+357 96 030922
info@marketpublishers.com

NGS-based RNA-sequencing Market Size, Share and Growth Outlook 2026: By Product and Service, By Technology, By Sequencing Type, By Application, By End-User, Companies to 2034

https://marketpublishers.com/r/NEA557DAE5DAEN.html
Date: July 2026
Pages: 190
Price: US$ 3,482.00 (Single User License)
ID: NEA557DAE5DAEN

Abstracts

The global NGS-based RNA-sequencing Market size is forecast to increase from $5.39 Billion in 2026 to $20.4 Billion in 2034 at a CAGR of 18.1% between 2026 and 2034.

The NGS-based RNA-sequencing market report provides detailed analysis and outlook of NGS-based RNA-sequencing segments including By Product and Service (Consumables, Sample Extraction and Purification Kits, Library Preparation Kits, Sequencing Reagents and Flow Cells, Instruments / Sequencing Platforms, Services, RNA-Sequencing Services, Bioinformatics and Data Analysis Services), By Technology (Sequencing by Synthesis (SBS), Ion Torrent Semiconductor Sequencing, Nanopore Sequencing, Single-Molecule Real-Time (SMRT) Sequencing), By Sequencing Type (Whole Transcriptome Sequencing, Targeted RNA Sequencing, Single-Cell RNA Sequencing), By Application (Drug Discovery and Development, Clinical Diagnostics, Biomarker Discovery, Basic Agriculture and Life Science Research), By End-User (Pharmaceutical and Biotechnology Companies, Academic and Government Research Institutes, Clinical and Diagnostic Laboratories, Contract Research Organizations (CROs)) across global and regional markets. Further, analysis and outlook across 21 countries in North America, Europe, Asia Pacific, Middle East, Africa, and South America are provided in the study.

NGS-based RNA-Sequencing Industry Overview

Transcriptomics Is Becoming a Core Technology for Precision Medicine and Biopharmaceutical Development

+357 96 030922
info@marketpublishers.com

The NGS-based RNA-sequencing industry has evolved into a critical segment of the broader genomics market, enabling comprehensive analysis of gene expression, transcript variants, alternative splicing events, fusion transcripts, non-coding RNAs, and cellular pathway activity. RNA-sequencing technologies are increasingly utilized across oncology research, biomarker discovery, cell and gene therapy development, infectious disease monitoring, drug development, translational medicine, and clinical diagnostics. As healthcare and biopharmaceutical organizations seek deeper biological insights, transcriptomic sequencing is becoming a foundational technology for understanding disease mechanisms and supporting precision medicine initiatives. Advances in sequencing chemistry, bioinformatics, automation, and regulatory standardization are accelerating the transition of RNA-sequencing from research-focused applications toward regulated clinical and manufacturing environments.

Viral Safety Testing Is Expanding the Role of RNA-Sequencing in Bioprocessing

A significant industry trend is the growing adoption of RNA-sequencing for biosafety and quality assurance applications. Minaris strengthened this movement through the launch of AgentSCREEN, a GMP-qualified adventitious virus detection platform that utilizes transcriptomic NGS methodologies to evaluate mRNA samples for viral RNA transcripts. The platform is designed to support biopharmaceutical manufacturers seeking compliance with updated regulatory expectations such as ICH Q5A(R2), which increasingly recognize NGS as a highly sensitive alternative to traditional in vivo viral safety testing. This development reflects a broader industry shift toward sequencing-based approaches capable of improving viral detection sensitivity, accelerating biosafety assessments, and enhancing quality control processes within advanced biologics and cell therapy manufacturing environments.

Regulatory Standardization and Multiomic Integration Are Driving Industry Development

The industry is also benefiting from increasing regulatory attention focused on standardization, reproducibility, and data integrity. Health authorities are emphasizing harmonized protocols for library preparation, sequencing workflows, and bioinformatics analysis to ensure consistency across multi-center clinical studies and diagnostic applications. As RNA-sequencing becomes more widely adopted in regulated settings, companies are investing in Part 11-ready bioinformatics platforms that support GMP compliance, auditability, and clinical-grade data management. Simultaneously, advances in multiomic technologies are expanding the value of transcriptomic analysis. Illumina’s TruPath Genome solution, although primarily focused on whole-genome

+357 96 030922
info@marketpublishers.com

sequencing, provides enhanced resolution of previously inaccessible genomic regions and strengthens integrated genomic and transcriptomic workflows. Such developments enable more comprehensive characterization of disease biology by combining DNA and RNA insights within unified analytical frameworks. The convergence of transcriptomics, regulatory standardization, viral safety applications, and multiomic integration is positioning NGS-based RNA-sequencing as a strategic technology across research, diagnostics, and biopharmaceutical development.

NGS-based RNA-sequencing Market Trends, Growth Drivers, Competitive Landscape, and Future Opportunities

The global NGS-based RNA-sequencing market is witnessing increasing investments in innovation, product development, digital transformation, artificial intelligence integration, healthcare infrastructure expansion, and strategic partnerships across developed and emerging economies. Key Companies in the industry include- Illumina, Inc., Thermo Fisher Scientific Inc., Oxford Nanopore Technologies, BGI Genomics, Roche Sequencing Solutions, Qiagen N.V., Agilent Technologies, Inc., Bio-Rad Laboratories, Inc., 10x Genomics, Eurofins Genomics. The NGS-based RNA-sequencing market is expected to remain one of the most closely watched segments in the global healthcare industry, with companies focusing on niche market segments. As healthcare systems across the US, Europe, Asia-Pacific, Latin America, and Middle East & Africa continue to prioritize efficiency, access, and innovation, the NGS-based RNA-sequencing industry outlook remains shaped by rising healthcare expenditure, demographic change, digital transformation, and product innovation.

The report provides detailed market analysis including-

Growth NGS-based RNA-sequencing Market size outlook across 3 scenarios- High growth, reference, and Low growth cases

Market Trends, Drivers, Potential Opportunities, and Challenges faced by NGS-based RNA-sequencing companies

Porter’s Five forces analysis- Bargaining power of buyers and sellers, Threat of Substitutes and new entrants, and Intensity of competitive rivalry

Detailed SWOT Analysis of global and regional NGS-based RNA-sequencing markets

+357 96 030922
info@marketpublishers.com

Competitive analysis including business description, product analysis, and financial profiles

Key country specific analysis detailing key factors shaping the short-term and long-term outlook

Recent industry developments and news including mergers, acquisitions, product launches, expansions, and company announcements

NGS-based RNA-sequencing Market Competitive Benchmarking and Company Analysis

Leading companies in NGS-based RNA-sequencing industry include- Illumina, Inc., Thermo Fisher Scientific Inc., Oxford Nanopore Technologies, BGI Genomics, Roche Sequencing Solutions, Qiagen N.V., Agilent Technologies, Inc., Bio-Rad Laboratories, Inc., 10x Genomics, Eurofins Genomics. The NGS-based RNA-sequencing market remains moderately to highly fragmented, with competition expected to intensify as companies accelerate investments in innovation, geographic expansion, strategic partnerships, and portfolio diversification through 2034. In developed markets such as the United States, Germany, France, the United Kingdom, and Canada, competition is increasingly centered on innovation, reimbursement positioning, and value-based healthcare solutions. Meanwhile, emerging markets including China, India, Brazil, and countries across the Middle East and Africa continue to present significant opportunities for expansion due to rising healthcare expenditure, growing patient populations, and increasing access to healthcare services.

What to expect in US NGS-based RNA-sequencing Markets in 2026 and beyond- Market Size, Share, Growth Rate, and Forecast to 2034

The US healthcare expenditure is forecast to reach $8.2 Trillion in 2034 from $5.5 Trillion in 2026 based on the National Health Expenditure Accounts (NHEA) data. With an aging population, rising chronic disease burden, and increasing migration toward minimally invasive and outpatient care, the NGS-based RNA-sequencing market remains one of the strongest-performing segments in the country.

The US NGS-based RNA-sequencing Companies are opting new business models, optimized pricing models, industry partnerships, and AI-enabled back end transformations to enhance efficiency and cost management. The US NGS-based RNA-

+357 96 030922
info@marketpublishers.com

sequencing market faces successive waves of challenging trends, with strong opportunities across select segments. The CMS plan to implement Medicaid from 2027 is driving states to build eligibility verification systems throughout 2026. Looking ahead to 2034, we anticipate stronger results underpinned by opportunities exist across NGS-based RNA-sequencing industry. On the medical device front, over 7,000 device manufacturers continue to gain from increasing demand from demand for implantable devices, surgical instruments, monitoring equipment, and diagnostic systems.

Canada- Proximity to the US and healthcare similarities to EU5 countries fuel sales of Canadian NGS-based RNA-sequencing markets

Canada's strong NGS-based RNA-sequencing sales performance is underpinned by an aging population and a well-developed healthcare infrastructure. Steady growth in new brand spending in rural and urban locations fuel the long-term prospects of small and medium-sized enterprises across medical, diagnostic, and therapeutic devices. The Canadian NGS-based RNA-sequencing market presents significant opportunities for U.S. exporters of medical devices, with the U.S. being Canada’s largest trading partner for this sector. Potential advantages including specialized materials, advanced manufacturing techniques, and digital technologies support the launch of new products in the country.

Germany NGS-based RNA-sequencing Trends and Perspectives to 2034- Financial sustainability, hospital restructuring, demographic pressures, and digitization of care delivery continue to shape the German healthcare industry.

Germany continues to remain the largest NGS-based RNA-sequencing market in Europe, driven by over €600 Billion healthcare expenditure, €12 Billion medical device R&D expenditure, statutory health insurance system covering 90% German population, nationwide rollout of the electronic patient record (ePA), and large-volume of NGS-based RNA-sequencing population. In particular, Research and development in Germany fuels the commercialization of cutting-edge technologies. Companies across the Germany NGS-based RNA-sequencing industry value chain are focusing on both domestic markets and exports. The country is also driving digital adoption with the Hospital Future Act driving hospitals to upgrade their information systems by 2027. Over the forecast period, aging population, rising healthcare costs, and increasing procedural volumes drive the NGS-based RNA-sequencing market outlook.

France Market Size, Growth Rate, and Forecast Analysis to 2034- Universal healthcare system, high public healthcare expenditure, and strong government support NGS-based

+357 96 030922
info@marketpublishers.com

RNA-sequencing sales through 2034

France NGS-based RNA-sequencing companies are emphasizing on opportunities for rapid, at-scale innovation to boost profitability over the long-term. The country's National Health Insurance spending target (ONDAM) estimates 3.7% growth in the country's healthcare expenditure. Over the forecast period, expenditure control measures, chronic disease management initiatives, workforce reforms, and efforts to improve system efficiency drive the long-term prospects.

The biggest 2026 policy frame is the PLFSS 2026. The law sets the Maladie branch spending target at €271.4 billion for 2026 and fixes the ONDAM at €117.5 billion for city care, €112.8 billion for health establishments, and €18.3 billion for elderly-care establishments and services. France's market is also being pulled by demographics. INSEE estimates that on 1 January 2026 France had 69.1 million inhabitants, with 22% aged 65 or over. INSEE also reported that 2025 births were 645,000 and deaths were 651,000, producing a negative natural balance of about 6,000 for the first time since the end of the Second World War.

UK NGS-based RNA-sequencing Market Size, Share, and Growth Projections to 2034- Rapid growth driven by new and existing brands across the industry value chain

Small high-need consumer segments remain key priority of NGS-based RNA-sequencing distributors in the UK industry. Continuous launch of new products coupled with high expenditures support the market outlook. The UK Government financing remains the dominant funding source at 81.3% of total healthcare expenditure, or ?280 billion in 2025. According to the ONS, total healthcare spending grew 7.7% nominally and 3.9% in real terms from 2024 to 2025. Similarly, out-of-pocket spending was ?49 billion (14.1%) and voluntary health insurance was ?9.5 billion (2.8%). The market is driven by rapid digital adoption with NHS England's plan to give more than 500,000 staff access to new AI tools.

China NGS-based RNA-sequencing Market Growth Drivers, Revenue Trends, and Forecast- Medical insurance coverage is rapidly expanding over the past few years

China NGS-based RNA-sequencing market is undergoing a structural shift from hospital-centric care toward a more integrated system emphasizing primary care, outpatient services, and long-term care. Chinese local players are emerging as a strong pillar of NGS-based RNA-sequencing industry, offering opportunities for both competition and partnership. Over the forecast period, new and innovative product launches remain key

+357 96 030922
info@marketpublishers.com

elements driving market outlook. China's healthcare industry is increasingly centered on expanding healthcare capacity, improving access to advanced treatments, and reducing dependence on imported technologies.

The National Healthcare Security Administration reported that by end-2024, China’s basic medical insurance covered 1.32662 billion people and the coverage rate was 95%. Regional disparities in consumer spending trends continue to become more pronounced in the Chinese NGS-based RNA-sequencing industry. Over the forecast period, demand will keep shifting toward geriatrics, chronic disease management, rehabilitation, long-term care, and outpatient care, while pricing pressure will remain intense in drugs and consumables because reimbursement.

India NGS-based RNA-sequencing Market Landscape: Current Size and Long-Term Growth Outlook - Increased pricing pressures in US market is encouraging domestic vendors to expand across India

Indian NGS-based RNA-sequencing market is witnessing the rapid emergence of an ecosystem that brings together diverse companies across the industry value chain. Further, large-scale healthcare public and private investments and a steady growth in chronic conditions is driving sales of pharmaceuticals and medical devices. Further, non-retail channel is experiencing volume decrease and patients are migrating to the retail. Indian medical device firms are also combining precision engineering with lower labor costs to make world-class diagnostics, robotics, and critical care devices.

Brazil NGS-based RNA-sequencing market remains price-driven, with products domestically manufactured and accessibility offering potential opportunities

Healthcare expenditure in Brazil exceeds 10% of GDP, with the country among the highest healthcare spenders in Latin America. ANS reported 53.2 million medical-plan beneficiaries in December 2025, while IBGE projects a steady rise in older-age cohorts, with people aged 60+ already representing about 23% of the population. The price sensitive market access is broad through the public system, private coverage adds a sizeable premium layer, and reimbursement, procurement, and hospital efficiency remain key buying drivers.

Middle East and Africa NGS-based RNA-sequencing Industry Trends and Perspectives to 2034

According to the World Bank, the Middle East and North Africa population exceeds 500

+357 96 030922
info@marketpublishers.com

million, while Sub-Saharan Africa's population exceeds 1.2 billion, making the broader MEA region one of the fastest-growing healthcare demand centers globally. The GCC countries including Saudi Arabia, United Arab Emirates, Qatar, and Kuwait continue to account for a disproportionately large share of regional healthcare spending. Government-led programs such as Saudi Arabia's Vision 2030 are accelerating investments in hospital infrastructure, private-sector participation, medical technology adoption, and healthcare digitalization. On the other hand, South Africa, Egypt, Nigeria, and Kenya remain key healthcare markets due to their large populations, expanding private healthcare sectors, and growing investments in healthcare delivery systems.

NGS-based RNA-sequencing Market Segmentation

By Product and Service

Consumables

Sample Extraction and Purification Kits

Library Preparation Kits

Sequencing Reagents and Flow Cells

Instruments / Sequencing Platforms

Services

RNA-Sequencing Services

Bioinformatics and Data Analysis Services

By Technology

Sequencing by Synthesis (SBS)

Ion Torrent Semiconductor Sequencing

Nanopore Sequencing

Single-Molecule Real-Time (SMRT) Sequencing

+357 96 030922
info@marketpublishers.com

By Sequencing Type

Whole Transcriptome Sequencing

Targeted RNA Sequencing

Single-Cell RNA Sequencing

By Application

Drug Discovery and Development

Clinical Diagnostics

Biomarker Discovery

Basic Agriculture and Life Science Research

By End-User

Pharmaceutical and Biotechnology Companies

Academic and Government Research Institutes

Clinical and Diagnostic Laboratories

Contract Research Organizations (CROs)

Leading Companies in NGS-based RNA-sequencing Industry (2026)

Illumina, Inc.

Thermo Fisher Scientific Inc.

Oxford Nanopore Technologies

BGI Genomics

+357 96 030922
info@marketpublishers.com

Roche Sequencing Solutions

Qiagen N.V.

Agilent Technologies, Inc.

Bio-Rad Laboratories, Inc.

10x Genomics

Eurofins Genomics

Countries Included

North America- US, Canada, Mexico

Europe- Germany, France, UK, Spain, Italy, Nordics, Others

Asia Pacific- China, India, Japan, South Korea, Australia, Southeast Asia, Others

Latin America- Brazil, Argentina, Others

Middle East and Africa- Saudi Arabia, UAE, Other Middle East, South Africa, Other Africa

Key Benefits of Procuring the Analysis

Get Free print authentication across single, multi, and global licenses

Free Accompanying excel spreadsheet with complete quantitative data

Free 2-day consulting support from the lead analyst of the team that developed the report

Strategic Value of the Electrosurgical Generators Market Analysis

+357 96 030922
info@marketpublishers.com

Gain clear understanding of current market conditions across 20 countries and plan your decisions accordingly

Understand competitive profiles of the leading 15 companies in the Electrosurgical Generators industry

Stay ahead of competition through a detailed analysis of recent market developments

Make trusted decisions building on our 10-year experience in developing reports on Electrosurgical Generators industry

+357 96 030922
info@marketpublishers.com

Contents

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

CHAPTER 6- SCENARIO ANALYSIS AND OUTLOOK

+357 96 030922
info@marketpublishers.com

CHAPTER 7- NORTH AMERICA NGS-BASED RNA-SEQUENCING MARKET SIZE ANALYSIS AND OUTLOOK

CHAPTER 8- EUROPE NGS-BASED RNA-SEQUENCING MARKET SIZE ANALYSIS AND OUTLOOK

+357 96 030922
info@marketpublishers.com

CHAPTER 9- ASIA PACIFIC NGS-BASED RNA-SEQUENCING MARKET SIZE ANALYSIS AND OUTLOOK

+357 96 030922
info@marketpublishers.com

CHAPTER 10- SOUTH AND CENTRAL AMERICA NGS-BASED RNA-SEQUENCING MARKET SIZE ANALYSIS AND OUTLOOK

+357 96 030922
info@marketpublishers.com

CHAPTER 11- MIDDLE EAST AND AFRICA NGS-BASED RNA-SEQUENCING MARKET SIZE ANALYSIS AND OUTLOOK

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

+357 96 030922
info@marketpublishers.com

I would like to order

Product name: NGS-based RNA-sequencing Market Size, Share and Growth Outlook 2026: By Product and Service, By Technology, By Sequencing Type, By Application, By End-User, Companies to 2034

Product link: https://marketpublishers.com/r/NEA557DAE5DAEN.html

Price: US$ 3,482.00 (Single User License / Electronic Delivery)

If you want to order Corporate License or Hard Copy, please, contact our Customer Service:
info@marketpublishers.com

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page https://marketpublishers.com/r/NEA557DAE5DAEN.html