

## **Next-Generation Sequencing (NGS) Market: Global Industry Trends, Share, Size, Growth, Opportunity and Forecast 2023-2028**

Market Report | 2023-10-15 | 141 pages | IMARC Group

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### **Report description:**

Market Overview 2023-2028:

The global next-generation sequencing (NGS) market size reached US\$ 17.0 Billion in 2022. Looking forward, IMARC Group expects the market to reach US\$ 48.9 Billion by 2028, exhibiting a growth rate (CAGR) of 18.5% during 2023-2028.

Next-generation sequencing (NGS) is a parallel sequencing technology that determines the sequence of nucleotides in a section of the deoxyribonucleic acid (DNA). It involves various procedures, such as sequencing by synthesis (SBS) and ion semiconductor, single-molecule real-time (SMRT), and nanopore sequencing. It is a cost-effective solution that assists medical professionals in achieving precise results with high accuracy and speed. It also facilitates research in the fields of clinical diagnostics, personalized and genetic medicines, and agriculture and animal studies. At present, it is utilized in pharmacogenomics to escalate the drug delivery process.

Next-Generation Sequencing (NGS) Market Trends:

The growing global geriatric population and the rising prevalence of various chronic medical disorders, such as cancer, cardiovascular, and neurological disorders, represent one of the key factors positively influencing the market. It can also be attributed to the growing use of genetic maps for guiding scientists to analyze the genes that are responsible for medical conditions. In addition, the widespread adoption of liquid biopsies in cancer diagnostics and the increasing utilization of NGS technologies to introduce non-invasive cancer biomarkers for real-time cancer monitoring and detection are creating a positive market outlook. In line with this, continuous technological innovations in sequencers, such as the integration of cloud-computing systems for enhanced data security and management, are strengthening the market growth. Apart from this, continuous financing by governments of various countries to improve healthcare infrastructure is providing a thrust to the market growth. Furthermore, increasing investments by leading players in research and development (R&D) activities for molecular biology, technical engineering, and sequencing chemistry is offering a favorable market outlook.

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#### Key Market Segmentation:

IMARC Group provides an analysis of the key trends in each segment of the global next-generation sequencing (NGS) market report, along with forecasts at the global, regional and country levels from 2023-2028. Our report has categorized the market based on sequencing type, product type, technology, application and end-user.

#### Breakup by Sequencing Type:

- Whole Genome Sequencing
- Targeted Resequencing
- Whole Exome Sequencing
- RNA Sequencing
- CHIP Sequencing
- De Novo Sequencing
- Methyl Sequencing
- Others

Targeted resequencing represents the largest market segment due to the presence of numerous companies in the NGS market offering targeted resequencing services.

#### Breakup by Product Type:

- Instruments
- Reagents and Consumables
- Software and Services

Reagents and consumables represent the most commonly used product type that assists in sample preparation, DNA isolation, sample cleanup, target enrichment, and quality assurance.

#### Breakup by Technology:

- Sequencing by Synthesis
- Ion Semiconductor Sequencing
- Single-Molecule Real-Time Sequencing
- Nanopore Sequencing
- Others

Sequencing by synthesis finds extensive applications on account of its high accuracy in performing DNA sequencing and its growing incorporation in NGS instrumentation. In addition, it offers the highest yield of error-free throughput results.

#### Breakup by Application:

- Biomarker and Cancer
- Drug Discovery and Personalized Medicine
- Genetic Screening
- Diagnostics
- Agriculture and Animal Research

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## Others

Biomarker and cancer currently dominate the market due to the rising prevalence of cancer and increasing awareness among individuals about the benefits of early diagnosis and treatment.

## Breakup by End-User:

Academic Institutes & Research Centers  
Hospitals & Clinics  
Pharmaceutical & Biotechnology Companies  
Others

Academic institutes and research centers account for the majority of the market share due to the increasing application of NGS solutions in research projects.

## Breakup by Region:

North America  
United States  
Canada  
Asia Pacific  
China  
Japan  
India  
South Korea  
Australia  
Indonesia  
Others  
Europe  
Germany  
France  
United Kingdom  
Italy  
Spain  
Russia  
Others  
Latin America  
Brazil  
Mexico  
Others  
Middle East and Africa

North America exhibits a clear dominance in the market due to the availability of a technologically advanced healthcare research framework in the region, coupled with the presence of multiple clinical laboratories that employ NGS to provide genetic testing services.

## Competitive Landscape:

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The report has also analysed the competitive landscape of the market with some of the key players being Agilent Technologies, Becton Dickinson and Company, 10x Genomics, BGI Group, Eurofins Scientific, F. Hoffmann-La Roche AG, Illumina Inc., Genewiz, Macrogen, Oxford Nanopore Technologies, Pacific Biosciences, PerkinElmer, Thermo Fisher Scientific, Qiagen N.V., GenapSys Inc., etc.

## Key Questions Answered in This Report

1. What was the size of the global next-generation sequencing (NGS) market in 2022?
2. What is the expected growth rate of the global next-generation sequencing (NGS) market during 2023-2028?
3. What are the key factors driving the global next-generation sequencing (NGS) market?
4. What has been the impact of COVID-19 on the global next-generation sequencing (NGS) market?
5. What is the breakup of the global next-generation sequencing (NGS) market based on the sequencing type?
6. What is the breakup of the global next-generation sequencing (NGS) market based on the product type?
7. What is the breakup of the global next-generation sequencing (NGS) market based on the technology?
8. What is the breakup of the global next-generation sequencing (NGS) market based on the application?
9. What is the breakup of the global next-generation sequencing (NGS) market based on the end- user?
10. What are the key regions in the global next-generation sequencing (NGS) market?
11. Who are the key players/companies in the global next-generation sequencing (NGS) market?

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