

Standing Senate Committee of Canada's Transport and Communications issues report on driving of smart vehicles

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Introduction

In January 2018, the Senate's Standing Committee on Transport and Communications (hereinafter the "**Committee**"), chaired by the Hon. David Tkachuk, published a report on the impact of automated vehicles in the country at the behest of the Minister of Transport of Canada. The first generation of these vehicles are already travelling on our roads, and their increased use will probably have far-reaching social consequences, such as a reduction in the number of accidents ¹ and greater transport freedom for the elderly, but also, potentially, the loss of jobs in the country. The Committee issued sixteen (16) recommendations relating to smart vehicles², in particular on these vehicles' cybersecurity and insurance coverage, urging the government to act now, since "technology will overtake regulations". Automobile manufacturers seem to hold the same opinion. Shawn Stephens, Planning and Strategy Director at BMW Canada, says that "the technology is ready. The manufacturers are ready. It is the laws and the government that are slowing us down [our translation]"³.

Plug-in vehicles and automated vehicles

Plug-in vehicles are described by the Committee as relying on to two kinds of technologies: the ones designed for "infoentertainment" and the ones relating to communication between vehicles. These plug-in vehicles can therefore receive information on approaching vehicles, for example on their speed, relevant routes, and on the services available along the selected route.

For their part, automated vehicles make different degrees of autonomous driving possible by relying on various technologies. The automation of these vehicles is classified between levels 0 and 5, that is, from no automation at all to complete automation, which refers to a vehicle that is entirely self-driven, without any possibility of human input.⁴

The *smart cars* designation encompasses both these categories.

Cybersecurity

The Committee recommends that a best practices guide be adopted with regard to cybersecurity. Indeed, the threat of cyberattacks targeting smart cars has been worrying the automobile industry for some years, to such an extent that the Automotive Information Sharing and Analysis Centre was established in July 2015, to allow various manufacturers to share their knowledge and cooperate on this topic.

A cyberattack against a smart vehicle could target the integrity of its electronic data, and therefore the safety of its passengers, as well as the personal information of the drivers obtained from the vehicle. As a matter of fact, a recommendation for drafting a bill aimed at protecting the personal data of smart vehicles' users was also issued.

Insurance

Considering the real threat of cyberattacks targeting smart vehicles, manufacturers must to take out an insurance policy covering cyberattacks.

On another note, KPMG deems that, as a result of the use of automated vehicles, accidents will drop by 35% to 40%, while repair costs will increase by 25% to 30%⁵. So, one can reasonably expect an impact on drivers' insurance premiums.

Moreover, it is possible that the liability in an accident involving an automated vehicle be transferred from the vehicle's driver to its manufacturer by means of amendments to the *Automobile Insurance Act*⁶, or of new laws specifically relating to the driving of automated vehicles. These changes could have significant consequences on the various laws regulating automobile insurance in the country⁷. The Committee therefore issued the recommendation for Transport Canada to oversee the impact of plug-in and automated vehicles on the automobile insurance industry.

Some initiatives and challenges

The Motor Vehicle Test Centre in Blainville is currently working on establishing whether or not smart vehicles comply with current Canadian security standards.

We have also learned from the Committee's Report that the Canadian Regulatory Cooperation Council is currently working with the United States on the various issues connected to plug-in and automated vehicles.

Despite the numerous initiatives on record, so far only Ontario has introduced legislation specifically regulating the use of automated vehicles on the province's roads.⁸ Québec will have to go down this path in order to fill the current legal vacuum⁹.

Conclusion

As discussed in our bulletin of February 2017¹⁰, the growing number of automated vehicles on the roads of Québec cannot be taken lightly. A legislative framework specifically providing for this kind of vehicle is of the essence when we consider that, by some projections, a quarter of the total worldwide vehicles will be defined as smart by 2035¹¹. Plug-in vehicles are already traveling on the roads of Québec, as are various levels of automated vehicles. It is therefore vital for all levels of government to catch up with these technologies.

Regulating the driving of smart vehicles is a hot topic pertaining to the development of artificial intelligence. As such, it needs to be followed closely.

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1. It is estimated that up to 94% of road accidents are caused by human error, see Standing Senate Committee on Transport and Communications, "Driving Change: Technology and the Future of the Automated Vehicle", Ottawa, January 2018, page 29.
 2. Standing Senate Committee on Transport and Communications, "Driving Change: Technology and the Future of the Automated Vehicle", Ottawa, January 2018.
 3. MCKENNA, Alain, La Presse, « Véhicules autonomes : « Ce sont les lois et le gouvernement qui nous freinent », Montréal, 1 February 2018, online: <http://auto.lapresse.ca/technologies/201802/01/01-5152247-vehicules-autonomes-ce-sont-les-lois-et-le-gouvernement-qui-nous-freinent.php>.
 4. See GAGNÉ, Léonie, Need to Know, Bulletin Lavery, de Billy, "Autonomous vehicles in Québec: unanswered questions"
 5. Montreal, February 2017.
 6. Standing Senate Committee on Transport and Communications, "Driving Change: Technology and the Future of the Automated Vehicle", Ottawa, January 2018, page 65.
 7. *Automobile Insurance Act of Québec*, CQLR c. A-25. Automobile insurance falls under provincial jurisdiction.
 8. Pilot Project - Automated Vehicles, O Reg 306/15.
 9. The Government of Québec is currently assessing Bill 165, which aims at, among other things, amending the *Highway Safety Code* and regulating the driving of autonomous vehicles.
 10. Supra, note 4.
 11. Boston Consulting Group, (2016), *Autonomous Vehicle Adoption Study*.