

2016 AV Activities in Canada and Internationally

Introduction

This document lists key events in the automated vehicle (AV) space in 2016. This list was prepared primarily for Canadian readers and most of the events were in Canada. A few of the many international events are also included.

Federal

- Prime Minister Trudeau rode in a self-driving car in Japan.
- CAVCOE distributed a White Paper prepared for the Government of Canada on *Preparing for Autonomous Vehicles in Canada*, with 30 recommendations.
- Federal Transport Minister Marc Garneau announced a Smart Cities challenge that includes autonomous vehicles.
- The Spring 2016 Federal Budget included funding for Transport Canada to develop a Federal regulatory framework for AVs.
- ISED commissioned a study to develop a technology roadmap for the auto sector.
- Transport Canada hosted a roundtable in Ottawa with the International Transport Forum (ITF), part of the Organization for Economic Cooperation and Development (OECD), based in Paris. The subject was *Cooperative Mobility Systems and Automated Driving*.

Ontario

- The regulatory framework for testing AVs on public roads came into effect.
- Transportation Minister Del Duca announced that the first permits for AV testing on public roads in Canada go to BlackBerry QNX, the Erwin Hymer Group and the University of Waterloo.
- The latest Mandate Letter from Premier Kathleen Wynne to the Minister of Transport includes establishing an AV Innovation Centre.

- MTO has started a project to develop a vision for transportation in the Golden Horseshoe – from Peterborough to Niagara – with a planning horizon of 2051 and a fuzziier extension to 2071.

Municipal

- Thanks to Councillor Wilkinson, Ottawa City Council passed a motion re an autonomous vehicle (AV) software Centre of Excellence, as well as moving Ottawa towards conducting AV testing. CAVCOE’s work was referenced in the motion.
- Following on from CAVCOE’s project for the City of Toronto in 2015, Toronto has now appointed one staff person full-time on the AV file – this is a first in Canada.
- The City of Stratford and the University of Waterloo started testing partially-autonomous cars on private property in Stratford ON,
- Winnipeg Councillor Matt Allard authored a motion to examine the implications for land use planning, transportation planning, etc.
- In Edmonton, a discussion started on the relative roles of AVs and transit, including the impact on the new LRT.
- Calgary passed a motion directing Administration to “undertake a study on societal trends and advancements in transportation technologies as they relate to Calgary with the potential to significantly transform our transportation network”.
- Calgary is also considering a pilot of an autonomous shuttle.
- Vancouver Council passed a motion directing staff to report back on:
 - “The implications, both positive and negative, of [AV] technology on the City's transportation, land use, economic and sustainability plans, as well as the steps necessary to update those plans”, and
 - “The views of the City's planning, transportation and technology experts on the best ways to maximize the benefits of this technology for the city and its economy while mitigating potential negative impacts.”

Industry

- Ford has announced that it will market a driverless taxi starting in 2021.
- Ford also announced that it will cut out the middle man and work directly with QNX which will modify its software platform for Ford's vehicles.
- GM has invested over \$1B in the AV space and says it now has all the pieces in place to start offering a driverless taxi service.
- GM Canada announced it will hire 700 engineers in Oshawa and Markham, Ontario to conduct research on self-driving cars.
- BlackBerry opened an autonomous driving research center in Ontario.
- Clearpath, a provider of self-driving vehicle technology based in Kitchener ON, was listed on the 2016 Deloitte Technology Fast 50™ and Fast 500™ lists.
- Keolis Canada and NAVYA join forces to implement public transport using autonomous electric shuttles in Canada
- Uber has started testing driverless taxis in Pittsburgh.
- Tragically, a Tesla semi-autonomous car crashed in Florida and killed the driver.
- Transdev, a CAVCOE client, started operating a fleet of 6 fully-autonomous, electric low-speed passenger shuttles in Civaux, France.
- The Insurance Institute of Canada published a report on *Automated Vehicles: Implications for the Insurance Industry in Canada*.
- Ottawa-area stakeholders the City of Ottawa, Invest Ottawa, Kanata North BIA, the National Research Council, Unmanned Systems Canada and CAVCOE held an AV networking breakfast in Kanata in March. There was an excellent turnout and a follow-up AV seminar is planned for January 2017 at the Brookstreet Hotel, Kanata. This will be targeted to the local technology industry.
- The Conference Board of Canada held a successful AV conference in Toronto in April 2016 and will hold its second AV conference on April 19-20, 2017 in Toronto.
- Uber has announced that in 10 years, it will offer commuters passenger transportation in small, electric aircraft that take-off and land vertically.
- Many other companies have made significant advances in developing and testing AV technology and services.

International

- US Transportation Secretary Foxx expects market availability of AVs within 5 years.
- The US government published a 15-point Safety Assessment governing the "safe design, development, testing and deployment of automated vehicles." The policy also starts to clarify federal and state government responsibilities for regulating automated vehicles, with the goal of creating a national framework.
- CAVCOE and others met with two government delegations, one from the UK and one from Sweden, who are keen to establish relationships with Canadian organizations in the AV space.
- ITS America, in cooperation with a wide range of organizations representing the disabled, started a study to investigate how we can make AVs more accessible. In November, Barrie Kirk attended a meeting in Washington DC and will help to write a White Paper for the US Government.
- The Government of France will conduct a 2-year series of AV workshops throughout France. CAVCOE teamed with a partner in Paris and bid on this project. CAVCOE is one of the finalists

Barrie Kirk
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