

# **Global Structural Health Monitoring Market Size study, by Solution (Hardware, Software, Services), by Technology (Wired SHM, Wireless SHM), by Application (Bridges & Dams, Buildings & Stadiums, Vessels & Platforms, Airframes & Wind Turbines, Large Machines & Equipment) and Regional Forecasts 2022-2032**

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## **Abstracts**

Global Structural Health Monitoring Market is valued at approximately USD 3.21 billion in 2023 and is anticipated to grow with a healthy growth rate of more than 18.8 % over the forecast period 2024-2032. Structural Health Monitoring (SHM) involves the real-time monitoring and assessment of the structural integrity of infrastructure such as buildings, bridges, and pipelines. By utilizing sensors and advanced data analysis techniques, SHM aims to detect and diagnose structural issues, enhancing safety, reliability, and longevity while minimizing maintenance costs and downtime. The demand for structural health monitoring technologies is predicted to increase in industrialized countries like Japan, the United States, and the United Kingdom as infrastructure ages. Additionally, the superior efficacy of SHM compared to conventional inspection and testing methods is projected to support the further expansion in the Global Structural Health Monitoring Market.

The global demand for structural health monitoring solutions is on the rise as construction companies increasingly prioritize infrastructure safety and longevity. Stringent government mandates for structural integrity assessments further contribute to this demand. Additionally, the increasing incidence of infrastructure failures, such as bridge collapses and weakened flyovers, fuels the need for monitoring solutions. Moreover, the expansion of smart and self-sufficient cities, particularly in countries such

as India, China, Brazil, and Singapore, drives the adoption of Global Structural Health Monitoring Equipment. However, the high initial costs of acquiring and installing structural health monitoring systems, along with challenges related to integrating them into existing infrastructure and legacy systems, are primary factors contributing to market slowdown. Overcoming these hurdles is crucial for companies in the Global Structural Health Monitoring Market to achieve promising returns in the future.

The key regions considered for the global Structural Health Monitoring market study includes Asia Pacific, North America, Europe, Latin America, and Rest of the World. In 2023, North America emerged as the dominant force in the Global Structural Health Market. The region's heightened demand for structural health monitoring systems is attributed to several factors, including an increased focus on civil infrastructure repair and maintenance, aging infrastructure, and heightened investments in airframes and wind turbines. Moreover, countries such as the U.S. and Canada increasingly rely on these systems to ensure the safety and security of structures and inhabitants. The rapid aging of infrastructure in North America and Europe has further propelled the adoption of structural health monitoring methods in civil infrastructure projects such as bridges, dams, and tunnels. Whereas, the Asia Pacific is expected to grow with the highest CAGR during the forecast period.

Major market player included in this report are:

Acellent Technologies, Inc.

Campbell Scientific, Inc.

COWI A/S

Digitexx Data Systems, Inc.

Geocomp, Inc.

GEOKON

GeoSIG Ltd

Hottinger Br?el & Kj?r

James Fisher and Sons plc.

Kinematics, Inc

The detailed segments and sub-segment of the market are explained below:

By Solution

Hardware

Software

Services

By Technology

Wired SHM  
Wireless SHM

By Application  
Bridges & Dams  
Buildings & Stadiums  
Vessels & Platforms  
Airframes & Wind Turbines  
Large Machines & Equipment  
?

By Region:  
North America  
U.S.  
Canada  
Europe  
UK  
Germany  
France  
Spain  
Italy  
ROE  
Asia Pacific  
China  
India  
Japan  
Australia  
South Korea  
RoAPAC  
Latin America  
Brazil  
Mexico  
Middle East & Africa  
Saudi Arabia  
South Africa  
RoMEA

Years considered for the study are as follows:  
Historical year – 2022  
Base year – 2023

Forecast period – 2024 to 2032

Key Takeaways:

Market Estimates & Forecast for 10 years from 2022 to 2032.

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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