

5G Transportation Challenge for SMEs

Background:

Today's automotive vehicles lack precise localization data which leads to preventable accidents, loss of productivity, declining commuter safety and bad quality of experience for drivers/commuters.

During the last year, the mobile operator/smartphone industry has adopted a set of standards for the delivery of GPS/GNSS corrections through the mobile network to the phone which will improve the accuracy of all smartphones from around 6 metres to approx. 1 metre.

Additionally, network improvements with 5G will allow for lower latency and better positioning, providing the opportunity for new services that were never before possible.

New technologies such as Edge Computing and High Precision Positioning Systems (HPPS) are being developed on the Rogers 5G network. These features have the potential to reduce and, in some cases, eliminate issues and gaps caused by lack of precise localization in vehicles. They will enable advanced automotive, commuter safety, transportation and smart city applications.

The Challenge:

The deployment of the Rogers 5G network will open the door for the Canadian transportation industry to take advantage of new technologies and enhance existing products/services or create completely new products/services

In partnership with [Ontario Vehicle Innovation Network](#) (OVIN), Rogers is building a test bed in the David Johnston Research + Technology Park on the University of Waterloo Campus to provide multi-access edge computing and precise location-based services in combination with Rogers 5G capabilities. This will demonstrate advanced use cases such as dynamic map sharing, more accurate navigation, smart infotainment, real-time/dynamic traffic updates and infrastructure-assisted autonomous vehicle perception

OVIN & Rogers welcome **companies that operate in Ontario** to submit how they might use the Rogers 5G network for an innovative application which leverages precise positioning and low latency that would enhance their transportation/mobility business and could be demoed within a 3-month period.

Participants must outline how they might use the characteristics offered by the Rogers 5G network for precise localization and low latency (defined as < 20ms). Ideas can be enhancements to existing products/services or new products/services.

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Use cases do not have to be strictly related to automotive vehicle interactions and can include pedestrians, bicycles, scooters, motorcycles, etc.

The Prize

The winning idea(s) will receive some funding to develop their proof-of-concept (POC) on the test bed in the David Johnston Research + Technology Park at the University of Waterloo and be supported by Rogers and its partners throughout the development. As part of the submission, applicants must outline how they would develop a POC of their idea in roughly 3 months.

Important Dates:

May 2, 2022: Deadline to Submit

May 24, 2022: Finalists Announced

June 6, 2022 (week of): Final Pitch Presentations

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Disciplines:

Information and Communications Technology

Physical Sciences and Engineering

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