Attending the Las Vegas Consumer Electronics Show (CES) earlier this month provided the perfect opportunity to test out an Autonomous Vehicle (AV). My colleague Amber McLincha-Herrick opened the Lyft app and we then waited in anticipation for our AV to arrive. As Las Vegas is home to Aptiv’s largest fleet of self-driving vehicles, we could not have failed to spot the many BMW 5 Series bearing the huge company logo since arriving for the show.

Unlike a standard vehicle from a ride-hailing company like Uber, however, the sedan that pulled up to collect us had both a driver and a ‘co-pilot’, if you will. Having consented, as required, that Aptiv would not be liable for any accidents, we were then instructed – as you might expect – to buckle our seatbelts. We were also requested to refrain from taking photographs inside the vehicle.

Autonomous driving is not permitted within the boundaries of hotel properties in Las Vegas, so there was a short wait before the driver could switch to fun mode! The central screen reminded me of a video game and displayed the outlines of all the vehicles around us. The AV is equipped with sensors to measure the speed of the vehicle ahead, and others to communicate with traffic lights, similar to those fitted to emergency vehicles. These sensors immobilise the AV in the event of the vehicle in front going through a red light.

There were three main highlights for me during our trip: 1) having to turn left, while surrounded by other vehicles; 2) a Mercedes-Benz cutting in front of the 5 Series; and 3) an aborted lane change because a vehicle to our right was travelling too fast.

“the 5 series accelerates and brakes more aggressively than a human driver typically would”

The BMW did everything as it should: the wheels were turned at the exact right angle, the speed was ideal, and the brakes were applied at the correct moment. Having said that, I was struck by the fact that the ride was not as smooth as I expected. In AV mode, the 5 Series accelerates and brakes more aggressively than a human driver typically would, while the cruise control system rushes the vehicle to the set speed.

In conversation with the driver, he confessed that, at first, he found it challenging to trust the technology, but soon realised that it was superior to his own driving skills because the sensors are so accurate and perceive far more than a human driver could. At just 1.4 miles, our ride was short, but long enough to get a sense of why so many people are still reluctant to trust AV technology. According to a survey by AAA from May 2018, 73% of American drivers stated that they would be too afraid to travel in a fully self-driving vehicle, and 63% of adults in the US claimed that they would feel less safe sharing the road with AVs.

As with any new technology, gaining public trust will be critical to the future of autonomous driving. I was reminded of the time when my parents bought their first microwave oven and my father’s insistence that my sisters and I should not go near it for fear that the radiation would harm us. And yet here we are today, doing just fine – fine enough, in fact, to be testing an AV all these years later!

Our view at LMC Automotive is that AVs will initially be sold in geo-fenced areas of the US – such as the Las Vegas Strip, for instance – and only to fleet buyers, starting in the mid-2020s. Final consumers will continue to purchase regular vehicles, meaning that AVs will boost total sales figures in the early years, until they begin to have a negative impact on volumes. By 2030, we forecast that AV sales in the US could reach 1.2 mn units as not only will the technology be more widely accepted by then, but the notion of owning a self-driving vehicle will be far less daunting than it is today.