

Smart Tire Technologies Market Forecasts to 2034 – Global Analysis By Tire Type (Pneumatic Smart Tires and Non-Pneumatic Smart Tires), Sensor Type, Propulsion Type, Distribution Channel, Technology, Application and By Geography

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Abstracts

According to Statistics MRC, the Global Smart Tire Technologies Market is accounted for \$104.3 billion in 2026 and is expected to reach \$193.1 billion by 2034 growing at a CAGR of 8.0% during the forecast period. Smart tire technologies combine embedded sensors, digital connectivity, and live data analysis to improve vehicle safety, performance, and efficiency. They continuously track key factors like air pressure, heat levels, tread condition, and road surfaces, sharing valuable information with drivers and fleet operators. Through predictive maintenance capabilities, these systems minimize breakdowns, enhance safety, and increase tire durability. They also boost fuel economy by ensuring proper inflation and better grip on the road. With the rise of connected and autonomous vehicles, smart tires are becoming essential for modern mobility, enhancing driving comfort while supporting sustainability and lowering operational expenses.

According to the International Energy Agency (IEA), the global stock of electric vehicles could reach ~250 million units by 2030 under the Stated Policies Scenario (STEPS), creating strong demand for smart tire technologies as part of connected and electrified mobility ecosystems.

Market Dynamics:

Driver:

Rising demand for vehicle safety and real-time monitoring

Increasing focus on vehicle safety and instant monitoring significantly fuels the smart tire technologies market. Sensor-enabled tires track pressure, heat, and tread conditions while delivering immediate notifications to users. These features reduce the risk of accidents and enhance driving stability. Regulatory authorities are enforcing stricter safety norms, promoting the use of such technologies. At the same time, growing consumer awareness is encouraging manufacturers to adopt advanced tire systems. Real-time monitoring is now considered a vital component in modern vehicles, accelerating technological advancements and boosting adoption across both personal and commercial transportation sectors worldwide.

Restraint:

High implementation and production costs

Elevated production and implementation costs act as a key limitation for the smart tire technologies market. The inclusion of sensors, connectivity features, and analytical components raises overall manufacturing expenses. These increased costs result in higher product prices, reducing affordability for many users. Budget limitations among small and medium fleet operators further restrict adoption. In addition, the upkeep and replacement of technologically advanced tires are more expensive than traditional ones. This financial challenge hinders broader market expansion, especially in regions where cost sensitivity is high, thereby slowing the acceptance of smart tire solutions among various consumer groups.

Opportunity:

Expansion of IoT and connected vehicle ecosystems

The growth of IoT and connected vehicle networks provides a major opportunity for smart tire technologies. With vehicles becoming increasingly connected, there is a rising need for seamless data sharing and analysis. Smart tires supply essential information that can be integrated into digital platforms and vehicle systems. This enhances safety, enables predictive maintenance, and improves operational efficiency. The advancement of smart cities and intelligent transport solutions also supports this development. As global digital connectivity continues to expand, smart tire technologies are well-positioned to become a critical part of modern mobility systems.

Threat:

Intense market competition and price pressure

High levels of competition within the smart tire technologies market create a major threat to growth. Both established manufacturers and new entrants are actively developing innovative solutions, intensifying rivalry. This competition often leads to reduced pricing, which can negatively affect profit margins. Smaller companies may find it difficult to sustain operations against larger firms with stronger financial capabilities and brand presence. The availability of cheaper alternatives further challenges market expansion. Such competitive dynamics can disrupt market balance and limit long-term profitability for businesses operating in the smart tire technologies sector.

Covid-19 Impact:

The COVID-19 outbreak created both challenges and opportunities for the smart tire technologies market. In the early stages, it disrupted production, supply networks, and vehicle manufacturing, leading to lower demand for advanced tire solutions. Restrictions and reduced mobility delayed technology adoption. Nevertheless, the situation boosted the need for digital and remote monitoring capabilities, particularly in fleet operations. As markets reopened, recovery was driven by increased logistics activities and e-commerce growth. The heightened focus on safety, operational efficiency, and minimal human interaction encouraged the adoption of smart tire systems, supporting market growth in the period following the pandemic.

The pneumatic smart tires segment is expected to be the largest during the forecast period

The pneumatic smart tires segment is expected to account for the largest market share during the forecast period because of their extensive adoption in both personal and commercial vehicles. These tires integrate conventional air-filled designs with modern sensing technologies to track key performance indicators continuously. Their ease of integration with current vehicle systems makes them a practical and economical choice over other options. Ongoing advancements are further enhancing their capabilities, making them safer and more efficient. The strong market presence and user familiarity with pneumatic tires contribute to their leading position, as they offer a balanced combination of reliability and smart functionality.

The electric vehicles (EVs) segment is expected to have the highest CAGR during the

forecast period

Over the forecast period, the electric vehicles (EVs) segment is predicted to witness the highest growth rate, driven by increasing demand for eco-friendly transportation solutions. These vehicles depend on specialized tire systems to improve energy efficiency, minimize resistance, and ensure optimal performance. Smart tires contribute by continuously monitoring key parameters and supporting better energy management, which enhances driving range. With strong governmental support and rising investments in electric mobility, automakers are adopting advanced tire technologies more rapidly. This trend is significantly accelerating the expansion of smart tire applications within the electric vehicle segment.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share, supported by its well-established automotive sector and quick adoption of advanced innovations. The region is home to major industry players that actively focus on developing smart mobility solutions. Increased awareness among consumers about safety and vehicle efficiency promotes the use of intelligent tire systems. Supportive regulations and developed infrastructure also facilitate the integration of connected technologies. Furthermore, rising demand for fleet monitoring and connected vehicles reinforces the dominance of smart tire technologies in the North American market.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, driven by rapid urban development and increasing vehicle manufacturing activities. The adoption of electric vehicles, connected systems, and fleet solutions is rising significantly across the region. Higher income levels and infrastructure improvements are also contributing to market growth. Government initiatives supporting smart mobility and environmentally friendly transportation are encouraging the use of advanced technologies. With a large population and developing economies, Asia-Pacific offers strong growth opportunities, making it a leading region for the expansion of smart tire technologies.

Key players in the market

Some of the key players in Smart Tire Technologies Market include The Goodyear Tire & Rubber Company, Michelin Group, NEXEN TIRE Corporation, Continental AG,

Bridgestone Corporation, Sumitomo Rubber Industries, Ltd., Pirelli & C. S.p.A., Nokian Tyres plc, Hankook Tire & Technology, Yokohama Rubber Co., Ltd., Toyo Tire Corporation, The SMART Tire Company, Infineon Technologies AG, Revvo Technologies, Inc., Schrader TPMS Solutions, NXP Semiconductors, Cerebrum Sensor Technologies and Nanjing SENASIC Technologies.

Key Developments:

In October 2025, Continental AG has reached a deal with former managers that will see their insurance pay damages between 40 million and 50 million euros (\$46.7 million-\$58.3 million) in connection with the diesel scandal. The deal with insurers, subject to shareholder approval, covers only some of the total damages of 300 million euros.

In October 2025, Infineon Technologies AG has signed power purchase agreements (PPA) with PNE AG and Statkraft to procure wind and solar electricity for its German facilities. Under a 10-year deal with German renewables developer and wind power producer PNE AG, Infineon will buy electricity from the Schlenzer and Kittlitz III wind farms in Brandenburg, Germany, which have a combined capacity of 24 MW, for its sites in Dresden, Regensburg, Warstein and Neubiberg near Munich.

In February 2025, NXP Semiconductors has acquired AI chip startup Kinara in a \$307 million all-cash agreement. NXP said the acquisition would enable it to “enhance and strengthen” its ability to provide scalable AI platforms by combining Kinara’s NPUs and AI software with NXP’s solutions portfolio. Kinara develops programmable neural processing units (NPUs) for Edge AI applications, including multi-modal generative AI models.

Tire Types Covered:

Pneumatic Smart Tires

Non-Pneumatic Smart Tires

Sensor Types Covered:

Embedded Sensors

External Sensors

Propulsion Types Covered:

Internal Combustion Engine (ICE) Vehicles

Hybrid Vehicles

Electric Vehicles (EVs)

Distribution Channels Covered:

OEM (Original Equipment Manufacturers)

Aftermarket

Technologies Covered:

Tire Pressure Monitoring Systems (TPMS)

RFID-enabled Tires

Temperature & Wear Monitoring Systems

AI-driven Analytics Platforms

Applications Covered:

Passenger Vehicles

Commercial Fleets

Off-Road / Specialty Vehicles

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of Africa

What our report offers:

Market share assessments for the regional and country-level segments

Strategic recommendations for the new entrants

Covers Market data for the years 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

Market Trends (Drivers, Constraints, Opportunities, Threats, Challenges, Investment Opportunities, and recommendations)

Strategic recommendations in key business segments based on the market estimations

Competitive landscaping mapping the key common trends

Company profiling with detailed strategies, financials, and recent developments

Supply chain trends mapping the latest technological advancements

Free Customization Offerings:

All the customers of this report will be entitled to receive one of the following free customization options:

Company Profiling

Comprehensive profiling of additional market players (up to 3)

SWOT Analysis of key players (up to 3)

Regional Segmentation

Market estimations, Forecasts and CAGR of any prominent country as per the client's interest (Note: Depends on feasibility check)

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