

The Unforeseen Benefits of Driverless Transport during a Pandemic

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The COVID-19 pandemic has been not only causing major social upheaval but disrupting business development and the economy as well.

Nevertheless, since last March, we have seen many developments and new projects involving self-driving vehicles (SDV). Here is an overview.

Distancing made easy thanks to contactless delivery

In mid-April 2020, General Motors' Cruise SDVs were dispatched to assist two food banks in the delivery of nearly 4,000 meals in eight days in the San Francisco Bay Area. Deliveries were made with two volunteer drivers overseeing the operation of the Level 3 SDVs.

Rob Grant, Vice President of Global Government Affairs at Cruise, commented on the usefulness of SDVs: "What I do see is this pandemic really showing where self-driving vehicles can be of use in the future. That includes in contactless delivery like we're doing here." 1

Also in California in April, SDVs operated by the start-up Nuro Inc. were made available to transport medical equipment in San Mateo County and Sacramento.

Toyota Pony SDVs were, for their part, used to deliver meals to local shelters in the city of Fremont, California.

Innovation: The first Level 4 driverless vehicle service

In July 2020, Navya Group successfully implemented a Level 4 self-driving vehicles service on a closed site. Launched in partnership with Groupe Keolis, the service has been transporting visitors and athletes on the site of the National Shooting Sports Centre in Châteauroux, France, from the parking lot to the reception area.

This is a great step forward—it is the first trial of a level 4 vehicle, meaning that it is fully automated and does not require a human driver in the vehicle itself to control it should a critical situation occur.

Driverless buses and dedicated lanes in the coming years

In August 2020, the state of Michigan announced that it would take active steps to create dedicated road lanes exclusively for SDVs on a 65 km stretch of highway between Detroit and Ann Arbour.

This initiative will begin with a study to be conducted over the next three years. One of the goals of this ambitious project is to have driverless buses operating in the corridor connecting the University

of Michigan and the Detroit Metropolitan Airport in downtown Detroit.

In September 2020, the first SDV circuit in Japan was inaugurated at Tokyo's Haneda Airport. The regular route travels 700 metres through the airport.

A tragedy to remind us that exercising caution is key

On March 18, 2018, in Tempe, Arizona, a pedestrian was killed in a collision with a Volvo SUV operated by an Uber Technologies automated driving system that was being tested.

The vehicle involved in the accident, which was being fine-tuned, corresponded to a Level 3 SDV under SAE International Standard J3016, requiring a human driver to remain alert at all times in order to take control of the vehicle in a critical situation.

The investigation by the National Transportation Safety Board determined that the vehicle's automated driving system had detected the pedestrian, but was unable to classify her as such and thus predict her path. In addition, video footage of the driver inside the SDV showed that she did not have her eyes on the road at the time of the accident, but rather was looking at her cell phone on the vehicle's console.

In September 2020, the authorities indicted the driver of the vehicle and charged her with negligent homicide. The driver pleaded not guilty and the pre-trial conference will be held in late October 2020. We will keep you informed of developments in this case.

In all sectors of the economy, including the transportation industry and more specifically the self-driving vehicles industry, projects have been put on hold because of the ongoing COVID-19 pandemic.

Nevertheless, many projects that have been introduced, such as contactless delivery projects, are now more important than ever.

Apart from the Navya Group project, which involves Level 4 vehicles, all the initiatives mentioned concern Level 3 vehicles. These vehicles, which are allowed on Quebec roads, must always have a human driver present. The recent charges against the inattentive driver in Arizona serve as a reminder to all drivers of Level 3 SDVs that regardless of the context of an accident, they may be held liable.

The implementation of SDVs around the world is slow, but steadily gaining ground. A number of projects will soon be rolled out, including in Quebec. As such initiatives grow in number, SDVs will become more socially acceptable, and seeing these vehicles as something normal on our roads is right around the corner.

1. Financial Post, April 29, 2020, "Self-driving vehicles get in on the delivery scene amid COVID-19,".