

Applicant information

Question 1

Please provide information on the community that is submitting this application. If this application is being submitted by a group of communities, add each community separately using the button. If this application is being submitted by a regional entity, please include the name of the regional entity with each individual community (e.g. City of Dunn/Smith Region). Do not include the regional entity as a separate, stand-alone community.

Community (City of Estevan)

Name of community City of Estevan
Province or Territory Saskatchewan
Population based on 11483
Indigenous community No

Question 2

Please select a prize category.

\$5 million (population under 30,000 residents)

Problem definition

Question 3

Please define your Challenge Statement in a single sentence that guides your preliminary proposal. It should describe the outcome (or outcomes) you hope to achieve.

"Improve our standard of living"
After a recent drastic and steady economic decline, our community will rejuvenate a dormant and sluggish energy city into one of the most thriving and diversified locations in Canada for economic growth and community development.

Question 4

Please describe the outcome (or outcomes) your proposal seeks to achieve by elaborating on your Challenge Statement.

This section should include:

- 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.
- Baseline data and evidence to establish the current state with respect to the metrics used in your Challenge Statement, and context

Estevan is the eighth largest and most southern city in Saskatchewan. With a population of 11,483 (2016 census) and total land area is 18.85 km², Estevan is located approximately 16 km north of the Canada-United States (North Dakota) border on the main north-south rail line that provides tremendous access to the North American market. Up until recently, Estevan has been a vibrant and growing community in Southeast Saskatchewan, serving as the commercial hub of the Southeast. Its central location and excellent transportation system (highways, rail, and air) provide Estevan tremendous opportunities to be connected with markets throughout North America. Three major highways, as well as the main CPR railway line pass directly through the

around the outcome (or outcomes) sought.

- Evidence to support the selection of this/these outcome (or outcomes) over others, in reference to the needs of the community.
- Rationale for applying a smart city approach to achieving the identified outcome (or outcomes).
- Strategy for measuring progress toward outcome (or outcomes) and achievement of outcome (or outcomes).

city providing access to both east-west and north-south corridors. The Estevan airport accommodates charter flights and has the potential for further development.

The city is surrounded by the Rural Municipality of Estevan No. 5. Estevan has a humid continental climate characterized by cold, long and dry winters and warm, short and relatively humid summers. It is the Sunshine Capital of Canada with an annual average of 3,536.6 hours of sunshine and also has the highest annual number of hours per year with clear skies in the country.

Estevan's economy is characterized by: power generation, coal mining, agriculture, manufacturing, oil and gas drilling. The city is home to the world's first commercial carbon capture and storage project- where SaskPower's Clean Coal Power generating plant worth \$ 1.44 billion is established. Estevan has become known as the Energy Capital of Saskatchewan - a distinction based on an extraordinary resource base and the traditionally strong resource sector that is serviced primarily out of Estevan. The Westmoreland Coal mine provides fuel/energy for the two local power stations namely Boundary Dam and Shand Power station. Together they generate nearly half of Saskatchewan's base load power. While the mine and two power stations have provided stable employment for its residents, the oilfield sector has also historically been a significant source of economic wealth and prosperity. There are in excess of 7,000 oil wells within 160 km around the city. Home to more than 200 businesses directly related to the oil industry, Estevan has been the primary service center for the hugely popular Bakken oilfield.

The City and RM of Estevan No. 5 are both committed to local economic growth and prosperity and as such, have developed a positive working relationship that has led to numerous agreements in order to best facilitate business development. Both municipalities have serviced land available for development and are prepared to work with developers to meet the community's goals and needs.

Recent local, regional, national and international economic realities, however, have negatively impacted the community of Estevan. Global persistent reduction in oil

prices since 2015 has seen a significant number of businesses closing up operations and leaving Estevan. This has had drastic negative impacts on the city's economy including reductions in GDP, employment, individual earnings, overall business activity, and the departure of a sizeable number of persons (mainly oil industry workers) who resided here. Notwithstanding the very recent slow recovery of oil prices, industry business operators are not very confident, remaining skeptical and reluctant to resume or even start up business in Estevan. This has resulted in the continued slow and low rate of economic performance in Estevan.

Another negative impact on the local economy results from the Federal government's policy to phase out the use of coal in the generating of electricity. Estevan is home to the Westmoreland coal mine, the main supplier of coal to Saskpower – the company responsible for providing electricity to the province of Saskatchewan. However, Saskpower's focus on clean and renewable energy for the future means that the use of coal to generate electricity is doomed even though Estevan is home to a carbon capture facility – the first of its kind in the world. This technologically advanced facility created tremendous excitement and optimism not only for Estevan but for Saskatchewan and Canada as a whole. However, with the move to clean, green energy with less emphasis on the use of coal, the future of that carbon capture facility hangs in the balance. On the other hand, however, it provides an opportunity for Estevan to pursue and build related smart city technologies and to diversify its energy sector.

Being a resource based economy primarily dependent on coal and oil, the aforementioned review spells doom for the future of Estevan unless we can create and pursue opportunities that will diversify and ultimately revitalize and sustain our economy.

This proposal, therefore, seeks to revitalize and develop Estevan's sluggish economy to one of sustained high levels of living, through economic growth and development initiatives which will be pursued as follows:

- undertaking investment opportunities in Agri-food
- promoting greenhouse farming technology

- providing geothermal energy
- pursuing manufacturing/warehousing initiatives
- diversifying activities in the traditional oil, natural gas and coal industries
- enhancing the entrepreneurial spirit and abilities of local residents
- building capacity of the local labor force
- research and development and technological advancement.

This growth and development agenda constitutes the city's central focus of its Economic development /investment strategy with priority given to the following:

1. Agri-value

Agri-value has been identified as one of the priority investment areas for the city of Estevan. At the provincial level, the government has already developed initiatives which support municipalities with their agri-value efforts and of which Estevan can take advantage of. The provincial initiatives include:

- The Saskatchewan Agri-value Initiative which assists the development and expansion of small to medium-sized enterprises and/or producer/processor organizations involved in value-added processing of agricultural products;
- The Agriculture Development Fund which provides project funding to researchers in public and private research and development. The funding is provided to create future growth opportunities and to enhance the competitiveness of the provincial agriculture industry.

Estevan is well placed to successfully encourage and promote investment in Agri – Value. The health conscious community and healthy environment; the availability of large lots of agricultural lands, much of which is already cultivating crops that can be processed and added value to; the presence of the Southeast college which can provide research facilities; available modes of transportation for distribution and trade; and the availability of factory space for food processing operations are all factors which will enhance agri-value investment activities. Agri-value investment helps to diversify agriculture and the local economy; it creates training opportunities in farming and business linkages and contributes to overall community development.

2. Greenhouse Farming Technology

Canadian greenhouse operations have, during the past few years mushroomed by leaps and bounds into high-tech growing environments generating millions of dollars in revenue. This reality provides a bright future for greenhouse farming investment opportunities for the city of Estevan. There is an increasingly high demand for greenhouse products, especially vegetables such as tomatoes which are processed into value added products such as tomato paste. Additionally, Estevan possesses lots of land and warehouse facilities for greenhouse technology, along with a good location for export particularly to the United States.

3. Geothermal Energy

Saskatchewan produces over one-third of Canada's primary energy. Opportunities abound for geothermal power generation in Estevan primarily because it's a non-intermittent resource that is highly available, and can provide permanent employment for the development of local firms. It is an inexhaustible, constant source of energy, independent of weather and climate conditions and whose exploration creates very low visual impact to the community. More importantly, geothermal energy can be used for heating and cooling purposes (for greenhouses) as well the production of electricity – all factors which make it a viable investment opportunity for Estevan.

4. Manufacturing/Warehousing

Manufacturing plays a key role in Saskatchewan, making up 7% of the provincial GDP. In 2016, manufacturing shipments totaled \$14.3 billion. Saskatchewan manufacturers have achieved many world firsts – in everything from satellite communications technology and dryland farming equipment to in-road scales for the trucking industry.

Key manufacturing clusters include:

- Machinery, transportation and industrial equipment;
- Food, crop and beverage processing;
- Wood, steel and plastic products; and
- Chemical manufacturing.

Emerging clusters include:

- Aerospace and defense;
- Specialty automotive products, UAVs; and
- Electronics and instrumentation.

Estevan's location on the North-South trade corridor (Central North American Trade Corridor) creates tremendous investment opportunities which will benefit the transportation corridor and accommodate the use of autonomous vehicles for example. Manufacturing and warehousing activities will provide goods for trade along the corridor with Estevan being an important trade and transportation hub. These activities will be very viable because there are many vacant warehouses available and also local trucking companies available for transporting goods.

5. Energy Diversification

Estevan's huge deposits of coal have been utilized to produce electricity and other forms of energy with its economic viability being enhanced due to the low cost of coal over the years. Coal is also used to produce Briquettes. However, with increasing demand for clean energy, the continued use of coal to produce electricity hangs in the balance.

This, however, creates new opportunities for the use of coal using technology such as carbon capture- a technology which has been pioneered right here in Estevan to produce clean energy.

Additionally, other opportunities for diversification in energy (particularly alternative renewable energy sources) continue to present themselves. Estevan is well placed to take advantage of such opportunities with its prolonged periods of sunshine, vast, windy open space, sizeable deposits of oil, and excellent location for geothermal energy.

Whilst these initiatives will help to grow the economy via increased employment, production and income, they will also provide a platform for the long term economic development which the following outcomes will make possible.

The outcomes of this proposal will therefore be the fulcrum for sustainable economic development and are as follows:

1) the increased availability and widening of the distribution of basic life-sustaining goods and services such as food, clothing, shelter and protection and safety

2) improved levels of living including , in addition to higher incomes, the provision of more jobs, better education and training, and greater attention to cultural and human values, all of which will serve not only to enhance material well-being but also to generate greater individual and community self-esteem

3) Expanded range of economic and social choices which will provide economic empowerment to the people of Estevan. The overall goal is to create a diverse and sustainable economic development environment for the community of Estevan and surrounding areas. Specific objectives include:

- Establishing economic /investment/business opportunities in industries such as: Agri food; Manufacturing and warehousing; greenhouse technology; geothermal energy; and renewable sources of energy.
- Greater use of the state-of- the- art Southeast College to conduct research and development in the identified industries.
- Greater and more effective and technologically advanced use of available resources (underutilized farm lands, underutilized natural resources for renewable energy – solar, wind, geothermal (presence of huge underground aquifer on the Bakkan shield).
- Greater use of the north south highway for trade and transportation
- Greater use of the international sized airport for trade, transportation, technological activities related to trade and transportation such as drones.
- Autonomous trucking by using technology to upgrade the highway for such and also using the southeast college for research and development and a center of excellence for maintenance and monitoring of the autonomous vehicles and drone activities. These objectives will be accomplished by undertaking specific activities and implementing targeted and well developed projects.

In summary, therefore: there is a clear link between our carefully developed strategies, specific projects, activities and objectives. This link is important in producing the

highlighted outcomes which are critical to the realization of our overall Goal as outlined in our challenge statement.

Here are the outcomes which our proposal hopes to achieve:

Outcome # 1. Increased availability and widening of the distribution of basic life-sustaining goods and services such as food, clothing, shelter and protection and safety. Achieving this outcome will result from greater food production and adding value to primary produce as well. Utilizing greenhouse technology is one way of doing this. Geothermal energy production and use will enhance this process thus leading to surplus production .The surplus goods will be exported to other locations using the many forms and modes of transportation including highways, rail, airport, drones and technologically developed autonomous vehicles. Trade leads to economic growth which, if effectively managed, will lead to a better life for the residents of Estevan and surrounding areas and guarantee the sustained and affordable provision of basic life-sustaining goods and services

Outcome # 2. Rising levels of living including: higher incomes, the provision of more jobs, better education and training, and greater attention to cultural and human values, all of which will serve to enhance material well-being and stimulate greater individual and community self-esteem.

In addition to increased output and trading of goods, it is anticipated that a diverse and sustainable economically developed Estevan will ensure a better quality and rising levels of living for its residents. More jobs will be available; people will earn higher incomes due to the increased competitiveness which will result from more efficient production (mainly due to innovative and technologically advanced methods of production and distribution) ; research and development at the Southeast college will improve the quality of the local labour force by improving education and training. All of this will contribute significantly to greater individual and community self-esteem. People will feel confident about their economic future and will, by extension, be encouraged to participate in community and civic building activities.

	<p>Outcome # 3. Expanding the range of economic and social choices and hence providing economic empowerment to the people of Estevan.</p> <p>The proposed range of economic diversification outlined in the objectives above, will most assuredly provide greater economic and social choices. The demand for different types of jobs and different methods of employment and production will expose people to many economic choices. Individuals will also have access to more and better social infrastructure and services. Ultimately, the residents of Estevan will experience an unprecedented level of economic empowerment- where they will be able to participate in and contribute to and benefit from the growing environment in ways that recognize the value of their contributions, respect their dignity and make it possible to negotiate a fair distribution of the benefits of growth.</p>
<p>Question 5</p> <p>Please describe how your community residents have shaped your Challenge Statement. Describe your plans for continuing to engage and involve them in your final proposal going forward.</p> <p>This section should include:</p> <ul style="list-style-type: none"> • Descriptions of previous engagement with residents, businesses, organizations, and other stakeholders on topics related to the Challenge Statement. • Descriptions of feedback that came to light through past engagement processes. • Links between the Challenge Statement and engagement feedback. • Evidence of efforts made to be inclusive and to represent the community's diversity. • Plans to sustain engagement through the development and 	<p>Over the past three or so years much of the community of Estevan has expressed serious concern, and even panic, regarding the future of the community. The city has seen a drastic decline in overall business activity and a higher than average population decline which has been due mainly to a reduction of the transient population of people who located to Estevan to work mainly in the oil industry. This was sparked by the misfortunes in the oil industry (due to global oil price reductions), and also by the uncertainties in the coal mining industry as a result of tightening federal and international regulations over the use of coal for power generation. The municipal government has since then also imposed a debt reduction budget in an attempt to soften the economic impacts mentioned above.</p> <p>It is clear that these actions and reactions have forced the community leadership and the broader community to be seriously concerned and engage each other in the quest for a hopeful and brighter future. Many initiatives and activities have taken place and continue to take place; many partnerships have been forged and strengthened; and mechanisms have been put in place to encourage and strengthen the</p>

implementation of the final proposal.

involvement and interaction of the community.

A broader process of engagement with residents and stakeholders has been taking place and will continue. This process includes: town hall meetings, public consultations, citizen advisory committees, Economic Development Board activities, Chamber of Commerce activities.

Firstly, the municipal government (city council), in responding to the concerns of citizens about the need to urgently and seriously address the negative

consequences of economic retardation, established an Economic Development Board for the purpose of 'providing advice and recommendations for city council in matters pertaining to community

development in the city of Estevan and surrounding municipality'. The goals of the Economic Development Board are:

- To improve the quality of life in the community by stimulating development and encouraging population growth in the city of Estevan and surrounding area.

- To encourage and promote broad representation of the various community groups involved in development with the need for an integrated development program.

- To facilitate and make available the necessary resources of the community to address the broadening range of development issues facing the city and surrounding area.

The Board's objectives include:

- To encourage and support stability and orderly expansion of new and existing businesses and industries which will benefit the community.

- To encourage the promotion of commercial and residential development in the city of Estevan and surrounding area.

- To assist in attracting investment to Estevan and surrounding area.

- To assist in identifying and communicating investment possibilities within the city of Estevan and surrounding area to potential investors.

- To accommodate and attract new residents to the city of Estevan and the RM of Estevan # 5.

The Board consists of members from a wide cross section of the community of Estevan with about 50% of Board members being

members at large from businesses and the general community. These at large members apply to become members of the Board and are then selected by the city council. This process provides for transparency and the opportunity for any anyone from the community to become a member. Additionally, the neighboring rural municipality of Estevan # 5 has three representatives on the Board. This is clear testimony of the commitment of both the city council and the RM to foster a strong regional partnership.

The Estevan chamber of Commerce is also represented on the city's Economic Development Board by three members of the chamber. This reflects a continuation and strengthening of the valuable relationship and partnership between the chamber and the city. In fact, the chamber played a critical role in representing the views and concerns of the business community which led to strong convincing of city council to establish the Economic Development Board.

This clear strategy of community involvement, inclusion and participation reflects the vision and mission of both the Economic Development Board and the municipal government on a whole, and highlights some mechanisms by which community residents have shaped our challenge statement.

Part of city council's vision is that the City of Estevan is organized and poised to take advantage of the future with a culture of: Partnership between all levels of the organization, the public and any business or organization that wants to improve the Community; to be an attractive destination for businesses and families to call home with a clear and concise plan for enhanced economic development and community growth. We will be a recognized leader and catalyst for positive change for business and community.

Furthermore, it is the mission of the economic development board to improve the quality of life in the community by stimulating development through an integrated development program addressing the broadening range of development issues facing the city and surrounding area. Ultimately, through public consultations, open

houses, town hall meetings, media communications etc. the city of Estevan has been consulting and working collaboratively with the entire community and neighbouring jurisdictions with respect to its planning, development and operating strategies.

All of the aforementioned, (coupled with the fact that the city of Estevan by virtue of its small size and closeness of individuals and families) have created a natural mechanism for interacting and engaging each other, and have exerted a very strong influence of the community residents in shaping the challenge statement of this proposal.

Going forward with the final proposal, the city of Estevan will continue to consult, solicit input and work with: community residents, focus groups (such as the Chamber of commerce, Economic Development Board, City Council, non-governmental organisations, and service groups), and Southeast college. This would be done with a view to identifying and addressing needs, requirements and necessary actions highlighted in the proposal.

We will employ different technology, tools and techniques in order to accomplish this, including:

- Face to face discussions with all stakeholders, especially: prominent business owners, focus groups such as the chamber of commerce and the Economic Development Board of Estevan, coal and oil workers unions, Saskpower unions and management. These discussions will help to garner meaningful guidance and support throughout the development of the final proposal particularly drawing on their entrepreneurial expertise, work experience, and outlook for the community. This medium will also better position us to leverage the business community for any necessary financial support or investment opportunities which would be identified.

- Open house community forums. This medium will allow for frank, transparent and meaningful discussions and continuous input from all and sundry in the community. It will also provide an atmosphere for direct, personal interaction and dialogue- something which is paramount to effective engagement and involvement of the community at large.

• Direct and close collaboration with Southeast college administration, faculty, staff and students. The engagement and involvement of Southeast college is a prerequisite to the development and success of this proposal and also to the successful implementation of the resultant project(s)

• Outreach in local print, broadcast, and electronic media to enhance the flow of information to the entire community regarding the status of the proposal.

• Technological and electronic tools such as :

o Websites – The city of Estevan’s website will be used as a venue to connect with and engage the community. This will include providing news and updates on the proposal, announcing meetings or other activities, and general information about what is happening with regards to the proposal/ project(s).

o Social Media – Social media outlets such as Twitter and Facebook attract large audiences and will be used to reach the vast majority of the community about the proposal.

o Blogs and e-newsletters will be used to provide residents of the community with articles and general information about the proposal/project.

o Online surveys- will be used to gather public input on the proposal/project.

o Mobile Apps- for smartphones and tablets will be developed and utilized specifically for this proposal/project.

All of these efforts to increase community engagement in this proposal and to do so early in the decision-making process will help to avoid costly pitfalls and mistakes. Involving residents and other stakeholders in the process will generate more support for the proposal. If the community residents help to shape this proposal, they will have a better understanding of the proposal and the reasoning behind it. Participation helps generate ownership. Effective communication about the public’s involvement in this proposal will broaden the community’s support.

Preliminary proposal details

Question 6

Please describe your preliminary proposal and its activities or projects.

This section should include:

- Planned activities or projects to achieve the outcome (or outcomes) set out in the Challenge Statement.
- Clear links from the identified projects to the attainment of the outcome (or outcomes).
- Scope and size of each planned project in your preliminary proposal, describing how it is feasible and suitable for achieving the outcome (or outcomes) in a manner that is impactful for the community, ambitious, and transformative.
- Measures put in place to 1) make the proposal open, interoperable, scalable, and replicable or a description of your plan to do so going forward for the benefit of your own community and other communities in Canada; and 2) enable other uses of the technology, innovation, and data in your proposal.

The preliminary proposal indicates that Estevan will be established as an Economic success story and leader in economic innovation/diversification and development in Southeast Saskatchewan. The activities and projects herein described will:

- Increase the availability and widen the distribution of basic life-sustaining goods and services such as food, clothing, shelter and protection and safety.

- Increase the levels of living including, higher incomes, the provision of more jobs, better education and training, and greater attention to cultural and human values, all of which will serve not only to enhance material well-being but also to generate greater individual and community self-esteem.

- Expand the range of economic and social choices and hence provide economic empowerment to the people of Estevan. The city of Estevan is well positioned and has a very good track record of developing and implementing strategies to deal with overall economic development issues. The City's administration has consistently been prudent in the allocation of resources and making effective choices regarding economic planning. More specifically, the city has a record of implementing large capital projects , the most recent being a multimillion dollar water treatment plant, the construction of a new fire house , the construction of a modern, state of the art recreation facility , to name a few. All of this while the city is operating under a three- year debt-reduction budget.

With this in mind, we will bring together partners to promote the interest of the community with focus on job creation, business and investment attraction, and overall sustainable economic development. This will be accomplished by utilizing Estevan's large available plots of (Agricultural) land, partnering with the

Southeast College, utilizing the large existing and expanding power grid, capitalizing on the city's location close to a major highway and rail lines, and partnering with the Central North America Trade Corridor Association (CNATCA). These factors will support the introduction and sustained operation of food processing activities, with research conducted by Southeast College and utilizing agricultural produce from the existing large farms. Additionally, large amounts of vacant land can be used to operate more farms and for constructing and operating greenhouse facilities. The processed /value added food can be transported and exported via autonomous vehicles and drones along the proposed trade corridor.

The City of Estevan will also be developed as a hub/ checkpoint where the autonomous vehicles and drones can be checked, serviced and maintained, again in conjunction with the Southeast College. More specifically, the proposal encompasses several activities and projects:

1. The plan is to strengthen the capacity of the Southeast College to pioneer and undertake extensive research and development of cutting edge technology which will support and sustain the proposed projects. The Southeast College will be a critical partner and they have committed fully to making this initiative a lasting success. Strengthening of the Southeast College's capacity will include the provision and upgrading of appropriate equipment and research laboratories; retrofitting and appropriately upgrading the facility; attracting high level researchers and designers.

Furthermore, the southeast college, with its upgraded and enhanced research capacity, will also be used as a modern, state-of-the-art technology center of excellence. It will be the hub for maintaining and servicing the equipment and also as a monitoring center (using GPS technology for example) for the transportation activities taking place along the autonomous trade corridor.

2. Establishment of greenhouse facility to expand and diversify agricultural production. Spearheaded by research done at the Southeast College by reputable researchers, economically and technologically advantageous greenhouse facility and activities will be established and undertaken.

In the past, there were greenhouses in Estevan which operated using the power provided by the Saskpower plant, particularly the steam/heat from the nearby Boundary Dam heated lake. Similar greenhouse activities will be revitalised but this time with better technology, utilizing the same power from the Saskpower plant and also geothermal energy which will be provided by the proposed geothermal power plant expected to be constructed in Estevan in the not too distant future. The geothermal plant will also provide the necessary heat/steam for greenhouse activity.

3. Alongside the greenhouse facility will be the establishment and operation of Agri-value activities, particularly in the form of food processing. These activities will strengthen economic diversification and will promote economic growth and development via increased demand and output. The supply of primary agricultural produce will be readily available to support and service the agri value activities since Estevan and surrounding areas are home to many large and successful farms.

4. The economic value of the aforementioned activities will be enhanced and increased via the use of technologically advanced means and modes of transportation to facilitate trade and distribution of the goods and services produced. One such technology will be Drone technology. Drone technology is constantly evolving as new innovation and big investment are bringing more advanced drones to the market. Southeast college will be a big part of the research and use of this technology to aid in the movement of goods. The main intent is to have drones transport goods from farms to the agri processing facility and also to load export ready goods onto trucks and other vehicles for transportation to export destinations. Estevan will hence become a modern, state-of-the-art technology center of excellence where drones will be operated, maintained and monitored. Other related activities will include ongoing research and development of drone technology including the onboard sensors and GPS technology.

5. Complementing the drone technology and use will be the development of an autonomous friendly corridor stretching from southeast Saskatchewan (with Estevan as a

major hub) through North Dakota, USA and possibly all the way down into Mexico. One of the issues with the middle part of North America is the lack of north-south avenues to move commerce. Rail moves east-west; most of our major roads move east-west as well. So the challenge is to find ways to better utilize our north-south routes.

The Autonomous-friendly corridor would do just that, allowing someone to program an autonomous vehicle in Estevan, for example, to deliver goods to Minot, North Dakota. With the shortage of long-haul drivers, safety concerns, and scheduling issues, autonomous vehicles will make much better use of our current infrastructure. This technology will be commonplace in the not-too-distant future and we are seizing the opportunity presented through the smart cities challenge to accelerate it. We will partner with CNATCA, an organization of which the city of Estevan is a member and which embraces emerging technologies to facilitate better use of existing roadways as well as airspace. CNATCA wants to set the standard now and allow this technology to flourish in a way that will have a direct economic impact in our region.

The Autonomous-friendly corridor will be an area designated and regulated for the use of unmanned vehicles in commerce. Land-based autonomous vehicles would be allowed to move cargo on approved roadways, and air-based vehicles (drones) would have to stay within the confines of the airspace provided.

An autonomous vehicle would get instructions and depart to a destination. Along the way, a series of Land ports will have been developed within the corridor, approximately 200 miles apart. The vehicle could stop at any of these established Land ports, where fueling stations, cargo disbursement, and vehicle service would be available. Estevan will be established as one such Land Port. When the vehicle arrives at the destination, the cargo would be removed, new cargo would be loaded, and the vehicle would be given a new job. Unmanned air vehicles (UAVs) (Drones) would also be able to land and receive service at Land ports along the corridor.

The aforementioned are the general features of the proposal and its activities and projects.

	<p>A more detailed proposal including data, feasibility studies results, design, and detailed research will be presented should our proposal be selected as a finalist.</p>
<p>Question 7</p> <p>Please describe the ways in which your preliminary proposal supports your community's medium and long-term goals, strategies, and plans.</p> <p>To supplement your response, please upload any relevant documents and make clear linkages and references.</p>	<p>My community's medium and long-term goals, strategies, and plans are reflective of total community involvement and participation in the process of community development. This is due to an extensive and inclusive consultative process. Resultantly, Estevan's medium and long term goals, strategies and plans can best be summed up as follows:</p> <p>GOALS:</p> <ul style="list-style-type: none"> • To be a dynamic , appealing regional center that welcomes growth , diversity and opportunity with a commitment to a safe , clean and quality environment for families • To be an attractive destination for businesses and families to call home with a clear and concise plan for enhanced economic development and community growth, and to be a recognized leader and catalyst for positive change for business and community. • To enhance and encourage economic growth and development by: <ul style="list-style-type: none"> • 1. Improving the quality of life in the community and stimulating development and managing population growth appropriate to the city of Estevan and surrounding area. • 2. Reconciling the need for broad representation of the various community groups involved in development with the need for an integrated development program. • 3. Marshalling the necessary resources of the community to address the broadening range of development issues facing the city and surrounding area. <p>OBJECTIVES (Medium term):</p> <ul style="list-style-type: none"> a) To encourage and support the stability and orderly expansion of new and existing businesses and industries which will benefit the community. b) To encourage the promotion of commercial and residential development in the City of Estevan and surrounding area. c) To assist in attracting investment to Estevan and surrounding area in sectors with a potential for growth.

d) To assist in identifying and communicating investment possibilities within the city of Estevan and surrounding area to potential investors.

d) To accommodate and attract new residents to the city of Estevan and the RM of Estevan.

The following STRATEGIES will be employed to achieve the goals and objectives outlined above:

- Research and analysis, conducting of environmental scans and trends analyses, economic assessments,

- Engage key stakeholders in government, private sector, the voluntary sector and other research establishments to facilitate community and business development.

- Promote the development of opportunities and general community attributes to applicable target markets.

- Liaise between municipal divisions to ensure cooperation, collaboration, and information sharing to maximize opportunities for exposure and growth within the city.

- Maintain relationships and actively communicate with existing businesses and industry while encouraging retention and expansion.

- Encourage and support new business proponents, industry, community services and community organizations.

These strategies will be key in realizing the outcomes of this proposal and ultimately the medium and long term goals of the community. The strategies will also be employed in pursuit of the objectives specific to this proposal which have already been outlined in this proposal.

As long as the outcomes of this proposal are accomplished and the goal outlined in the challenge statement is realized, then the medium and long-term goals of this community would have been effectively and

	sustainably supported.
<p>Question 8</p> <p>Please describe your community's readiness and ability to implement your proposal successfully.</p> <p>This section should include:</p> <ul style="list-style-type: none"> • Experience with implementing complex projects (i.e. multi-stakeholder, multi-dimensional) that span multiple business lines and functional units. • Structures, processes, and practices in place or planned for managing and implementing complex projects that span multiple business lines and functional units. • 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. 	<p>Investment plays an important role for a community. It can provide a community with new technologies, products, skills and financing, and as such, can stimulate and support economic development. This proposal seeks to attract and undertake significant investment activities spanning different sectors. As is expected, a wide variety of factors and community attributes will have to be addressed if this proposal is to be successfully implemented. The diversity of factors and the sheer number of attributes required can be overwhelming, hence the importance of determining the community's readiness and ability to address them.</p> <p>The city of Estevan has a demonstrably satisfactory level of readiness and ability to implement this proposal. In determining our readiness for growth and development, we assessed several indicators and in that context analysed strengths, weaknesses, opportunities and threats. The results of this assessment enable our community to prioritize the most pressing issues affecting medium and long term growth. The readiness assessment focused on eight (8) core areas including:</p> <ul style="list-style-type: none"> • Land use planning and governance • Administrative capacity • Fiscal health • Service delivery • Public safety • Infrastructure • Demographics and economic trends • Regional partnerships. <p>Relevant to this proposal, here is a breakdown of Estevan's readiness and ability for it's successful implementation. The issues highlighted apply specifically to this proposal:</p> <ul style="list-style-type: none"> • Land use planning and governance <p>We have done growth projections which have taken into consideration our growth needs and barriers to growth. In developing these growth projections, consideration was given to how they would shape the city's growth and development and impact capital and operating budget.</p>

The city is in a good position to manage land use, subdivision of land, city services and public utilities in the city. This management capability is guided by the use of our up to date OCP, zoning Bylaw and Development Levy Bylaw. We also possess serviced lots available for development and an inventory of appropriately zoned land to accommodate future (residential, commercial, and industrial) development to meet our growth needs.

- Administrative capacity

The city of Estevan has a reputation of establishing and maintaining good, effective relationships with developers and investors. In addition, the city of Estevan has a cadre of well trained professionals in the fields of planning, engineering, bylaw enforcement, building inspection, public works, economic development, human resource management, financial management, and communication and marketing. These professionals are well equipped with the necessary tools, equipment and technology and they interact with the community in ways which enhance their output.

- Fiscal health

The city's growth and development decisions align with its financial and infrastructure capacities. This is a reflection of prudent financial and infrastructural management which also includes: utility charges which cover both operating cost and reserves for future expansion or improvements; incurring operating expenses which are growing at a slower rate than property tax revenues; experiencing operating surpluses most years; maintaining a dedicated land account; annual approval of a multiyear capital budget; room to borrow within the regulated debt limit.

- Service delivery

It is important to note that Estevan's current standards for municipal services (e.g. maintenance of streets, water and sewage utilities, recreation facilities etc.) allow the city to accommodate future growth without the need for significant service level changes. Furthermore, these services have additional

capacity to accommodate future growth and to allow the city to provide services to residents /rate payers at a cost they are willing to pay if the city grows over the next few years. The city of Estevan also has in place a transportation plan that addresses future growth.

- Public Safety

The central theme of economic and community development is improvement in the quality of life of which an important pillar is public safety. The city of Estevan can boast of having sufficient emergency response capacity to meet anticipated growth and also have plans in place to identify risks/hazards from current or potential growth opportunities and is prepared to respond to these risks / hazards that could arise from new industrial/ business development. This conclusion is drawn from the assessment of Estevan's vulnerability to both natural and human- induced hazards.

- Infrastructure

An up to date infrastructure inventory indicates that the city of Estevan public works staff knows the current usage and remaining capacity of its infrastructure. It also indicates that our infrastructure capacity meets our projected growth. Additionally, the city has an up to date and effective plan for conducting inspections of infrastructure and for monitoring, maintaining and keeping in a reasonable state of repair. Estevan also makes full use of existing infrastructure and facilities before consideration is given to developing new infrastructure.

- Demographics and economic trends

Careful and consistent monitoring of Estevan's demographics and tax base forms an important part of the city's growth initiatives. Added to this are: monitoring of population trends; recognizing that population growth and development is necessary to maintain the viability of the city; maintaining a record of the number and value

	<p>of building permits issued by the city; knowledge of the composition of age groups of the population in the city. All of this information is necessary and helps developers and investors make informed decisions regarding growth and development in Estevan. Finally, it is important to emphasize that the majority of residents in Estevan are supportive of new development.</p> <ul style="list-style-type: none"> • Regional partnerships <p>The city of Estevan already has a strong and effective relationship with its closest neighbour, the RM of Estevan. Several joint initiatives have been successfully undertaken by both municipalities. The city of Estevan has an established process to evaluate regional growth opportunities and this has and continues to pay huge dividends.</p>
<p>Question 9</p> <p>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.</p>	<p>Should the City of Estevan’s proposal be selected as a finalist, we believe it would be necessary to establish a project unit to properly and effectively develop the final proposal and also to administer and implement the project(s) when it is selected as the winner in the entered category. As is outlined in the description of the preliminary proposal and its activities and projects, several areas will be pursued. These include research and development of technology, feasibility studies, design of facilities such as greenhouses and GPS and Drone monitoring and maintenance facilities, lobbying, and community outreach. With this in mind, a project unit would be established to undertake and coordinate all of the aforementioned activities. The establishment and operation of this project unit will necessitate expenditure in several different categories including:</p> <ul style="list-style-type: none"> • Renting and equipping of office space – Establishing a project unit to prepare and implement the projects(s) / activities will be critical to the proposal’s success because this will enhance the city’s capacity to undertake this important venture. This project unit will have to be housed in its own (rental) facility and would also have to be equipped with necessary equipment such as computers, office equipment etc. • Consultant fees - Hiring a Consultant to

	<p>manage the project unit and to coordinate the development and final production of the proposal. The hiring of a consultant to manage the project will be necessary particularly to provide focus and direct intervention in the preparation of the proposal. Additionally, since the preparing of the proposal will be time sensitive and short term, greater efficiency with this activity could be achieved through the establishment and use of a project unit.</p> <ul style="list-style-type: none"> • Conducting community outreach- The nature of this proposal necessitates greater and more direct community outreach and engagement. This could take many forms but will require funds to design and implement a specific comprehensive community outreach program which would include: surveys, electronic and other media use, meetings and community forums, and development and use of smart phone apps. • Lobbying different levels of government- Autonomous vehicles and drone technology, especially across provincial, state and country lines, will require legislative and regulatory oversight and control. To this end, it will be extremely important and necessary for the city of Estevan to engage local, regional, provincial and federal law makers with the objective of getting their full support for the use of this technology. • Upgrading the research capacity of the southeast college- Research and design will constitute a huge part of this project proposal. We must be able to make evidence- based decisions simply because the nature of this proposal requires it. Evidence- based decision making will only be as sound as the research which goes into the gathering, analyzing and presenting of the evidence. We will work to ensure that the Southeast College- an important partner in this venture- is equipped and prepared to conduct the necessary research.
<p>Question 10</p> <p>Describe the partners that are or will be</p>	<p>This proposal brings together partners who are not only relevant to the proposal but who represent the wider cross section of the City of Estevan.</p>

involved in your proposal. Where partners are not yet determined, describe the process for selecting them.

This section should include:

- A description of existing partners (what type of organization, what they do, etc.), their relevance, and expected contribution to the outcome (or outcomes).
- Where partners are not yet determined or where it is anticipated that additional partners are required, describe the process for selecting them.

The following are descriptions of the identified partners involved in the City of Estevan's proposal. These partners provide expertise in research, technology, entrepreneurship, transportation and trade.

• Estevan Chamber of Commerce-

The chamber is a diversified, member driven network of businesses striving to improve the business climate and community well-being whose vision is to establish Estevan and area as a thriving business community, and to be recognized as a leader and a catalyst for positive change for business and community growth. Its guiding principles are: respect, collaboration, accountability, integrity and fairness.

The chamber is represented on the City of Estevan's Economic Development Board with the city also being a member of the chamber.

The wide membership base of the chamber and its unending involvement in community building brings tremendous value to this proposal.

• Southeast college

Southeast college has a strong relationship with the city of Estevan with a focus on collective community development. Originally established in 1975 as the South East Region Community College as part of a new college system in Saskatchewan, the College was officially renamed Southeast College in 2015. The new name better reflected the evolution of the College and acknowledged that new and flexible learning options allow programming to be delivered on a broader scale.

Southeast College serves a region that encompasses over 70 communities spread throughout 20,000 square kilometers in southeast Saskatchewan. Through partnerships with post-secondary institutions, the college delivers a wide variety of career, vocational, and academic programming to meet the educational, economic and labour force demands of southeastern Saskatchewan. Additionally, the College serves many business and industry stakeholders by offering numerous business, safety, and industrial programs and courses at its six campus locations.

	<ul style="list-style-type: none"> • Central North America Trade Corridor Association (CNATCA) CNATCA, the Central North American Trade Corridor Association, was created in 1991 and reorganized in 2013 to serve as a catalyst to improve the Northern Great Plains long-term transportation economic competitiveness. CNATCA is a non-profit organization made up of communities, tribes, business and industry leaders, universities, and non-government officials who are joining forces to leverage corridor resources, reverse out-migration, increase trade, enhance infrastructure, attract visitors and industry, and revitalize the economy. CNATCA embraces emerging technologies to facilitate better use of existing roadways as well as airspace. Areas associated with the Central North American Trade Corridor range from Alaska in the North to Mexico in the South including Estevan. • Rural Municipality of Estevan (RM) No. 5 Estevan no. 5 is a rural municipality (RM) located in the Southeast corner of Saskatchewan. With a population of just over 1,000 people, the RM is home to the City of Estevan even though the city is considered to be a separate jurisdiction. The RM and the city of Estevan have enjoyed a longstanding relationship and have collaborated on many initiatives. The RM is represented on the City of Estevan’s Economic Development Board.
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<p>Question 12</p> <p>Provide a summary of your preliminary proposal. This summary, along with your Challenge Statement, will be posted online in both official languages.</p> <p>You have the option of providing the summary in both official languages. If you provide it in one official language, Infrastructure Canada will translate it prior to posting online.</p>	<p>The City of Estevan and the surrounding area has always had a vibrant/diversified economy relying on four main economic drivers: Oil & Gas, Coal Mining, Power Generation and Agriculture. Current economic conditions have decreased oil prices, and the national and global move towards cleaner and greener renewable sources of energy has created uncertainty within our coal mining and power generation drivers.</p> <p>The City of Estevan is looking to diversify the local economy through the use of research and technology in areas such as farming, transportation, agri- value, greenhouse</p>
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technology and geothermal energy. The City will achieve this by working closely with partners such as the Southeast College, Chamber of Commerce, Central North American Trade Corridor Association, and the Rural Municipality of Estevan to:

- Create education and business related to drone and autonomous vehicle implementation to enhance trade through the central Highway 39 corridor.
- Focus on green technologies that can develop Green House and value added agri-food processing
- Support Green Energy initiatives such as Geothermal and Solar Energy.

By diversifying our economy, we can maintain a high standard of living for the Estevan community and can expand the range of social and economic choices for our area.
