

## Regulating an Autonomous and Shared Future for Urban Mobility

Submission to the Treasury Board Secretariat

By the Canadian Urban Transit Association

As the Treasury Board of Canada Secretariat coordinates its three-year targeted regulatory review process with federal departments and agencies, it should pay close attention to how regulations for autonomous vehicles (AVs) could be developed to promote the outcomes that the federal government has highlighted as important to the safe and inclusive and sustainable development of Canadian communities.

CUTA believes that the lack of regulation in Canada on AVs is slowing the deployment of this new technology. The federal government should demonstrate leadership on safety standards, insurance policy and privacy issues if it wants to see more AVs on Canadian roads and integrated into Canadian transit systems. The federal government should work to harmonize these standards as much as possible across the country to make the deployment of these technologies simpler and safer for the public.

AV regulations should explicitly encourage shared mobility. This means that multiple people should be encouraged to use the same AV in a single day and/or in a single trip, making more efficient use of the vehicle and Canada's limited road space.

CUTA believes that the advent of autonomous vehicles is an opportunity to improve and complement public transit service offerings, most notably where mass transit is not optimal — i.e. in low-density or low-demand areas. In those cases, small autonomous vehicles could transport residents to a fast and efficient public transit hub, on demand or on a fixed schedule. Such an approach would facilitate a more efficient urban mobility system that optimizes the use of resources. This is especially important as Canada's population ages, and the need for accessible mobility options that do not require a driving licence become more vital as seniors look to age in place.

AVs could also provide a low-cost option to increase the frequency of their transit service. Frequency of service is proven to be one of the major determinants of ridership growth but is often costly for transit systems to implement due to limited operational funding from governments. The feasibility of autonomous shuttles have been tested through pilot projects in Quebec, Ontario and Alberta in recent years. The SkyTrain in Vancouver is a great example of autonomous transit technology that is currently deployed and has served Canadians on a daily basis.

Simply turning Canadians' personal vehicles into AVs would not address a major issue that we are facing in cities, namely scarce urban space. An autonomous car with one person on board does not take less urban space than a traditional vehicle with a driver. The challenges posed by traffic congestion, road capacity and bottlenecks will remain unchanged and unaddressed.



While some say that autonomous cars will reduce traffic congestion by increasing the efficiency of traffic flows, several studies indicate that AVs will increase overall day-long traffic; for instance, if they return home to avoid parking fees. This would create a new type of traffic linked to zero occupancy vehicles. In such cases, vehicle kilometres travelled and two-way traffic will increase.

The public transit industry are the leading experts in Canada when it comes to moving large amounts of people through limited and often congested urban spaces. Senators have recently recommended that Transport Canada monitor the impact of AV and Connected Vehicle technologies on public transit.

Canadian-based companies are doing great work in the shared mobility space. Canada could have a competitive edge over other jurisdictions if we can encourage AV research and development, manufacturing and deployment in this country. For this to happen, we will need harmonized regulations from coast to coast that encourage the safe deployment of shared-use AVs owned and operated by a third-party. This means not only regulating technical standards for the technology and its supporting infrastructure, but also tackling issues like insurance, liability and privacy. AV companies need clear and practical guidelines so that they can continue to grow and innovate in Canada.

The Canadian Urban Transit Association (CUTA) thanks the Treasury Board Secretariat for the opportunity to provide input on this important issue. CUTA believes that by sharing the insights and expertise of our members in the Canadian transit industry, we can empower the federal government with the information it needs to make evidence-based decisions on AVs that will benefit all Canadians.

