

Global Artificial Intelligence (AI) in Transportation Market Size Study & Forecast, by Machine Learning, Application, Offering, Process and Regional Forecasts 2025-2035

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Abstracts

The Global Artificial Intelligence (AI) in Transportation Market was valued at approximately USD 3.73 billion in 2024 and is poised to expand at an impressive CAGR of 17.87% over the forecast period from 2025 to 2035. As the transport and mobility landscape transforms under the pressure of digital disruption and sustainability imperatives, AI has taken center stage, reinventing how vehicles operate, interact, and deliver value. From enabling real-time data analysis and autonomous decision-making to optimizing routing and fleet operations, AI technologies like computer vision, deep learning, NLP, and context awareness are forging a smarter, more responsive transportation ecosystem. With connected infrastructure and rising investments in mobility-as-a-service, AI is fast becoming the backbone of next-generation transport networks.

The surging adoption of semi and fully autonomous vehicles, along with human-machine interface (HMI) systems, has accelerated the demand for AI-driven solutions. AI helps vehicles learn from their environment, adapt to dynamic road scenarios, and interact with passengers through voice or gesture commands. Additionally, platooning—where a group of vehicles communicates with each other using AI for fuel efficiency and reduced emissions—is emerging as a transformative application. As governments incentivize intelligent mobility and logistics providers seek to reduce operational costs, AI-based hardware and software offerings are finding strong foothold across the transportation value chain. However, the market still faces resistance due to regulatory ambiguity, integration complexities, and safety validation challenges.

Regionally, North America dominates the global AI in transportation market due to a mature autonomous vehicle ecosystem, favorable regulatory frameworks, and strong technology penetration across logistics, trucking, and passenger mobility. The U.S. leads in R&D, patent filing, and commercialization of AI-powered driving systems. Europe is following closely, driven by its smart city initiatives, automotive innovation clusters, and a focus on sustainability. Meanwhile, Asia Pacific is emerging as a high-growth region, fueled by urbanization, massive infrastructure investments, and the aggressive push toward electrification and AI integration in countries like China, Japan, and South Korea. As regional governments implement smart transportation mandates, the demand for AI technologies is expected to multiply exponentially.

Major market player included in this report are:

NVIDIA Corporation

Tesla, Inc.

Microsoft Corporation

Intel Corporation

IBM Corporation

Alphabet Inc. (Google LLC)

Amazon Web Services, Inc.

Aptiv PLC

Uber Technologies, Inc.

Denso Corporation

Volvo Group

Robert Bosch GmbH

Continental AG

Baidu, Inc.

ZF Friedrichshafen AG

Global Artificial Intelligence (AI) in Transportation Market Report Scope:

Historical Data – 2023, 2024

Base Year for Estimation – 2024

Forecast period – 2025–2035

Report Coverage – Revenue forecast, Company Ranking, Competitive Landscape, Growth factors, and Trends

Regional Scope – North America; Europe; Asia Pacific; Latin America; Middle East & Africa

Customization Scope – Free report customization (equivalent up to 8 analysts' working hours) with purchase. Addition or alteration to country, regional & segment scope*

The objective of the study is to define market sizes of different segments & countries in recent years and to forecast the values for the coming years. The report is designed to incorporate both qualitative and quantitative aspects of the industry within the countries involved in the study. The report also provides detailed information about crucial aspects, such as driving factors and challenges, which will define the future growth of the market. Additionally, it incorporates potential opportunities in micro-markets for stakeholders to invest, along with a detailed analysis of the competitive landscape and product offerings of key players. The detailed segments and sub-segments of the market are explained below:

By Machine Learning:

Deep Learning

Computer Vision

Context Awareness

Natural Language Processing (NLP)

By Application:

Semi & Full-Autonomous

Human-Machine Interface (HMI)

Platooning

By Offering:

Hardware

Software

By Process:

Process (Single level - detailed info not provided)

By Region:

North America

U.S.

Canada

Europe

UK

Germany

France

Spain

Italy

Rest of Europe

Asia Pacific

China

India

Japan

Australia

South Korea

Rest of Asia Pacific

Latin America

Brazil

Mexico

Middle East & Africa

UAE

Saudi Arabia

South Africa

Rest of Middle East & Africa

Key Takeaways:

Market Estimates & Forecast for 10 years from 2025 to 2035.

Annualized revenues and regional level analysis for each market segment.

Detailed analysis of geographical landscape with country-level analysis of major regions.

Competitive landscape with information on major players in the market.

Analysis of key business strategies and recommendations on future market approach.

Analysis of competitive structure of the market.

Demand side and supply side analysis of the market.

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