

# **Next Generation Sequencing Services Market by Type (Targeted, RNA, De Novo, WES, WGS), Technology (Sequencing by Synthesis, Ion Semiconductor, SMRT, Nanopore), Application (Research, Clinical [Oncology, Reproductive]), End User - Global Forecast to 2030**

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## **Abstracts**

The Next Generation Sequencing (NGS) Services Market By Type (Targeted, RNA, De Novo, WES, WGS) Technology (Sequencing by Synthesis, Ion Semiconductor, SMRT, Nanopore) Application (Research, Clinical [Oncology, Reproductive]) End User–Global Forecast to 2030

The next generation sequencing services market is expected to grow at a CAGR of 19.9% from 2023 to 2030 to reach \$20.39 billion by 2030. Following thorough secondary and primary research and in-depth analysis of the market scenario, the report discusses key industry drivers, restraints, challenges, and opportunities.

The growth of this market is mainly attributed to the reduced cost of NGS procedures, the development and approval of new targeted therapies, the rising prevalence of cancer, partnerships between NGS service providers and pharmaceutical companies, the high cost of sequencing infrastructure, and technological advancements in NGS. In addition, advancements in sequencing data analytics and the increasing applications of NGS in cancer and agri-genomics research are expected to offer significant growth opportunities for NGS service providers.

However, the availability of alternative technologies, lack of skilled professionals for sample preparation and analysis, and actionable mutations for precision medicine may restrain the growth of the NGS services market. Moreover, regulatory & standardization concerns in diagnostic testing and the ethical issues & costs related to non-invasive

prenatal genetic testing are major challenges to the growth of this market.

Based on type, the global NGS services market is segmented into targeted sequencing services, whole-genome sequencing services, RNA sequencing services, exome sequencing services, de novo sequencing services, ChIP sequencing services, methyl sequencing services, and other NGS services. In 2023, the targeted sequencing services segment is estimated to account for the largest share of the global NGS services market. The large share of this segment can be attributed to the relatively lower cost, faster turnaround time, and accurate, easy-to-interpret results of targeted sequencing in the study of disease-related genes.

Based on technology, the global NGS services market is segmented into sequencing by synthesis, ion semiconductor sequencing, single-molecule real-time sequencing, nanopore sequencing, and DNA nanoball sequencing. In 2023, the sequencing by synthesis segment is estimated to account for the largest share of the global NGS services market. The large share of this segment is attributed to its highest yield of error-free throughput, base call value above Q30, and higher accuracy in DNA sequencing compared to other sequencing technologies available in the market.

Based on application, the global NGS services market is segmented into research applications and clinical applications. In 2023, the research applications segment is estimated to account for the largest share of the global NGS services market. This segment's large share is mainly attributed to the increasing demand for gene-based medicines, growing investments in drug research and development activities, and increasing research programs for personalized medicine.

Based on end user, the global NGS services market is segmented into hospitals & clinics, pharmaceutical & biotechnology companies, academic institutes & research centers, and other end users. In 2023, the hospitals & clinics segment is estimated to account for the largest share of the global NGS services market. The largest share of this segment is attributed to factors such as high capital requirements for building in-house NGS capabilities in hospitals & clinics, the rising prevalence of cancer and other chronic diseases, the growing demand for advanced medical treatments, and the rising number of biomarker-based therapies.

An in-depth analysis of the geographical scenario of the next generation sequencing services market provides detailed qualitative and quantitative insights about the five major geographies (North America, Europe, Asia-Pacific, Latin America, and the Middle East & Africa) along with the coverage of major countries in each region. North America

is expected to command the largest share of the global next generation sequencing services market in 2023, followed by Europe and Asia-Pacific.

Key companies operating in the global next generation sequencing services market are Illumina, Inc. (U.S.), QIAGEN N.V. (Netherlands), PerkinElmer, Inc. (U.S.), Eurofins Scientific S.E. (Luxembourg), Macrogen, Inc. (South Korea), LGC Limited (U.K.), GENEWIZ, Inc. (U.S.), Beijing Genomics Institute (China), MedGenome, Inc. (U.S.), DNA Link, Inc. (South Korea), Novogene Co., Ltd. (China), CD Genomics (U.S.), SeqLL, Inc. (U.S.), Otogenetics Corporation (U.S.), Foundation Medicine, Inc. (U.S.), Quest Diagnostics Incorporated (U.S.), and Invitae Corporation (U.S.).

## Scope of the Report

### Next Generation Sequencing Services Market Assessment–by Type

Targeted Sequencing Services

RNA Sequencing Services

De Novo Sequencing Services

Exome Sequencing Services

Chip Sequencing Services

Whole Genome Sequencing Services

Methyl Sequencing Services

Other Services

### Next Generation Sequencing Services Market Assessment–Technology

Sequencing By Synthesis

Ion Semiconductor Sequencing

Single-molecule Real-time Sequencing

Nanopore Sequencing

DNA Nanoball Sequencing

## Next generation Sequencing Services Market Assessment–Application

Research Applications

Drug Discovery

Agriculture & Animal Research

Other Research Applications

Clinical Applications

Reproductive Health Diagnosis

Oncology

Infectious Diseases

Other Clinical Applications

(Other research applications include food microbiology, microbiota analysis in the beverage industry, and environmental studies, and other clinical applications include the detection of genetic aberrations in neurological disorders, rare diseases, metabolic and immune disorders, and food-borne illnesses)

## Next Generation Sequencing Services Market Assessment–by End User

Hospitals & Diagnostic Laboratories

Pharmaceutical & Biotechnology Companies

Academic Institutes & Research Centers

Other End Users

## Next Generation Sequencing Services Market Assessment–by Geography

North America

U.S.

Canada

Europe

Germany

France

U.K.

Italy

Spain

Rest of Europe (RoE)

Asia-Pacific (APAC)

China

Japan

China

India

Rest of Asia Pacific (RoAPAC)

Latin America

Middle East & Africa

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