

Autonomous Vehicle

Have we reached peak AV Start-up?

10-minute Insight

A number of start-ups have recently closed, been absorbed into suppliers or acquired outright.

Despite there still being a long way to go before L4 autonomy becomes widely adopted, the rapidly escalating deployment cost is making this an expensive race, which in turn could eventually limit opportunities for AV start-ups and entrench the position of early leaders.

This insight explores whether we have already reached 'Peak AV Start-up' or whether the industry is experiencing a temporary Pandemic-related slump.

Target audience

Investors Strategy

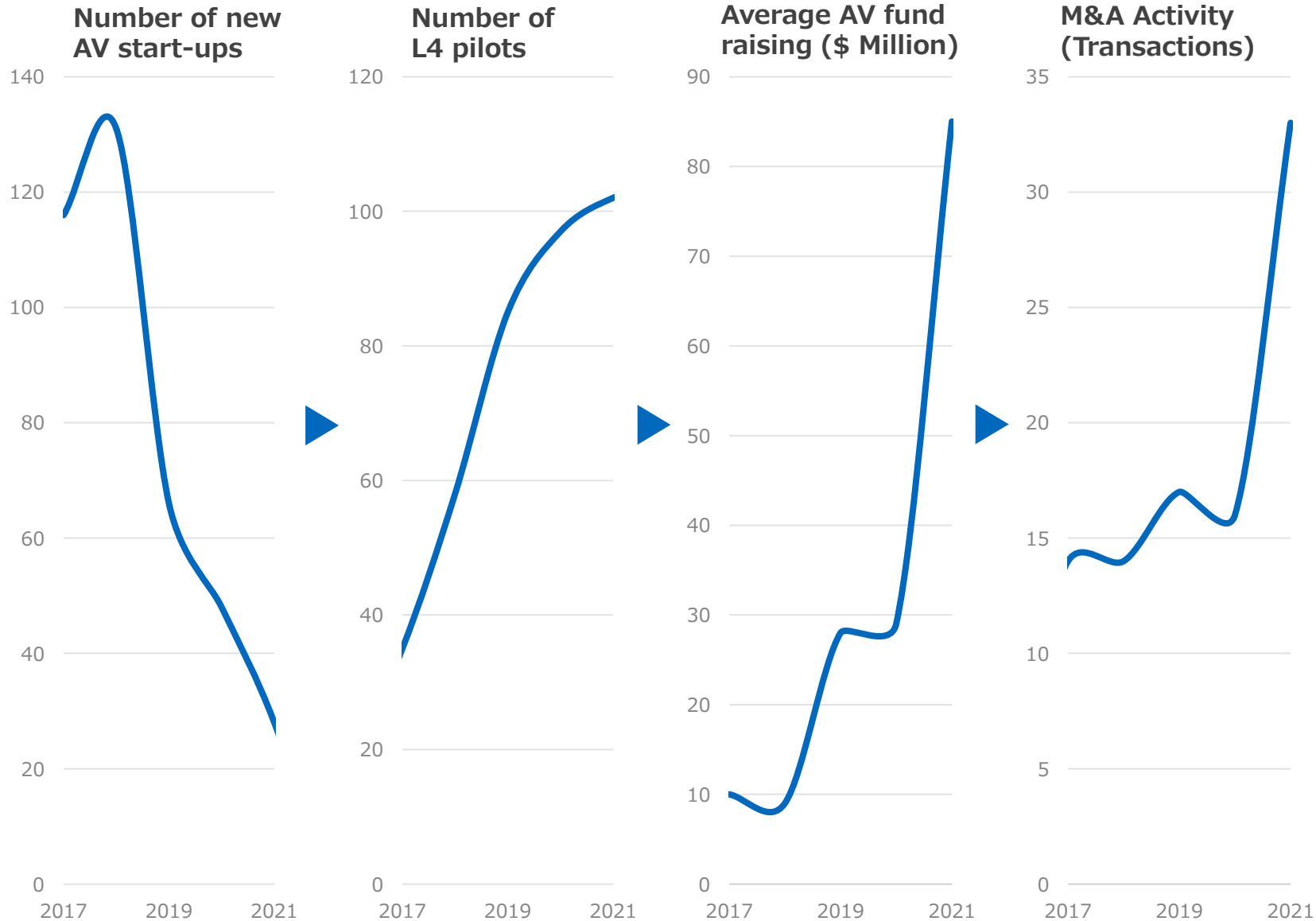
C-Level

Focus market(s)

USA EU China



What is happening?



Key takeaway

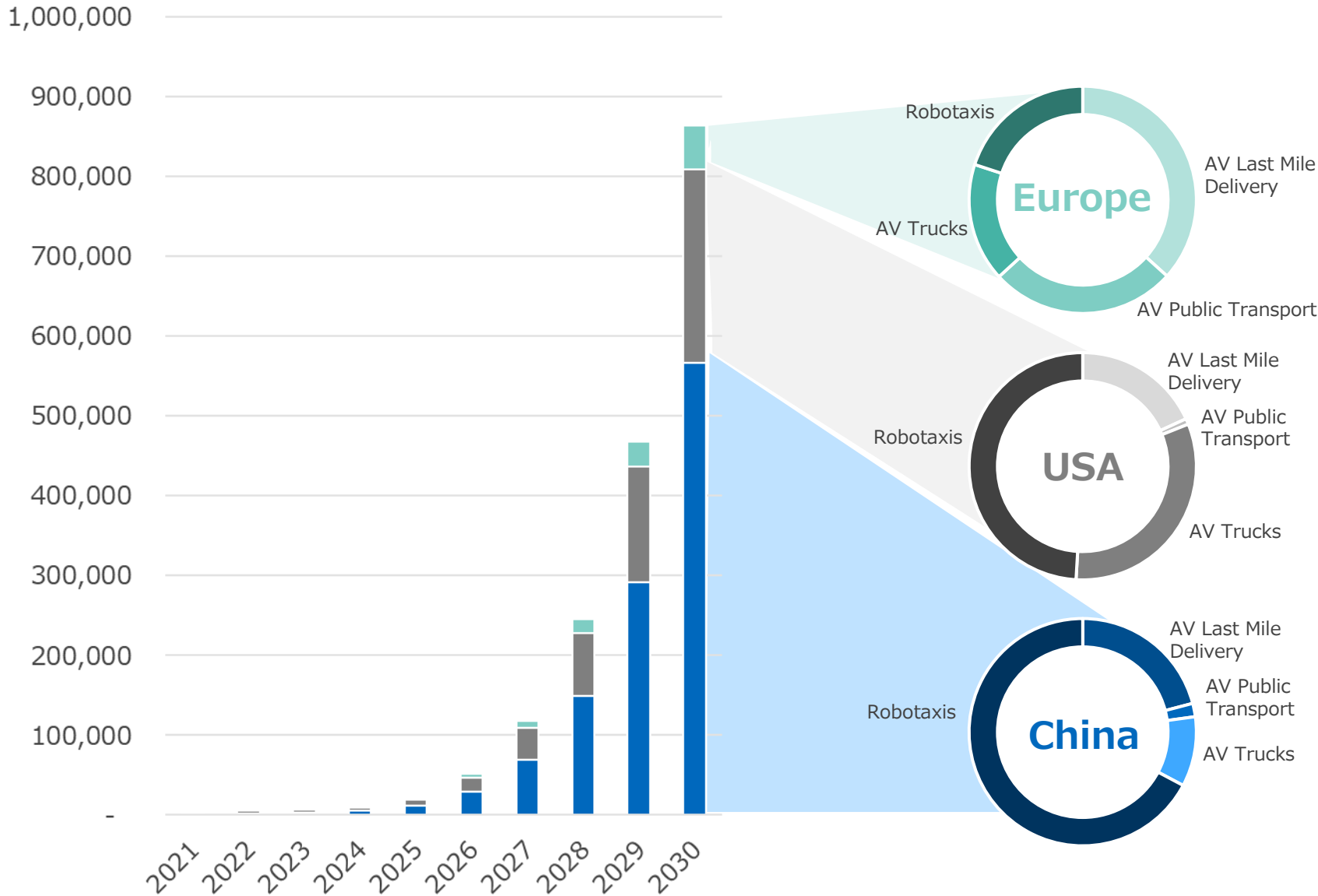
The AV ecosystem is consolidating and stabilizing as fewer players are breaking into the space.

- [LocalMotors shut its doors](#) earlier this year and [Optimus Ride was absorbed by Magna](#) – each of these had a unique dynamic, but they also point to a growing trend.
- The # of new AV start-ups launching each year has reduced considerably, a trend that precedes (but is likely to have been accelerated by) the COVID Pandemic. This in turn is leading to a plateauing of new L4 pilots.
- Those that are still operating pilots are having to raise larger sums from investors – each milestone in the L4 race is a costly one, culminating in **multi-Billion dollar rounds**.
- SBD believes a pressure to ‘**rush and raise**’ combined with a realization that L4 is taking longer to commercialize, is leading to a ramping up of M&A and closures.

Why does it matter?



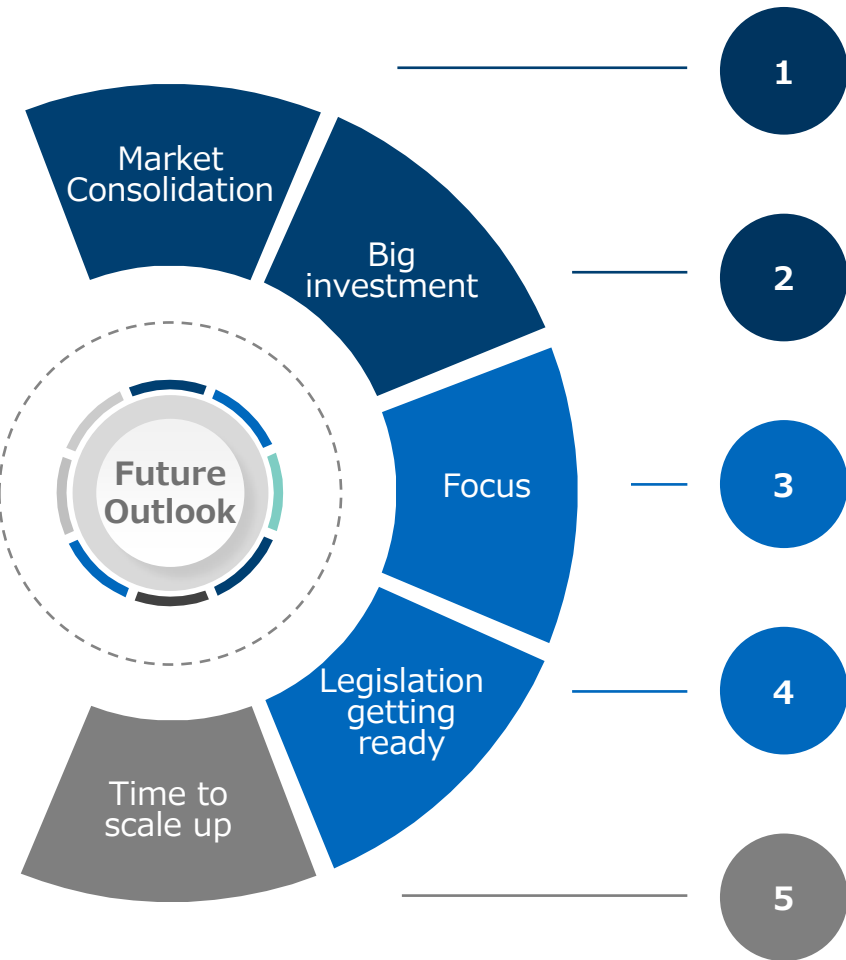
Level 4 Autonomous Vehicle Parc Forecast



Key takeaway

After years of bullish predictions from many across the industry (echoed by the Media), many are beginning to now realize that it will take a long time before L4 autonomy becomes widely available and commercially successful.

- [SBD forecasts](#) that the L4 vehicle parc in major markets is unlikely to exceed 1 million – significantly lower than many start-ups had been promising their investors.
- This realization is leading investors to ask tougher questions, making it harder for early-stage AV start-ups to reach their next level of fund-raising and deterring new entrants.
- If this is indeed a peak (rather than a lull), this means that the current front-runners are unlikely to be dislodged by scrappy newcomers, making it easier for them to endure the longer path towards commercialization.



1 Expect to see even more M&A and closures over the coming years – particularly of earlier-stage start-ups.

2 Big players will continue to invest big to further push out competition and win a competitive advantage.

3 AV start-ups will begin to focus on niche segments (either by geography or use case) as catering for everyone everywhere will no longer be feasible.

4 Governments are racing to update road and homologation rules. Legislation will no longer be a barrier for success.

5 Although by 2030 SBD forecasts that only a modest number of L4 vehicles will be on the roads, from 2030 onwards the ramp-up is expected to accelerate significantly.

Key takeaway

As the market for L4 automation takes longer to scale, slower-moving companies will have an opportunity to acquire capabilities they haven't yet been able to build in-house.

- Market consolidation is inevitable, but unusual at such an early stage of a new market segment.
- Many AV Start-ups will continue to operate, most likely by focusing on **specific niches, regions or specific layers of the AV stack.**
- For tier-one suppliers and OEMs, early consolidation is an opportunity to play catch-up through **selective M&A** – piecing together capabilities and IP across different regions to help stay in the race.
- For current leaders in the AV space, consolidation is likely to provide some extra breathing space as well as boost their own valuations (as investor confidence in new entrants falls and the focus shifts to existing leaders)

Who to watch out for?



[EasyMile](#)



[FiveAI](#)



[Oxbotica](#)



[AIMotive](#)



[May Mobility](#)



[Sensible 4](#)



[Idriverplus](#)

Headquarter	France	UK	UK	Hungary	USA	Finland	China
Founded Date	2014	2015	2014	2015	2017	2017	2015
Funding Status	Early Stage Venture	Early Stage Venture	Early Stage Venture	Late Stage Venture	—	Early Stage Venture	Late Stage Venture
Last Funding Type	Series B	Series B	Series B	Grant	Corporate Round	Series A	Series C
# of Employees	101-250	101-250	101-250	101-250	101-250	51-100	51-100
Revenue Range	\$1M to \$10M	\$1M to \$10M	\$1M to \$10M	\$1M to \$10M	\$1M to \$10M	\$1M to \$10M	Less than \$1M
Funding Rounds	4	3	6	4	8	2	3
Total Funding	€77.1M	\$78.7M	\$89.5M	\$67.7M	\$166.6M	\$7M	\$14.7M
# of Lead Investors	3	5	5	4	7	2	3
# of Investors	7	7	13	11	21	2	6

Key takeaway

SBD has identified seven AV start-ups that are all advanced enough to have operational L4 pilots, but that are not yet at the stage of scaling up or commercializing their services.

- All of these companies have strong **technical USPs** and in a more commercially-advanced L4 market would likely survive independently by focusing on specific segments or regions.
- All are revenue-generating today, but largely survive from **early-stage projects fees** rather than ongoing license fees.
- These companies are likely to continue seeking out the investment they need to scale-up and **remain independent**, but as investors begin to question the speed at which L4 automation can be commercialized, these companies may be start **looking for strategic buyers**.
- Update: since last reviewed, FiveAI was acquired by Bosch ([Link](#))

How should you react?



Authors



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Specialist



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1

Focus

For AV start-ups that are lagging in the scaling-up/commercialization of L4 services, it will become more important to now focus on either vertical offerings (e.g. a specific L4 segment in a specific region) or horizontal offerings (e.g. a specific part of the L4 stack).

Related SBD Reports



Ref: 811
L4
Autonomous
Vehicles: Are
we there yet?



Ref:202
Start-up
Tracker

2

Capitalize

Various established OEMs and Tier-one suppliers have taken a 'partner-to-learn' approach to L4 autonomy, seeking out regional start-ups to build up pilots. Now may be the time to shift towards a 'partner-to-acquire' model.

Related SBD Consultancy

- M&A Scouting
- M&A Due Diligence
- Technology Forecasting
- Strategic Advisory

3

Patience

Success relies on demonstrating technical prowess in the short-term while having the patience (and deep pockets) required to wait until AV services become commercially viable.

Interested in finding out more?

Most of our work is helping clients go deeper into new challenges and opportunities through custom projects. If you would like to discuss recent projects we've completed relating to **autonomous vehicles**, please [contact us](#).