

# **NVH Testing Market Forecasts to 2032 – Global Analysis By Component (Hardware and Software), Test Type, Application, End User and By Geography**

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## **Abstracts**

According to Statistics MRC, the Global NVH Testing Market is accounted for \$2.58 billion in 2025 and is expected to reach \$4.50 billion by 2032 growing at a CAGR of 8.3% during the forecast period. The NVH (Noise, Vibration, and Harshness) Testing Market is the global industry dedicated to evaluating and analyzing noise, vibration, and harshness levels in vehicles, machinery, and components. It focuses on developing and providing testing equipment, software, and methodologies to ensure improved product design, performance, and user comfort. By identifying and minimizing unwanted acoustic and vibrational effects, the market supports manufacturers in delivering reliable, efficient, and high-quality products across automotive, aerospace, and industrial sectors.

According to the international Organization of Motor Vehicle Manufacturers, the production stood at 55 million passenger cars and 33 million commercial vehicles globally, for the year 2020.

Market Dynamics:

Driver:

Rising regulations on noise pollution and emissions

Increasing regulatory scrutiny on noise and emissions is propelling demand for advanced NVH testing solutions. Governments worldwide are tightening standards to curb environmental and acoustic pollution, especially in urban and industrial zones. Automotive and aerospace sectors face mounting pressure to comply with stringent

decibel and emission thresholds. This regulatory momentum is driving OEMs and Tier 1 suppliers to invest in precision testing systems. Additionally, sustainability mandates and green mobility initiatives are reinforcing the need for quieter, cleaner technologies. As a result, NVH testing is becoming a critical compliance and innovation tool across transport and manufacturing industries.

Restraint:

Complexity in testing procedures

NVH testing procedures are often complex, requiring specialized equipment and expertise. The intricacies of simulating real-world acoustic and vibration conditions pose significant technical challenges. Calibration, repeatability, and environmental control add layers of difficulty to test execution. Moreover, integrating NVH protocols across diverse vehicle platforms and materials demands tailored approaches. These complexities can lead to longer development cycles and increased operational costs. Consequently, many firms struggle to streamline NVH workflows, limiting broader adoption and scalability.

Opportunity:

Integration of AI and IoT in NVH testing

The convergence of AI and IoT technologies is unlocking new possibilities in NVH testing. Smart sensors and edge computing enable real-time data collection and adaptive noise profiling. Machine learning algorithms are being deployed to detect anomalies, optimize test parameters, and predict failure modes. IoT connectivity allows remote monitoring and cloud-based analytics, enhancing test efficiency and traceability. These innovations are transforming NVH labs into intelligent ecosystems capable of continuous improvement. As industries embrace digital transformation, AI-IoT integration is poised to redefine NVH testing standards and capabilities.

Threat:

Rapid technological shifts increasing equipment obsolescence

Rapid advancements in testing technologies are accelerating equipment obsolescence in the NVH domain. Legacy systems often lack compatibility with modern software platforms and sensor arrays. Frequent updates in testing protocols and standards

require constant hardware and firmware upgrades. This pace of change can strain budgets and disrupt long-term planning for test facilities. Additionally, emerging materials and propulsion systems demand new acoustic modeling approaches, rendering older setups inadequate. The risk of falling behind technologically is prompting firms to reassess their NVH investment strategies.

### Covid-19 Impact

The pandemic disrupted NVH testing operations due to lockdowns, supply chain delays, and reduced R&D spending. Many labs faced temporary closures or operated at limited capacity, slowing product validation cycles. However, the shift toward remote work and digital tools accelerated interest in virtual NVH simulations and cloud-based testing platforms. Industries began prioritizing resilient, automated systems to maintain continuity amid uncertainty. Demand for quieter consumer products also rose, as home environments became multifunctional spaces.

The hardware segment is expected to be the largest during the forecast period

The hardware segment is expected to account for the largest market share during the forecast period, driven by continuous innovation in sensors, actuators, and vibration analyzers. High-precision microphones, multi-axis shakers, and integrated test benches are becoming standard in modern labs. Manufacturers are focusing on modular, scalable systems that support diverse testing scenarios. Hardware advancements are also enabling better integration with software platforms for synchronized data capture. As testing demands grow more complex, robust hardware remains the backbone of reliable NVH analysis.

The consumer electronics segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the consumer electronics segment is predicted to witness the highest growth rate, due to rising demand for quieter appliances, wearables, and smart devices is fuelling acoustic performance validation. Manufacturers are investing in miniaturized sensors and compact test rigs tailored for consumer-grade products. NVH testing is increasingly used to enhance user experience, especially in noise-sensitive environments. The proliferation of IoT-enabled gadgets is also driving the need for low-vibration components. As consumers prioritize comfort and quality, NVH testing becomes a key differentiator in product design.

### Region with largest share:

During the forecast period, the Asia Pacific region is expected to hold the largest market share due to the region's booming automotive and electronics industries, which are major contributors. Countries like China, Japan, and South Korea are investing heavily in advanced testing infrastructure. Regulatory enforcement around noise and emissions is intensifying, prompting widespread adoption of NVH solutions. Additionally, the rise of electric vehicles and smart manufacturing is expanding the scope of acoustic and vibration testing. Asia Pacific's dynamic industrial landscape makes it a focal point for NVH innovation and deployment.

### Region with highest CAGR:

Over the forecast period, the North America region is anticipated to exhibit the highest CAGR, owing to the region's strong focus on technological innovation and regulatory compliance, which is driving adoption. Automotive OEMs and aerospace firms are leading investments in AI-powered NVH platforms. The push for quieter EVs, sustainable materials, and smart infrastructure is reshaping testing priorities. Advanced research hubs and collaborations with academia are accelerating breakthroughs in acoustic modeling. With rising consumer expectations and environmental mandates, North America is emerging as a hotspot for NVH testing evolution.

### Key players in the market

Some of the key players profiled in the NVH Testing Market include Brüel & Kjær, PCB Piezotronics, National Instruments, Benstone Instruments, Siemens PLM Software, VTI Instruments, Head Acoustics, GRAS Sound & Vibration, IMC Measurement Systems, Erbesse Reliability, M+P International, Signal.X, Kistler Group, OROS, and Dewesoft.

### Key Developments:

In July 2025, Siemens AG announced that it has completed the acquisition of Dotmatics, a leading provider of Life Sciences R&D software headquartered in Boston and Portfolio Company of global software investor Insight Partners, for an enterprise value of \$5.1 billion. With the transaction now completed, Dotmatics will form part of Siemens' Digital Industries Software business, marking a significant expansion of Siemens' industry-leading Product Lifecycle Management (PLM) portfolio.

In March 2025, Groundbreaking New Partnership for Global Test & Measurement

Company Axiometrix Solutions. Frank Mayer signed an agreement about a partnership between the two companies, representing a milestone for the expansions of the sales channel in the EMEA region. This exciting development will bring Axiometrix Solutions to new heights on the French market, providing the world-class test and measurement and sensor solutions of its brands imc, GRAS and Audio Precision to the French industry, offering improved services and integration.

#### Components Covered:

Hardware

Software

#### TestTypes Covered:

Acoustic Testing

Vibration Testing

Modal & Operational Modal Analysis

Environmental & Durability

Sound Quality & Psychoacoustic Evaluation

Impact Hammer Testing

#### Applications Covered:

Powertrain NVH Testing

Mechanical & Product Vibration Testing

Environmental Noise & Durability Testing

Pass-by Noise Testing

Sound Intensity & Quality Testing

Noise Source Mapping

End-of-Line & Production NVH

Other Applications

End UsersCovered:

Automotive & Transportation

Industrial Machinery

Aerospace & Defense

Construction & Infrastructure

Consumer Electronics

Power Generation

Other End Users

Regions Covered:

North America

US

Canada

Mexico

Europe

Germany

UK

Italy

France

Spain

Rest of Europe

Asia Pacific

Japan

China

India

Australia

New Zealand

South Korea

Rest of Asia Pacific

South America

Argentina

Brazil

Chile

Rest of South America

Middle East & Africa

Saudi Arabia

UAE

Qatar

South Africa

Rest of Middle East & 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 2024, 2025, 2026, 2028, and 2032
- 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)

## Competitive Benchmarking

Benchmarking of key players based on product portfolio, geographical presence, and strategic alliances

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