

Intelligent Tire Market for Bus and Truck - A Global and Regional Analysis - Focus on Application, Product, and Country Level Analysis - Analysis and Forecast, 2025-2035

<https://marketpublishers.com/r/I67EDE265F71EN.html>

Date: June 2025

Pages: 0

Price: US\$ 4,900.00 (Single User License)

ID: I67EDE265F71EN

Abstracts

Hard copy option is available on any of the options above at an additional charge of \$500. Please email us at order@marketpublishers.com with your request.

This report will be delivered in 7-10 working days. Introduction to Intelligent Tire Market for Bus and Truck

The Global Intelligent Tire for Bus and Truck Market is experiencing rapid growth, driven by advancements in tire technology, increasing fleet efficiency demands, and the integration of IoT and AI-based monitoring solutions. Intelligent tires provide real-time data on tire pressure, temperature, wear, and load conditions, improving vehicle safety, reducing operational costs, and enhancing overall fleet performance.

In 2024, the market is primarily driven by the adoption of fleet management solutions, regulatory mandates for vehicle safety, and increasing fuel costs. Intelligent tires play a crucial role in preventive maintenance and optimizing tire lifespan, reducing downtime for commercial vehicles. The increasing integration of sensor-based monitoring, RFID chips, and AI-driven predictive maintenance is further pushing the adoption of intelligent tires in fleet operations and public transportation.

By 2035, intelligent tires will become standard in commercial vehicles, with advanced sensor technology, cloud connectivity, and real-time vehicle analytics being key features. The development of self-healing and adaptive tires will further enhance safety and durability. The growing shift toward electric and autonomous trucks and buses will also drive the demand for smart tire monitoring systems to ensure optimal traction,

energy efficiency, and load management. Additionally, the shift toward green and sustainable tire materials will further shape the future of the market.

Regional Analysis

Leading Region: North America

North America is expected to dominate the intelligent tire market for buses and trucks, driven by stringent vehicle safety regulations, high adoption of fleet management solutions, and increasing investments in autonomous vehicle technology. The United States leads in AI-driven fleet monitoring, with companies integrating telematics, predictive maintenance, and cloud-connected tire analytics into logistics and transportation networks. The region also has a strong presence of major tire manufacturers and technology firms, ensuring continued advancements in intelligent tire solutions.

Europe follows closely, with Germany, France, and the U.K. leading the adoption of intelligent tires in public transportation and commercial logistics. EU emissions and road safety regulations are pushing for advanced tire technologies that enhance fuel efficiency and reduce carbon footprints.

Asia-Pacific is experiencing rapid growth, particularly in China, Japan, and India, where rising logistics demand, government initiatives for smart transportation, and increasing EV adoption are driving investments in smart tire technologies. China's strong presence in electric commercial vehicle manufacturing will further boost the adoption of intelligent tires in fleet management.

Segmentation Analysis

By End-User

Fleet Operators (Leading): Fleet owners benefit from real-time tire analytics and predictive maintenance, reducing downtime and costs.

Public Transit Agencies: Governments are investing in smart transportation solutions, integrating intelligent tire monitoring in city bus fleets.

Independent Vehicle Owners: Increasing adoption due to rising fuel prices and demand for cost-efficient maintenance.

By Vehicle Type

Trucks (Leading): Heavy-duty and medium-duty trucks require real-time monitoring for long-haul efficiency and safety.

Buses: Urban transport and inter-city buses are integrating smart tire solutions to ensure passenger safety and fuel efficiency.

By Propulsion Type

Electric Vehicles (EVs) (Leading): Smart tires are crucial for monitoring tire conditions and optimizing range.

Internal Combustion Engine (ICE) Vehicles: Still dominant but transitioning towards fuel-efficient and low-maintenance solutions.

By Technology

Sensor-Based Technology (Leading): Enables real-time monitoring of pressure, temperature, and wear.

RFID-Based Technology: Used for tire tracking and inventory management.

IoT-Enabled Smart Tires: Cloud-connected solutions providing real-time analytics and AI-driven insights.

By Functionality Type

Predictive Maintenance Services (Leading): Prevents breakdowns and reduces operational costs.

Real-Time Monitoring Solutions: Ensures immediate alerts for pressure and temperature fluctuations.

Load Monitoring: Essential for fleet operators managing logistics and weight distribution.

By Sales Channel

OEMs (Original Equipment Manufacturers) (Leading): Manufacturers are integrating intelligent tires directly into new vehicle models.

Aftermarket: Growing demand for retrofit solutions among fleet operators.

Trend in the Market

Increasing Integration of Intelligent Tires with Telematics and Fleet Management Systems

Fleet operators are increasingly integrating intelligent tires with telematics and AI-driven fleet management platforms. These systems enable real-time monitoring of tire health, predictive analytics for maintenance scheduling, and automated alerts for pressure and load management. The use of cloud and edge computing is enhancing connectivity between intelligent tires and centralized fleet monitoring systems, improving fuel efficiency and reducing tire-related downtime.

Driver in the Market

Growing Focus on Fleet Efficiency and Cost Management

Rising fuel prices and operational costs are pushing fleet owners to invest in intelligent tires to improve fuel efficiency, extend tire lifespan, and optimize vehicle performance. Real-time monitoring and predictive maintenance enable proactive decision-making, reducing unexpected failures and maintenance expenses. Additionally, intelligent tires contribute to safer driving conditions, lowering the risk of accidents due to tire-related failures.

Restraint in the Market

High Initial Investment and Maintenance Costs

The deployment of intelligent tire systems requires significant upfront costs for sensor integration, IoT connectivity, and predictive analytics software. Additionally, maintenance of sensor-equipped tires can be more expensive than traditional tires. Fleet operators in developing markets may struggle with adoption due to limited budget allocation for digital transformation.

Opportunity in the Market

Integration with Autonomous Vehicle Systems

The rise of autonomous trucks and buses presents a major opportunity for intelligent tire technologies. Self-driving commercial vehicles require continuous monitoring of tire health, traction, and load distribution to function safely and efficiently. Intelligent tires with AI-driven data analysis, self-healing capabilities, and adaptive tread wear management will become essential components of future autonomous fleet operations.

Key Players of the Market

Goodyear Tire & Rubber Co.

Continental AG

Hankook

Pirelli

Apollo Tyres

Bridgestone Corporation

Michelin Group

Yokohama Rubber Co., Ltd.

Sumitomo Rubber Industries, Ltd.

Kumho Tire

Toyo

MRF Tyres

Sailun Tire

Linglong Tire

CEAT Tyres

Contents

Executive Summary
Scope and Definition
Market/Product Definition
Key Questions Answered
Analysis and Forecast Note

1. MARKETS: INDUSTRY OUTLOOK

- 1.1 Trends: Current and Future Impact Assessment
 - 1.1.1 Adoption of AI and Machine Learning in Intelligent Tire Technologies
 - 1.1.2 Increasing Integration of Intelligent Tires with Telematics and Fleet Management Systems
 - 1.1.3 Shift Towards Green Tires with Intelligent Features
 - 1.1.4 Impact of Rising Fuel Prices on Intelligent Tire Adoption
 - 1.1.5 Role of Intelligent Tires in Addressing Driver Shortage Challenges in Fleets
 - 1.1.6 Cloud-Connected and Edge-Connected Intelligent Tires
- 1.2 Supply Chain
 - 1.2.1 Role of Tire OEMs and Third-Party Integrators in Supply Chain
 - 1.2.2 Value Chain Analysis
 - 1.2.3 Pricing Analysis
- 1.3 R&D Review
 - 1.3.1 Patent Filing Trend
 - 1.3.1.1 by Country
 - 1.3.1.2 by Company
- 1.4 Regulatory Landscape
 - 1.4.1 Regional Regulations Impacting Intelligent Tire Adoption
 - 1.4.2 Sustainability and Emission Standards Related to Tire Efficiency
 - 1.4.3 Certification and Standardization Trends in Intelligent Tire Manufacturing
 - 1.4.4 Contribution of Intelligent Tires to Reducing Fleet Emissions
- 1.5 Case Studies
- 1.6 Business Models Analysis for Intelligent Tire Monitoring Services
- 1.7 Technology Landscape
 - 1.7.1 Role of Advanced Materials in Enhancing Tire Intelligence
 - 1.7.2 Emerging Technologies: Self-Healing and Adaptive Tires
- 1.8 Market Dynamics Overview
 - 1.8.1 Market Drivers
 - 1.8.1.1 Growing Focus on Fleet Efficiency and Cost Management

- 1.8.1.2 Increasing Emphasis on Road Safety and Tire Performance
- 1.8.1.3 Regulatory Push for Smart Vehicle Technologies
- 1.8.2 Market Restraints
 - 1.8.2.1 High Initial Investment and Maintenance Costs
 - 1.8.2.2 Limited Adoption in Developing Markets
 - 1.8.2.3 Standardization of Communication Protocols
 - 1.8.2.4 Battery Life and Sensor Reliability Issues
- 1.8.3 Market Opportunities
 - 1.8.3.1 Integration with Autonomous Vehicle Systems
 - 1.8.3.2 Rising Demand for Fleet Management Solutions

2. INTELLIGENT TIRE MARKET FOR BUS AND TRUCK (BY APPLICATION)

- 2.1 Application Segmentation
- 2.2 Application Summary
- 2.3 Intelligent Tire Market for Bus and Truck (by End-User)
 - 2.3.1 Fleet Operators
 - 2.3.2 Independent Vehicle Owners
 - 2.3.3 Public Transit Agencies
- 2.4 Intelligent Tire Market for Bus and Truck (by Vehicle Type)
 - 2.4.1 Buses
 - 2.4.1.1 Urban Transport Buses
 - 2.4.1.2 Inter-City Buses
 - 2.4.1.3 School Buses
 - 2.4.2 Trucks
 - 2.4.2.1 Light Commercial Trucks
 - 2.4.2.2 Medium-Duty Trucks
 - 2.4.2.3 Heavy-Duty Trucks
- 2.5 Intelligent Tire Market for Bus and Truck (by Propulsion Type)
 - 2.5.1 Internal Combustion Engine (ICE) Vehicles
 - 2.5.2 Electric Vehicles

3. INTELLIGENT TIRE MARKET FOR BUS AND TRUCK (BY PRODUCT)

- 3.1 Product Segmentation
- 3.2 Product Summary
- 3.3 Intelligent Tire Market for Bus and Truck (by Technology)
 - 3.3.1 Sensor-Based Technology
 - 3.3.2 RFID-Based Technology

- 3.3.3 IoT-Enabled Smart Tires
- 3.3.4 Artificial Intelligence (AI) Integration
- 3.3.5 Others
- 3.4 Intelligent Tire Market for Bus and Truck (by Functionality Type)
 - 3.4.1 Predictive Maintenance Services
 - 3.4.2 Real-Time Monitoring Solutions
 - 3.4.3 Load Monitoring
 - 3.4.4 Tread Wear and Tear Detection
 - 3.4.5 Others
- 3.5 Intelligent Tire Market for Bus and Truck (by Sales Channel)
 - 3.5.1 OEM
 - 3.5.2 Aftermarket
- 3.6 Intelligent Tire Market for Bus and Truck (by Component)
 - 3.6.1 Sensors
 - 3.6.2 RFID Chips
 - 3.6.3 Embedded Control Units (ECUs)
 - 3.6.4 Communication Modules
 - 3.6.5 Others
- 3.7 Intelligent Tire Market for Bus and Truck (by Component)
 - 3.7.1 Light and Medium Load Tires
 - 3.7.2 Heavy Load Tires

4. INTELLIGENT TIRE MARKET FOR BUS AND TRUCK (BY REGION)

- 4.1 Regional Summary
- 4.2 Intelligent Tire Market for Bus and Truck – by Region
- 4.3 North America
 - 4.3.1 Markets
 - 4.3.1.1 Key Market Participants in North America
 - 4.3.1.2 Business Drivers
 - 4.3.1.3 Business Challenges
 - 4.3.2 Application
 - 4.3.3 Product
 - 4.3.4 North America (By Country)
 - 4.3.4.1 U.S.
 - 4.3.4.1.1 Market by Application
 - 4.3.4.1.2 Market by Product
 - 4.3.4.2 Canada
 - 4.3.4.2.1 Market by Application

4.3.4.2.2 Market by Product

4.3.4.3 Mexico

4.3.4.3.1 Market by Application

4.3.4.3.2 Market by Product

4.4 Europe

4.4.1 Markets

4.4.1.1 Key Market Participants in Europe

4.4.1.2 Business Drivers

4.4.1.3 Business Challenges

4.4.2 Application

4.4.3 Product

4.4.4 Europe (By Country)

4.4.4.1 Germany

4.4.4.1.1 Market by Application

4.4.4.1.2 Market by Product

4.4.4.2 France

4.4.4.2.1 Market by Application

4.4.4.2.2 Market by Product

4.4.4.3 U.K.

4.4.4.3.1 Market by Application

4.4.4.3.2 Market by Product

4.4.4.4 Italy

4.4.4.4.1 Market by Application

4.4.4.4.2 Market by Product

4.4.4.5 Rest-of-Europe

4.4.4.5.1 Market by Application

4.4.4.5.2 Market by Product

4.5 Asia-Pacific

4.5.1 Markets

4.5.1.1 Key Market Participants in Asia-Pacific

4.5.1.2 Business Drivers

4.5.1.3 Business Challenges

4.5.2 Application

4.5.3 Product

4.5.4 Asia-Pacific (by Country)

4.5.4.1 China

4.5.4.1.1 Market by Application

4.5.4.1.2 Market by Product

4.5.4.2 Japan

- 4.5.4.2.1 Market by Application
- 4.5.4.2.2 Market by Product
- 4.5.4.3 India
 - 4.5.4.3.1 Market by Application
 - 4.5.4.3.2 Market by Product
- 4.5.4.4 South Korea
 - 4.5.4.4.1 Market by Application
 - 4.5.4.4.2 Market by Product
- 4.5.4.5 Rest-of-Asia-Pacific
 - 4.5.4.5.1 Market by Application
 - 4.5.4.5.2 Market by Product
- 4.6 Rest-of-the-World
 - 4.6.1 Markets
 - 4.6.1.1 Key Market Participants in Rest-of-the-World
 - 4.6.1.2 Business Drivers
 - 4.6.1.3 Business Challenges
 - 4.6.2 Application
 - 4.6.3 Product
 - 4.6.4 Rest-of-the-World (by Region)
 - 4.6.4.1 Latin America
 - 4.6.4.1.1 Market by Application
 - 4.6.4.1.2 Market by Product
 - 4.6.4.2 Middle East and Africa
 - 4.6.4.2.1 Market by Application
 - 4.6.4.2.2 Market by Product

5. MARKETS - COMPETITIVE BENCHMARKING & COMPANY PROFILES

- 5.1 Next Frontiers
- 5.2 Geographic Assessment
 - 5.2.1 Market Share Analysis
 - 5.2.2 Strategic Initiatives (Partnerships, Acquisitions, Product Launches)
- 5.3 Competitor Benchmarking
 - 5.3.1 Key Competitors in Intelligent Tire Market for Bus and Truck
 - 5.3.2 Competitive Advantages and Market Differentiators
- 5.4 Startup and New Entrants
 - 5.4.1 Innovations and Niche Solutions
 - 5.4.2 Investment Activity and Funding Trends
- 5.5 Company Profiles

5.5.1 Truck and Bus Tire Manufacturers

5.5.1.1 Goodyear Tire & Rubber Co.

5.5.1.1.1 Overview

5.5.1.1.2 Top Products/Product Portfolio

5.5.1.1.3 Top Competitors

5.5.1.1.4 Target Customers

5.5.1.1.5 Key Personnel

5.5.1.1.6 Analyst View

5.5.1.1.7 Market Share

5.5.1.2 Continental AG

5.5.1.2.1 Overview

5.5.1.2.2 Top Products/Product Portfolio

5.5.1.2.3 Top Competitors

5.5.1.2.4 Target Customers

5.5.1.2.5 Key Personnel

5.5.1.2.6 Analyst View

5.5.1.2.7 Market Share

5.5.1.3 Hankook

5.5.1.3.1 Overview

5.5.1.3.2 Top Products/Product Portfolio

5.5.1.3.3 Top Competitors

5.5.1.3.4 Target Customers

5.5.1.3.5 Key Personnel

5.5.1.3.6 Analyst View

5.5.1.3.7 Market Share

5.5.1.4 Pirelli

5.5.1.4.1 Overview

5.5.1.4.2 Top Products/Product Portfolio

5.5.1.4.3 Top Competitors

5.5.1.4.4 Target Customers

5.5.1.4.5 Key Personnel

5.5.1.4.6 Analyst View

5.5.1.4.7 Market Share

5.5.1.5 Apollo Tyres

5.5.1.5.1 Overview

5.5.1.5.2 Top Products/Product Portfolio

5.5.1.5.3 Top Competitors

5.5.1.5.4 Target Customers

5.5.1.5.5 Key Personnel

- 5.5.1.5.6 Analyst View
- 5.5.1.5.7 Market Share
- 5.5.1.6 Bridgestone Corporation
 - 5.5.1.6.1 Overview
 - 5.5.1.6.2 Top Products/Product Portfolio
 - 5.5.1.6.3 Top Competitors
 - 5.5.1.6.4 Target Customers
 - 5.5.1.6.5 Key Personnel
 - 5.5.1.6.6 Analyst View
 - 5.5.1.6.7 Market Share
- 5.5.1.7 Michelin Group
 - 5.5.1.7.1 Overview
 - 5.5.1.7.2 Top Products/Product Portfolio
 - 5.5.1.7.3 Top Competitors
 - 5.5.1.7.4 Target Customers
 - 5.5.1.7.5 Key Personnel
 - 5.5.1.7.6 Analyst View
 - 5.5.1.7.7 Market Share
- 5.5.1.8 Yokohama Rubber Co., Ltd.
 - 5.5.1.8.1 Overview
 - 5.5.1.8.2 Top Products/Product Portfolio
 - 5.5.1.8.3 Top Competitors
 - 5.5.1.8.4 Target Customers
 - 5.5.1.8.5 Key Personnel
 - 5.5.1.8.6 Analyst View
 - 5.5.1.8.7 Market Share
- 5.5.1.9 Sumitomo Rubber Industries, Ltd.
 - 5.5.1.9.1 Overview
 - 5.5.1.9.2 Top Products/Product Portfolio
 - 5.5.1.9.3 Top Competitors
 - 5.5.1.9.4 Target Customers
 - 5.5.1.9.5 Key Personnel
 - 5.5.1.9.6 Analyst View
 - 5.5.1.9.7 Market Share
- 5.5.1.10 Kumho Tire
 - 5.5.1.10.1 Overview
 - 5.5.1.10.2 Top Products/Product Portfolio
 - 5.5.1.10.3 Top Competitors
 - 5.5.1.10.4 Target Customers

- 5.5.1.10.5 Key Personnel
- 5.5.1.10.6 Analyst View
- 5.5.1.10.7 Market Share
- 5.5.1.11 Toyo
 - 5.5.1.11.1 Overview
 - 5.5.1.11.2 Top Products/Product Portfolio
 - 5.5.1.11.3 Top Competitors
 - 5.5.1.11.4 Target Customers
 - 5.5.1.11.5 Key Personnel
 - 5.5.1.11.6 Analyst View
 - 5.5.1.11.7 Market Share
- 5.5.1.12 MRF Tyres
 - 5.5.1.12.1 Overview
 - 5.5.1.12.2 Top Products/Product Portfolio
 - 5.5.1.12.3 Top Competitors
 - 5.5.1.12.4 Target Customers
 - 5.5.1.12.5 Key Personnel
 - 5.5.1.12.6 Analyst View
 - 5.5.1.12.7 Market Share
- 5.5.1.13 Sailun Tire
 - 5.5.1.13.1 Overview
 - 5.5.1.13.2 Top Products/Product Portfolio
 - 5.5.1.13.3 Top Competitors
 - 5.5.1.13.4 Target Customers
 - 5.5.1.13.5 Key Personnel
 - 5.5.1.13.6 Analyst View
 - 5.5.1.13.7 Market Share
- 5.5.1.14 Linglong Tire
 - 5.5.1.14.1 Overview
 - 5.5.1.14.2 Top Products/Product Portfolio
 - 5.5.1.14.3 Top Competitors
 - 5.5.1.14.4 Target Customers
 - 5.5.1.14.5 Key Personnel
 - 5.5.1.14.6 Analyst View
 - 5.5.1.14.7 Market Share
- 5.5.1.15 CEAT Tyres
 - 5.5.1.15.1 Overview
 - 5.5.1.15.2 Top Products/Product Portfolio
 - 5.5.1.15.3 Top Competitors

- 5.5.1.15.4 Target Customers
- 5.5.1.15.5 Key Personnel
- 5.5.1.15.6 Analyst View
- 5.5.1.15.7 Market Share
- 5.5.2 Other Key Players

6. RESEARCH METHODOLOGY

I would like to order

Product name: Intelligent Tire Market for Bus and Truck - A Global and Regional Analysis - Focus on Application, Product, and Country Level Analysis - Analysis and Forecast, 2025-2035

Product link: <https://marketpublishers.com/r/l67EDE265F71EN.html>

Price: US\$ 4,900.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:

info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/l67EDE265F71EN.html>