many engaged institutional partners and will be relying on their networks, experience and reach as audiences to prototype and launch the proposal, for ongoing iterative development, and for platform investments and contributions. These include:

- Middlesex County
- Elgin County
- Fanshawe College
- Western University
- [Downtown London](#)
- Pillar Nonprofit Network
- Civic Tech and Open Data London

“Civic Tech and Open Data London represents a diverse group of Londoners interested in finding solutions to civic challenges through the better understanding of technology. Our participation in the drafting of this proposal is indicative of our commitment to its success through implementation.”

(Titus Ferguson, Executive Director)

“Pillar Nonprofit Network strengthens individuals, organizations and enterprises invested in positive community impact through capacity building, a shared space for social innovators and cross sector collaboration. Pillar Nonprofit Network is truly thrilled to be a partner with London for the Smart Cities Challenge. We are eager and willing to do our part to connect volunteers, nonprofits and social enterprises to this movement building for London to be the most connected, empowered and democratic city in Canada.”

(Michelle Baldwin, Executive Director)

#### Anticipated Additional Partners

Through ongoing public engagement and the process of designing and developing early-stage prototypes, new organizations and opportunities will be discovered and our partnership impact deepened. The City of London hosts and participates in a number of community networks, including public and private sector partners, which will be instrumental in broadening the reach of the proposal. These networks include:

- London’s Civic Leaders Forum – The Forum serves as an informal connection point for leaders from the various agencies, boards and commissions operating within the city and region. This ongoing body can serve as an important sounding board for London’s Smart City Work
- Regional CAO’s Table – The Chief Administrative Officers and City Managers from the Greater London Area meet formally each year to discuss issues of shared priorities across the region. Discussions around the scalability and transferability of London’s Smart City Challenge proposal can be coordinated through this body



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OFFICE  
OF MAYOR  
MATT BROWN

April 23, 2018

The Honourable Amarjeet Sohi  
Minister of Infrastructure and Communities  
180 Kent St.  
Suite 1100  
Ottawa, Ontario K1P 0B6

Dear Minister,

RE: City of London Smart City Challenge Application

On behalf of the City and Londoners alike, I am delighted to formally submit the City of London's Smart Cities Challenge application to the Government of Canada.

At the heart of our application is a commitment to building a London that our residents and businesses deserve. As our Challenge Statement demonstrates: "London will be the most connected, empowered and democratic city in Canada. All residents will have a strong sense of civic belonging and the ability to shape community decision-making, supported by the use of technology, data and culture of innovation."

Our application represents the ongoing evolution of our City's commitment to providing a high quality of life, creating meaningful social and economic opportunities, and building one of the greenest cities in Canada. Smart City approaches are not new to our City. In fact, London has already embedded our Smart City Strategy within the London Plan (our Official Plan) – a first in Canada.

We envision a Smart City as one that promotes a culture of digital participation and engagement. London has prioritized the delivery of many municipal services online and is rolling out innovative customer relations management tools to provide services more effectively. Through the Smart Cities Challenge, we want to go further and develop a digital identity platform to connect residents to the services they count on each day.

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Our City is committed to creating a London that is welcoming and inclusive. For example, since 2015 our community has opened its doors to welcome over 1,200 Syrian refugees. Newcomers often struggle to find their place in a new community and face challenges accessing information and services. Our envisioned digital identity platform would create an enhanced ‘welcome wagon’ to enable newcomers to get the information they need, meet their neighbours, and find opportunities to engage in their community. The Smart Cities Challenge can help us welcome our newest residents’ home.

Ensuring that every Londoner can participate in building a better city is at the heart of our own Smart City approach. In fact, we set off down this road in 2012 with “Rethink London,” one of the largest community engagement processes around an Official Plan in Canada. Over 20,000 Londoners were involved in an advanced city-building conversation about the future of our city.

Our Council followed through on this work by prioritizing London’s Smart City Strategy in our 2015-2019 Strategic Plan. We have recognized that to get people engaged in their community, we need to first engage them at the neighbourhood level. This focus has been carried out through our community-driven London Strengthening Neighbourhoods Strategy (LSNS). Our LSNS recognizes that neighbourhoods are about people and places, and how they work together to make great places to live, work, and play. Since 2016, we have engaged over 4,500 residents from all of London’s neighbourhoods to inform the development and implementation of the LSNS.

Your Government’s Smart Cities Challenge will help us take the next step and enable London to unlock the potential of Smart City innovation in our community. Londoners are demanding 21st Century tools to seize on the opportunities present in a modern city. We aim to provide these solutions through building a truly Smart City.

By doing this we will be the most connected, empowered and democratic city in Canada. Building upon our digital identity platform, we will tailor this tool to allow residents to give feedback on City plans and priorities, applications, and decisions before Council – all of which individual residents can curate based on their needs and priorities. Local democracy is cherished in London. That is why later this year,

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London will be home to Canada's first municipal election using the ranked ballot voting system.

I want to thank you for your Government's recognition that strong cities and communities make a strong Canada. Perhaps nowhere is this recognition more simply evidenced than through the Smart City Challenge. A partnership between the Government of Canada and the City of London will enable our city to continue to lead. I look forward to our partnership to build Canada's most connected, empowered and democratic city together.

Sincerely,

Mayor Matt Brown  
City of London

cc. Kate Young, M.P.  
Peter Fragiskatos, M.P.  
Irene Mathyssen, M.P.  
Karen Veccio, M.P.

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