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Future Mobility Newsletter

Issue 13.25



Transit in the new mobility landscape

CUTA FALL CONFERENCE AND TRANS-EXPO 2013



The Canadian Urban Transit Association (CUTA) held its 2013 fall conference this week in Calgary. We were invited to talk to the hundreds of delegates in attendance about the role of transit in a new mobility landscape.

We were pleased to hear Michael Roschlau, CUTA's President and CEO, talk about the changing mobility (shared

multi-modal autonomous) and the opportunities that are presented to transit.

Transit is one of the rare visionary industries in this country that are laying the groundwork required to seize the opportunities that the new mobility (accompanied by autonomous vehicle technology and connectivity) landscape will present. In fact, when asked who believes that autonomous vehicle technology will be on our roads in the foreseeable future, over 3/4 of the transit delegates in our well-attended session raised their hands. Metrolinx and TransLink

have already demonstrated interest in the new mobility landscape and are actively considering the opportunities presented to them.

Indeed, some of the changes in mobility are evident today. Calgary is a prime example of shared mobility with Car2Go's blue and white vehicles prominent throughout the downtown area.



We highlighted the fact that

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there are currently over 150,000 car share members in Canada. That number is expected to mushroom by 2020.

We provided examples of visionary transit properties around the world that are combining their offering with car sharing and other forms of mobility, embracing the increasingly multi-modal nature of metropolitan transport.



Driverless electric INDUCT NAVIA



Driverless pods to be used in Milton Keynes, UK



Driverless pods, Heathrow



Driverless bus, Shanghai

Our transit properties will have important decisions to make regarding the role they will want to play in the future mobility. They can either embrace the multi-modal nature of transport and position themselves to occupy a larger space (either directly or in collaboration with solid partners) or they can relegate themselves to being mass transit providers of train / metro / subway / ... services. If they decide the latter or if they wait too long to occupy the multi-modal space, then other providers will step in to do so.

However, as exciting as it is, the road ahead can be bumpy

for those who do not plan the trip as well as they should. Union issues, political expediency, resistance to change are but a few of the issues that will need to be addressed before a transit property develops a successful plan that will allow the organization to take full advantage of the opportunities available in this space.

Given the timelines for significant change that transit properties must work with (including life of vehicles and facilities), it is imperative that planning begin sooner rather than later.

At the conference, we were asked what would be required to move forward in the new mobility space. Our response: VISION, CONVICTION and appropriate PLANNING.

In this new landscape, transit has the potential to expand its offering and provide sustainable mobility to users, all while being financially self-sufficient. We therefore encourage Canada's transit properties to seize the opportunity being presented to them.

In the news

► Michigan Senate approves self-driving cars

Senate Bill 663 (allowing testing of autonomous vehicles on Michigan's roads) now headed to the House. http://www.mlive.com/politics/index.ssf/2013/11/michigan_senate_oks_short-barr.html

► Nissan Leaf: first autonomous vehicle on Japanese highways

Nissan Vice Chair discusses his organization's discusses autonomous vehicle technology. See video here: <http://www.engadget.com/2013/11/26/nissan-leaf-is-first-autonomous-car-on-japanese-public-roads/>

► Inexpensive nano-camera can operate at the speed of light

Another example of how teams from around the world are making contributions that will bring autonomous vehicle technology to market. "Unlike existing devices based on this technology, the new camera is not fooled by rain, fog, or even translucent objects." <http://web.mit.edu/newsoffice/2013/inexpensive-nano-camera-1126.html>

► Self-driving cars gain backing of US regulators

According to IEEE, NHTSA endorsed self-driving technology during the Connected Car Expo. However, as would be expected, Kevin Vincent, NHTSA chief counsel, told conference attendees that it would be "premature for automakers to put autonomous vehicles on the road immediately". http://spectrum.ieee.org/tech-talk/green-tech/advanced-cars/selfdriving-cars-gain-backing-of-us-regulators?utm_source=feedburner&utm_medium=feed&utm_campaign=Feed%3A+IeeeSpectrum+%28IEEE+Spectrum%29

► Managing expectations

In many of the forums, conferences and events where driverless technology is discussed, Google representatives as well as speakers / presenters discussing autonomous vehicle technology of OEMs have tried to manage expectations regarding the technology.

Approximately 93% of vehicular accidents are the result of human error (in many cases, driver distraction). However, there are accidents that, despite attentive driving, cannot be avoided.

Based on information provided by the experts working on the development of this technology, driverless cars "will perform better than human drivers from the start". This is expected to translate into a significant reduction in the number of vehicular accidents as well as injuries and lives lost.

It would be illogical, however, to expect that this technology will eliminate 100% of all vehicular accidents. The public as well as legislators need to understand this as setting unreasonable expectations will only delay the introduction of the technology.

A couple of weeks ago, Google's Anthony Levandowski spoke at the Florida Automated Vehicle Summit and presented a slide entitled REALISTIC EXPECTATIONS.

The points on the slide:

- Tech will deploy incrementally
- Tech will not be 100% effective
- There will continue to be crashes
- System wide fixes to lessons learned
- Tech will constantly get better over time
- Tech will perform better than human drivers from the start