November 2017

Canada

SMART CITIES CHALLENGE:
APPLICANT GUIDE

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MESSAGE FROM THE MINISTER

It is with great excitement that we kick off the Smart Cities Challenge.

Across the country, communities large and small are bursting with new ideas. As Minister of Infrastructure and Communities, I have been privileged to meet with leaders from coast-to-coast-to-coast and hear their bold and innovative plans to improve the quality of life for their residents. Through the Smart Cities Challenge, we will help bring these ideas and plans to life, and find solutions that achieve real and positive outcomes.

As a former city councillor, I know first-hand that local leadership understands best what their communities need. They are the first to hear about traffic congestion, trouble accessing services, or challenges with public transit. The Smart Cities Challenge will ask those leaders to team up with pioneering businesses, academia, and civic organizations to design innovative solutions to their most pressing challenges using data and connected technologies.

Canada's diverse and inclusive communities are the ideal place for new ideas to flourish. By bringing together different perspectives and diverse backgrounds it becomes easy to look at problems from a different angle. And when those talented people come together in pursuit of a common goal, they can come up with inspired solutions that will have a real and tangible impact.

I am challenging leaders to be bold and think outside-the-box. I want you to approach the Challenge through a lens of transparency, experimentation, inclusiveness, empowerment, and knowledge-sharing. And above all, I want you to think about what will have the biggest impact on the people who call your communities home.

I cannot wait to see what you come up with.

The Honourable Amarjeet Sohi
Minister of Infrastructure and Communities

SMART CITIES CHALLENGE OVERVIEW

The Smart Cities Challenge is a competition open to all municipalities, local or regional governments, and Indigenous communities (First Nations, Inuit, and Métis) across Canada.

This Challenge will inspire communities across the country to define their future with the help of their residents through the use of a smart cities approach.

Winning communities will be awarded with prize money to help implement their smart cities proposals.

Infrastructure Canada is engaging Indigenous leaders, communities and organizations to finalize the design of a competition specific to Indigenous communities that will reflect their unique realities and issues. Indigenous communities are also eligible to compete for all the prizes in the current competition using the process and timelines outlined in this Guide.

WHAT IS A SMART CITIES APPROACH?

A smart cities approach aims to achieve meaningful outcomes for residents by leveraging the fundamental benefits that data and connected technology have to offer:

- **Openness**
  When communities make their data truly accessible, usable, and barrier-free, their decision-making processes become transparent, empowering citizens and strengthening the relationship between residents and public organizations.

- **Integration**
  Data and connected technology empower communities to break down silos that exist within local governments and public organizations.

- **Transferability**
  When tools and technological approaches are open-source, transparent, and standardized, they can be used by communities across the country, no matter their size or capacity.

- **Collaboration**
  Connected technology enables communities to bring traditional and non-traditional partners together to collaborate.

THE CHALLENGE STATEMENT

To begin, each community will define its Challenge Statement.

The Challenge Statement is a single sentence that defines the outcome or outcomes a community aims to achieve by implementing its smart cities proposal. The Challenge Statement must be measurable, ambitious, and achievable through the proposed use of data and connected technology. Below, for illustrative purposes only, are examples of Challenge Statements, ideas of the kinds of smart cities activities or projects that could address them, and indicators on how progress might be measured.

EXAMPLE 1: "FEEL SAFE AND SECURE"

Challenge Statement: The neighbourhood in our community with the highest crime rate will become safer than the national average.

Smart cities activities or projects:

- Establish enriched after-school programing for at-risk youth, providing them with access to technologies (digital design, 3D printing, coding) and opportunities to develop essential skills through gamification.
- Create an online platform for reporting and tracking incidents of crime that integrates resident input and city crime data.
- Install smart lighting and detection technology, integrated with first responder services, to address issues around safety and security.

Indicators of progress toward outcomes:

- Reduction in incidents reported in areas where smart lighting is installed
- Increase in attendance rates at after-school programming
- "Fear of crime" levels among residents reduced to below the national average
- Crime rate reduced to below the national average

EXAMPLE 2: "EARN A GOOD LIVING"

Challenge Statement: After years of decline, our community will transform a former industrial neighbourhood into one of the top locations in Canada for economic growth.

Smart cities activities or projects:

- Create a single mobile app to connect people and businesses to community services, with built-in measurement of response times, user satisfaction, and feedback.
- Deliver online and digitally-enabled training programs through the local library to help workers adapt to the changing marketplace.
- Create a living lab to test new, inclusive, digitally-enabled approaches to increasing livability, harnessing ideas from online citizen engagement, and making results available through an open data portal.

Indicators of progress toward outcomes:

- Increase in usage rates and customer feedback on the mobile app
- Reduction in response times for service requests
- Increase in attendance rates and satisfaction feedback at online training and retraining programs
- Increase in level of private sector investment and new jobs

EXAMPLE 3: "MOVE AROUND MY COMMUNITY"

Challenge Statement: Our community will ensure that every senior who is able to live independently at home is empowered to do so.

Smart cities activities or projects:

- Leverage geospatial and population data to better plan public transit stops close to those with greater need, and re-route traffic to create safe walking zones.
- Create a mobile app to help aging residents and their caregivers better coordinate transportation to and from different points of care and service.
- Offer wearable sensors for seniors connected to healthcare providers as a part of a pilot project to promote healthy lifestyles, encourage walking, and enable the continuous, real-time monitoring of activity levels.

Indicators of progress toward outcomes:

- Increase in mobile app usage rate
- Increase in adoption rate of wearables among seniors
- Reduction in average and maximum walking distance to transit
- Reduction in visits to emergency rooms by seniors
- Rate of seniors living independently increases by 25 percent

EXAMPLE 4: "ENJOY A HEALTHY ENVIRONMENT"

Challenge Statement: Our community will implement preventative measures to reduce flood damage risk by 40 percent and provide every resident of at-risk areas with access to these measures.

Smart cities activities or projects:

- Deploy environmental sensors to monitor water flow amounts.
- Implement an integrated, AI-enabled, flood warning decision support system to forecast and mitigate the impacts of floods.
- Develop a user-friendly online application that uses information provided by the decision support system to alert local residents of dangerous river flow activity, in addition to providing information on preventative measures and links to social media forums.
- Work with local news and radio stations to provide frequent updates or alerts on water levels to inform residents who do not have mobile connectivity.

Indicators of progress toward outcomes:

- Faster response times by public services such as emergency responders, public works and transportation authorities

- Year on year reduction in flood risk, as determined by assessments conducted by an accredited third-party organization
- Reduction in actual or modelled flood damage costs
- Increase in dissemination of preventative measures through use of the application by residents
- Data generated is used as a basis for new land-use planning policies, resulting in increased climate-resilient growth and development

EXAMPLE 5: "BE EMPOWERED AND INCLUDED IN SOCIETY"

Challenge Statement: Our community will ensure that every person without a home has access to nightly shelter, and will connect 100 percent of vulnerable residents with the services, activities, and programs that are known to reduce the risk of homelessness.

Smart cities activities or projects:

- Create a mobile-enabled digital platform that connects community not-for-profits, first responders, and municipal service providers with real-time information on shelters that have space.
- Equip shelters and service centres with customizable tools to enable online learning and help residents get trained and find jobs.
- Create an online platform to connect residents at risk of becoming homeless with personalized community services.

Indicators of progress toward outcomes:

- Increase in adoption and usage rates of the mobile-enabled digital platform
- Number of people turned away from shelters in the community on any given night is reduced to zero
- Increase in the percentage of shelter users that participates in online learning opportunities
- Reduction in rates of episodic or chronic shelter users
- Increase in adoption and usage rates of the online platform, including referral rates by participating community services

EXAMPLE 6: "LIVE AN ACTIVE AND HEALTHY LIFE"

Challenge Statement: Our community will become 50 percent more active and healthy, and achieve a measurable decrease in chronic disease.

Smart cities activities or projects:

- Create a sports and recreation "meet-up" app, allowing people to organize games, races, exercise, and training sessions spontaneously, and to reserve community facilities.
- Gamify healthy lifestyle choices, linking wearable activity trackers with real-world incentives, such as reward points.
- Create an online marketplace connecting local food growers with participating food preparers, including those in community buildings such as schools, hospitals, and government buildings.

Indicators of progress toward outcomes:

- Increase in usage rate of the meet-up app
- Increase in usage rates of community facilities
- Year on year increase in gamification participation
- Reduction in rates of adverse health outcomes associated with a lack of activity

WHO CAN APPLY?

The Smart Cities Challenge is open to communities of all sizes across Canada. Applicants must represent an identifiable community and must be responsible for services in that community. The following organizations can participate in the Smart Cities Challenge:

- Municipalities and local or regional governments established by or under provincial or territorial statute.
- Indigenous communities including First Nations, Inuit, and Métis communities (such as First Nation band and Tribal Councils, and communities under Self-Government Agreement, Comprehensive Land Claim Agreement or the Métis nation).
- A combination of organizations listed above.

A community or group of communities can only submit one application in this competition.

Communities that intend to apply are encouraged to contact Infrastructure Canada at infc.sc-vi.infc@canada.ca early on to confirm their eligibility.

PROCESS AND TIMELINE

APPLICATION	SELECTION OF FINALISTS	FINAL PROPOSAL	SELECTION OF WINNERS	IMPLEMENTATION
LAUNCH	APPLICATION SUBMISSION DEADLINE APRIL 24, 2018	FINALIST ANNOUNCEMENT SUMMER 2018	FINAL PROPOSAL SUBMISSION DEADLINE WINTER 2019	WINNER ANNOUNCEMENT SPRING 2019

Communities are encouraged to contact Infrastructure Canada at infc.sc-vi.infc@canada.ca with any questions regarding the process.

Infrastructure Canada is engaging Indigenous leaders, communities and organizations to finalize the design of a competition specific to Indigenous communities that will reflect their unique realities and issues. Indigenous communities are also eligible to compete for all the prizes in the current competition using the process and timelines outlined in this guide.

APPLICATION

Applicants should begin the Smart Cities Challenge process by engaging with residents about the most pressing issues their community faces. These consultations will help applicants define their Challenge Statements.

With their Challenge Statements established, applicants will develop the ideas and activities that will make up their preliminary Smart Cities Challenge proposal. The questions that will appear in the application form, information on how to fill it out, and evaluation criteria are

provided in the Appendix: Application Instructions of this guide.

Applicants have until April 24, 2018 to complete and submit their applications on the Impact Canada Challenge Platform (https://impact.canada.ca/en/challenges/smart-cities).

Applicants are encouraged to contact Infrastructure Canada at infc.sc-vi.infc@canada.ca with questions about eligibility and other application requirements prior to the deadline.

When appropriate, questions asked and answered will be made available on the Platform (https://impact.canada.ca/en/challenges/smart-cities).

SELECTION OF FINALISTS

Once applications are screened for eligibility, Infrastructure Canada will post the summaries on the Platform (https://impact.canada.ca/en/challenges/smart-cities). Applicants will be required to post the full versions online.

Eligible applications will be reviewed by experts from inside and outside government and will then be evaluated by an independent Jury.

The Jury will select finalists by Summer 2018. Each of these finalists will receive a $250,000 grant to develop their final proposal.

FINAL PROPOSAL

Finalists will develop fully-implementable final proposals that outline all design, planning, and project management components of their plans. Each final proposal must present a strong business case with clearly established milestones and measurable outcomes. Finalists will also outline their data and reporting strategy, making appropriate links to Infrastructure Canada's Climate Lens and Community Benefits Reporting Framework. The Climate Lens will only apply to proposals related to climate change mitigation and climate change adaptation.

As they develop their final proposals, finalists will also formalize partnerships with organizations that will help them implement their projects, and will establish project governance structures.

These final proposals are due in Winter 2019. The deadline and evaluation criteria for final proposals will be made public at the time of the announcement of finalists.

SELECTION OF WINNERS

Infrastructure Canada will post all final proposals on the Platform (https://impact.canada.ca/en/challenges/smart-cities).

Similar to the applications, final proposals will be reviewed by experts and then evaluated by the Jury. Their evaluations will focus on project feasibility, strength of the business case, and clear links to the outcomes established in the Challenge Statement.

The Jury will select winners by Spring 2019.

IMPLEMENTATION

Winners will receive prize money through contribution agreements with Infrastructure Canada. Payments will be made once projects attain milestones that demonstrate progress towards outcomes.

Throughout implementation, winners will maintain close contact with Infrastructure Canada. Winners will continually monitor their progress and, if course corrections are necessary, they will work with Infrastructure Canada to make them.

Depending on the nature and scope of the final proposal, implementation is expected to span between 2-5 years.

Lessons learned from the entire Smart Cities Challenge process will be gathered from all participants and shared with Canadian communities.

PRIZES

Prizes in the current competition:

- One prize of up to $50 million

  Open to all communities, regardless of population

- Two prizes of up to $10 million each

  Open to all communities with populations* under 500,000 people

- One prize of up to $5 million

  Open to all communities with populations* under 30,000 people

Infrastructure Canada is engaging Indigenous leaders, communities and organizations to finalize the design of a competition specific to Indigenous communities that will reflect their unique realities and issues. Indigenous communities are also eligible to compete for all the prizes in the current competition.

Prize money will be awarded through contribution agreements with Infrastructure Canada.[1]

Applicants are encouraged to solicit additional funds from other resources to strengthen the impact and reach of their proposals.

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[1] Pursuant to the laws applicable in Québec, a municipality that is selected for a grant or prize must, in accordance with its obligations set out in *An Act respecting the Ministère du Conseil exécutif*, obtain prior authorization from the government of Québec before signing any agreement relating to the development of a final proposal or for the implementation of a project.

Applicants who do not win one competition can submit a new or improved application to subsequent competitions.

The Smart Cities Challenge includes three competitions, the first one wrapping up in the Spring of 2019.

*Community size is based on the 2016 Census subdivisions (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=301&S=3&O=D), which conform or substantially align with community boundaries for statistical purposes. Two or more communities may partner on an application as an applicant. Where applications are from multiple communities, the combined populations of the communities will be used to determine prize category eligibility for the applicant. Only one prize category can be selected per applicant. Population thresholds do not apply to Indigenous community applicants – those communities can apply to any prize category regardless of population size (unless they partner with a non-Indigenous community).

SELECTION OF FINALISTS AND WINNERS

Finalist and winners will be determined by a panel of jury members.

The Jury will be comprised of accomplished individuals from across the country who are publicly recognized in their field, have a strong track record of leadership, and have a demonstrated interest in public issues or public service. Infrastructure Canada will strive to reflect gender parity and the diversity of the Canadian population in the Jury composition.

Jury members will be selected by the Minister of Infrastructure and Communities following an open and transparent competitive process.

PRIVACY NOTIFICATION

Personal information provided in the application form is collected for purposes relating to the Smart Cities Challenge in accordance with the Impact Canada Initiative. Individuals have the right to the protection and correction of, and access to, their personal information under the *Privacy Act*. Full details with respect to the collection, use, disclosure, and retention of personal information are described in the Outreach Activities (PSU 938) and Public Communications (PSU 914) personal information banks as found in Infrastructure Canada's *Info Source* (http://www.infrastructure.gc.ca/infosource/index-eng.html). Should you have concerns about INFC's handling of your personal information you have a right to file a complaint with the Privacy Commissioner of Canada.

CONSENT AND RELEASE FORM AND CONFIDENTIAL ANNEX

As transparency and knowledge-sharing is a core tenet of the Smart Cities Challenge, all information submitted to the competition will be made publicly available. Summaries of all eligible applications will be posted on the Impact Canada Challenge Platform in both official languages. In addition, all applicants will be required to post the full versions of their applications online in the language of their choice. Applicants will therefore be required to sign a *Consent and Release* form as part of their application.

There may be some circumstances where an applicant may wish to make select details of their application confidential (e.g. third party information). In this case, a "confidential annex" can be included in the application.

COMMUNICATIONS PROTOCOL

All applicants will be required to follow a communications protocol with Infrastructure Canada, which identifies roles and responsibilities of the Government of Canada, the applicants and finalists of the Smart Cities Challenge. The full protocol will be available as part of the application form. A separate communications protocol will be provided to winners of each competition.

CONTACT INFORMATION

Applicants are encouraged to contact Infrastructure Canada early in the process of developing their applications to ask questions and ensure they are on the right track.

When appropriate, questions asked and answers provided will be made available on the Impact Canada Challenge Platform.

Follow the Smart Cities Challenge on Twitter and Facebook to get the latest news about the Smart Cities Challenge. To join the conversation on smart cities, use #smartcitiesCanada on Twitter.

To learn more about how the Smart Cities Challenge advances the Investing in Canada Plan as well as about Infrastructure Canada and its other programs, visit the Infrastructure Canada website.

Email: infc.sc-vi.infc@canada.ca

Twitter: https://twitter.com/INFC_eng

Facebook: https://www.facebook.com/TransportandInfrastructureinCanada/

Impact Canada Challenge Platform: https://impact.canada.ca/en/challenges/smart-cities

Infrastructure Canada website: http://www.infrastructure.gc.ca/plan/cities-villes-eng.html

APPENDIX: APPLICATION INSTRUCTIONS

SECTION I: APPLICANT INFORMATION

This section will be used to validate your eligibility as an applicant. This section will be posted online once the application is screened in.

Question 1:

Please provide the following information on your community.

- Name of community:
- Province/Territory:
- Population:
- Indigenous community: Yes/No

Tips

Applicant organizations must represent their community in an official capacity and be responsible for delivering services in that community. The following organizations are eligible to apply:

- Municipalities and local or regional governments established by or under provincial or territorial statute;
- Indigenous communities including First Nations, Inuit and Métis communities (such as band councils, Tribal Councils, and First Nation, and communities under Self-Government Agreement or Comprehensive Land Claim Agreement); or
- A combination of organizations listed above.

Population is based on the 2016 Census subdivisions (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=301&S=3&O=D).

One or more communities may partner on an application (add each community separately). Regional entities should have the support of their component communities.

Question 2:

Please select a prize category.

- $50 million (all population sizes)
- $10 million (population under 500,000 residents)
- $5 million (population under 30,000 residents)

Tips

You can select only one prize category:

- Communities of all sizes may select the $50 million prize.
- Only communities under 500,000 residents may select the $10 million prize.
- Only communities under 30,000 residents may select the $5 million prize.

For example:

- A community of 1 million residents may select the $50 million prize, but not the $10 million or the $5 million prize.
- A community of 100,000 residents may select the $50 million or the $10 million prize, but not the $5 million prize.
- A community of 10,000 residents may select the $50 million, $10 million, or $5 million prize.
- An Indigenous community of any size may select any of the prizes.
- A community of 10,000 residents partnering with a community of 100,000 residents (i.e. cumulative population of 110,000 residents) may select the $50 million or the $10 million prize, but not the $5 million prize.
- An Indigenous community partnering with another Indigenous community, regardless of their population sizes, may select any of the prizes.
- An Indigenous community of 7,000 residents partnering with a non-Indigenous community of 25,000 residents (i.e. cumulative population of 32,000 residents) may select the $50 million or the $10 million prize, but not the $5 million prize.

Population is based on the 2016 Census subdivisions (http://www12.statcan.gc.ca/census-recensement/2016/dp-pd/hlt-fst/pd-pl/Table.cfm?Lang=Eng&T=301&S=3&O=D). If the application is from multiple communities, the cumulative population determines eligibility.

The selected prize category should also correspond to the scope and scale of projects to be funded from the prize amount, as described in your preliminary proposal.

SECTION II: PRELIMINARY PROPOSAL

This is the only section in the application that will be evaluated. This section will be posted online once the application is screened in. The evaluation criteria and weighting for each component of this section is stated for your reference. Please ensure that your responses are as comprehensive and precise as possible, and contact Infrastructure Canada at infc.sc-vi.infc@canada.ca if you have any questions or concerns.

SUB-SECTION 1 – PROBLEM DEFINITION (TOTAL OF 55/100)

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. (50 words max)

Tips

Your Challenge Statement should define the outcome or outcomes that address(es) an important problem in your community and should state what you aim to achieve by implementing your proposal. The outcomes must be measurable, ambitious, and achievable through the proposed use of data and connected technology.

Evaluation criteria

- Challenge Statement is ambitious, measurable, and achievable through the proposed use of data and connected technology

Weighting

40/100 (questions 3-4)

Question 4:

Please describe the outcome (or outcomes) your proposal seeks to achieve by elaborating on your Challenge Statement. (2,500 words max)

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 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).

Tips

Preliminary proposals should demonstrate how data and connected technology can achieve a meaningful and measurable outcome (or outcomes) for residents. Information in this section should facilitate the evaluation of your Challenge Statement, both of which make up the highest-weighted factor in the selection of finalists.

Evaluation criteria

- Outcome (or outcomes) reflect(s) the true needs of the community, as demonstrated through a compelling body of data and evidence
- Outcome (or outcomes) is/are ambitious and achievable
- Outcome (or outcomes) is meaningful for the community and its residents
- The role of a smart city approach in achieving the outcome (or outcomes) is/are clearly explained, and serves as a rationale for selecting the particular outcome (or outcomes)
- Outcome (or outcomes) is/are measurable

Weighting

40/100 (questions 3-4)

Question 5:

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. (1,500 words max)

This section should include:

- 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 implementation of the final proposal.

Tips

Meaningful engagement of residents should be done at every stage of the Challenge process. Engagement with residents and other stakeholders can be part of a broader process (e.g. town hall, public consultation, citizen advisory committee), but the problems discussed should contribute to shaping your preliminary proposal.

Information in this section should demonstrate that the outcome (or outcomes) set out in the Challenge Statement reflects the concerns and needs of the residents, and that the results of the consultations and engagement activities will inform and guide the development of the final proposal going forward.

Evaluation criteria

- Relevant consultations and engagement activities took place, exhibiting efforts to:
    - o incorporate residents' input into the development of the Challenge Statement
    - o take into account the views of various stakeholders in the community in refining the outcome (or outcomes)
    - o encourage high participation by advertising widely and being accessible (timing, accessibility of information, physical accessibility, etc.)
    - o include diverse views and represent a cross-section of the community
- Plans to sustain community engagement through the development and implementation are included and adequate

Weighting

15/100

Question 6:

Please describe your preliminary proposal and its activities or projects. (2,000 words max)

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.

Tips

Preliminary proposals may contain more than one project to achieve the outcome (or outcomes) identified in the Challenge Statement. Projects may seek to address different aspects of the problem. The projects could be pursued independently, but each should contribute to achieving the outcome (or outcomes) identified in the Challenge Statement. The logic connecting projects to outcomes must be clear. The description could draw on research, lessons learned, experiences from other communities, previous efforts, etc.

For example: a Challenge Statement aimed at achieving outcomes in the areas of homelessness could encompass a project that help people who are already homeless (e.g. mobile applications to connect first responders and community service providers and enable rapid matching of services to the urgent needs of homeless people) as well a project that helps people at risk of becoming homeless (e.g. broadband-enabled distance learning opportunities at community centres).

While this competition of the Smart Cities Challenge is awarding a limited number of prizes, the process aims to achieve a much broader impact. It is therefore essential that the winning proposals are scalable and replicable for other communities, enabling the sharing of what has been demonstrated to work. The use of open data approaches, industry standards, open architecture, and systems is encouraged.

Evaluation criteria

- Preliminary proposal qualifies as a smart city proposal: it achieves positive outcomes for residents by leveraging connected technology and data
- Preliminary proposal has the potential to achieve the outcome (or outcomes) through the smart city approach
- Implementation is feasible given its scope and size
- Scope and size are suited to achieving the expected outcome in a manner that is:
    - o impactful for the community: preliminary proposal identifies a problem that is measurable at the onset and outcome (or outcomes) that can be measured during implementation; data either exists or can be collected to form a baseline for measuring progress
    - o ambitious: scope and size are significant, but not excessive, and are appropriate for the applicant and the prize category sought
    - o transformative: preliminary proposal components, processes, and mechanisms support deep, systemic, and sustainable change with the potential for large-scale impact for community residents
- Proposal is, or will be, open, interoperable, scalable, and replicable:
    - o To the extent possible, preliminary proposal incorporates open standards and is interoperable with existing infrastructure, etc.
    - o To the extent possible, preliminary proposal does not lock-in a community with a specific vendor in a way that hinders the community and other communities from leveraging the data for other uses through open data and in-house analytics
    - o Preliminary proposal is pertinent, adaptable, and suitable for other parts of the community and other Canadian communities of various profiles that are seeking similar outcomes
    - o Proposed solutions are robust, flexible, and can accommodate changing circumstances (e.g. population growth)
    - o Preliminary proposal components reflect a forward-thinking approach (e.g. choosing solutions that will serve what may come and not just the most economic option to address present needs)
    - o Proposal's technology, innovation, and data serve or enable (or will serve or enable) other purposes (e.g. implementation of the proposal lays the groundwork for other more advanced technological solutions)

Weighting

15/100

Question 7:

Please describe the ways in which your preliminary proposal supports your community's medium and long-term goals, strategies, and plans. (500 words max)

To supplement your response, please provide any relevant documents and make clear linkages and references.

Tips

Your preliminary proposal must be aligned to an existing or planned vision that has the components of a smart cities approach (i.e. data and connected technology). The development and implementation of its activities or projects must take place under that context. Your preliminary proposal should be related to or embodied in initiatives, plans, frameworks, etc. that are already in progress in your community.

Evaluation criteria

- Preliminary proposal is well-aligned with a larger smart cities vision for the community (e.g. the implementation of the proposal complements other initiatives)
- Preliminary proposal complements ongoing, past, or planned efforts to achieve the outcome (or outcomes), aside from the preliminary proposal
- Preliminary proposal is ambitious relative to current or previous initiatives

Weighting

5/100

Question 8:

Please describe your community's readiness and ability to successfully implement your proposal. (1,000 words max)

This section should include:

- 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.

Tips

You should continue to develop your state of readiness as you proceed with the competition. You should describe your state of readiness at this point in time as evidenced by your experience with advancing complex projects and the preparations you have made or plan to make to implement your proposal.

Information in this section could include establishing or assigning dedicated senior positions with accountabilities to manage and enable organization-wide innovation. It could also involve creating dedicated teams, such as innovation labs, to facilitate the planning and executing of experimental or innovative projects.

Where applications are from multiple communities, describe the mechanisms through which various players (e.g. municipal departments, service delivery agents) involved in the proposal have been or will be managed.

Evaluation criteria

- Applicant has implemented smart city or other complex projects in the past, which have yielded positive results and lessons learned
- Applicant has put in place or plans to have organizational structures, processes, and practices to implement the proposal
- Applicant has put in measures or has plans to address potential organizational weaknesses

Weighting

10/100

Question 9:

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. (500 words max)

Tips

The grant should only be used for activities that relate directly to the development of your final proposal. These can include staffing, professional services, feasibility assessments, capacity building, small-scale pilots, community engagement and communications, data, and relevant training.

In their final proposals, finalists will be required to report on how the grant was actually spent.

Evaluation criteria

- Plans to use the grant reflect an appropriate use of funds, and a sensible balance between bringing in outside help and building capacity within the organization
- Applicant is aware of gaps in its ability to implement, and has begun to or plans to address these gaps through the grant or by other means (e.g. building management capacity and IT talent, creating dedicated resources or teams to champion innovation, supplementing other sources of funding devoted to experimentation and innovation)

Weighting

5/100

Question 10:

Describe the partners that are or will be involved in your proposal. Where partners are not yet determined, describe the process for selecting them. (500 words max)

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.

Tips

Partners who are involved should be those necessary for the success of the proposal. Partners can be from areas such as private sector, not-for-profit, public utilities, research/academia, civil society, public or national organizations/groups, and project incubators.

Communities do not necessarily need to establish commercial relationships with technology vendors or service providers at this stage. Rather, this section should provide information on the processes (e.g. procurement strategies) that are in place to bring them on board at a later stage.

Evaluation criteria

- Overall partnership development approach is described, some partners are identified, and all major players are brought on board (confirmation of the exact capacity not required at this point, but they have indicated their willingness and interest in committing to the proposal)
- All identified and planned partners are relevant and have clear roles and responsibilities in the execution of the proposal (expected contributions such as skills, expertise, and resources are included as available)
- As appropriate, partnerships involve diverse types of organizations
- Should gaps in the partnership approach be noticed, processes are in place to bring on additional partners reflect sound practices and appropriate roles and responsibilities

Weighting

10/100

Question 11 (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. (500 words max)

Third party information in this section should be supplemental to the information provided elsewhere in the application and be limited to those details that are deemed confidential. Please clearly indicate which question(s) the information provided in this section relates to.

Tips

One of the goals of the Smart Cities Challenge is to encourage as much transparency as possible among applicants, potential applicants of future rounds, other communities, stakeholders, and with the general public.

Summaries of applications with links to the full versions of eligible applications and supporting materials will be posted online to promote transparency and knowledge-sharing.

This is the only question in Section II of the application that is exempt from the requirement to post online.

Evaluation criteria

- Information to be considered in the evaluation of the questions it relates to
- Only confidential third party information is included

SECTION III: OTHER REQUIREMENTS

This section has no bearing on the evaluation, but is required to complete the application. This section is not required to be posted online with the exception of questions 12 and 13.

Question 12:

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

This summary, along with your Challenge Statement, will be posted online in both official languages.

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.

Tips

This is your opportunity to showcase your preliminary proposal to audiences interested in smart cities projects across the country and internationally. Make sure you include the major components of your preliminary proposal to attract the attention of readers, including potential partners in developing your final proposal. Do not restate your Challenge Statement, as Infrastructure Canada will use it as the title of your summary.

If the optional image is provided, it will appear online next to your Challenge Statement and summary.

Question 13:

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

Tips

To meet the Smart Cities Challenge goal of openness and transparency and to encourage dialogue among residents and stakeholders, all eligible applications will be required to be posted online by the applicant.

Question 14:

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.

Tips

This document should clearly demonstrate the commitment of community leadership to the outcome (or outcomes) set out in the Challenge Statement and to following through with the proposal throughout the competition. It could outline elements such as the community's suitability as a candidate in the Smart Cities Challenge, readiness to be in the national and international spotlight as a smart city, commitment from the organization to provide the necessary political and logistical support, alignment with the local or regional focus and vision, reference to council resolutions, etc.

If there is more than one community, a single, consolidated document is required (e.g. provide a single support letter signed by each of the communities' mayor, chief, or equivalent).

Question 15:

Please identify the point of contact for the application.

- Name:
- Title and affiliation:
- Phone number:
- Email address:

Tips

This point person will liaise and communicate with Infrastructure Canada throughout the competition and must have the ability and authority to speak on behalf of the applicant on all matters relating to the application. This information may be updated at any time by the applicant by contacting Infrastructure Canada.

Where the application is from multiple communities, a single lead is required.

Question 16:

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

SECTION IV: SURVEY QUESTIONS

This section has no bearing on the evaluation, but is required to complete the application. This section is not required to be posted online. This information is meant to help Infrastructure Canada better understand the profile of applicants, collect baseline data about communities, and improve and adjust the Smart Cities Challenge process in the future. This information may be publicized for statistical analysis and reporting purposes, but only aggregates will be used (i.e. communities will not be identified). You may provide estimates wherever information is approximate or unavailable.

Question 17:

Please provide the following information about your organization.

- 2017 full-time equivalents (FTEs):
    - o Number of total FTEs
    - o Percentage of total FTEs devoted to innovation
- 2017 operating and capital budgets:
    - o Total operating budget
    - o Percentage of total operating budget devoted to innovation
    - o Total capital budget
    - o Percentage of total capital budget devoted to innovation

Tips

This information will not be assessed, but will help Infrastructure Canada to establish a baseline of applicants' overall investments in innovation. A key goal of the Smart Cities Challenge is for communities to strengthen and develop their capacity in this area. By collecting data at the outset, we will be able to measure progress. If definitive data is not available, you are encouraged to provide estimated figures.

Innovation refers to the delivery of new or significantly improved services; the development of new or significantly improved processes that contribute to the efficiency and effectiveness of operations; or the development of new or significantly improved organizational structures or external partnerships to better manage, set, and meet strategic objectives.

For example, innovation could include management time devoted to improving service delivery and efficiency of the organization, experimentation with new solutions, investments in new technology, etc., but not administrative tasks, overhead, maintenance, ongoing operations, regular capital replacements, etc.

Information in this section should refer to the applicant organization (i.e. the municipality, local or regional government, or Indigenous community organization). Only provide quantitative information here (numbers for FTEs and dollar amounts for budgets). For the purpose of this question, 1.0 FTE is equivalent to $80,000 in salary including benefits. FTE figures can be fractional, representing the portion of time spent by staff on these areas.

If your application is being submitted by multiple communities, add each community separately.

Question 18:

Please select the focus area of your preliminary proposal.

If your preliminary proposal seeks to achieve outcomes that span more than one area, you may choose up to two.

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

Tips

Infrastructure Canada wants to better understand the priorities of communities that are applying to the Smart Cities Challenge. While your community will no doubt have priorities across all of the areas listed, we are asking you to select no more than two as the primary areas of focus for your Smart Cities Challenge application.

Economic opportunity: residents are supported by a thriving local economy. Examples of outcomes in this area could include: increased employment opportunities; reductions in processing times for business permits; improvements in skill levels in the local labour force; etc.

Empowerment and inclusion: residents are supported and given the opportunity to participate in the community. Examples of outcomes in this area could include: reduced homelessness rates; reductions in the number of institutionalized children and youth; better integration of newcomers, refugees, youth, seniors, visible minorities, etc. in the community; opportunities to participate in, and to be informed about, the democratic process/decisions affecting the community; etc.

Environmental quality: residents are able to enjoy a healthy environment. Examples of outcomes in this area could include: reduced greenhouse gas emissions; reductions in environmental contaminant levels; habitat preservation or renewal; etc.

Healthy living and recreation: residents are able to live an active and healthy life. Examples of outcomes in this area could include: increased access to recreational programming; availability of remote health services; reduction in adverse health outcomes; etc.

Mobility: residents can move freely within their community. Examples of outcomes in this area could include: increased accessibility to public transportation; reduced first mile/last mile gaps; reduction of congestion; etc.

Safety and security: residents live in a safe and secure community. Examples of outcomes in this area could include: reduced crime rates; increased safety for women; improved emergency response times; etc.

Question 19:

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

There is no limit to the number of community systems/service areas you may select.

- Arts and culture
- Economic development
- Education and training
- Emergency services and enforcement
- Environment
- Land use planning and development
- Public health

- Recreation and parks
- Roads and transportation
- Social services
- Waste
- Water and wastewater
- Other: please specify

Tips

Infrastructure Canada would like to understand the relative distribution of community systems and service areas in Smart Cities Challenge applications. These are some common systems and services that communities have in place. There is no limit to how many you can select – you are encouraged to mobilize and connect different community systems and services to achieve your outcome.

Arts and culture can include language, libraries, and heritage.

Economic development can include job creation, economic diversification, talent attraction, tourism promotion, investment attraction programs, innovation centres, incubators, and accelerators.

Education and training can include schools, colleges and universities, adult education, and training programs.

Emergency services and enforcement can include fire, paramedic, or police services, and emergency preparedness.

Environment can include climate change mitigation and adaptation, disaster mitigation, natural asset management, biodiversity and habitat preservation, and greenspaces.

Land use planning and development can include permitting and zoning and related by-laws.

Public health can include clinics, hospitals, and healthy living programs, responses to public health emergencies, and animal and pest control.

Recreation and parks can include facilities and services related to community centres, fitness, and sport.

Roads and transportation can include parking, road safety, public transit, road and sidewalk maintenance, traffic, transportation planning, trails, bike lanes, waterways, air transit to remote communities.

Social services can include housing, children's services, employment and financial assistance, services for seniors, immigrants, and youth, and food security.

Waste can include waste collection, dumps, recycling programs and facilities, waste reduction and management.

Water and wastewater can include sewers, wells and septic systems, drinking water, and water in the environment (wetlands, greenspace, beaches, rivers, streams).

Question 20:

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

There is no limit to the number of technologies you may select.

- Artificial intelligence (AI)
- Assistive technology
- Augmented reality (AR) or Virtual reality (VR)
- Autonomous and connected vehicles
- Big data analytics
- Cloud computing
- Enterprise solutions
- Environmental monitoring
- Geospatial

- Health or Medical technology
- Internet of Things (IoT)
- Mobile applications
- Networks
- Open data platforms
- Payment platforms
- Sensors
- Video analytics
- Wearables
- Other: please specify

Tips

Infrastructure Canada is interested in understanding the range of technologies that communities are considering as part of their Smart Cities Challenge applications. These are some technologies commonly associated with smart city projects.

There is no limit to how many you can select as you are encouraged to use different technologies to achieve your outcome (or outcomes).