

Weigh-In-Motion System Market by Weighing Technology (Bending Plate, Piezoelectric Sensor), End-use Industry, Component (Hardware, Software), Application, Installation Method, Vehicle Speed (Low, High), Sensors and Region - Global Forecast to 2027

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Abstracts

The weigh-in-motion system market is projected to reach USD 1.8 billion by 2027 from USD 1.1 billion in 2022, at a CAGR of 10.0% during the forecast period. To make transportation safe, more efficient, and sustainable, the governments of various countries, such as the US, China, Japan, and many European countries, have defined a roadmap for intelligent transportation infrastructure. For instance, ITS Strategic Plan 2022–2026, started by the US Department of Transportation (USDOT), focuses on intelligent vehicles, intelligent infrastructure, and the creation of intelligent transportation systems (ITS).

In 2022, the US Department of Transportation's Federal Highway Administration (FHWA) awarded Advanced Transportation and Congestion Management Technologies Deployment (ATCMTD) grants worth USD 49.2 million to 10 projects using advanced ITS to improve mobility and safety and support vehicle connectivity. It also awarded USD 18.4 million as a part of Bridge Planning grants to 23 projects to incorporate bridge safety measures such as overloaded vehicle alerts and others. The Virginia Department of Transportation (US) issued an order worth USD 135.9 million to construct a 6.24-mile long bypass for Route 29 in Charlottesville (US) and Albemarle County (US). It planned to install an ITS and traffic control devices on the 6.24-mile-long bypass.

To create a more effective transportation network, ITS applications combine the advantages of information, data processing, communication, and sensor technology. They then apply these technologies to vehicles, traffic infrastructure, and management

software. By permitting real-time information and data flow, a WIM system enables intelligent utilization of the transportation infrastructure and vehicles currently in use. The system gathers information using sensors set up inside or above the infrastructure. Recognizing overweight vehicles improves road safety, facilitates smooth traffic flow, and over time, reduces road wear. Consequently, it is anticipated that the WIM market would be driven throughout the forecast period by the rising demand for ITS around the world.

“Globally, the traffic data collection segment is expected to register the fastest growth during the forecast period.”

With the use of specialized imaging equipment, the traffic data gathering system offers real-time surveillance of certain circumstances and road regions, such as toll roads, bridges, and underpasses. The system gathers essential data on traffic mobility, aids in improving road safety, and provides users with information. The data may also be used to schedule a timely repair, reduce total spending on road maintenance, and improve the state of the roads through predictive analysis of the wear of the infrastructure. As a result, it is anticipated that over the forecast period, the segment of traffic data collection would be the fastest growing in the weigh-in motion market.

Europe is estimated to have the highest demand for weigh-in motion systems.

According to estimates, Europe will dominate the weigh-in-motion market system by value in 2022. With increasing expenditures by regional governments for transportation infrastructure development projects on national and international roads, the region is anticipated to be a key revenue pocket for the weigh-in-motion market. Furthermore, the high-speed weigh-in-motion system, which costs 50–60% more than low-speed systems, dominates Europe. Additionally, the free trade agreements between the EU member states have a significant role in Europe's domination of the weigh-in-motion system market.

In-depth interviews were conducted with CEOs, marketing directors, other innovation and strategy directors, and executives from various key organizations operating in this market.

By Company Type: OEMs - 45%, Component manufacturers - 35%, System Integrators and Others - 20%

By Designation: C Level - 40%, Directors- 35%, and Others – 25%

By Region: Asia Pacific - 28%, Europe - 34%, North America –30%, RoW – 8%

Avery Weigh-Tronix (US), Mettler Toledo (US), Kistler Instruments AG (Switzerland), International Road Dynamics Inc. (Canada), and Q-Free ASA (Norway) are the leading manufacturers of the weigh-in-motion system in the global market.

Research Coverage:

The study segments the weigh-in-motion system market and forecasts the market size based on End-use Industry (Highway Toll & Road Safety, Oil & Refinery, Logistics, and Other End-use Industries), Component (Hardware and Software & Services), Weighing Technology (Load Cell Technology, Bending Plate Technology, Piezoelectric Sensor Technology, and Other Technologies), Application (Vehicle Profiling, Axle Counting, Weight Enforcement, Weight-based Toll Collection, Bridge Protection, and Traffic Data Collection), Installation Method (In-road, Weigh Bridge, and Onboard), Vehicle Speed [Low-speed (15 km/h)], and Region (North America, Europe, Asia Pacific, and the Rest of the World (RoW)).

The study also includes an in-depth competitive analysis of the major weigh-in-motion system manufacturers in the market, along with their company profiles, key observations related to product and business offerings, recent developments, and key market strategies.

Key Benefits of Buying the Report:

The report will help the market leaders/new entrants in this market with information on the closest approximations of the revenue numbers for the overall weigh-in-motion system market and the sub-segments. This report will help stakeholders understand the competitive landscape and gain more insights to better position their businesses and plan suitable go-to-market strategies. The report also helps stakeholders understand the market's pulse and provides them with information on key market drivers, restraints, challenges, and opportunities.

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