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Global Next-generation Sequencing Data Analysis Market Size Study, by Product (Services, NGS Commercial Software), by Workflow (Primary, Secondary, Tertiary), by Mode (In-house, Outsourced), by Read Length, by End Use, and Regional Forecasts 2022-2032

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Abstracts

The global Next-generation Sequencing (NGS) Data Analysis Market was valued at approximately USD 811.86 million in 2023 and is projected to exhibit a robust compound annual growth rate (CAGR) of 23.10% during the forecast period from 2024 to 2032. NGS technology has revolutionized genomic research and diagnostics, offering unprecedented insights into complex biological phenomena. The decreasing cost of sequencing platforms, coupled with significant advancements in bioinformatics tools, has facilitated broader adoption in clinical and research settings.

The market is driven by the growing demand for efficient and scalable data analysis tools, particularly as NGS applications extend into oncology, rare disease diagnostics, and personalized medicine. Cloud-based bioinformatics platforms are gaining prominence for their ability to manage extensive genomic datasets with enhanced cost efficiency. Additionally, the advent of user-friendly software solutions, such as CLC Genomics Workbench and SevenBridges, has simplified complex genomic workflows, further boosting market penetration.

The market dynamics were notably influenced by the COVID-19 pandemic, as NGS technologies were pivotal in tracking viral mutations, developing diagnostics, and expediting vaccine research. These applications underscored the importance of robust sequencing data analysis tools, leading to increased investments from public and

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private sectors globally. Concurrently, advancements in tertiary data analysis have enabled deeper insights into genomic variation and functional genomics, facilitating novel therapeutic strategies.

While North America dominates the market owing to its advanced healthcare infrastructure and high R&D investments, Asia-Pacific is anticipated to experience the fastest growth due to rising adoption of precision medicine and increasing funding for genomic initiatives. In regions like China and India, government initiatives are actively promoting NGS adoption for tackling chronic diseases and enhancing healthcare delivery systems.

The market comprises leading players including Thermo Fisher Scientific, QIAGEN, Illumina, and Agilent Technologies, which continue to expand their portfolios with cutting-edge solutions tailored to diverse end-use applications.

Major market players included in this report are:

1. Thermo Fisher Scientific, Inc.

2. QIAGEN

3. Illumina, Inc.

4. Agilent Technologies Inc.

5. Pacific Biosciences of California, Inc.

6. Bio-Rad Laboratories, Inc.

7. F. Hoffmann-La Roche Ltd.

8. Eurofins Scientific

9. Partek Incorporated

10. DNASTAR, Inc.

11. SevenBridges Genomics

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12. DNAnexus

13. Genedata AG

14. PerkinElmer Inc.

15. BaseSpace

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

By Product:

- Services
- NGS Commercial Software
- Platform OS/UI
- Analytical Software
- QC/Pre-processing Tools
- Alignment Tools & Software
- Others

By Workflow:

- Primary
- Secondary
- Read Mapping
- Variant Alignment & Variant Calling
- Tertiary

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Variant Annotation

Application Specific

By Mode:

In-house

Outsourced

By Read Length:

Short Read Sequencing

Long Read Sequencing

Very Long Read Sequencing

By End Use:

Academic Research

Clinical Research

Hospitals & Clinics

Pharma & Biotech Entities

Other Users

By Region:

North America

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- Canada
- Mexico

Europe

- Germany
- UK
- France
- Italy
- Spain
- Denmark
- Sweden
- Norway

Asia Pacific

- China
- Japan
- India
- South Korea
- Australia
- Thailand

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Latin America

- Brazil
- Argentina

Middle East & Africa

- South Africa
- Saudi Arabia
- UAE
- Kuwait

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

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approaches.

Analysis of the competitive structure of the market.

Demand-side and supply-side analysis of the market.

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