U.S. Must Maintain Global Leadership on AVs

American leadership on autonomous vehicles (AVs) cannot be taken for granted as foreign competitors threaten our global competitiveness and national security. The U.S. risks losing our technological and automotive leadership in the AV industry, which is a global market opportunity worth an estimated $8 trillion. America's leadership role is integral to securing the economic growth, job creation and many safety and societal benefits offered by AVs.

China On Our Heels

China's government is investing heavily in developing autonomous vehicles as part of its strategy to overtake and replace foreign market leaders.

- The Chinese government has made AV development a top priority, including AVs in the Made in China 2025 strategic initiative encouraging local governments to open roads for testing. Shanghai's government plans to invest $15 billion into AV research and development over the next 10 years.
- AutoX, backed by Alibaba, announced fully autonomous taxis on public roads in Shenzhen in December 2020
- Baidu is charging passengers for rides on fully autonomous taxis in Beijing -- one of the first paid autonomous vehicle services available in the world. The Apollo Go Robotaxi service is planned to be part of China's 2022 Winter Olympics.
- Many other Chinese companies are investing in AV technology and testing, including Huawei, Pony.ai, WeRide.ai, Didi Chuxing and Momenta. These companies are also attracting investment from other countries around the world.
- Of the seven companies permitted to test fully driverless vehicles in California, 3 are Chinese.
- Many of these companies started in Silicon Valley, relying on American talent and investment.

Other Foreign Countries In Strong Competition

Singapore is ranked #1 in the world, with an autonomous commuter bus available to residents for a small fee, US$4.3 million in government investment and testing permitted widely.

Germany is on course to pass a legislative package that amends the national road traffic law and creates an approval framework for L4+ capable vehicles on May 28th. Germany set a target date of 2022 for their regular operation. Mobileye is already testing vehicles in Munich, and Volkswagen and Argo AI have announced they intend to commence on-road testing in Munich later this year.

The UK just passed a law legalizing ALKS (SAE Level 3), and the UK Law Commissions are actively seeking input from stakeholders about amending UK law to allow L4+ deployment. Moreover, the UK government touted that AVs could generate £41.7 billion and 40,000 skilled jobs by 2035 for the UK.

- Taking an active role in a policy framework to support automated vehicles, the UK government has invested £200 million into British AV startups. AV testing is already underway across the country with backing from the UK government, universities, technology companies and research institutions.

The French Council of Ministers passed an ordinance on April 14th amending the French road traffic law to allow L4+ deployment. Further, France has indicated it will implement its own L4+ type approval requirements by September 2022 if the EU hasn't done so already.

Japan enacted a Road Transport Vehicle law in 2020 recognizing AVs and establishing an inspection regime and permit system.

The European Commission is actively seeking input from stakeholders to amend a type approval system for L4+ vehicles across the EU, with an ambitious timeline for 2022. Other foreign countries like the Netherlands, Norway, Finland, South Korea and the UAE also continue to make significant strides on AVs.

The American automobile and technology industries will continue to develop, test and eventually deploy autonomous vehicles. However, as other foreign governments give a leg up to their own industries, the U.S. risks falling behind on this transformative technology. To protect our leadership against China and other competitors, the U.S. needs a supportive policy framework to unlock more opportunities for American companies to test and deploy AVs safely and carefully.