

# Seismic Survey Market Forecasts to 2030 – Global Analysis By Service (Data Acquisition, Data Processing, Data Interpretation and Other Services), Equipment Type, Deployment, Technology, Application and By Geography

<https://marketpublishers.com/r/S380A5DE8462EN.html>

Date: February 2025

Pages: 150

Price: US\$ 4,150.00 (Single User License)

ID: S380A5DE8462EN

## Abstracts

According to Statistics MRC, the Global Seismic Survey Market is accounted for \$23.77 billion in 2024 and is expected to reach \$35.07 billion by 2030 growing at a CAGR of 6.7% during the forecast period. A seismic survey is a geophysical technique that uses sound waves sent into the earth and their reflections to look into subterranean structures. This method aids in mapping subterranean formations, including mineral, oil, and gas deposits, and evaluates the integrity of geological formations. Civil engineering projects, environmental investigations, and resource exploration all make extensive use of seismic surveys. By gathering information from the reflected sound waves, precise pictures of the subsurface may be produced, which helps direct choices about future research or development.

Market Dynamics:

Driver:

Increasing demand for energy exploration

Exploration initiatives require seismic surveys because they are vital for locating and evaluating subterranean energy resources. Accurate subsurface data is becoming more and more necessary as energy corporations look for new reserves to fulfil the world's energy demands. Survey capabilities are further improved by technological developments in seismic imaging and data processing, which propel market expansion.

Seismic surveys are also required to discover offshore wind and geothermal resources as a result of the global transition towards sustainable energy sources. The market for seismic surveys is still growing as a result of the increased need for effective resource identification.

Restraint:

Technical challenges in data interpretation

Complex geological formations often generate ambiguous seismic signals, making accurate subsurface mapping difficult. Advanced data processing techniques, while promising, can be computationally expensive and time-intensive. Additionally, the lack of standardized methods for interpreting seismic data leads to inconsistent results across projects. These issues limit the reliability of seismic surveys, reducing stakeholder confidence in exploration outcomes. Consequently, the market faces delays and increased costs, impacting its overall growth and efficiency.

Opportunity:

Integration of AI and machine learning

The integration of AI and machine learning enable faster processing of seismic data, leading to more accurate subsurface models. Exploration efficiency is increased by using machine learning techniques to optimise the identification of geological characteristics. Routine processes are automated by AI-powered systems, decreasing the need for human interaction and boosting operational efficiency. AI also reduces exploration risks by increasing the predicted accuracy of seismic surveys. In the energy and natural resource industries, this technical breakthrough promotes innovation and cost-effectiveness.

Threat:

Competition from alternative technologies

Emerging methods such as electromagnetic surveys, satellite-based exploration, and advanced imaging techniques offer cost-effective and less invasive solutions. These alternatives reduce the reliance on traditional seismic surveys, particularly in hard-to-reach or environmentally sensitive areas. Moreover, advancements in artificial intelligence and data analytics enable quicker and more precise subsurface analysis,

further diminishing the need for conventional methods. As industries prioritize sustainability and cost-efficiency, alternative technologies are increasingly preferred. This shift pressures seismic survey providers to innovate and adapt to maintain market relevance.

### Covid-19 Impact

The COVID-19 pandemic significantly impacted the seismic survey market, causing delays in projects and reducing exploration activities. Travel restrictions and social distancing measures disrupted fieldwork, limiting data acquisition. Many oil and gas companies postponed or scaled back seismic surveys due to fluctuating demand and financial constraints. Additionally, supply chain disruptions affected the availability of equipment and resources. However, as the global economy recovers, the market is gradually stabilizing, with a renewed focus on energy transition and exploration for new energy resources, helping the seismic survey sector bounce back.

The data processing segment is expected to be the largest during the forecast period

The data processing segment is expected to account for the largest market share during the forecast period by enabling efficient analysis and interpretation of seismic data, critical for identifying subsurface structures. Advanced algorithms and software streamline the conversion of raw seismic data into actionable insights, improving exploration accuracy. This segment supports industries like oil & gas, mining, and construction by reducing exploration risks and costs. Increasing demand for real-time data processing further accelerates the adoption of cutting-edge technologies in seismic surveys. As a result, enhanced decision-making and operational efficiency drive market growth through data processing advancements.

The mineral exploration segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the mineral exploration segment is predicted to witness the highest growth rate by utilizing advanced techniques to locate valuable underground resources. Seismic surveys enable precise mapping of subsurface structures, reducing exploration risks and costs for mining companies. Increased demand for minerals and metals, driven by industrial growth and renewable energy projects, further boosts the need for seismic exploration. Technological advancements in seismic imaging and data analytics enhance the efficiency and accuracy of mineral prospecting.

### Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share driven by increasing investments in oil and gas exploration, particularly in the U.S. and Canada. Advanced seismic technologies, including 3D and 4D surveys, are gaining traction to enhance subsurface imaging and resource identification. The region benefits from abundant offshore and onshore reserves, technological innovation, and significant industry expertise. Rising renewable energy projects and environmental regulations pose challenges, but the market remains robust due to demand for efficient resource mapping.

### Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR, owing to the increasing energy demand, exploration activities, and advancements in survey technologies. Countries like China, India, and Australia are key contributors, with rising investments in oil and gas exploration and renewable energy projects. The region's extensive coastline and untapped offshore reserves boost demand for seismic data acquisition and processing. Technological innovations, such as 3D and 4D seismic surveys, enhance exploration efficiency, further fuelling market expansion. Additionally, government initiatives to promote domestic energy production and collaborations with international players are expected to sustain growth in the Asia-Pacific seismic survey market.

### Key players in the market

Some of the key players profiled in the Seismic Survey Market include Schlumberger Ltd., CGG SA, PGS ASA, TGS ASA, Halliburton Company, Fugro NV, ION Geophysical Corporation, Shearwater GeoServices Holding AS, BGP Inc., WesternGeco, Dana Energy, SeaBird Exploration, Polaris Seismic International Ltd., Breckenridge Geophysical, BTW Company Ltd. and Spectrum Geo Ltd.

### Key Developments:

In May 2024, PGS entered into a collaboration agreement with Onward, an energy innovation platform based in Austin. This partnership enhances PGS' seismic data interpretation capabilities by integrating Onward's technical expertise into PGS' MultiClient and Data OnDemand services.

In March 2024, Fugro has renewed its partnership with PTSC Geos & Subsea Services (G&S) to provide site characterization services for the offshore wind sector in Vietnam. This extension of their memorandum of understanding (MoU) is set for two years and aims to support Vietnam's ambitious offshore wind targets, which include a goal of 6 GW by 2030.

In September 2023, Schlumberger entered into a technology agreement with Rosneft and BP during the Eastern Economic Forum in Vladivostok, Russia. The collaboration focuses on developing innovative cableless onshore seismic acquisition technology through Schlumberger's seismic business, WesternGeco.

#### Services Covered:

Data Acquisition

Data Processing

Data Interpretation

Other Services

#### Equipment Types Covered:

Seismic Sources

Geophones

Seismic Data Acquisition Systems

Seismic Data Processing Systems

#### Deployments Covered:

Onshore

Offshore

#### Technologies Covered:

2D imaging

3D imaging

4D imaging

#### Applications Covered:

Oil & Gas Exploration

Mineral Exploration

Geotechnical Engineering

Environmental Studies

Archaeological Surveys

Seismological Studies

Military & Defense Applications

Other Applications

#### 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 2022, 2023, 2024, 2026, and 2030
- 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

## Contents

### **1 EXECUTIVE SUMMARY**

### **2 PREFACE**

- 2.1 Abstract
- 2.2 Stake Holders
- 2.3 Research Scope
- 2.4 Research Methodology
  - 2.4.1 Data Mining
  - 2.4.2 Data Analysis
  - 2.4.3 Data Validation
  - 2.4.4 Research Approach
- 2.5 Research Sources
  - 2.5.1 Primary Research Sources
  - 2.5.2 Secondary Research Sources
  - 2.5.3 Assumptions

### **3 MARKET TREND ANALYSIS**

- 3.1 Introduction
- 3.2 Drivers
- 3.3 Restraints
- 3.4 Opportunities
- 3.5 Threats
- 3.6 Technology Analysis
- 3.7 Application Analysis
- 3.8 Emerging Markets
- 3.9 Impact of Covid-19

### **4 PORTERS FIVE FORCE ANALYSIS**

- 4.1 Bargaining power of suppliers
- 4.2 Bargaining power of buyers
- 4.3 Threat of substitutes
- 4.4 Threat of new entrants
- 4.5 Competitive rivalry

## **5 GLOBAL SEISMIC SURVEY MARKET, BY SERVICE**

- 5.1 Introduction
- 5.2 Data Acquisition
- 5.3 Data Processing
- 5.4 Data Interpretation
- 5.5 Other Services

## **6 GLOBAL SEISMIC SURVEY MARKET, BY EQUIPMENT TYPE**

- 6.1 Introduction
- 6.2 Seismic Sources
  - 6.2.1 Explosives
  - 6.2.2 Vibroseis
  - 6.2.3 Air Guns
- 6.3 Geophones
- 6.4 Seismic Data Acquisition Systems
  - 6.4.1 Sensors & Detectors
  - 6.4.2 Digital Recorders
- 6.5 Seismic Data Processing Systems
  - 6.5.1 Software for Imaging and Analysis

## **7 GLOBAL SEISMIC SURVEY MARKET, BY DEPLOYMENT**

- 6.1 Introduction
- 6.2 Onshore
- 6.3 Offshore

## **8 GLOBAL SEISMIC SURVEY MARKET, BY TECHNOLOGY**

- 8.1 Introduction
- 8.2 2D imaging
- 8.3 3D imaging
- 8.4 4D imaging

## **9 GLOBAL SEISMIC SURVEY MARKET, BY APPLICATION**

- 9.1 Introduction
- 9.2 Oil & Gas Exploration

- 9.3 Mineral Exploration
- 9.4 Geotechnical Engineering
- 9.5 Environmental Studies
- 9.6 Archaeological Surveys
- 9.7 Seismological Studies
- 9.8 Military & Defense Applications
- 9.9 Other Applications

## **10 GLOBAL SEISMIC SURVEY MARKET, BY GEOGRAPHY**

- 10.1 Introduction
- 10.2 North America
  - 10.2.1 US
  - 10.2.2 Canada
  - 10.2.3 Mexico
- 10.3 Europe
  - 10.3.1 Germany
  - 10.3.2 UK
  - 10.3.3 Italy
  - 10.3.4 France
  - 10.3.5 Spain
  - 10.3.6 Rest of Europe
- 10.4 Asia Pacific
  - 10.4.1 Japan
  - 10.4.2 China
  - 10.4.3 India
  - 10.4.4 Australia
  - 10.4.5 New Zealand
  - 10.4.6 South Korea
  - 10.4.7 Rest of Asia Pacific
- 10.5 South America
  - 10.5.1 Argentina
  - 10.5.2 Brazil
  - 10.5.3 Chile
  - 10.5.4 Rest of South America
- 10.6 Middle East & Africa
  - 10.6.1 Saudi Arabia
  - 10.6.2 UAE
  - 10.6.3 Qatar

10.6.4 South Africa

10.6.5 Rest of Middle East & Africa

## **11 KEY DEVELOPMENTS**

11.1 Agreements, Partnerships, Collaborations and Joint Ventures

11.2 Acquisitions & Mergers

11.3 New Product Launch

11.4 Expansions

11.5 Other Key Strategies

## **12 COMPANY PROFILING**

12.1 Schlumberger Ltd.

12.2 CGG SA

12.3 PGS ASA

12.4 TGS ASA

12.5 Halliburton Company

12.6 Fugro NV

12.7 ION Geophysical Corporation

12.8 Shearwater GeoServices Holding AS

12.9 BGP Inc.

12.10 WesternGeco

12.11 Dana Energy

12.12 SeaBird Exploration

12.12 Polaris Seismic International Ltd.

12.14 Breckenridge Geophysical

12.15 BTW Company Ltd.

12.16 Spectrum Geo Ltd.

## List Of Tables

### LIST OF TABLES

- 1 Global Seismic Survey Market Outlook, By Region (2022-2030) (\$MN)
- 2 Global Seismic Survey Market Outlook, By Service (2022-2030) (\$MN)
- 3 Global Seismic Survey Market Outlook, By Data Acquisition (2022-2030) (\$MN)
- 4 Global Seismic Survey Market Outlook, By Data Processing (2022-2030) (\$MN)
- 5 Global Seismic Survey Market Outlook, By Data Interpretation (2022-2030) (\$MN)
- 6 Global Seismic Survey Market Outlook, By Other Services (2022-2030) (\$MN)
- 7 Global Seismic Survey Market Outlook, By Equipment Type (2022-2030) (\$MN)
- 8 Global Seismic Survey Market Outlook, By Seismic Sources (2022-2030) (\$MN)
- 9 Global Seismic Survey Market Outlook, By Explosives (2022-2030) (\$MN)
- 10 Global Seismic Survey Market Outlook, By Vibroseis (2022-2030) (\$MN)
- 11 Global Seismic Survey Market Outlook, By Air Guns (2022-2030) (\$MN)
- 12 Global Seismic Survey Market Outlook, By Geophones (2022-2030) (\$MN)
- 13 Global Seismic Survey Market Outlook, By Seismic Data Acquisition Systems (2022-2030) (\$MN)
- 14 Global Seismic Survey Market Outlook, By Sensors & Detectors (2022-2030) (\$MN)
- 15 Global Seismic Survey Market Outlook, By Digital Recorders (2022-2030) (\$MN)
- 16 Global Seismic Survey Market Outlook, By Seismic Data Processing Systems (2022-2030) (\$MN)
- 17 Global Seismic Survey Market Outlook, By Software for Imaging and Analysis (2022-2030) (\$MN)
- 18 Global Seismic Survey Market Outlook, By Deployment (2022-2030) (\$MN)
- 19 Global Seismic Survey Market Outlook, By Onshore (2022-2030) (\$MN)
- 20 Global Seismic Survey Market Outlook, By Offshore (2022-2030) (\$MN)
- 21 Global Seismic Survey Market Outlook, By Technology (2022-2030) (\$MN)
- 22 Global Seismic Survey Market Outlook, By 2D imaging (2022-2030) (\$MN)
- 23 Global Seismic Survey Market Outlook, By 3D imaging (2022-2030) (\$MN)
- 24 Global Seismic Survey Market Outlook, By 4D imaging (2022-2030) (\$MN)
- 25 Global Seismic Survey Market Outlook, By Application (2022-2030) (\$MN)
- 26 Global Seismic Survey Market Outlook, By Oil & Gas Exploration (2022-2030) (\$MN)
- 27 Global Seismic Survey Market Outlook, By Mineral Exploration (2022-2030) (\$MN)
- 28 Global Seismic Survey Market Outlook, By Geotechnical Engineering (2022-2030) (\$MN)
- 29 Global Seismic Survey Market Outlook, By Environmental Studies (2022-2030) (\$MN)
- 30 Global Seismic Survey Market Outlook, By Archaeological Surveys (2022-2030)

(\$MN)

31 Global Seismic Survey Market Outlook, By Seismological Studies (2022-2030)

(\$MN)

32 Global Seismic Survey Market Outlook, By Military & Defense Applications

(2022-2030) (\$MN)

33 Global Seismic Survey Market Outlook, By Other Applications (2022-2030) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Middle East & Africa Regions are also represented in the same manner as above.

## I would like to order

Product name: Seismic Survey Market Forecasts to 2030 – Global Analysis By Service (Data Acquisition, Data Processing, Data Interpretation and Other Services), Equipment Type, Deployment, Technology, Application and By Geography

Product link: <https://marketpublishers.com/r/S380A5DE8462EN.html>

Price: US\$ 4,150.00 (Single User License / Electronic Delivery)

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

[info@marketpublishers.com](mailto:info@marketpublishers.com)

## Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/S380A5DE8462EN.html>