

TechNation Challenge: Building for Sustainability

In the next 3 decades, more than 6.5 billion people are expected to live in cities around the world – almost twice the population of cities today. Rapid urbanization and innovation are a new reality that municipal leaders will need to address. New approaches are needed to manage transportation, waste, water, utilities, and citizen programs in cities of the future that will see:

- Increased carbon emissions and consumption of natural resources,
- A balance between fiscal constraints and dealing with aging infrastructure,
- Complexity of regulatory policies that will need to change to enable innovation and economic recovery, and
- Higher expectations that citizens will have on how services should be delivered and managed – simply, digitally, and at their convenience.

At Microsoft, our Vision is to empower every person and every organization on the planet to achieve more. As local governments continue to look for new ways to invest in smart and sustainable solutions, we are helping to build new strengths in data, cloud and artificial intelligence that will set the foundation for the cities of tomorrow.

The Challenge

In 2018, Canada was ranked the 10th largest country for carbon emissions globally, and the government have acknowledged our responsibility to reduce our national carbon footprint. Canada has made a commitment to net-zero for carbon by 2050, which supports the Paris Agreement to see a 30% reduction in global emissions by 2030.

Building for a sustainable Canadian future, however, is complex and requires innovative technology solutions and approaches to ensure that our ambitious commitments can be met, with strong partnerships between governments and businesses. The world is changing, and the right blend of technology can help play a leading role in achieving sustainability targets. It is estimated that 70% of new value created over the next decade

will be based on digitally enabled platforms, many of which are available to municipalities today:

- Chatbots – which run over two-thirds of first contacts for governments and organizations across the world,
- Artificial Intelligence and the Internet of Things – sensors built into almost anything to deliver intelligence and control that will drive efficiency, lower cost, and an optimized citizen experience,
- Zettabytes of information and data that can be accessed safely, securely and with a focus on privacy, to help understand the environmental targets that governments and businesses could, should and will achieve.
- Opportunity to add Cloud for Sustainability platform here – partner to extend the value and insights for Canada?

Do you have a creative idea for a digital product that would leverage the Microsoft platform to revolutionize Canada's approach to carbon emissions? How could your product substantially contribute to cutting our carbon emissions and meeting global and/or national targets? How would that benefit your clients, be they government departments, businesses, or individuals? What technical or policy constraints would you need to address for your product to be successful?

Desired Outcomes

1. A 2–4-page proposal for a new digital product, which will run on the Microsoft platform, and help local governments and businesses develop, track and achieve sustainability goals. Proposals should include:
 - i. **Executive summary** outlining the product purpose, audience, and benefit to governments or local business, and
 - ii. **Technical specifications** of the proposed solution that demonstrates compliance with design standards and how the product will leverage the Microsoft platform and products.

2. Identification of support from Microsoft to address any expected policy or technical constraints, such as product expertise, access to Microsoft sustainability tools, financial assistance (direct or credit), marketing, etc.
3. A prototype solution completed within 3 months that:
 - i. Fully runs on Microsoft Azure.
 - ii. Complies with Accessibility, Privacy, Security policies.
 - iii. Has a low cost to government, businesses and/or consumer.
 - iv. Is self-sustainable after 6 months

Eligibility

1. Canadian-owned and operated small and medium sized businesses (< 500 employees, as defined by Stats Canada) and/or students.
2. Minority-led individuals and businesses are invited to self-declare.
3. Proposed solutions must comply with all local/prov/fed and Microsoft standards.
4. Proposals will be accepted in either official language (English, French).
5. The deadline to have proposals received is February 11, 2022. Proposals must be submitted to napollonova@technationcanada.ca and must be received electronically by the deadline.