

BUILDING A STRONGER COMMUNITY

Strathcona County Smart Cities Challenge Proposal

APRIL 24, 2018

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SECTION I:

APPLICANT INFORMATION



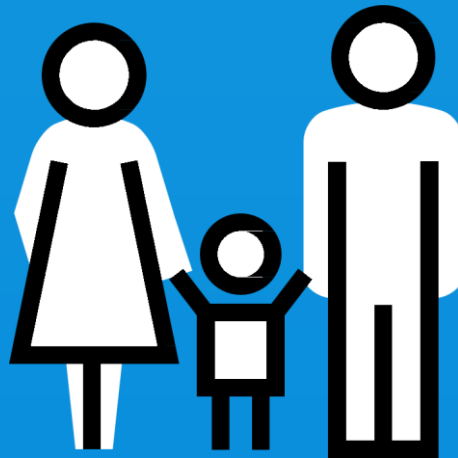
Q1. COMMUNITY INFORMATION

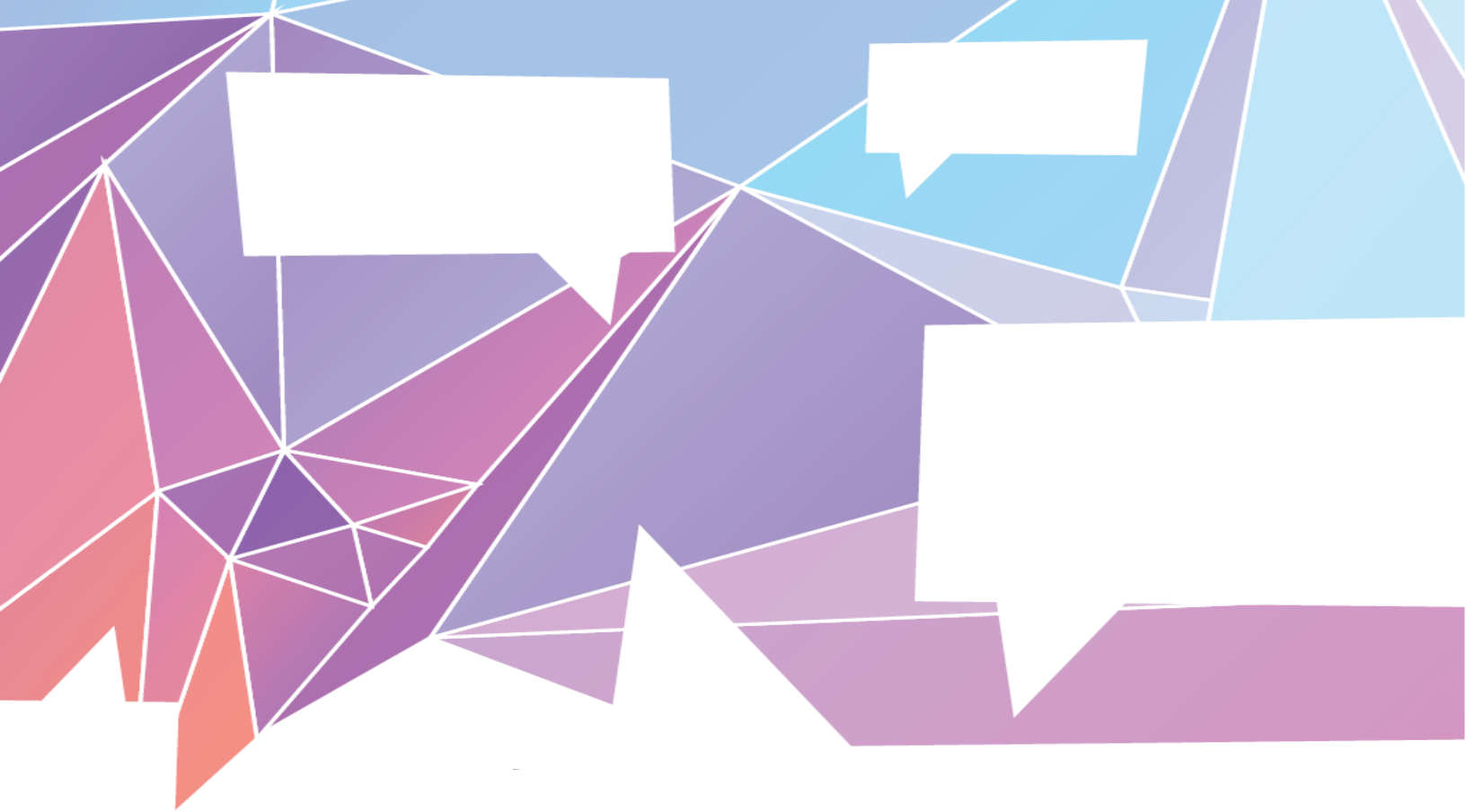
Name of Community:	Strathcona County
Province:	Alberta
Population:	98,044 (2016)
Indigenous Community:	No

Q2. PRIZE CATEGORY

Strathcona County is pleased to submit this proposal for the **\$10 million prize** for **communities with a population under 500,000**.

SECTION II:
**PRELIMINARY
PROPOSAL**





Q3. CHALLENGE STATEMENT

"Feel Connected and Included"

Citizens will have access to a trusted community platform that connects them to programs, services and each other to increase the feeling of safety, inclusion and connectedness.



Q4. OUTCOMES

Please describe the outcomes that your proposal seeks to achieve by elaborating on the Challenge Statement.

Let us take you on a journey to understand what led us to our Challenge Statement and the outcomes we seek to achieve.

THE CONTEXT

A specialized municipality of 1,200 square kilometres with hamlets, acreages, urban neighbourhoods as well as rural and industrial lands, Strathcona County strives to be a welcoming place to live for all of its diverse citizens.

As social and economic challenges have increased significantly over the past decade, a different approach is required to meet citizen needs. Traditional, siloed mandates of government have served us to a point but if we can shift our behaviours, we can improve outcomes and have a collective impact on community well-being.

Community well-being is the connection or fusion of social, economic, environmental and political conditions, as defined by the community as essential for them to thrive and fulfill their full potential. *"Community Talk"*, our public engagement campaign, created a space for honest conversations about how residents can best support each other at all levels of community. The results of *Community Talk* revealed that Strathcona County faces challenges as a rapidly growing community, emerging from the difficulties of the 2016 economic downturn in Alberta. Data shows increases in crime rates, mental health referrals, reported incidents of family violence, food bank usage and an increased demand for local supports.

Through Community Talk, citizens shared how the County can improve its response to these challenges and what citizens themselves can do to help build a stronger community. The analysis of the responses revealed a series of themes, including the need for better access to programs and services, and increased safety, inclusion and connectedness.

All the analysis and research we have done has led us to believe that to truly become a "Smart County", we must address community needs "in a smart way" and that it makes great sense to put "our people" at the centre and focus on inclusion and connectedness first.

WHY DOES INCLUSION AND CONNECTEDNESS MATTER?

QUALITY OF LIFE

The extent to which citizens are able to participate in the social-economic life of their communities to enhance their well-being and potential.

SAFETY

There has been a 12.6% increase in crimes against persons and a 3.2% increase in property crimes over 2016.¹

Taking into account population growth, the rate of fatal and major injury collisions increased by 129% between 2013 – 2017.²

MENTAL HEALTH

Anxiety is one of the top reasons for doctor referrals to the Primary Care Network, and over the past 3 years there has been an increase of 57% in the number of cases reported.³

Research shows when communities are made up of people who feel they belong and trust each other, neighbourhoods are safer. As connectedness among people increases, so does neighbourhood safety and a sense of community inclusion.⁴ With this in mind, it is important that we focus on connectedness at various levels: from connectedness between organizations, connectedness with programs and services, to connectedness between citizens and inclusion within the community.

¹ RCMP, Strathcona County, 2017

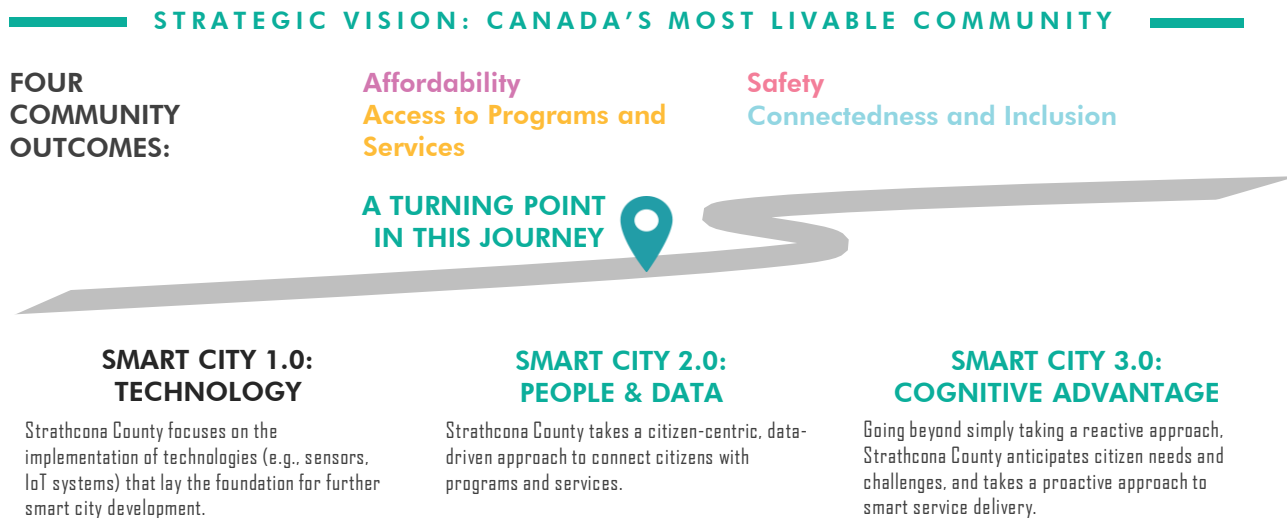
² Strathcona County Transportation Planning and Engineering

³ Primary Care Network, 2017

⁴ Community Foundations of Canada 2015 Vital Signs Report on Belonging

AND WHERE DOES “SMART” FIT IN?

FIGURE 1. SMART CITY VISION



Having started to lay the foundation in the “Smart City 1.0” phase through the implementation of smart technologies, Strathcona County is now looking to continue its technological advancements to address citizen needs tied to the findings of *Community Talk*. We will leverage “big” and “small” data collected from these technologies to inform decision-making and improve program and service planning and delivery (“Smart City 2.0”), and ultimately be able to anticipate citizen needs (“Smart City 3.0”) and be able to deliver on our strategic vision of becoming “*Canada’s Most Livable Community*”.

ACHIEVING THE VISION

We will use a human-centered approach, coupled with co-creation strategies, and leverage the technologies available in our Smart City ecosystem to improve quality of life by connecting our citizens. This is where the Community Digital Hub comes in.

THE COMMUNITY DIGITAL HUB is an ambitious platform that will transform the way citizens connect within the community, and will ultimately help fulfill Strathcona County’s strategic vision. It is powered by cognitive capabilities, blockchain-based ledgers and a smart data hub and goes beyond the siloes in municipal government to bring together partner organizations from across the public, private, and non-profit sectors.

As *Fast Company* stated, municipalities need to “to lead by example, supporting the growth of broadband digital infrastructure, wireless networks, e-gov and m-gov services and Internet of Things (IoT) sensor networks. But all of that...should be increasingly geared towards enabling citizen co-creation and urban entrepreneurship.” We believe that the Community Digital Hub will enable just that: the growth of smart technologies driven by citizen co-creation and urban entrepreneurship. As a specialized municipality, Strathcona County provides for the unique needs of both our large urban centre and significant rural areas. We are a community of communities, and a ‘smart’ digital hub can better connect our larger community regardless of the geographical distances between us.

The figure on the following page provides a high-level illustration of the Community Digital Hub concept.

FIGURE 2. THE SMART COMMUNITY PLATFORM CONCEPT

THE SMART COMMUNITY PLATFORM

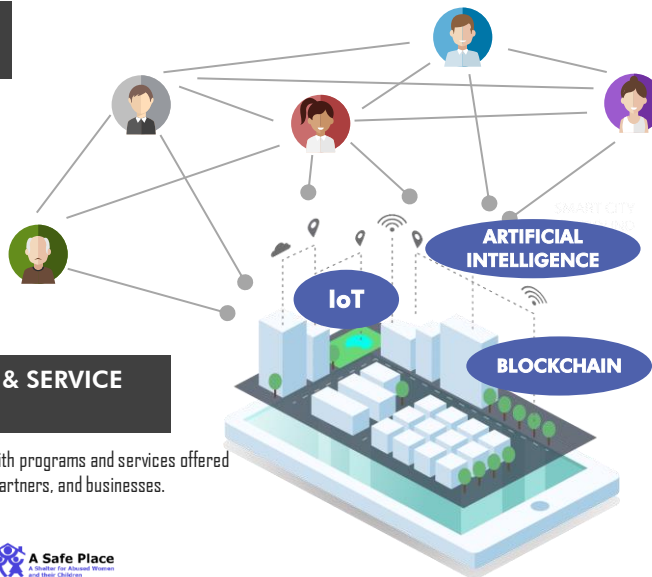
Powered by smart technology and designed using co-creation and human-centered principles

TO CONNECT CITIZENS WITH EACH OTHER

Citizens feel connected with one another and the community by engaging in programs, services and events through which meaningful connections are fostered.

TO CONNECT PROGRAM & SERVICE OFFERINGS

Integrated one-stop shop for citizens to connect with programs and services offered not only by Strathcona County, but by community partners, and businesses.



TO CREATE A SMART DATA HUB

Data collected will be made available on an Open Data Portal accessible publicly.



Transactional data – data on user engagement with programs and services



Behavioural Data – data on user needs, satisfaction, content consumption



Big Data – data collected from sensors and Internet of Things systems

TO ENABLE THE COUNTY OF THE FUTURE

Data will be leveraged to inform decisions and smart planning.



Cognitive Intelligence - used to learn and anticipate user needs, predict challenges, and generate personalized content



Predictive Analytics - provides a foundation for proactive decision-making and county planning

GUIDING PRINCIPLES

CITIZEN-FIRST

- Data-driven approach enables programs and services to be delivered in a personalized and citizen-centric manner

OPEN BY DESIGN

- Data generated through the Community Digital Hub is open by default, enabling transparency and scalability

TRUSTED

- Maintenance of high privacy and security standards make the Community Digital Hub a trusted platform for users to engage with

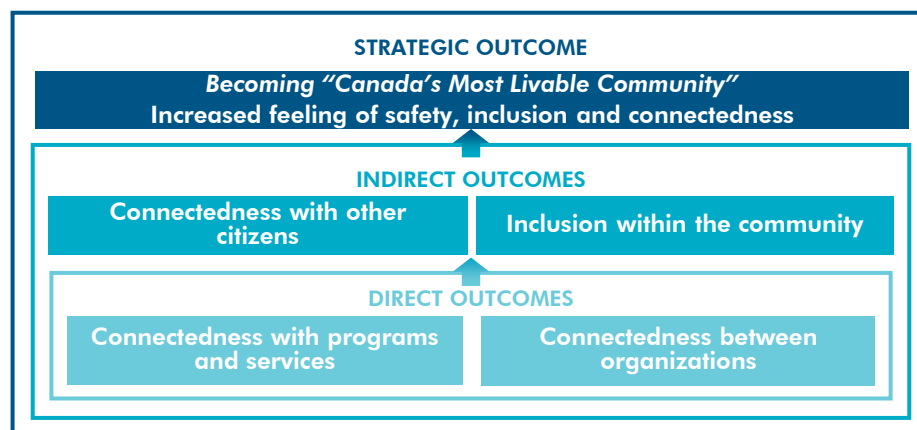
ENGAGING USER EXPERIENCE

- User experience is engaging, intuitive, and encourages continuous usage
- A single sign-on profile enables convenient omni-channel access

INTELLIGENT

- Predictive capabilities improve the match between citizen needs and programs and service opportunities

SMART CITY OUTCOMES



AND NOW, TO THE OUTCOMES

With the ultimate goal to become “*Canada’s Most Livable Community*”, the strategic outcome of “increased feeling of safety, inclusion and connectedness” was selected for this challenge.

DIRECT OUTCOMES

The direct outcomes are achieved through the successful execution of the proposed projects and activities, particularly the Community Digital Hub.

Outcome	Connectedness with programs and services	Connectedness between organizations
Description	Increased citizen access to programs, services and events that provide opportunities for meaningful connections	Increased collaboration and integration between organizations across the public, private, and non-profit sectors

INDIRECT OUTCOMES

The indirect outcomes are achieved indirectly as a result of the successful execution of the projects and activities. The fulfillment of the indirect outcomes will enable the achievement of the strategic outcome.

For example, successfully using behavioural data to understand that youth are facing bullying at school and suggesting a relevant intervention through the Digital Community Hub (Direct Outcome: Connectedness with programs and services) can help improve their situation and help them feel more included at school (Indirect Outcome: Inclusion within the community).

Outcome	Connectedness with other citizens	Inclusion within the community
Description	Increased feeling of inclusion and engagement through increased person-to-person interactions	Increased feeling of inclusion and safety through engagement in community services and activities

STRATEGIC OUTCOME

The strategic outcome will be fulfilled as a result of the long-term benefits of the proposed projects and activities. It is tied directly to “the why”. By using a combination of data, predictive analytics and cognitive technologies, citizen actions will be decoded to explain their behaviours, which can then be used to anticipate future needs, inform decision-making, and enable proactive planning.

Outcome	Increased feeling of safety, inclusion and connectedness
Description	All citizens, regardless of background, ability, or socio-economic status feel safe, included, and connected in the community.

MEASURES AND SPECIFIC GOALS

Baseline data and evidence to establish the current state with respect to the metrics used in your Challenge Statement; and, specific goals you hope to achieve by implementing your proposal, justifying both the level of ambition and the achievability of the outcome (or outcomes) sought.

For each of the direct and indirect outcomes, a number of Indicators of Progress, Baseline Measures and Specific Goals were identified. Note that the intention was not to provide an exhaustive list of indicators but rather an illustrative sample that will be used as a starting point.

The Specific Goals provided represent a balance between what is achievable given financial, technical, and partnership constraints, as well as realistic user adoption rates, and the ambition for the Community Digital Hub to broadly penetrate the community and connect citizens from all backgrounds.

Direct Outcome: Connectedness with programs and services		
Indicators of Progress	Baseline Measure	Specific Goal
Number of programs and services available on the Community Digital Hub	N/A	At least 10 programs and services are available on the Community Digital Hub at launch and the number increases by 20% each year
Number of successful predictive matches between citizens and programs / services	N/A	At least 30% of the matches between citizens and programs and services are based on predictive recommendations
Number of Strathcona County citizens registered with the Community Digital Hub	N/A	At least 25% of the Strathcona County citizens are registered with the Community Digital Hub at the end of Year 3
Number of active users in the Community Digital Hub	N/A	Of the registered users, at least 40% are active users by the end of Year 5
User satisfaction with Community Digital Hub	N/A	At least 40% of active users are able to access the information, programs and/or services they need through the Community Digital Hub by the end of Year 5

Direct Outcome: Connectedness between organizations		
Indicators of Progress	Baseline Measure	Specific Goal
Number of Community Digital Hub partners from across public, private, and non-profit sectors	N/A	At least 20 partners from across public, private, and non-profit sectors are part of the Community Digital Hub at launch and this number increases by 20% each year.
Partner satisfaction with Community Digital Hub	N/A	At least 40% of active partners indicate that they are satisfied with the Community Digital Hub at the end of Year 3

As the Community Digital Hub is yet to be implemented, baseline data for a number of the indicators associated with the direct outcomes is currently unavailable.

Indirect Outcome: Connectedness with other citizens

Indicators of Progress	Baseline Measure	Specific Goal
Participation in public engagement	Citizens responding that they have provided input on a County public engagement initiative or issue (within past 12 months) 38.2% Urban 33.7% Rural ⁷	50% of citizens (Urban/Rural) responding that they have provided input on a County public engagement initiative or issue (within past 12 months) by end of Year 2
Attendance in community events offered	N/A	Have at least 100 events available through the Community Digital Hub in Year 1, and increase this number by 10% each year, as well as increase attendance in events by 10% each year

Indirect Outcome: Inclusion within the community

Indicators of Progress	Baseline Measure	Specific Goal
Percentage of youth who face bullying	40% of Junior High and High School students said they were bullied ⁸	Have at least 3 services that targets youth who face bullying at Community Digital Hub launch to support the decrease of the percentage of Junior High and High School students who say they are bullied
Domestic violence rates	Since 2010, incidence of domestic violence has increased by 113% in Strathcona County ⁹	Have at least 3 services that targets people experiencing domestic violence issues at Community Digital Hub launch to support the decrease in domestic violence cases
Number of people experiencing mental health issues	Over the past three years, there has been an increase of 57% in the number of anxiety-related doctor referrals ¹⁰	Have at least 3 services that targets people experiencing mental health issues at Community Digital Hub launch to support the decrease in anxiety-related doctor referrals

Strategic Outcome: Increased feeling of safety, inclusion and connectedness

Indicators of Progress	Baseline Measure	Specific Goal
Crime rates	Ranked as 23 rd safest municipality in the categories of murder, auto theft, robbery, sexual assault, and break and enter ¹¹	Improve ranking to top 10 of municipalities by the end of Year 5
Youth perception of community	60.5% of youth feel like they live in a very caring community ¹²	Increase the percentage of youth who feel like they live in a very caring community to 80% by the end of Year 5
Sense of belonging to the community	61.1% of youth and 75.4% of adults feel like they belong and are connected to others ¹³	Increase the percentage of youth and adults who feel like they belong and are connected to others to 80%, respectively, by the end of Year 5
Integration of visible minorities	73.6% of citizens agree that people in Strathcona County are valued, respected and treated fairly ¹⁴	Increase the percentage of citizens who agree that people in Strathcona County are valued, respected and treated fairly to 80% by the end of Year 5

⁷ Strathcona County. 2015 Public Satisfaction Survey Results

⁸ Strathcona County. "What We Heard Report." 2016. PDF file.

⁹ RCMP, Strathcona County. 2016.

¹⁰ Primary Care Network. 2017.

¹¹ MacLean's. "Safety Rankings. 2010. PDF file.

¹² Strathcona County. "Youth Survey Report". 2011. PDF file.

¹³ Strathcona County. "What We Heard Report." 2016. PDF file.

¹⁴ Strathcona County. "What We Heard Report." 2016. PDF file.

HOW OUTCOMES SUPPORT COMMUNITY NEEDS

Evidence to support the selection of this/these outcome (or outcomes over others, in reference to the needs of the community.)

Through *Community Talk*, citizens have expressed the importance of connectedness and working together to build a stronger community. When asked about some of their priorities and what they could do personally and as a community to contribute to these priorities, here were some the responses:

FIGURE 3. CITIZEN RESPONSES ON WHAT IS NEEDED TO START BUILDING A STRONGER COMMUNITY



More specifically, here is how the outcomes align with community needs.

Community Need	Outcome	Alignment
Increase Community Involvement	Connectedness with other citizens	Connecting citizens with activities and events will provide opportunities for citizens to give back to the community, work towards common goals, and build connections and trust with one another.
Foster a Sense of Belonging and Acceptance	Inclusion within the community	Connecting citizens with the programs and services they need to feel safe – physically, mentally, and emotionally – will foster a sense of belonging, acceptance, and inclusion in the community.
Improve Access to Programs and Services	Connectedness with programs and services	By integrating programs and services from public, private, and non-profit sectors into a single platform, the Community Digital Hub will increase awareness of and access to programs and services, as well as affordability due to a much greater offer, including the ability to enable citizen-to-citizen services.
Increase Collaboration	Connectedness between organizations	Bringing together organizations from across the public, private, and non-profit sectors will enable greater information exchange and increased collaboration on important community issues, thus breaking down silos and improving the citizen experience.

¹³ Strathcona County. "What We Heard Report." 2016. PDF file.

APPLYING A SMART CITY APPROACH

Rationale for applying a smart city approach to achieving the identified outcome (or outcomes).

A Smart City approach consists of using technology enablement to achieve better quality of life for its people with greater economic development opportunities in an environmentally sustainable manner. Below is an explanation of how we will adopt a Smart City approach of to help achieve outcomes and the success of the Community Digital Hub.

OPENNESS

The Community Digital Hub will generate vast amounts of data, with a sizeable portion to be made available on the Open Data Portal. The aggregated data will provide insights on how citizens are connecting with various programs and services offered by Strathcona County as well as by partner organizations across the public, private, and non-profit sectors. This user data will be treated according to legislation and measures will be taken to ensure alignment with best practices around data security and privacy.

Open data generated through the Hub will be a trusted source of local data that can be used by a wide variety of people and organizations to support social outcomes as well as business and economic development. It can identify unmet citizen needs in certain geographies that could lead to small business opportunities or expansion for established businesses. A one-stop Open Data Portal for all community content will foster a culture of sharing, encourage civic innovation and lead to improved planning.

INTEGRATION

Breaking down silos by consolidating programs, services and information from across the community onto one platform enables citizens to more easily access what they need from the government, local businesses, and other community partners. Ultimately, improved access will support an increased sense of inclusion and connectedness within the community. The use of an intelligent digital platform will significantly support this aspiration. Partners with disparate specialties will come together and understand how to make their services more relevant, how to plan better and also where to focus in a predictive manner.

TRANSFERABILITY

The 2016 Canadian Census showed that municipalities located at the edge of the larger metropolitan areas were growing at a greater rate than the those located at the center of the metropolitan area¹⁴. With a mix of rural and urban population and as a desirable destination for both employment and residence, Strathcona County fits right within that profile. Additionally, less than 24 municipalities had a population of over than 200,000, which puts Strathcona County in a unique position from a transferability of ideas perspective. Arguably, ideas that are tested and proven in Strathcona County will be applicable to a large number of other municipalities across Canada.

As the Community Digital Hub idea is further developed, there will be a special focus to maintain alignment with open standards, to use open-source technology as much as possible, and to keep costs contained in such a manner that the ideas and solutions are fully transferable to other Canadian municipalities.

¹⁴ In 2016, the County won the "Small City, Big Impact" award at the Open Cities Index among cities with a population of under 100,000 and in 2015 the Open Data for Value award at the Canadian Open Data Summit

COLLABORATION

Different from what many other municipalities – particularly larger cities in Canada – have done in the past, the Community Digital Hub will not be focused solely on the municipal government. The County will play an orchestration and stewardship role; however, the partner organizations from across the public, private, and non-profit sectors will also contribute towards and drive the hub, including partners who would not traditionally collaborate.

Strathcona County has close existing relationships with “traditional partners” such as the Strathcona County Library, Elk Island Public Schools, the RCMP, and non-profits such as the Heartland Housing Foundation. The implementation of the hub would see collaboration opportunities expand exponentially. An example of such a collaboration would be one between Strathcona County and the University of Alberta Faculty of Science, ranked second in the world in its Artificial Intelligence capabilities, ahead of powerhouse names such as the MIT.

¹⁵ Press, Jordan. “Census 2016: Big cities home to big share of 35 million Canadians.” CBC News, <http://www.cbc.ca/news/politics/cities-population-census-2016-1.3972062> Accessed 22 March 2018

STRATEGY FOR MEASURING PROGRESS

Strategy for measuring progress toward outcome (or outcomes) and achievement of outcome (or outcomes).

We will measure our progress towards the achievement of outcomes using the indicators previously identified.

To gather the data required for the indicators, the following strategies will be used:

SMART DATA HUB

The Community Digital Hub itself will have a Smart Data Hub, which collects: (1) data on the array of programs and services available on the Community Digital Hub; (2) data on the partner organizations contributing to the Community Digital Hub; (3) data on user engagement with programs and services; (4) data on user needs and content consumption, (5) user satisfaction levels; and (6) big data collected from sensors and IoT systems, among various other categories of data.

SENTIMENT ANALYSIS

Leveraging cognitive capabilities, machine learning algorithms and, ultimately “sentiment analysis” techniques such as the ones made popular by Netflix or Amazon, the Community Digital Hub can use natural language processing and text analytics to uncover insights on the attitudes, opinions, and emotions of users expressed through a digital channel.

COMMUNITY ENGAGEMENT

Strathcona County holds several public consultations each year, such as *Community Talk* and general public surveys. Additionally, channels of engagement proposed in the Recreation Strategy Communication Plan as well as the Transit Master Plan can also be leveraged to gather indicator data and feedback from citizens.

ONLINE RESEARCH PANEL

Strathcona County will use its Online Research Panel: opt-in survey communities where participants are asked to take part in interactive surveys and polls, online forums, and questionnaires, to gather feedback on specific topics. This tool can also be used as a way to gather indicator data from the survey communities.

SOCIAL MEDIA CAMPAIGNS

The County has a well established presence in Social Media and has used it in the past both to share information but also to collect information from its citizens and businesses. There will be a focused effort in better integrating these channels with the Community Digital Hub to ensure that progress on indicators can also be measured that way.

EXISTING PROGRAM AND SERVICE PERFORMANCE INDICATORS

Strathcona County will leverage the existing data it collects on the planning and delivery of its programs and services – including transactional, descriptive and quantitative metrics – to inform the progress towards the achievement of outcomes.



Q5. COMMUNITY ENGAGEMENT

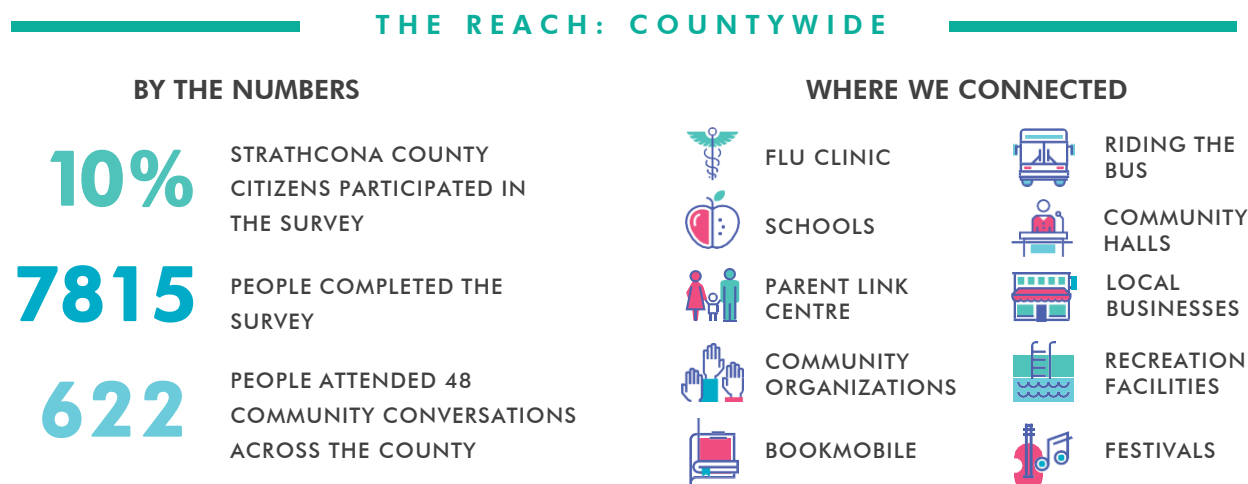
HOW WE ENGAGED OUR COMMUNITY

Descriptions of previous engagement with residents, businesses, organizations, and other stakeholders on topics related to the Challenge Statement; and, Evidence of efforts made to be inclusive and to represent the community's diversity.

To take a citizen-centric approach in the development of the Challenge Statement and Smart City outcomes, Strathcona County leveraged a public engagement campaign called **“Community Talk”**, which focused on residents' social priorities and current experiences. Eight departments and three community partners¹⁶ collaborated to design and implement *Community Talk*.

Remarkably, nearly 10% of eligible citizens provided input, a participation level that is unparalleled in Strathcona County's history of public consultation. Diverse groups throughout the County were actively involved in *Community Talk* to determine how together we could best create a supported, safe, connected, inclusive, and smart community. These groups included: over 200 businesses, 33 community agencies, 25 faith communities, 16 schools, 10 community hall associations, and 7 service clubs, among many others. In order to engage a broad number of County citizens, with the goal of capturing the voice of those less likely to be involved in such an initiative, staff and volunteers attended a number of locations and events across the County, as indicated below:

FIGURE 4. COMMUNITY TALK REACH



Community Talk sought to identify any of the challenges, and goals that community members had. The results of *Community Talk* were then used as a basis for the development of the Challenge Statement. These insights were revealed by asking citizens to evaluate the extent to which Strathcona County was achieving six social goals, and then identifying key areas of improvement to improve any of the goals, as well as actions the citizens could individually take to build a stronger community.

¹⁶ Community Partners include the Information and Volunteer Centre, Strathcona County Library and Heartland Housing Foundation. The following eight departments from the County were also involved: Family and Community Services, Transit, Recreation, Parks and Culture, RCMP, Emergency Services, Communications, Corporate Planning and Inter-Governmental Affairs, Planning and Development Services.

THE 6 GOALS:

- 1 People in Strathcona County feel like they belong and are connected to others.
- 2 People in Strathcona County feel safe and are free from physical and emotional harm.
- 3 People in Strathcona County are valued, respected and treated fairly.
- 4 People in Strathcona County are healthy (physical, mental, spiritual and emotional wellness).
- 5 People in Strathcona County work together to make our community stronger.
- 6 People in Strathcona County have all their basic needs met

WHAT WE HEARD

Descriptions of feedback that came to light through past engagement processes.

When asked about the six goals, eight (8) key themes on how the goals could be improved, as well as four (4) key themes on what citizens could do to contribute towards a stronger community emerged:

FIGURE 5: KEY THEMES FROM COMMUNITY TALK

WHAT COULD BE DONE TO IMPROVE ON ANY OF THE SIX GOALS

-  **Affordability** (housing, childcare, transportation, recreation, income)
-  The need to **work together** for common goals
-  Feeling of **safety** (physically, mentally, spiritually, emotionally)
-  Fostering a sense of **belonging and acceptance**
-  Improvement to the **transit system** (including routes/frequency)
-  More **community events** - neighborhood and County-wide
-  Increase in **mental health awareness** and in services available
-  Better **access to programs and services**

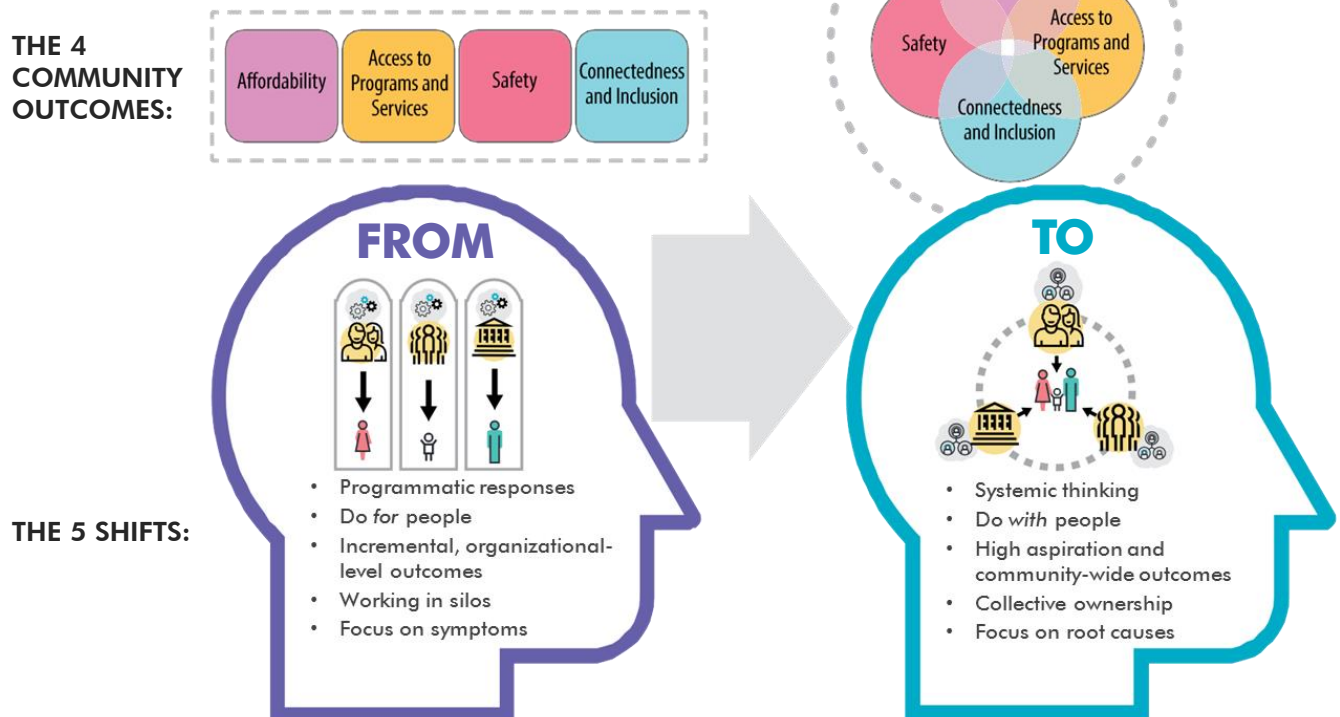
ACTIONS CITIZENS COULD TAKE TO BUILD A STRONGER COMMUNITY

-  **Citizenship**
 - Volunteerism
 - Community involvement
 - Help one another (empathy)
 - Work with each other to reach common goals (collaboration)
 - Neighbourliness
-  **Respect others** and accept their differences (inclusion, diversity, equity)
-  **Community awareness** of what is happening in the community
-  **Voice important issues and advocate** for those who may not have a voice

The results of *Community Talk* then informed the development of the “**Social Framework**”, which guides how Strathcona County designs and delivers its programs and services for the community. The key themes identified through *Community Talk* were used to develop the four Community Outcomes that make up the *Social Framework*, which has become a central point around which Strathcona County aligns its efforts, including its ongoing transformation into a “Smart County”. Additionally, from the *Community Talk* results, five Shifts were identified as being integral to address complex social issues.

The following figure provides an overview of the *Social Framework*.

FIGURE 6: THE SOCIAL FRAMEWORK



HOW WE USED THE ENGAGEMENT FEEDBACK

[Links between the Challenge Statement and engagement feedback.](#)

A theme that emerged from *Community Talk* was **CONNECTEDNESS**. This theme encompasses various domains, including, but not limited to:

- **Connectedness with programs and services:** increased awareness and accessibility to programs, services, and community events
- **Connectedness between public, private, and other organizations:** improved connectedness between organizations in the community, which can lead to improved service delivery
- **Connectedness with other citizens:** volunteerism; opportunities to collaborate towards common goals; voicing and advocating for issues
- **Inclusion within the community:** respect for one another; sense of belonging; feeling of safety

The *Social Framework* was applied throughout the ideation phase and the development of this Smart Cities challenge proposal. The Smart City Outcomes were selected based on their alignment with the community needs voiced in *Community Talk*, as well as ability for the achievement of these Smart City Outcomes to support the achievement of the four Community Outcomes: Affordability, Access to Programs and Services, Safety, and Connectedness and Inclusion.

HOW WE PLAN TO CONTINUE ENGAGING OUR COMMUNITY

Plans to sustain engagement through the development and implementation of the final proposal.

Strathcona County supports community engagement processes that are open, transparent and accessible, and that value the public's input into decision-making. This is made clear in Strathcona County 2030, Strathcona County's Strategic Plan, in which one of the strategic goals is to increase public involvement and communicate with the community on issues affecting the County's future. Strathcona County plans to continue engaging the community throughout the Smart Cities Challenge process.

As part of its Public Engagement Framework, Strathcona County developed a Continuum of Engagement, which identifies four different degrees of public involvement that can be conducted to inform the development of the final proposal:

	 INPUT Obtain feedback from the public and stakeholders to test ideas or concepts, clarify issues, and identify possible solutions.	 LISTEN AND LEARN Create opportunities for County staff, Council, the public and stakeholders to enter into a dialogue together to explore each other's perspectives, goals, plans, concerns, expectations, and possible solutions.	 COLLABORATE Partner with citizens and stakeholders in each aspect of the decision, including the development of alternatives, recommendations and preferred solutions.	 EMPOWER Delegate some or all aspects of decision-making to citizens and stakeholders.
ENGAGEMENT METHODS	<ul style="list-style-type: none"> • Polls and surveys • Social media • Workbooks • Comment boards 	Two-way dialogue and conversation-oriented tools including: <ul style="list-style-type: none"> • Focus groups • World cafes • One-on-one and small group conversations • Workshops • Discussion boards and blogs • Design charrettes 	Ongoing engagement strategies including: <ul style="list-style-type: none"> • Advisory boards • Working groups • Steering Committees 	Decision-making tools including: <ul style="list-style-type: none"> • Authorized committees • Voting • Citizen juries

Moving forward in the challenge process, various degrees of public involvement will continue to be used in order to validate concepts, test solutions, and ensure that the implementation of the proposal continues to be reflective of citizen needs.

Strathcona County will use online platforms of engagement to reach a broader audience for feedback. An example of a feedback tool is our soon to be implemented Online Research Panel, which consists of a group of self-selected participant communities who agree to provide information to the County over an extended a period of time. These communities participate in interactive research activities such as surveys and polls, online forums, and questionnaires through various platforms including desktops, tablets and smartphones in order to provide feedback on specific topics and issues. This panel is an effective way to engage the community and gain key insights into their preferences, attitudes and needs.

Social media will also be leveraged to facilitate two-way conversations with the community. These online platforms will both allow for the targeting of specific audiences based on demographics, location, and interests, and can provide useful analytics and data insights into the users who are providing feedback.

Additionally, existing public engagement plans will be leveraged as opportunities to engage with citizens. Examples are the new 12-year Public Engagement Communication Plan developed by the County's Recreation, Parks and Culture, and the Transit Master Plan.

Moreover, once implemented, the Community Digital Hub will use sentiment analysis and machine learning capabilities to gauge user interest and satisfaction levels. These mechanisms for community engagement will be realized at later stages in the implementation of the Community Digital Hub, but will be integral in the analysis of large quantities of user behaviour data arising from interactions with the Community Digital Hub to inform the type of content – including information, programs, and services – that is recommended to users. Additionally, sentiment analysis will provide insights on user attitudes and opinions towards specific programs and services, as well as their overall experience using the Community Digital Hub. These insights can be used to drive decisions related to programs and services, such as what to offer, improve upon, and issues to take into consideration, to name a few examples.

As users and partners increase their usage of the Community Digital Hub, more data around user needs, preferences, and attitudes will be collected, and cognitive capabilities will enable the Hub to “learn” and predict user needs. Reminiscent of the proven recommendation systems of Netflix and Amazon, this will enable the delivery of personalized experiences to citizens, enabling “matches” between citizen needs with programs and services that best fulfill these needs, including those that citizens may not have initially been aware of.

Q6. PROJECTS AND ACTIVITIES

Please describe your preliminary proposal and its activities or projects.

THE COMMUNITY DIGITAL HUB

The key product to be delivered through the projects and activities proposed will be the Community Digital Hub. As previously mentioned, there are four pillars that make up the Community Digital Hub:

I. TO CONNECT PROGRAM AND SERVICE OFFERINGS

The Community Digital Hub will create connections between and within citizens and public, private, and non-profit organizations. It will be not only scalable but also replicable in other municipalities with similar needs and characteristics. It will abide by open architecture, open data, and interoperability design principles.

II. TO CONNECT CITIZENS WITH EACH OTHER

The Community Digital Hub will understand the nuances of user needs and demographic/psychographic characteristics to match them with programs and services that improve their connection with other citizens, as well as increase their sense of inclusion in the community.

III. TO CREATE A SMART DATA HUB

The data collected through the Community Digital Hub will form a "Smart Data Hub". This hub will contain transactional, behavioural and sensor type data, and part of this data will be shared publicly through Strathcona County's Open Data Portal.

IV. TO ENABLE THE COUNTY OF THE FUTURE

The Community Digital Hub will use cognitive intelligence to enable proactive planning capabilities.



Cognitive Intelligence

Use of intelligent agents to deliver mass personalization at scale and smarter, more relevant insights to amplify end-user experience

Optimized citizen behaviour

Drive citizen behavior by delivering hyper-personalization at scale

Ubiquitous engagement

Generate personalized and contextual recommendations to citizens



Predictive Analytics

Identify opportunities for citizen engagement by creating large-scale organizational intelligence with pattern detection and the ability to analyze multiple data sources

New growth

Uncover hidden patterns to identify new opportunities for innovation

Evidence-based decisions

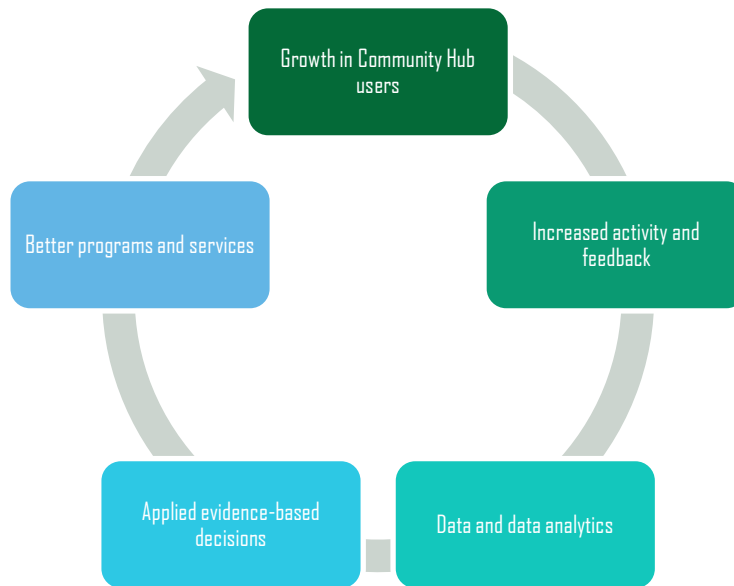
Apply a science-based decision-making process informed by deeper insights

Timely action

Push real-time, contextual insights to decision makers at relevant moments

The cognitive and predictive abilities of the Community Digital Hub will be continuously improved with increased usage, which will lead to increased user engagement in a feedback loop as illustrated below:

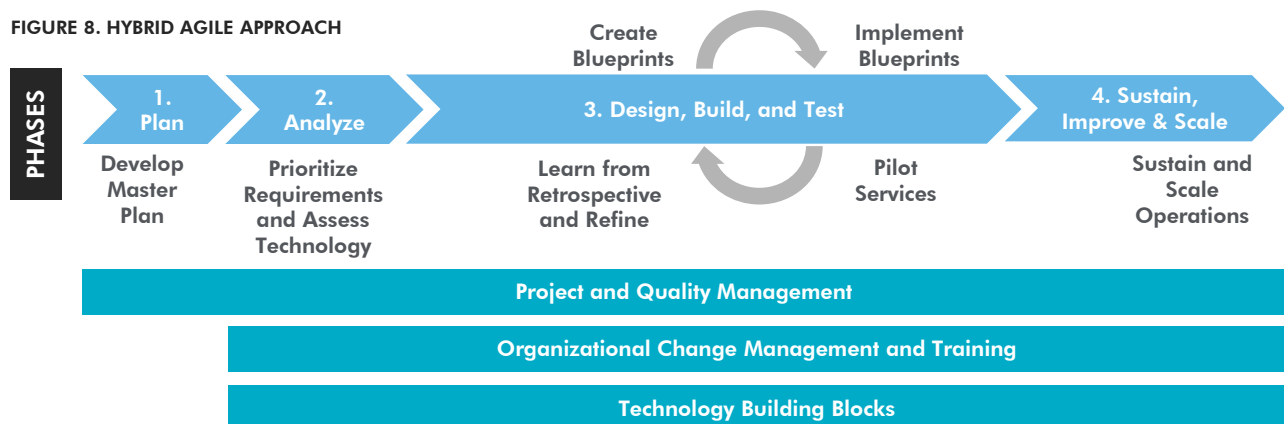
FIGURE 7. THE SMART FEEDBACK LOOP



APPROACH

To stand up the Community Digital Hub, we have designed a “Hybrid Agile Approach” that will guide the execution of the projects and activities in scope. Below we provide an outline of that approach.

FIGURE 8. HYBRID AGILE APPROACH



PHASE 1: PLAN

This phase will result in the development of a master plan and will consist of the following set of key activities:

- Confirm steering committee and working committee
- Confirm partnerships and partner roles and responsibilities
- Prepare detailed roadmap
- Develop stakeholder consultation process

PHASE 2: ANALYZE

The activities in this phase can be divided in two groups:

PEOPLE

- Adopting a human-centred design approach, identify key profiles
- Develop journey maps for the key profiles
- Develop a service design framework
- Develop a service performance measurement framework

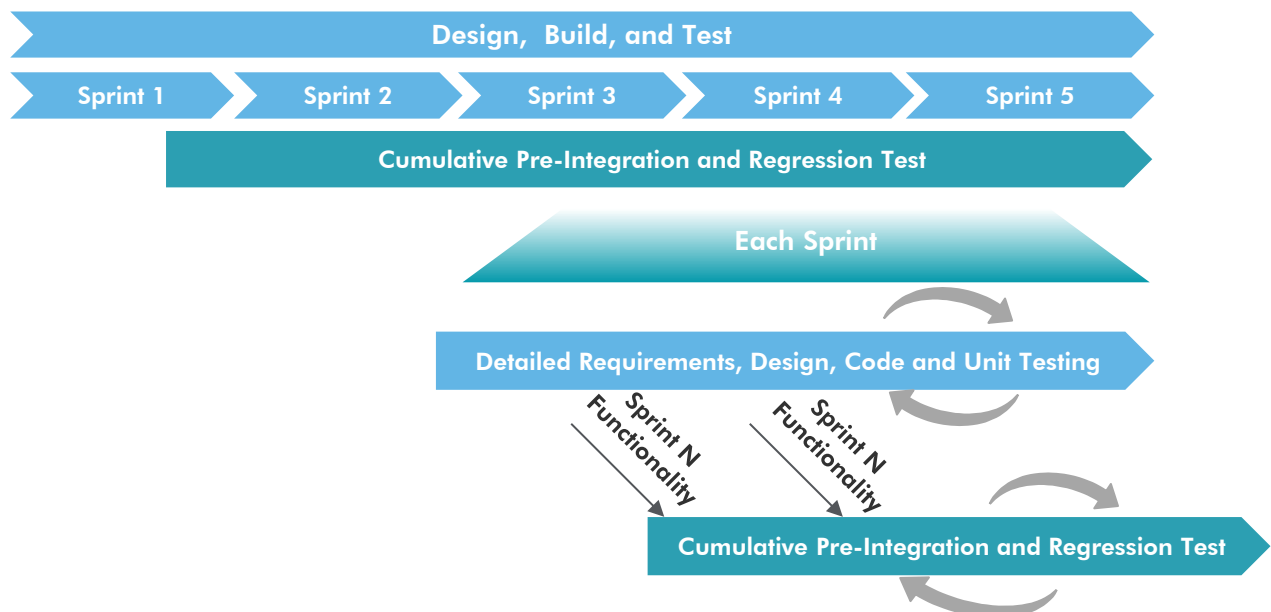
TECHNOLOGY

- Develop future state architecture
- Prepare inventory of existing IoT assets and relevant data being collected
- Identify major gaps
- Assess open source solution options for architecture components
- Define a sourcing strategy

PHASE 3: DESIGN, BUILD AND TEST

This phase will be the one that will be primarily executed in an agile manner, as shown below.

FIGURE 9: DESIGN, BUILD, TEST PHASE



Depending on the complexity of each service, each sprint will consist in the development of a complete service or parts of it. Again, the activities in this phase can be divided in two groups:

PEOPLE

- Develop service blueprint, including outcomes and measurements
- Define service contracts with partners
- Perform stakeholder consultation as required
- Test services and measure outcomes
- Design a “Trust Model” to identify ways to build trust with citizens and encourage usage of the Community Digital Hub

TECHNOLOGY

- Build user engagement front end
- Build data collection back end
- Build artificial intelligence algorithms, as required
- Build blockchain connections, as required
- Deploy services in the hub and test

PHASE 4: SUSTAIN, IMPROVE AND SCALE

In this phase, measures will be taken to build trust with citizens to encourage adoption, as well as to continually gather feedback to sustain and improve the Community Digital Hub. Additionally, this phase will focus on scaling the Community Digital Hub to enable more Community Service Partners to integrate their programs and services onto the hub, as well as support an increase in users. The intent is for the Community Digital Hub to be designed to scale across the public, private, and non-profit sectors, as well as potentially across levels of government. This also demonstrates the ability for the Community Digital Hub concept to be implemented in other municipalities of various sizes across Canada.

PROJECT AND QUALITY MANAGEMENT

To ensure the various projects are managed successfully and that the planned outcomes are achieved, a project management office (PMO) structure will be deployed, which will carefully orchestrate the project delivery activities and monitor the quality of the processes and products being created.

ORGANIZATIONAL CHANGE MANAGEMENT AND TRAINING

Strathcona County will ensure that along the way, key stakeholders across the public, private, non-profit and government are accounted and cared for by utilizing a coherent organizational change management methodology.

Adopting an effective change management and training strategy will accelerate the rate of change acceptance and adoption of the Community Digital Hub. It will support our successful transition towards becoming a County that takes a proactive and data-driven approach to planning.

TECHNOLOGY BUILDING BLOCKS

We will need to implement these technology building blocks to support the creation of the Community Digital Hub:

OPEN WI-FI AND BROADBAND ACCESS

High-speed internet access is a key foundation to the success of Smart City initiatives. Strathcona County has already initiated incentive programs that are targeted at increasing broadband access, including its rural communities. In addition, Strathcona County will implement free, public Wi-Fi in publicly accessible facilities across Strathcona County and expand Wi-Fi access points by further leveraging IoT connected devices such as lighting. This will enable citizens to connect to a Wi-Fi network via their mobile devices (i.e., smartphones, tablets, laptops) for a variety of purposes, including accessing the Community Digital Hub to connect to programs and services. This will expand access to those who do not regularly have access to Wi-Fi networks or may have financial difficulty to afford larger data plans.

SERVICES PORTAL

The guiding principles of the Community Digital Hub include being “citizen-centric” and being able to offer an “engaging user experience.” To ensure alignment with these guiding principles, a portal or web experience platform needs to be put in place. A variety of user research tools and methods will be used to help inform the development and delivery of the Community Digital Hub. The goal is to develop a clear understanding of various citizen segments based on both their demographic and psychographic characteristics, and an understanding the specific needs, goals, and challenges of each segment. Insights from this research will be used as a foundation to determine the types of programs and services that would be a suitable “match” for each segment, and inform the initial selection of community partners to contribute to the Community Digital Hub.

Additionally, research will be conducted to understand the digital experience desired by users, such as the channels through which they prefer to receive information, and devices they use to access online content, among various other behaviours, needs, and goals. Designing a user friendly and intuitive platform with an optimized user experience is more likely to encourage uptake and continued usage of the Community Digital Hub. For this to work successfully, Strathcona County will build and deploy a foundational platform upon which the experience, connections and services can be built.

UNIQUE CITIZEN IDENTITY

Today, more than ever before, citizens are looking to access programs and services in a convenient, secure, and private manner. A unique citizen profile will enable citizens to do so by conveniently and securely connecting them with programs and services on the Community Digital Hub. This will improve citizen satisfaction levels by eliminating the need to manage multiple identities across multiple program and service areas.

The single citizen profile will secure personal information by using enhanced privacy and consent controls. The profile will only contain the information required to register an account; additional information required for programs and services will require users to provide consent separately. Server authentication and data encryption will be used to ensure that personal information is kept safe, secure, and available.

The single citizen profile also will enable better understanding of a specific user and / or user segment. Collecting data and the use of data analytics and cognitive technologies will enable increased personalization and improved tailoring of programs and services, while adhering to the highest standards of quality and security.

The possibility of leveraging the existing provincial digital identity (i.e., *MyAlberta Digital Identity*) will be examined, as this could enable the integration of the Community Digital Hub with provincial services, and streamline the account management process from a citizen standpoint. This integration will require careful attention to how users will provide consent for sharing their information across levels of government and departments, as well as ensuring compliance with Alberta's Freedom of Information and Protection of Privacy Act (FOIP Act).

OPEN DATA PORTAL

Data generated through the Community Digital Hub will be integrated and shared in the Open Data Portal where possible. Within the Freedom of Information and Protection of Privacy Act (FOIP), Strathcona County will respect an individual's privacy and is committed to protect personal information. All information distributed via the Open Data Portal will be shared under the Open Government Licence.

Releasing the data in an open data format is advantageous for both citizens (data consumers) and organizations across various sectors as it ultimately creates a better environment: one of openness and trust. Additionally, it allows users (e.g., businesses, entrepreneurs, etc.) to add value to the data through immediate visualizations and analysis; use in external software; or utilize APIs for automating into another application. The Open Data Portal is thus imperative to the achievement of the Smart City Outcomes.

ARTIFICIAL INTELLIGENCE MODELLING

The cognitive capabilities of the Community Digital Hub will continue to "learn" the behaviour and needs of each user and user segment, and provide recommendations that are more accurately tailored to their needs. Neural networks and deep learning algorithms will be explored and leveraged to identify human behaviours and patterns that lead to a "win", using parallels with gaming theory.

BLOCKCHAIN

Blockchain technology will be used to develop distributed ledgers that allow service provisioning from multiple service owners in the Community Digital Hub. This will enable respective service owners to own "contracts" for their services, whereas other partners will be contributors to those services. This will be a key differentiator in the design of the Community Digital Hub compared to other platforms that have been undertaken for similar purposes. The use of blockchain will allow a level of security that will ultimately encourage increased adoption and outcome realization.

INTERNET-OF-THINGS (IoT)

The County has made significant investments over the last few years in sensor technology – from buildings and connected lighting to smart traffic control, utilities and emergency services. This trend is expected to accelerate in the years to come, with an expectation that most of the investments into “operating technology” will have a “smart flavor.” As an example of its application, Strathcona County’s traffic signal network can be leveraged to track data on the usage of pedestrian corridors, which can then inform decisions on improving pedestrian facilities to encourage usage.

A critical success factor of the Community Digital Hub architecture will be to integrate IoT based services in a seamless manner, with the ability to manage the associated “big data”.

Q7. SUPPORT OF GOALS, STRATEGIES AND PLANS

Please describe the ways in which your preliminary proposal supports your community's medium and long-term goals, strategies, and plans.

Strathcona County's Smart City proposal is aligned with our strategic vision to become "*Canada's Most Livable Community*".

The Community Digital Hub will enable Strathcona County to shift from its current position ("Smart City 1.0") towards the next stages of the Smart City maturity model. Smart Cities are all about the people that they serve and the Community Digital Hub will create a platform for the ecosystem of players that serve the community, private, public and not-for-profit sectors. It will enable the match-making between citizen needs and the programs and services to fulfill those needs. Ultimately, this will be scalable to communities of various sizes and capacities across Canada.

The Community Digital Hub will include a smart data hub that will be invaluable in gathering data and information that will drive decision-making. By collecting data through the Community Digital Hub and making it accessible to community partners, as well as to the public through the open data initiative, Strathcona County and its partners can improve their understanding of citizen needs, goals, and pain points, better manage supply and demand, and redesign their programs and services to improve the citizen experience ("Smart City 2.0").

As the Community Digital Hub and smart data hub evolve, information will be used to enable Smart City planning. This is the stage in which the municipality no longer simply reacts to the needs of the community, but also proactively anticipates what will be required – the Cognitive Advantage stage ("Smart City 3.0"). Insights will be drawn to understand the patterns that citizens exhibit around content consumption and program / service usage and successful "matches" achieved through the Community Digital Hub. This will enable Strathcona County to be a "smart municipality" in the truest sense, one that leverages cognitive advantage for the betterment of the community. Insights drawn from the data hub will be powerful because it will not only draw from governmental data sources, but from an ecosystem of partners, who ultimately exist to serve the community in various verticals.

The Community Digital Hub is not an accessory to the achievement of Strathcona County's vision, but a keystone that enables the use of data analytics to respond to and predict citizen needs in such a way that improves community connectedness and inclusion.

Q8. READINESS AND ABILITY

EXPERIENCE IMPLEMENTING COMPLEX PROJECTS

Experience with implementing complex projects (i.e. multi-stakeholder, multi-dimensional) that span multiple business lines and functional units.

Strathcona has experience in implementing complex, multi-stakeholder projects that span multiple business lines and functional units. Notable projects include:

PRIORITY-BASED BUDGETING

Since 2015, Strathcona County has been working to incorporate a strategic, proactive and effective approach to business planning and budgeting. Priority-based business planning and budgeting (PBB) has provided our organization with a better understanding of the programs we deliver, at what level of service, and at what cost, as well as alignment to Council-defined priorities. Use of the PBB tools has led to efficiencies and cost savings, and making sure our resources are directed at the right things, at the right levels. This approach has been recognized by the Canadian Association of Municipal Administrators as a unique and innovative program that can be replicated in other communities.

ONE COUNTY - INFORMATION & TECHNOLOGY STRATEGY

We needed to build an enterprise-wide approach to manage, govern, and invest in information and technology for our organization. In 2017, we adopted an overarching I&T Strategy that promotes "one county" and is integral to the County achieving its strategic long-term goals and priorities. Using an integrated and sustainable approach to managing information and technology, the strategy stimulates modern solutions, insight-driven decisions, and better connecting citizens with municipal services. The I&T Strategy was created, and will be implemented, with department cross-collaboration.

TRAFFIC SAFETY PLAN 2020

In 2008, Strathcona County became one of the first municipalities in Canada to create a Traffic Safety Strategic Plan (TSSP). We updated our Traffic Safety Strategic Plan in 2014 to align with the Safe System philosophy and a vision of zero serious injuries or deaths on our road network. This included a traffic safety survey to establish resident perceptions and attitudes towards traffic safety and traffic safety initiatives. As well, interdepartmental representatives were engaged in the identification of community key issues and priorities. We continue to work with multiple stakeholders to proactively implement integrated, evidence-based and collaborative road safety strategies.

BEAVER HILLS DESIGNATED A UNESCO BIOSPHERE RESERVE

Strathcona County has been a member of the Beaver Hills Initiative since it formed in 2002, working to address development and land use planning within the moraine. The Beaver Hills Initiative has grown to over 20 member organizations, including Strathcona County, Lamont County, Beaver County and Leduc County, as well as provincial and federal government, local residents, indigenous organizations, NGOs and academia. Through the efforts of the members, the Beaver Hills was designated a UNESCO Biosphere Reserve on March 21, 2016. The Beaver Hills joins a global network of over 600 sites that are internationally recognized for their work to ensure ecologically sustainable human and economic development. It is the second biosphere in Alberta and joins 16 other Canadian Biospheres.

REGIONAL SMART BUS AND SMART FARE

In conjunction with the City of Edmonton and St. Albert, Strathcona County is implementing a Smart Bus and Smart Fare system to transform the public transit experience. Smart Bus will enable transit users to plan trips using real-time transit information to minimize wait times and missed connections. This technology contains the necessary telecommunications and infrastructure for the Smart Fare payment system that will allow for fare payment using credit cards, debit cards, smart phones, etc. Full use of Smart Fare is expected by 2020. Both systems will provide an unprecedented amount of passenger travel data to better plan for service improvements, and monitor and assess transit operations. Lessons learned from this complex, multi-stakeholder project will aid in implementation of the Community Digital Hub.

RURAL INTERNET ACCESS PROGRAM

Strathcona County's innovative Rural Internet Access Program is enhancing internet access in hard-to-reach areas by adding local internet towers to boost signal reach. Through this three-year program, the County offers incentives to internet service providers (ISPs) who build smaller internet towers in areas where there are gaps in service. The new towers – owned and maintained by the ISPs – act as a bridge between households and larger infrastructure towers, bringing high-speed internet to areas without access. Local ISPs work directly with landowners in areas designated by the County. The County also partnered with Strathcona County Library and Shell Canada Ltd. to install Internet routers in 14 rural community halls to make these facilities community Wi-Fi hotspots.

PLANS TO CREATE SMART CITY TEAMS

Structures, processes, and practices in place or planned for managing and implementing complex projects that span multiple business lines and functional units.

In addition to all the projects and activities described in this proposal to establish the Community Digital Hub capability, a Smart County Enablement Centre will be created.

SMART COUNTY ENABLEMENT CENTRE

To realize the potential benefits of the vast amounts of data generated through the Community Digital Hub in addition to the aggregated data generated by IoT, Strathcona County will stand up an Enablement Centre formed by a multi-disciplinary team. The centre will primarily leverage data and analytic capabilities to inform decision-making and enable proactive program and service delivery.

The Enablement Centre will be comprised not only of tools and capabilities but also experts ranging from Social Framework experts, policy experts, stakeholder engagement experts, to smart technology experts and data scientists. The centre's purpose two-fold:

- **Provide internal consulting and advisory service:**

Data collected from the Community Digital Hub will be translated into actionable insights that can be used to inform decisions around the delivery of programs, services, and policy development.

- **Provide leadership, support, research, and best practices and methodologies to partners:**

These resources will be available to organizations, individuals and businesses across the municipality.

ORGANIZATIONAL PLAN TO IMPLEMENT PROPOSAL

Organizational strengths and potential weaknesses for managing and implementing a smart city proposal, and plans to address weaknesses to ensure successful proposal management and implementation.

Similar to what is currently being done in the large Business Transformation project, Strathcona County will adopt a model that can be scaled, i.e., engaging vendors that can both play a trusted advisor role and also conduct knowledge transfer that will enable the County and its partners to develop their capabilities and stand on their own when time comes to transition to production and scale.

To address organization-wide buy-in, which can be a challenge, the existing inter-departmental Smart City Challenge Team will continue to be engaged to build awareness of the benefits of the project, support activities, as well as to respectively liaise with partner organizations. It will also help manage the development of concepts and enable organization-wide innovation.

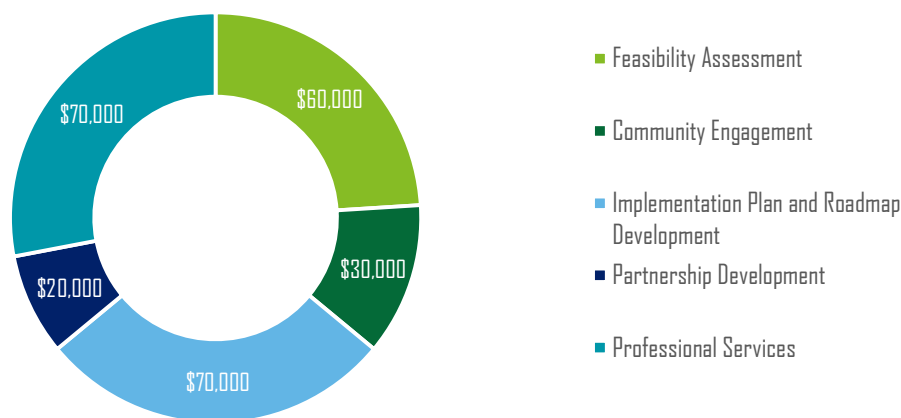
Q9. GRANT SPENDING PLAN

SPENDING CATEGORIES

Describe your plan for using the \$250,000 grant, should you be selected as a finalist. Provide a high-level breakdown of spending categories and an accompanying rationale.

FIGURE 10. BREAKDOWN OF SPENDING CATEGORIES

Should Strathcona County be selected as a finalist, the following breakdown of the spending categories of the \$250,000 grant is planned:



FEASIBILITY ASSESSMENT

We will conduct a detailed feasibility assessment to gain a better understanding of where and how the Community Digital Hub would operate, the scope of the programs and services offered, potential challenges, and required funding. Specific areas of focus include: technical, financial, organizational and market feasibility.

As there are privacy and security concerns and limitations around community partners' abilities to share, release or use data, there will be special focus on this area to better understand the level of complexity in integrating partners that span the public, private, and non-profit sectors onto the Community Digital Hub. This is an important factor to consider especially as Strathcona County will adopt the principle of "openness", and strive to make data available on its Open Data Portal where possible, barring any privacy concerns and policy or legislation limitations from partners.

COMMUNITY ENGAGEMENT – USER ENGAGEMENT STUDY

While the *Community Talk* engagement focused on uncovering existing citizen experiences and pain points, this user engagement study will focus on understanding citizen needs pertaining to the Community Digital Hub, particularly those that could help them address some of the previously identified pain points.

Specifically, user research will be conducted to gauge the overall sentiment towards the Community Digital Hub concept, the types of programs and services various users would most want to see and access on the hub, as some sample research areas. This information would be used to further refine the concept of the hub and inform the initial selection of community partners to contribute to the Community Digital Hub.

IMPLEMENTATION PLAN AND ROADMAP DEVELOPMENT

A significant portion of the grant would be dedicated towards efforts to develop and refine the implementation plan and integrated roadmap. This will include components such as: future state blueprint, project work streams, critical success factors, foundational capabilities and tools, technology implementation approach and methodology, operational metrics, among various other components. These will be developed by a combination of internal team members as well as external vendors, who will provide the complementary subject matter expertise required.

PROFESSIONAL SERVICES

Professional services will be engaged to provide technical advisory on the development of the Community Digital Hub concept, as well as to assist in the development of the final application for the Smart Cities Challenge as per the guidelines established by Infrastructure Canada.

PARTNERSHIP DEVELOPMENT

A portion of the grant will be spent to acquire the support of these partners. The selection of partners will be determined based on findings from the user engagement study, as well as evaluation of the technical support required to implement the projects and activities.

Q10. PARTNERS

A description of existing partners (what type of organization, what they do, etc.), their relevance, and expected contribution to the outcome (or outcomes.)

Strathcona County has an robust network of partners to collaborate with, including business partners, education partners, emergency services organizations, and social-serving organizations. Through successful past collaborations and having a shared vision to improve connectedness within Strathcona County, several of these organizations have indicated support for the Challenge Statement and Smart City outcomes. Below are some of partners who have expressed willingness and interest in committing to the further development of this proposal:

NAME	DESCRIPTION	EXPECTED CONTRIBUTION
BUSINESS PARTNERS		
Sherwood Park & District Chamber of Commerce	<ul style="list-style-type: none"> Promotes business, monitors municipal, provincial and federal governments, and champions growth in the local economy 	<ul style="list-style-type: none"> Financial Support
Strathcona Industrial Association (SIA)	<ul style="list-style-type: none"> Represents heavy industrial operators and promotes a safe and healthy working and living environment 	<ul style="list-style-type: none"> Financial Support
EDUCATION		
University of Alberta Faculty of Science	<ul style="list-style-type: none"> Leader in the area of artificial intelligence, in particular machine and reinforcement learning, ranking second in the world 	<ul style="list-style-type: none"> Research capabilities and knowledge sharing around artificial intelligence and machine learning
PROFESSIONAL SERVICES		
Deloitte	<ul style="list-style-type: none"> Provides professional services, including Human Capital, Strategy & Operations, and Technology advisory 	<ul style="list-style-type: none"> Strategic advice
SOCIAL SERVING ORGANIZATIONS		
A Safe Place	<ul style="list-style-type: none"> Provides shelter for abused women and children and public education programs 	<ul style="list-style-type: none"> Community Hub service partner
altView	<ul style="list-style-type: none"> Raises awareness for the inclusion of LGBTQ people through social support, advocacy, empowerment, education 	<ul style="list-style-type: none"> Community Hub service partner
Information and Volunteer Center for Strathcona County	<ul style="list-style-type: none"> Promotes volunteerism and supports not-for-profit and community organizations 	<ul style="list-style-type: none"> Community Hub service partner
STRATHCONA COUNTY		
Strathcona County Public Library	<ul style="list-style-type: none"> Publicly funded library in Strathcona County 	<ul style="list-style-type: none"> Community Hub service partner
TECHNOLOGY TELECOMMUNICATIONS		
Cisco	<ul style="list-style-type: none"> Provides networking hardware and telecommunications equipment 	<ul style="list-style-type: none"> Technology provider
Shaw	<ul style="list-style-type: none"> Provides broadband communication services 	<ul style="list-style-type: none"> Network provider
Telus	<ul style="list-style-type: none"> Provides broadband communication services 	<ul style="list-style-type: none"> Network provider

As Strathcona County moves toward the next stages of the challenge, relationships will be established with those organizations and additional partners who will play different roles, such as the ones described below:

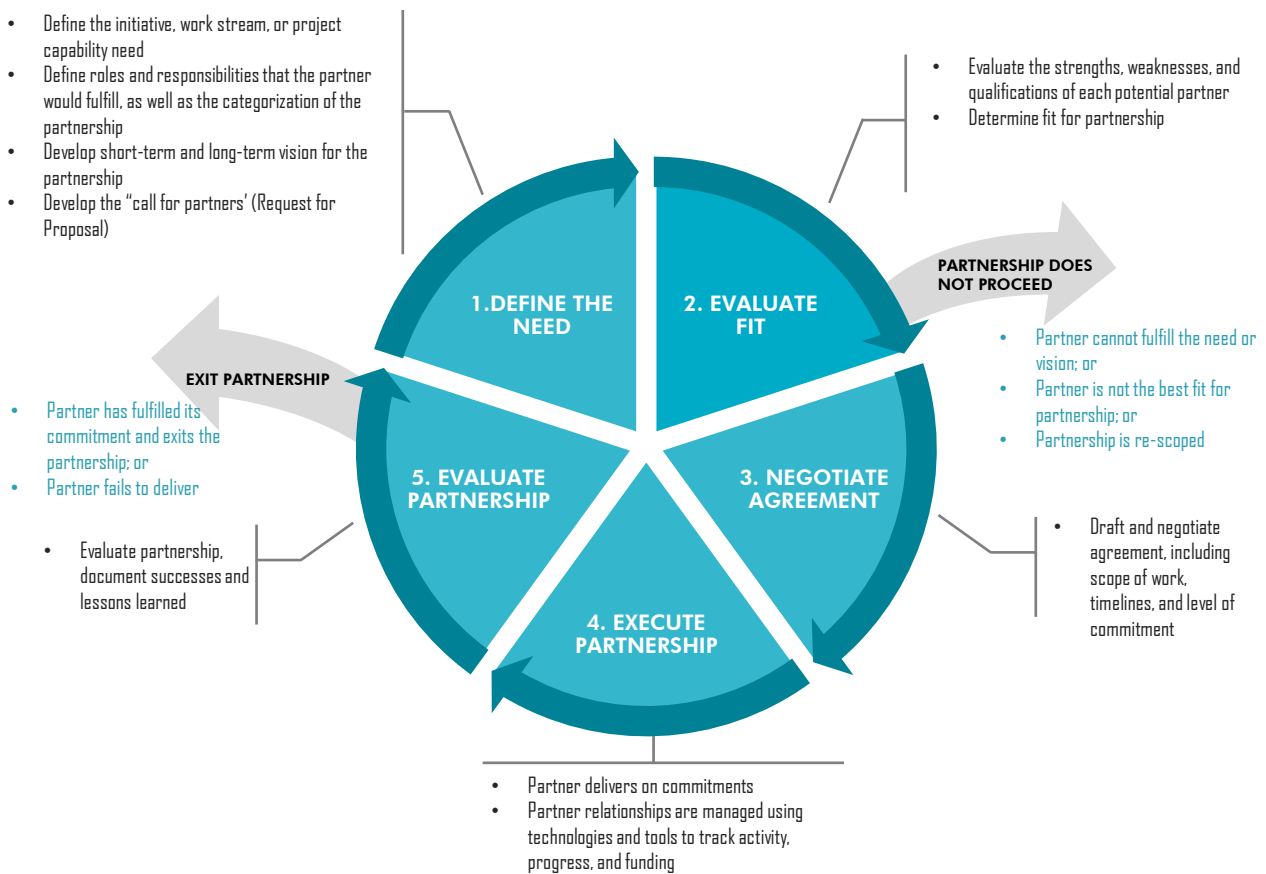
PARTNER ROLE	PARTNER RESPONSIBILITIES	ENGAGEMENT LEVEL
Community Services Partner	<ul style="list-style-type: none"> Integrate programs / services to the Community Digital Hub 	Continuous
Strategic Partner	<ul style="list-style-type: none"> Commit significant resources to projects Invest for the long-term Potentially independently lead projects / work streams 	Frequent
Execution Partner	<ul style="list-style-type: none"> Provide capital or in-kind resources towards the delivery of select projects Execute terms in the cooperative agreements 	Project-based
Advisory Partner	<ul style="list-style-type: none"> Provide input / feedback on select projects Share knowledge and best practices 	As-needed

PARTNERSHIP MANAGEMENT PROCESS

Where partners are not yet determined or where it is anticipated that additional partners are required, describe the process for selecting them.

As Strathcona County undertakes additional activities to develop the proposal, including a feasibility assessment, user engagement study, detailed implementation plan and integrated roadmap, specific partnership needs to fulfill the projects and activities will be identified. From there, Strathcona County will follow a defined partnership development and management approach, as illustrated in the following figure.

FIGURE 11. PARTNERSHIP APPROACH



Q11. CONFIDENTIAL ANNEX

Please provide, if and only if required, confidential third party information. Information provided in this section will be exempt from the requirement to be posted online.

Not applicable.

SECTION III:

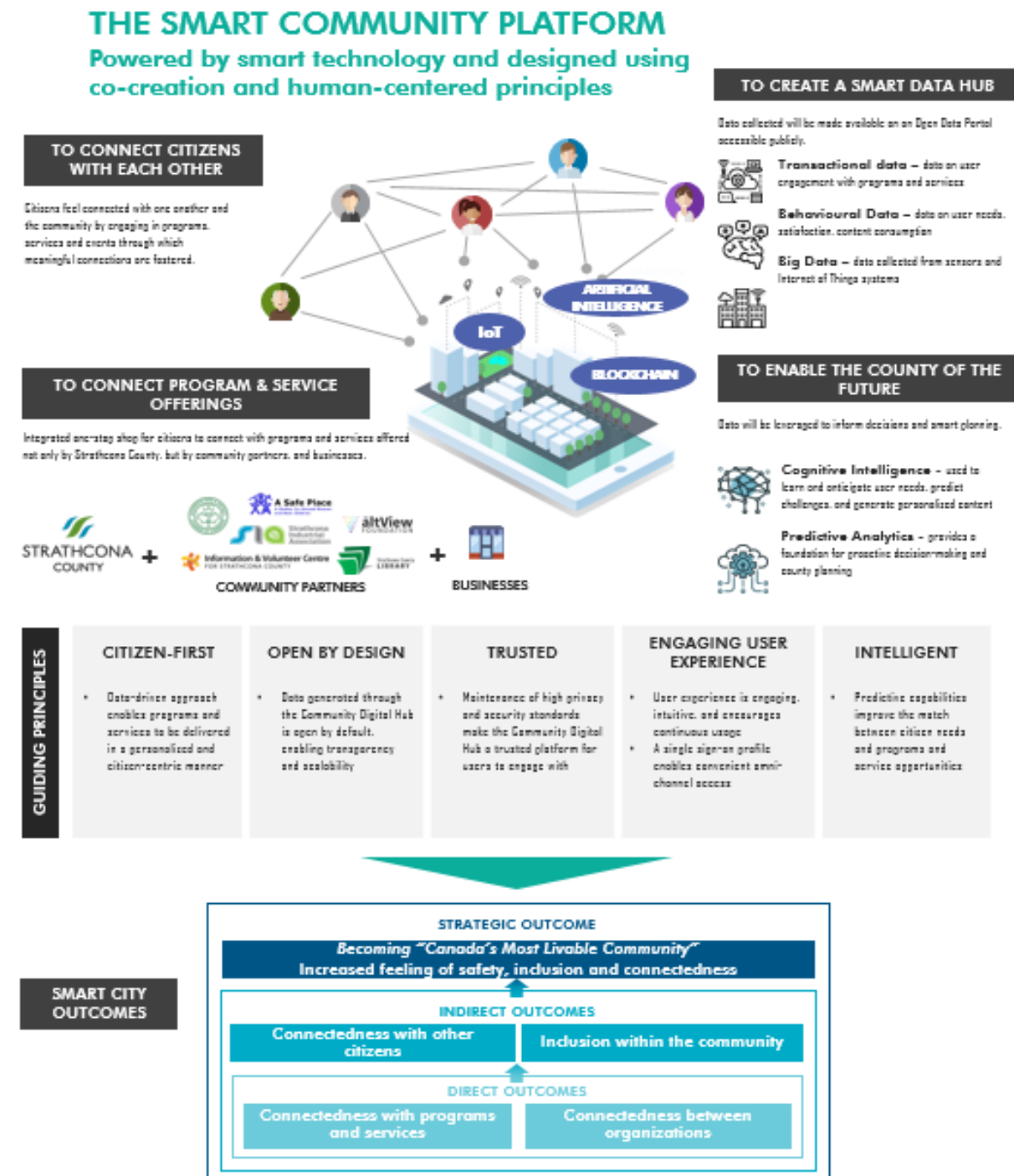
OTHER REQUIREMENTS



Q12. SUMMARY OF PRELIMINARY PROPOSAL

Provide a 200-word summary of your preliminary proposal. You may also provide an image that represents your preliminary proposal.

Strathcona County proposes a smart “Community Digital Hub” – an smart platform that integrates programs, services, and events from various partner organizations across sectors. It will provide a centralized location for citizens to find information, get involved in community activities, and access programs and services to ultimately increase their sense of connectedness and inclusion within the community. Furthermore, the Community Digital Hub will leverage data and cognitive technologies to predict citizen needs and help the County move into a more proactive form of planning, enabling Strathcona County to become a truly “smart” county.



Q.13 LINK TO PROPOSAL

Provide a link to the online location where you will post the full version of your application.

Q14. COMMITMENT FROM COMMUNITY LEADERSHIP

In accordance with your governance structure, provide evidence of the commitment to your preliminary proposal from your community's leadership. This can be a letter of support with signatures from your mayor(s), chief(s), or equivalent or a council resolution, a band council resolution, etc.

Please see following page for a letter of endorsement from the Mayor of Strathcona County.

Privy Council Office
Impact and Innovation Unit
Room 1000
85 Sparks Street
Ottawa, Ontario K1A 0A3

RE: Smart Cities Challenge
INFRASTRUCTURE CANADA

Strathcona County Council – Letter of Endorsement

Dear Smart Cities Challenge Jury:

We accept the Infrastructure Canada Smart Cities Challenge. On behalf of Council, I am pleased to endorse Strathcona County's application to this exciting competition.

Strathcona County has long strived to be a welcoming and thriving place for citizens, businesses and industries. Smart technology has played a substantial part in this.

We are a 'Smart County', using technologies, data and analytics to best deliver on municipal priorities. From open data, open Wi-Fi, GPS enabled fleet, integrated emergency and traffic control systems, automated water sensors, to our current journey toward regional SmartTransit, we know 'smart' is making a positive difference in our community.

It is exciting when new "smart" ideas and innovation are encouraged and shared. It is even more fulfilling when such creative thinking results in improving quality of life.

This is what the Strathcona County proposal aims to do. With a focus on inclusion and connectedness, the County's submission envisions optimizing smart technologies to create a "Community Digital Hub." This omni-channel platform will integrate the programs, services and events of various organizations within our municipality, to increase accessibility and enhance livability in our community.

This idea stems from in-depth community engagement undertaken to renew our Social Framework. We are municipality that supports its citizens in reaching their highest aspirations, to empower and enable their success. Based on citizen conversations, we are giving attention to important outcomes relating to safety, affordability, access to programs and services, and connectedness and inclusion.

Our proposal imagines a smart data hub driven not only by the municipality but by a multitude of partners working together to deliver on economic and social outcomes. We believe connected technologies can be used to bridge many sectors and boundaries.

The Community Digital Hub is different from other platforms. It will power a data hub and leverage analytics to enable smart planning, and use cognitive technologies to be able to anticipate needs.

Our municipality's size makes us an ideal candidate to test this idea. Many other municipalities in Canada of similar size, experience similar challenges — we are prepared to be that “living lab” to develop a successful model. The County will include leveraging its award-winning open data expertise and experience in the design of this project, encouraging more creative uses.

The Community Digital Hub will enable smart planning that delivers value and impact at a level not yet seen in Canada. We are excited about the opportunities this endeavour can bring to municipalities of all sizes and locations across our country.

Our project is both ambitious and achievable, and this opportunity certainly aligns with Strathcona County's vision to be “Canada's most livable community.” It also aligns with our strategic goal to: Build strong neighbourhoods/communities to support the diverse needs of our residents.

We are confident this “smart” collaboration will be to the mutual benefit of all partners, and most importantly impactful and of value to citizens.

Strathcona County stands committed to this project, which has the potential to be truly transformative.

It is our community that stands to ‘win’ as we answer this challenge!

Mayor Rod Frank

Q15. CONTACT INFORMATION

Please identify the point of contact for the application.

Contact Name:	Russ Avery
Title and Affiliation:	Director, Information Technology Services Strathcona County
Phone Number:	780-464-8499
Email Address:	russ.avery@strathcona.ca

Q16. AGREEMENT TO PRIVACY NOTIFICATION, CONSENT AND RELEASE FORM

Read the Privacy Notification, Consent and Release form, and Communications Protocol and indicate your agreement.

Strathcona County indicates that it acknowledges and agrees with the Privacy Notification, Consent and Release forms.

SECTION IV: SURVEY QUESTIONS



Q17. FTE & BUDGET

Please provide the following information about your organization.

2017 FTEs

Number of Total FTEs	1267
% of total FTEs devoted to innovation	To be added

2017 OPERATING AND CAPITAL BUDGETS

Total Operating Budget	\$354M
Percentage of total operating budget devoted to innovation	To be added
Total Capital Budget	\$65.6M
Percentage of total capital budget devoted to innovation	To be added

Q18. PROPOSAL FOCUS AREA

Please select the focus area of your preliminary proposal.

- ☐ Economic opportunity
- ☒ Empowerment and inclusion
- ☐ Environmental quality
- ☐ Healthy living and recreation
- ☐ Mobility
- ☒ Safety and security

Q19. COMMUNITY SYSTEM/SERVICE AREAS

Select all the community system/service areas expected to be implicated in your preliminary proposal.

- | | |
|--|--|
| <input checked="" type="checkbox"/> Arts and Culture | <input checked="" type="checkbox"/> Recreation and Parks |
| <input checked="" type="checkbox"/> Economic Development | <input checked="" type="checkbox"/> Roads and transportation |
| <input checked="" type="checkbox"/> Education and Training | <input checked="" type="checkbox"/> Social Services |
| <input checked="" type="checkbox"/> Emergency Services | <input type="checkbox"/> Waste |
| <input type="checkbox"/> Environment | <input type="checkbox"/> Water and wastewater |
| <input type="checkbox"/> Land use planning and development | <input type="checkbox"/> Other: |
| <input type="checkbox"/> Public Health | |

Q20. TECHNOLOGIES

Select all the technologies expected to be implicated in your preliminary proposal.

- | | |
|---|--|
| <input checked="" type="checkbox"/> Artificial intelligence (AI) | <input type="checkbox"/> Health or Medical technology |
| <input type="checkbox"/> Assistive technology | <input checked="" type="checkbox"/> Internet of Things (IoT) |
| <input type="checkbox"/> Augmented reality (AR) or Virtual reality (VR) | <input checked="" type="checkbox"/> Mobile applications |
| <input type="checkbox"/> Autonomous and connected vehicles | <input checked="" type="checkbox"/> Networks |
| <input checked="" type="checkbox"/> Big data analytics | <input checked="" type="checkbox"/> Open data platforms |
| <input checked="" type="checkbox"/> Cloud computing | <input checked="" type="checkbox"/> Payment platforms |
| <input type="checkbox"/> Enterprise solutions | <input checked="" type="checkbox"/> Sensors |
| <input type="checkbox"/> Environmental monitoring | <input type="checkbox"/> Video analytics |
| <input checked="" type="checkbox"/> Geospatial | <input type="checkbox"/> Wearables |
| | <input type="checkbox"/> Other: |