



## **Rise of automated vehicles spells doom for taxis, buses in next 15 years: Report**

Vaughan (CNW: Oct. 27, 2017) – If you thought Uber was a disruptor, wait until automated vehicles (AVs) backed by smartphone apps for “mobility on demand” begin to eat into taxi and public bus services in the early 2020s, then begin to disrupt car ownership in the late 2020s. So says a report published today called “Ontario Must Prepare for Vehicle Automation: How Skilled Governance Can Influence its Outcome.”

According to research by the Goldman Sachs Group, less than 10 per cent of travel in North America is taken in non-personally owned vehicles. However, report author Bern Grush – a systems engineer and futurist – says that by 2030, that percentage may climb to 25 per cent or higher as more people turn to robo-taxis, micro-transit and ride sharing. Why? Because automation will make these systems more reliable and far cheaper than today’s taxi and bus services — and even personal ownership, for an increasing number of travellers.

Improvements in vehicle automation, combined with a sharing economy, will vastly expand the robo-taxi and micro-transit juggernaut being readied by providers such as Uber, Lyft and Google for Ontario’s cities and towns.

“We saw what happened with the Town Council in Innisfil, which contracted with Uber rather than investing in a traditional bus system. This type of disruption will spread to other municipalities,” Grush says. “Once these commercial providers begin to automate their fleets, their role in public transit and goods movement will accelerate.”

Grush encourages governments to prepare for this future by determining now how to influence the role AVs — especially fleets of shared AVs — will have in cities and towns.

The key to harnessing this technology is for governments and the private sector to work together to implement a regulatory system that will enhance mobility for all, Grush says. And that’s where his concept, the Harmonization Management System (HMS), comes into play. This system would provide the digital tools to incorporate a subsidy and pricing system, and optimize the distribution and social performance of commercial fleets. In particular, governments must ensure that these services are as inclusive and accessible as possible for the GTHA and the rest of Ontario.



HMS would evolve to manage the province's future fleets of robo-shuttles and robo-taxis as more people decide to use shared vehicle services rather than drive personal vehicles in the coming decades.

But there are many barriers to getting people out of their personal cars and into robo-shuttles or robo-taxis. These include: the safety concern of having young children in a car seat; being disabled and travelling with assistive gear; driving with a pet; and the fear that an automated car won't take a passenger everywhere (Grush calls this "access anxiety"). As these barriers are dealt with, the need for personal vehicles, as well as non-automated taxis and buses, will diminish dramatically over 15 years.

Right now, there is a lot of hype surrounding fully automated vehicles that can operate without a driver in any imaginable circumstance. Due to many hurdles, Grush does not anticipate this type of AV until well after 2050, when the technical issues of having driverless vehicles operate in every possible condition will have been addressed.

"Vehicle automation will greatly impact Ontario society, and governments have an important role to play in determining how these new technologies fit with our infrastructure and mobility planning," says Andy Manahan, executive director of the Residential and Civil Construction Alliance of Ontario, which commissioned the report.

[Click here to read the report.](#)

[Click here for an animated video on automated vehicles.](#)

### **WHO IS GRUSH?**

Grush is an autonomous transit expert and author of last year's "Ontario Must Prepare for Vehicle Automation: Automated vehicles can influence urban form, congestion and infrastructure delivery." That report was described as "excellent" by Alain L. Kornhauser, PhD, faculty chair of Princeton Autonomous Vehicle Engineering. Grush, a founding member of the transportation consultancy Grush Niles Strategic (Toronto/Seattle), recently presented his findings to the federal and Ontario governments. For now, he drives a non-automated car to and from his home in midtown Toronto.



**WHAT IS RCCAO?**

This labour-management construction alliance has advocated for infrastructure investment for 12 years, commissioning 46 independent, solutions-based reports to help inform decision-makers.

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