Hyperdrive Daily: China Ramps Up its Autonomous Vehicle Development

bloomberg.com/news/newsletters/2021-05-04/hyperdrive-daily-china-ramps-up-its-autonomous-vehicle-development

Nicholas Albanese

Welcome to the Hyperdrive daily briefing, decoding the revolution reshaping the auto world, from EVs to self-driving cars and beyond.

News Briefs

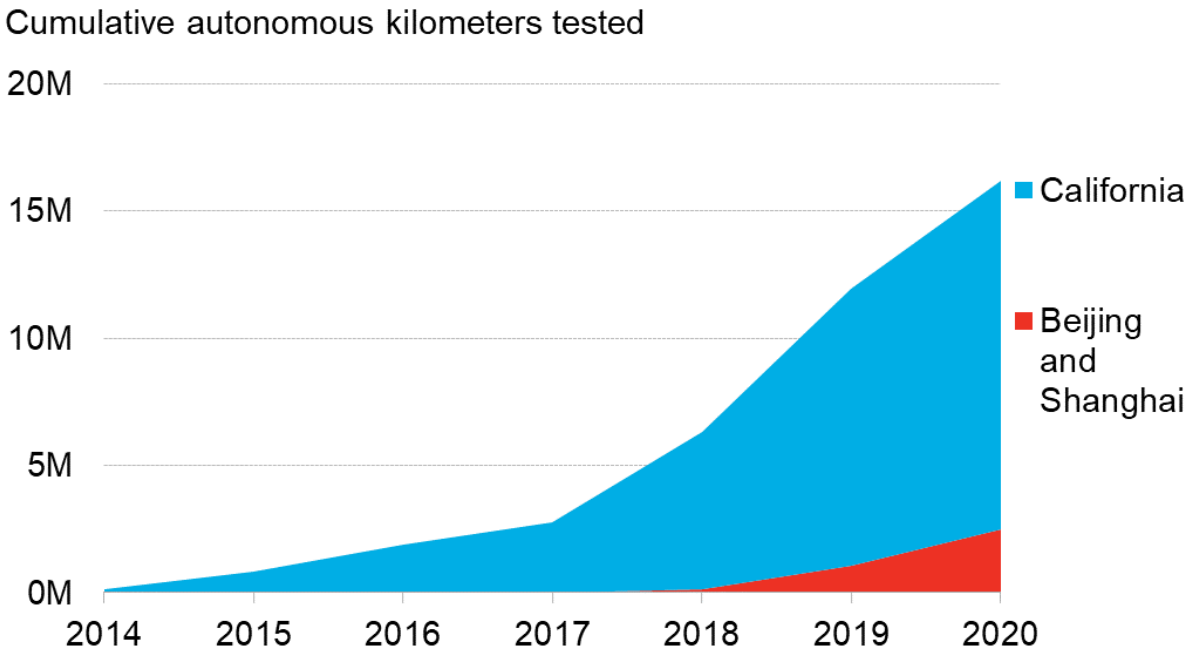
- Auto supplier Infineon estimates about 2.5 million cars won't be made because of the global semiconductor shortage.
- The shortage also means rental car companies are buying used cars at auction.
- India's top carmaker may halve production as it shutters some sales outlets due to the surge of Covid-19 cases.

China Steers the AV Wheel

Hi, it's Nick Albanese here — Colin is off this week. I head up BloombergNEF's Intelligent Mobility research team, which looks at how autonomous vehicles and shared mobility services are scaling up around the world.

Waymo and Cruise are well known for leading the growing pack of U.S. robotaxi developers. The two companies have raised $8 billion and completed over 11 million kilometers (6.8 million miles) of autonomous vehicle testing in California, around 75% of the total there. No doubt, some disillusionment lingers, given various delays. But the industry finally appears to be on the cusp of real deployment: Waymo opened its autonomous ride-hailing service in Phoenix to the public in October and Cruise recently signed a deal to deploy 4,000 robotaxis in Dubai by 2030.

Even so, the U.S. lead in AV development is slipping, as China races to establish itself as the premier testbed for this technology. Since greenlighting AV testing on select public roads in March 2018, BNEF data shows that 27 cities have awarded permits to over 70 companies operating around 600 AVs. Beijing and Shanghai alone – China's two leading cities for AV deployment – have seen over 2.5 million kilometers of AV testing to date. That's about 10% more testing than what U.S. companies completed in California in the same amount of time following the legalization of public road testing.



Source: BloombergNEF, government agencies.

Favorable policy has enabled China's fast progress. Regulators allowed AV developers to start offering passenger rides in June 2019. This January, the Ministry of Industry and Information Technology released a draft policy permitting AV testing on highways. The short-term goal is to commercialize robotaxis, autonomous shuttles and self-driving heavy trucks by 2025. The long-term goal is probably to sell and deploy Chinese AVs abroad, as several Chinese companies already have testing experience in the US. The same is not true for American developers in China.

Baidu is the clear leader for now, with a handful of others catching up: WeRide and AutoX plus ride-hailing operator Didi. Baidu operates China's largest AV testing fleet, with nearly 200 vehicles, and has partnerships with over 100 third parties, including automakers, through its Apollo program.The company's ambitious goals include deploying 3,000 robotaxis in 30 Chinese cities by the end of 2023. (My colleague David Welch wrote about Baidu and other AV leaders in this recent column.)

WeRide – backed by the Renault-Nissan-Mitsubishi Alliance and Nvidia – and AutoX – backed by Alibaba – both have around 70 AVs each. Like some of Baidu's AVs, a few are testing without backup drivers in the driver's seat, a sign of their technological advantage. AutoX even has a robotaxi pilot in Shenzhen that is operating without in-vehicle back-up

drivers or remote operators. Didi operates a fleet of about 40 AVs, but that should increase quickly. The company has raised $800 million for its autonomous driving unit since spinning it off as an independent company in August 2019.

Other vehicle types like trucks also are being developed as self-driving in China. Shanghai, home to the world's largest container port by volume, is working to speed up deployment of autonomous heavy trucks, for example, and companies like SAIC-IVECO Hongyan and newly public TuSimple are already testing some 50 autonomous trucks.

China's fast-growing AV road testing and favorable regulatory environment make it an ideal market for AV deployment. 2021 could be a breakout year for the sector if investment holds steady.

Before You Go

Bolt Technology, which competes with Uber in Europe and Africa, will roll out a new car-sharing pilot program in the Estonian capital of Tallinn. Bolt will expand the program to other cities if the pilot goes as planned, a similar strategy to the rollout out two years ago of the car sharing company's food delivery service.