

Autonomous Vehicle - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-08-01 | 96 pages | Mordor Intelligence

AVAILABLE LICENSES:

- Single User License \$4750.00
- Team License (1-7 Users) \$5250.00
- Site License \$6500.00
- Corporate License \$8750.00

Report description:

Autonomous Vehicle Market Analysis

The Autonomous Vehicle Market size is estimated at USD 42.87 billion in 2025, and is expected to reach USD 122.04 billion by 2030, at a CAGR of 23.27% during the forecast period (2025-2030).

The driverless car market is evolving quickly, driven by advances in AI, smarter sensors, and powerful simulation tools that help bring safer and more efficient transport options to life, especially in ride-sharing and logistics. More people are warming up to self-driving cars, and tech giants like Waymo and Tesla are already testing robotaxi services in cities like Phoenix, Austin, and even the UK. At the same time, Chinese players like BYD and Pony.ai are moving fast, rolling out cost-effective autonomous fleets with strong government backing and access to massive data pools. Big opportunities are emerging in commercial robotaxis, self-driving trucks, and autonomous driving software platforms supporting AV development. With new laws on the horizon in the UK and EU and rising investments in next-gen connectivity like V2X and 6G, the path is paved for a much smarter and more scalable mobility future.

Global Autonomous Vehicle Market Trends and Insights

Government Mandates for ADAS-Centric Safety Regulations in the EU and China

Stringent ADAS safety rules in both regions are pushing the autonomous car industry to accelerate software validation cycles,

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

which in turn drives earlier supplier revenue. The European Commission's cross-border testbed program and China's multi-city robotaxi permits are effectively giving vendors clear roadmaps for approval gates, encouraging higher R&D outlays this year. An observable consequence is that leading developers are partitioning their codebases to meet region-specific requirements, creating overlapping but not identical feature sets. This segregation subtly increases total software volume, which later influences maintenance costs and talent needs.

Rapid Expansion of Robotaxi Pilots Across Asian Megacities

According to Mordor Intelligence's autonomous car industry report, the robotaxi trips in cities such as Wuhan and Shanghai now run at fares below conventional ride-hailing, indicating that autonomous shared mobility can undercut human-driven options even before full driver-removal in every district. The cost gap is mainly achieved through depot-style fleet management and lower off-peak idle time, an approach that is difficult for traditional taxis to replicate. A notable inference is that lower-income commuters, often overlooked in early AV narratives, are becoming target customers due to these cheaper fares, potentially widening public acceptance faster than anticipated.

Patchwork United States State-Level AV Regulations Are Delaying Commercial-Scale

With 29 states legislating unique autonomous rules, multi-state service providers must maintain varied reporting, driver-monitoring, and insurance structures, inflating overhead and thereby limiting the autonomous cars market share they can capture quickly[1]"Autonomous Vehicles | Self-Driving Vehicles Enacted Legislation," National Conference of State Legislatures (NCSL), [ncsl.org](https://www.ncsl.org). Evidence shows that some developers now pick launch corridors strictly within permissive clusters, which unintentionally sidelines certain high-demand freight lanes. An emerging takeaway is that the lack of a unified framework indirectly channels investment toward simulation rather than on-road testing, potentially stretching development timelines.

Other drivers and restraints analyzed in the detailed report include:

Falling LiDAR and AI Compute Costs Are Unlocking Mass-Market Level 3 Launches / Power-Efficient Automotive SoCs Enabling In-Vehicle Edge AI / Public Mistrust Intensified by High-Profile Robotaxi Incidents in China /

For complete list of drivers and restraints, kindly check the Table Of Contents.

Segment Analysis

Level 1 Driver Assistance features held 45.21% of the autonomous cars market share in 2024, but Level 5 Full Automation is projected to grow at a 27.23% CAGR through 2030, meaning higher automation will narrow the gap quickly. Legislative clarity for conditional and high-automation functions encourages suppliers to certify redundant steering and braking subsystems, raising immediate hardware revenue. A subtle effect is that insurers are revising actuarial tables to shift liability to manufacturers for specific modes, hinting at future premium reductions for end users.

Growing interest in Level 3 from luxury buyers brings down development amortization per unit, indirectly funding Level 4 autonomous car research. Models such as the BMW 7-Series with Personal Pilot Level 3 illustrate that early adopters pay premium prices, a margin that helps offset ongoing mapping costs. Additionally, pilot-mode data harvested from Level 3 vehicles is feeding machine-learning models used in Level 4 trucks, shortening data-collection loops across segments.

Commercial vehicles accounted for only 21.08% of the autonomous car market volume in 2024 but are projected to grow at a 25.72% CAGR through 2030, outpacing passenger cars in market size expansion as autonomy adoption accelerates in logistics and freight segments. Labor shortages and mandated driving-hour limits make autonomy economically compelling for fleet

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

operators, especially in long-haul corridors. An unexpected by-product is that depots invest in robotic maintenance tools to match truck autonomy, thereby modernizing entire yard operations.

Passenger cars still command a 78.92% in the autonomous cars market share during 2024. Yet, many OEMs now view autonomy as a recurring software subscription opportunity rather than a one-time hardware upgrade, shifting the business model toward long-term revenue streams. Over-the-air updates extend feature life cycles, which could lengthen average ownership as buyers anticipate new capabilities mid-cycle. As more households subscribe to partial autonomy, aftermarket suppliers may see declining demand for traditional navigation hardware, suggesting a reshaping of accessory markets.

Segmentation - Autonomous Car Market Report is Segmented by Level of Automation (Level 1 - Driver Assistance, Level 2- Partial Automation and More), Vehicle Type (Passenger Cars and Commercial Vehicles), Propulsion Type (Internal Combustion Engine (ICE), Battery Electric Vehicles (BEV) and More), Mobility Form (Personal Ownership and More), Component and Geography. The Market Sizes and Forecasts are Provided in Terms of Value (USD)

Geography Analysis

Asia-Pacific led the autonomous car market in 2024 with a 46.52% share, driven largely by China's expansive multi-city robotaxi deployments and widespread 5G infrastructure. Coordinated government support across ministries enables streamlined testing, insurance, and cybersecurity approvals, significantly reducing project timelines. An emerging trend is that second-tier cities are bypassing traditional public transport upgrades by adopting autonomous shuttles directly, signaling market diffusion beyond major urban hubs. Meanwhile, countries like Japan and Singapore leverage consortium-led models combining academic and autonomous industry expertise, allowing efficient R&D scaling despite smaller budgets.

The Middle East and Africa is the fastest-growing regions, projected to grow at a 28.11% CAGR from 2025 to 2030. National strategies, particularly in the UAE, place autonomous vehicles at the heart of smart-city goals, with Dubai aiming for 25% of all trips to be autonomous by 2030. Purpose-built infrastructure with AV lanes gives the region an edge over retrofitted systems in legacy urban layouts. A surprising benefit is that the region's clear-weather desert conditions deliver high-fidelity sensor data, accelerating vision system validation.

North America remains pivotal because of its deep capital markets and technology clusters, despite holding a smaller autonomous car market share than Asia. Federal grants for 5 G-V2X corridors and a vibrant startup pipeline sustain innovation momentum, even as fragmented state rules slow nationwide scaling. The presence of large ride-hailing platforms offers immediate commercial distribution once regulatory clarity emerges. An underlying shift is that trucking-focused states are coalescing around common guidelines, hinting at a bottom-up path to de facto national standards.

List of Companies Covered in this Report:

Waymo LLC / Tesla Inc. / General Motors Co. (Cruise LLC) / Baidu Inc. (Apollo) / Toyota Motor Corporation / Volkswagen AG / Mercedes-Benz Group AG / BMW AG / Nissan Motor Co. Ltd. / Volvo Car AB / Hyundai Motor Group / BYD Company Ltd. / Pony.ai Inc. / AutoX Inc. / Uber Technologies Inc. / Aptiv PLC / Mobileye Global Inc. / NVIDIA Corporation / Magna International Inc. / Continental AG /

Additional Benefits:

- The market estimate (ME) sheet in Excel format /
- 3 months of analyst support /

Table of Contents:

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 1 Introduction
 - 1.1 Study Assumptions & Market Definition
 - 1.2 Scope of the Study
- 2 Research Methodology
- 3 Executive Summary
- 4 Market Landscape
 - 4.1 Market Overview
 - 4.2 Market Drivers
 - 4.2.1 Government Mandates for ADAS-Centric Safety Regulations in EU & China
 - 4.2.2 Rapid Expansion of Robo-Taxi Pilots across Asian Mega-Cities
 - 4.2.3 Falling LiDAR & AI Compute Costs Unlocking Mass-Market L3 Launches
 - 4.2.4 Power-Efficient Automotive SoCs Enabling In-Vehicle Edge AI
 - 4.2.5 5G-V2X Corridor Roll-outs in North American Freight Networks
 - 4.2.6 Fleet Decarbonization Targets Accelerating Autonomous Middle-Mile Logistics in Europe
 - 4.3 Market Restraints
 - 4.3.1 Patchwork U.S. State-Level AV Regulations Delaying Commercial Scale
 - 4.3.2 Public Mistrust Intensified by High-Profile Robotaxi Incidents in China
 - 4.3.3 Automotive-Grade AI Chip Shortages & Fab Capacity Constraints
 - 4.3.4 High-Definition Map Maintenance Costs in Emerging Markets
 - 4.4 Value / Supply-Chain Analysis
 - 4.5 Regulatory Outlook
 - 4.6 Technological Outlook
 - 4.7 Porters Five Forces
 - 4.7.1 Threat of New Entrants
 - 4.7.2 Bargaining Power of Buyers
 - 4.7.3 Bargaining Power of Suppliers
 - 4.7.4 Threat of Substitutes
 - 4.7.5 Intensity of Competitive Rivalry
- 5 Market Size & Growth Forecasts (Value)
 - 5.1 By Level of Automation
 - 5.1.1 Level 1 Driver Assistance
 - 5.1.2 Level 2 Partial Automation
 - 5.1.3 Level 3 Conditional Automation
 - 5.1.4 Level 4 High Automation
 - 5.1.5 Level 5 Full Automation
 - 5.2 By Vehicle Type
 - 5.2.1 Passenger Cars
 - 5.2.2 Commercial Vehicles
 - 5.3 By Propulsion Type
 - 5.3.1 Internal Combustion Engine (ICE)
 - 5.3.2 Battery Electric Vehicles (BEV)
 - 5.3.3 Hybrid Electric Vehicles (HEV)
 - 5.4 By Mobility Form

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

- 5.4.1 Personal Ownership
- 5.4.2 Shared Mobility (Robo-Taxi, Shuttle)
- 5.5 By Component
 - 5.5.1 Hardware
 - 5.5.1.1 Sensors (LiDAR, RADAR, Cameras, Ultrasonic, IMU)
 - 5.5.1.2 Computing Platforms (SoCs, GPUs)
 - 5.5.1.3 Actuators & Control Systems
 - 5.5.2 Software
 - 5.5.2.1 Perception & Planning Suites
 - 5.5.2.2 Mapping & Localization Engines
 - 5.5.2.3 Driver Monitoring & HMI
 - 5.5.3 Services
 - 5.5.3.1 Integration & Validation
 - 5.5.3.2 Remote Operation & Tele-operation
- 5.6 Geography
 - 5.6.1 North America
 - 5.6.1.1 United States
 - 5.6.1.2 Canada
 - 5.6.1.3 Rest of North America
 - 5.6.2 South America
 - 5.6.2.1 Brazil
 - 5.6.2.2 Argentina
 - 5.6.2.3 Rest of South America
 - 5.6.3 Europe
 - 5.6.3.1 Germany
 - 5.6.3.2 France
 - 5.6.3.3 United Kingdom
 - 5.6.3.4 Italy
 - 5.6.3.5 Spain
 - 5.6.3.6 Rest of Europe
 - 5.6.4 Asia-Pacific
 - 5.6.4.1 China
 - 5.6.4.2 Japan
 - 5.6.4.3 South Korea
 - 5.6.4.4 India
 - 5.6.4.5 Rest of Asia-Pacific
 - 5.6.5 Middle East and Africa
 - 5.6.5.1 South Africa
 - 5.6.5.2 Egypt
 - 5.6.5.3 United Arab Emirates
 - 5.6.5.4 Saudi Arabia
 - 5.6.5.5 Turkey
 - 5.6.5.6 Rest of Middle East and Africa

- 6 Competitive Landscape
 - 6.1 Market Concentration
 - 6.2 Strategic Moves

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

6.3 Market Share Analysis

6.4 Company Profiles (includes Global level Overview, Market level overview, Core Segments, Financials as available, Strategic Information, Market Rank/Share for key companies, Products & Services, and Recent Developments)

6.4.1 Waymo LLC

6.4.2 Tesla Inc.

6.4.3 General Motors Co. (Cruise LLC)

6.4.4 Baidu Inc. (Apollo)

6.4.5 Toyota Motor Corporation

6.4.6 Volkswagen AG

6.4.7 Mercedes-Benz Group AG

6.4.8 BMW AG

6.4.9 Nissan Motor Co. Ltd.

6.4.10 Volvo Car AB

6.4.11 Hyundai Motor Group

6.4.12 BYD Company Ltd.

6.4.13 Pony.ai Inc.

6.4.14 AutoX Inc.

6.4.15 Uber Technologies Inc.

6.4.16 Aptiv PLC

6.4.17 Mobileye Global Inc.

6.4.18 NVIDIA Corporation

6.4.19 Magna International Inc.

6.4.20 Continental AG

7 Market Opportunities & Future Outlook

7.1 White-Space & Unmet-Need Assessment

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

Autonomous Vehicle - Market Share Analysis, Industry Trends & Statistics, Growth Forecasts (2025 - 2030)

Market Report | 2025-08-01 | 96 pages | Mordor Intelligence

To place an Order with Scotts International:

- Print this form
- Complete the relevant blank fields and sign
- Send as a scanned email to support@scotts-international.com

ORDER FORM:

Select license	License	Price
	Single User License	\$4750.00
	Team License (1-7 Users)	\$5250.00
	Site License	\$6500.00
	Corporate License	\$8750.00
		VAT
		Total

*Please circle the relevant license option. For any questions please contact support@scotts-international.com or 0048 603 394 346.

** VAT will be added at 23% for Polish based companies, individuals and EU based companies who are unable to provide a valid EU Vat Numbers.

Email*	<input type="text"/>	Phone*	<input type="text"/>
First Name*	<input type="text"/>	Last Name*	<input type="text"/>
Job title*	<input type="text"/>		
Company Name*	<input type="text"/>	EU Vat / Tax ID / NIP number*	<input type="text"/>
Address*	<input type="text"/>	City*	<input type="text"/>
Zip Code*	<input type="text"/>	Country*	<input type="text"/>
		Date	<input type="text" value="2026-02-26"/>
		Signature	

Scotts International. EU Vat number: PL 6772247784

tel. 0048 603 394 346 e-mail: support@scotts-international.com

www.scotts-international.com

