



2021 AAPD Auto Accessibility Scorecard - Progress Report

July 26th, 2021

For millions of people with disabilities who cannot attain a driver's license and those that must rely on vehicles that market modifications just to get around, the autonomous vehicle (AV) technology currently under development holds the promise to deliver access to new transportation options. And with billions of dollars being invested in developing this new technology, this moment presents the opportunity to ensure that new vehicle designs -- autonomous or driven by humans -- are accessible to all.

Accessible transportation is a cornerstone of participation in today's society, and present options are not meeting our needs. No major manufacturer is producing a vehicle for sale to the consumer that is built with accessibility as a cornerstone of the user experience. Further, no major automaker produces a purpose-built light duty vehicle that can accommodate a wheelchair user. The average wheelchair user must spend between [\\$10,000 - \\$30,000](#) on substantial modifications to purchase a vehicle that is accessible. This price tag is often too high for most people, and particularly disabled people who experience higher rates of poverty..

The American Association of People with Disabilities (AAPD) is supporting the deployment of safe, accessible autonomous transportation services through robust engagement with companies bringing autonomous transportation options to market. By forming authentic and reciprocal partnerships with companies working on autonomous vehicles (AVs), we work to address the challenges of accessible design and achieve our goal: **full production of light-duty passenger vehicles that are affordable and accessible to people with a wide range of disabilities.**

As part of its role as convener of the We Will Ride campaign, AAPD developed a scorecard that rates the automotive industry's progress toward creating an accessible vehicle. The scorecard was first announced in 2019, on the 29th anniversary of the passage of the ADA. Last year, we released our first public progress report on the current state of original equipment manufacturer (OEM) accessibility efforts. This year, we offer our second report on progress made during 2020 and 2021.

Given the massive challenges presented by the COVID-19 pandemic, we were greatly interested to hear what progress might have been made over the last year.

Methodology: AAPD / We Will Ride staff reached out to the top 10 global auto manufacturers [ranked by production volume](#), as well as companies working on developing autonomous vehicle

technology. We issued them a detailed [survey questionnaire](#) that assesses multiple aspects of accessibility work, from community outreach, to design and engineering commitments, to production plans.

From responses to this survey and detailed conversations with OEMs on our inquiry list, we have found that ***over the last year, even as the pandemic disrupted business plans, progress toward accessibility has not been eroded. In fact, major OEMs have continued tackling the challenges associated with accessible design in their AV programs during this period.***

OEM Communication

For our 2021 Accessibility Scorecard outreach, we contacted the ten largest global auto manufacturers:

- Toyota
- Volkswagen Group
- Hyundai / Kia
- General Motors (manufacturing vehicles for Cruise)
- Ford
- Nissan
- Honda
- FCA
- Renault
- Groupe PSA
- Zoox
- Via

In response to our inquiries, we have engaged in substantive discussions with the following five companies:

- Toyota
- Volkswagen Group
- [Cruise](#), which relies exclusively on GM for vehicle platform
- Ford
- FCA
- [Zoox](#)
- Via

The findings described below are informed by these conversations as well as formal responses that OEMs submitted to our survey questionnaire.

Last Year's Findings

At the time of our [2020 report](#), automakers were beginning to engage in wider outreach with disability groups, and to form internal working groups on accessibility. Although there was some progress on the experimental design front, COVID-19 has presented an unexpected impediment that disrupted continued progress. No member of the industry was close to achieving production of an accessible light-duty passenger vehicle.

2021 Findings

As anticipated, COVID-19 has continued to be a significant challenge this year. However, it has not disrupted work on vehicle accessibility as much as we had feared it might. Engagement and collaboration between OEMs and disability advocacy stakeholders has continued, as has accessible design work that was already underway before the pandemic. In particular, both Toyota and Cruise have reported tangible progress on their disability community outreach and accessibility R&D.

Individual-level OEM Discussions

The general findings above apply to each of the companies interviewed; however, more specific notes on each company can be found below.

Toyota: Toyota's outreach to disability community stakeholders continues to be extensive. Since last year, Toyota reports multiple new initiatives:

- ROMP, or Range of Motion Project: The project offers resources for physical mobility rehabilitation, mental and physical health, as well as helping to prepare participants for job placement.
- Toyota Paralympic Fund: With the U.S. Olympic and Paralympic Committee, the company has created the "Toyota Paralympic Fund", a new initiative to provide financial stipends through the Toyota U.S. Paralympic Fund, as well as sponsorship opportunities to all athletes named to the U.S. Paralympic Team. .
- ASPIRE Center, University of Pittsburgh: Toyota is providing support for research and development (R&D) to help study the impacts of Autonomous Services and New Mobility for People with Disabilities. The project was awarded a \$1 million grant by the Department of Transportation (DOT).
- "Together in Motion" initiative in Indiana: The Toyota Mobility Foundation's "Together in Motion" initiative in Indiana will include an accessible automated vehicle as part of the fleet operating as a last mile connection to the city's Bus Rapid Transit system.
- Toyota also launched a universal design and user experience study to enhance our Contactless Delivery project for people with disabilities.
- In April 2020, Toyota announced the creation of a fifth R&D division in Ann Arbor specifically focused on Mobility Solutions.
- For the 2021 Sienna, Toyota provided Braun and Vantage Mobility International with early access to design in order to bring retrofit accessibility devices to market much more quickly after a vehicle's release.

These new outreach and research / development efforts show that Toyota has not let a global pandemic halt their accessibility efforts.

Volkswagen: Volkswagen is in a similar position to what they reported to us on [last year's Scorecard](#). However, they have disclosed new work with the National Council on Aging. Importantly, Volkswagen reports that they are actively working on accessibility of in-car digital and software-based user experience (UX).

General Motors (GM) / Cruise: Although they acknowledge that they are still in the early stages of development, Cruise is paying close attention to accessibility concerns. As of today, Cruise told us of several new initiatives over the past year:

- Meal delivery in San Francisco: For the past year, Cruise have dedicated part of their test fleet to grocery and meal delivery to combat skyrocketing food insecurity during the COVID-19 pandemic. As of July 2021, they have delivered more than 1.4 million groceries and meals to local residents across the city, supporting a San Francisco-Marin Food Bank program that primarily serves San Francisco seniors and people living with disabilities. In April 2021, they formalized this commitment through a permanent program called Cruise for Good.
- Cruise operates a pilot program that offers unfared fully driverless rides to members of the public in San Francisco. Cruise tells us they plan to work with disability organizations in the city to ensure that riders with disabilities are among the first participants in our pilot and that they have a robust feedback loop to ensure we are getting this important input ahead of launching a commercial paid service.
- Accessibility hiring: Cruise recently hired a full-time Accessibility Program Manager with a portfolio that is exclusively dedicated to accessibility at Cruise and in our product.

Ford: This year marks the first time that Ford has participated in a substantive way with the AAPD scorecard. They report the following accessibility-related activities relevant to accessible transportation:

- Engagement with internal disability-related employee resource groups for both marketing and engineering activities.
- Hosted seven City:One program challenge events to support the mobility needs of city residents, including accessibility. In particular, the pilot programs in Indianapolis and Detroit were focused on accessibility, where Ablelink SmartLiving Technologies partnered with local organizations with local organizations Easterseals Crossroads and PEAC to pilot its wayfinding app and better understand how to help people with cognitive disabilities to move independently. In Austin, Tappy Guide, a mobile app that provides first mile / last mile solution for the visually impaired, hearing impaired, senior citizens, and those with mobility impairments with real-time data and location, is providing an on-demand reliable service for people with disabilities.

Ford has made no firm commitments regarding development of an accessible light-duty passenger vehicle.

Non-response Replies

Two companies replied to our outreach with statements, but did not fill out the scorecard.

Fiat-Chrysler (FCA) / Stellantis: Stellantis did not fill out this year's full scorecard survey, but the company did release a statement last year on the Americans with Disabilities Act anniversary that articulates a commitment to diversity and inclusion for people with disabilities. The company also launched an internal Business Resource Group on disability in 2019, with both the Stellantis North America Customer Experience and North America Network Development heads serving as Executive Sponsors. This year, Stellantis participated in the Disability Equality Index (DEI) for the second time and earned a high-scorer acknowledgement. Further, this year Stellantis was named as one of the Top 50 Companies for Diversity by DiversityInc and ranked 17th on their specialty list for People with Disabilities. The company is committed to use the DEI and DiversityInc benchmarking tools to continue to identify areas of improvement in the future.

Zoox: Zoox declined to participate in this year's scorecard, but they have contributed the following statement: "Inclusive and accessible mobility are foundational concepts for Zoox. We recognize the opportunity for autonomous vehicles to solve many mobility challenges for people with a range of accessibility needs. Over the past several years, Zoox has engaged with diverse stakeholder groups like the National Federation for the Blind and the United Spinal Association to learn about the mobility needs of their communities. We are partnering with Johns Hopkins University to develop surveys that can guide design and services that will meet their needs. We will continue our engagement and interaction with relevant stakeholders to ensure their input is reflected in our future vehicle design and operations. Zoox brings one big advantage to this challenge, we are building a fully autonomous vehicle from the ground up. We have the ability to conceptualize ideas to move people who require wheelchairs and then transform those ideas into a wheelchair accessible autonomous vehicle. Our first-generation vehicle that we recently unveiled is not currently wheelchair accessible but it is a platform designed with universal accessibility already in mind. For example, the doors are designed with sufficient space for wheelchair access and it has built-in features that will serve people with vision and hearing impairments. We even have some initial concepts about what a future wheelchair accessible Zoox vehicle might look like, and are eager to obtain user feedback. Our ongoing stakeholder interactions, survey work and initial design concepts are just the beginning of our efforts with wheelchair users, designers, and vehicle engineers to make more accessible mobility a reality."

Conclusion

This year, like last year, we see that the bulk of the work needed to develop accessible light-duty passenger vehicles is still ahead of us. However, the continued engagement and accessibility work from OEMs over the last year show that the COVID-19 pandemic has not hindered work toward an accessible vehicle.

Accessibility continues to move forward as a priority for the future of transportation. This continued commitment is an encouraging sign that new modes will be developed following inclusive design principles to ensure that everyone can benefit from the innovations made possible by autonomous driving systems.

For 2022 and beyond, our chief goal is identifying common barriers to production shared across members of the auto industry and working in collaboration to address them with industry. We hope these efforts will inform actions that our government can take to expedite the safe and accessible deployment of autonomous vehicles, and we will work with industry where we can to support and build an agenda to further this goal.