York Region Readiness for Transportation Technology Advancements

Disruptive Technologies/Initiative introduced by others that will impact the
Region's Transportation Business Practices

Toronto Automated Shuttle Trial

The automated shuttle service would launch in Fall 2020 and run for about 6-12 months to connect local residents to and from Rouge Hill GO station during morning and afternoon rush hours. This service would be offered as a first-mile-last-mile solution for communities that are not currently served by TTC, and help alleviate future local traffic congestion and parking demand. The shuttle bus to be used in this trial would be a zero-emission electric automated vehicle, that is accessible and will operate at low speeds in mixed traffic with an onboard human attendant at all times (in partnership with City of Toronto TTC, Metrolinx).

Greater Toronto Hamilton Area and Kitchener-Waterloo CAV Readiness Plan

Insight collected from government agencies/jurisdictional review industry research is used to develop guidelines for CAV implementation that consider infrastructure, operations, planning and public levers, as well as identifying potential test projects (in partnership with Ministry of Transportation Ontario, Metrolinx, WSP, Municipalities within the area).

Direct and Network-based Communications

The telecommunications industry continues to modernize wireless network by increasing the number of transmitters capable of connecting roadside devices with autonomous vehicles. The introduction of the new communications networks requires collaboration with many partners, including governments and technology industry. The Ottawa L5 is the first integrated CAV test site of its kind in North America, which offers telecommunications and networking infrastructure for testing, validation and demonstration of a variety of communication use cases, including Vehicle-to-Vehicle (V2V), Vehicle-to-Infrastructure (V2I), and Vehicle-to-Network (V2N) (in partnership with major mobile-network operators, wireless network technology developers, City of Ottawa).

Cybersecurity and Internet of Things (IoT)

The IoT has not only allowed billions of connected devices to communicated and share data but introduced vulnerability to internet threats. BlackBerry has developed integrated security solution and technologies to protect IoT devices (e.g. roadside sensors, connected and autonomous vehicles) from cyberattacks and data breach (in partnership with Blackberry).