

AI-Based Neurodevelopment Screening Market Forecasts to 2034 – Global Analysis By Screening Type (Autism Screening, ADHD Screening, Learning Disability Screening, Developmental Delay Screening and Other Screening Types), Technology, Screening Mode, Age Group, End User, and Geography

<https://marketpublishers.com/r/A7CE0461576FEN.html>

Date: August 2026

Pages: 200

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

ID: A7CE0461576FEN

Abstracts

According to Statistics MRC, the Global AI-Based Neurodevelopment Screening Market is accounted for \$2.8 billion in 2026 and is expected to reach \$12.6 billion by 2034 growing at a CAGR of 20.7% during the forecast period. AI-based neurodevelopment screening refers to the use of artificial intelligence and machine learning technologies to identify early signs of neurodevelopmental conditions such as autism spectrum disorder, ADHD, speech and language disorders, and developmental delays. These solutions analyze behavioral patterns, facial expressions, speech, movement, eye tracking, and questionnaire data to support rapid, objective, and accurate screening. AI-based neurodevelopment screening enables earlier intervention, improves clinical efficiency, and enhances accessibility to assessment services. Increasing awareness of early childhood development and advancements in digital health technologies are driving the adoption of AI-based neurodevelopment screening solutions worldwide.

Market Dynamics:

Driver:

Increasing early childhood screening initiatives

AI-based neurodevelopment screening solutions analyze behavioral, developmental, speech, and cognitive indicators to support the early identification of neurodevelopmental conditions. They help clinicians, educators, and caregivers detect potential developmental concerns at an earlier stage. Governments and healthcare organizations are expanding developmental screening programs for young children. Early intervention strategies are gaining greater importance in improving long-term developmental outcomes. Advances in artificial intelligence are enhancing the accuracy and accessibility of digital screening tools. These factors are accelerating market adoption across healthcare and educational settings.

Restraint:

Limited availability of validated datasets

Artificial intelligence models require diverse, high-quality clinical datasets to deliver reliable screening outcomes. Limited access to standardized and representative developmental data can reduce model accuracy and generalizability. Variations in diagnostic criteria further complicate dataset development. Data collection often requires significant clinical expertise and long-term validation. These challenges slow the development of highly reliable AI screening systems. Improving data quality remains essential for broader market adoption.

Opportunity:

School-based digital screening programs

Digital screening platforms enable schools to identify developmental concerns efficiently through structured assessments and AI-assisted analysis. Early identification supports timely referrals and appropriate educational interventions. Schools are increasingly adopting technology-enabled screening to improve student support services. Collaboration between healthcare providers and educational institutions is expanding. Digital platforms also improve accessibility in underserved communities. This trend is expected to create substantial growth opportunities for solution providers.

Threat:

Bias in AI prediction models

AI systems trained on limited or unbalanced datasets may produce inconsistent

screening results across different populations. Such biases can affect screening reliability and clinical confidence. Developers must continuously improve model transparency and fairness. Regulatory authorities are placing greater emphasis on responsible AI development. Ongoing validation is necessary to ensure equitable screening performance. Addressing algorithmic bias will remain a critical priority for the industry.

Covid-19 Impact:

The COVID-19 pandemic accelerated the adoption of digital neurodevelopment screening as in-person clinical assessments became more limited. Healthcare providers increasingly used remote assessment platforms to maintain developmental screening services for children. Families also became more comfortable using digital tools for early developmental evaluation during periods of restricted healthcare access. Telehealth integration expanded significantly during the pandemic. Digital screening solutions continued gaining acceptance after healthcare services normalized.

The autism screening segment is expected to be the largest during the forecast period

The autism screening segment is expected to account for the largest market share during the forecast period as autism spectrum disorder is one of the most widely screened neurodevelopmental conditions using AI-assisted behavioral and developmental assessment tools. Early identification enables timely clinical evaluation and intervention planning. Healthcare providers are increasingly adopting digital autism screening solutions to improve diagnostic efficiency. Continuous improvements in AI algorithms are enhancing screening accuracy.

The home-based screening segment is expected to have the highest CAGR during the forecast period

Over the forecast period, the home-based screening segment is predicted to witness the highest growth rate due to growing demand for convenient and accessible developmental assessments that parents can complete outside clinical settings. AI-powered digital platforms support continuous monitoring while reducing dependence on in-person visits. Smartphone applications and cloud-based assessment tools are becoming more widely available. Greater awareness among parents is further encouraging early developmental screening.

Region with largest share:

During the forecast period, the North America region is expected to hold the largest market share owing to strong early childhood healthcare programs. The United States leads the market through widespread adoption of AI-driven pediatric screening technologies, while Canada is expanding digital developmental assessment programs across healthcare systems. Mexico is gradually increasing investments in child health screening initiatives supported by digital healthcare modernization. Strong clinical research capabilities and advanced healthcare infrastructure continue supporting market leadership.

Region with highest CAGR:

Over the forecast period, the Asia Pacific region is anticipated to exhibit the highest CAGR driven by expanding pediatric healthcare services. China is investing in AI-powered child healthcare programs, while India is strengthening early developmental screening through digital health initiatives. Japan continues advancing pediatric diagnostic technologies, and South Korea is expanding artificial intelligence applications in developmental healthcare. Rising awareness of early diagnosis and increasing healthcare digitization are supporting strong regional growth.

Key players in the market

Some of the key players in AI-Based Neurodevelopment Screening Market include Cognoa, Inc., EarlyBird AI, LinusBio Inc., Qbtech AB, CogniFit Ltd., Cambridge Cognition Ltd., Philips Healthcare, GE HealthCare Technologies Inc., Siemens Healthineers AG, Medtronic plc, Natus Medical Incorporated, EMOTIV Inc., Neuroelectrics S.L., BrainCheck, Inc. and Compumedics Limited.

Key Developments:

In April 2026, GE HealthCare Technologies Inc. launched an enhanced PET tracer analytics suite designed to quantify tau protein deposition in the brain. The software tool equips clinicians with precise imaging biomarkers to evaluate neurodegenerative disease progression.

In November 2025, Philips Healthcare expanded its neuro-diagnostic ecosystem by embedding quantitative brain-mapping algorithms into its clinical MRI suites. The software measures regional cortical atrophy and microstructural changes to deliver standardized biomarkers for memory loss.

Screening Types Covered:

- Autism Screening
- ADHD Screening
- Learning Disability Screening
- Developmental Delay Screening
- Other Screening Types

Technologies Covered:

- Machine Learning
- Computer Vision
- Natural Language Processing
- Predictive Analytics
- Other Technologies

Screening Modes Covered:

- Clinic-Based
- Remote Screening
- School-Based Screening
- Home-Based Screening
- Other Screening Modes

Age Groups Covered:

Infants

Toddlers

Children

Adolescents

End Users Covered:

Pediatric Hospitals

Diagnostic Centers

Schools

Early Intervention Centers

Other End Users

Regions Covered:

North America

United States

Canada

Mexico

Europe

United Kingdom

Germany

France

Italy

Spain

Netherlands

Belgium

Sweden

Switzerland

Poland

Rest of Europe

Asia Pacific

China

Japan

India

South Korea

Australia

Indonesia

Thailand

Malaysia

Singapore

Vietnam

Rest of Asia Pacific

South America

Brazil

Argentina

Colombia

Chile

Peru

Rest of South America

Rest of the World (RoW)

Middle East

Saudi Arabia

United Arab Emirates

Qatar

Israel

Rest of Middle East

Africa

South Africa

Egypt

Morocco

Rest of 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 2023, 2024, 2025, 2026, 2027, 2028, 2030, 2032 and 2034

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

- 1.1 Market Snapshot and Key Highlights
- 1.2 Growth Drivers, Challenges, and Opportunities
- 1.3 Competitive Landscape Overview
- 1.4 Strategic Insights and Recommendations

2 RESEARCH FRAMEWORK

- 2.1 Study Objectives and Scope
- 2.2 Stakeholder Analysis
- 2.3 Research Assumptions and Limitations
- 2.4 Research Methodology
 - 2.4.1 Data Collection (Primary and Secondary)
 - 2.4.2 Data Modeling and Estimation Techniques
 - 2.4.3 Data Validation and Triangulation
 - 2.4.4 Analytical and Forecasting Approach

3 MARKET DYNAMICS AND TREND ANALYSIS

- 3.1 Market Definition and Structure
- 3.2 Key Market Drivers
- 3.3 Market Restraints and Challenges
- 3.4 Growth Opportunities and Investment Hotspots
- 3.5 Industry Threats and Risk Assessment
- 3.6 Technology and Innovation Landscape
- 3.7 Emerging and High-Growth Markets
- 3.8 Regulatory and Policy Environment
- 3.9 Impact of COVID-19 and Recovery Outlook

4 COMPETITIVE AND STRATEGIC ASSESSMENT

- 4.1 Porter's Five Forces Analysis
 - 4.1.1 Supplier Bargaining Power
 - 4.1.2 Buyer Bargaining Power
 - 4.1.3 Threat of Substitutes
 - 4.1.4 Threat of New Entrants

- 4.1.5 Competitive Rivalry
- 4.2 Market Share Analysis of Key Players
- 4.3 Product Benchmarking and Performance Comparison

5 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY SCREENING TYPE

- 5.1 Autism Screening
- 5.2 ADHD Screening
- 5.3 Learning Disability Screening
- 5.4 Developmental Delay Screening
- 5.5 Other Screening Types

6 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY TECHNOLOGY

- 6.1 Machine Learning
- 6.2 Computer Vision
- 6.3 Natural Language Processing
- 6.4 Predictive Analytics
- 6.5 Other Technologies

7 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY SCREENING MODE

- 7.1 Clinic-Based
- 7.2 Remote Screening
- 7.3 School-Based Screening
- 7.4 Home-Based Screening
- 7.5 Other Screening Modes

8 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY AGE GROUP

- 8.1 Infants
- 8.2 Toddlers
- 8.3 Children
- 8.4 Adolescents

9 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY END USER

- 9.1 Pediatric Hospitals
- 9.2 Diagnostic Centers
- 9.3 Schools
- 9.4 Early Intervention Centers
- 9.5 Other End Users

10 GLOBAL AI-BASED NEURODEVELOPMENT SCREENING MARKET, BY GEOGRAPHY

- 10.1 North America
 - 10.1.1 United States
 - 10.1.2 Canada
 - 10.1.3 Mexico
- 10.2 Europe
 - 10.2.1 United Kingdom
 - 10.2.2 Germany
 - 10.2.3 France
 - 10.2.4 Italy
 - 10.2.5 Spain
 - 10.2.6 Netherlands
 - 10.2.7 Belgium
 - 10.2.8 Sweden
 - 10.2.9 Switzerland
 - 10.2.10 Poland
 - 10.2.11 Rest of Europe
- 10.3 Asia Pacific
 - 10.3.1 China
 - 10.3.2 Japan
 - 10.3.3 India
 - 10.3.4 South Korea
 - 10.3.5 Australia
 - 10.3.6 Indonesia
 - 10.3.7 Thailand
 - 10.3.8 Malaysia
 - 10.3.9 Singapore
 - 10.3.10 Vietnam

- 10.3.11 Rest of Asia Pacific
- 10.4 South America
 - 10.4.1 Brazil
 - 10.4.2 Argentina
 - 10.4.3 Colombia
 - 10.4.4 Chile
 - 10.4.5 Peru
 - 10.4.6 Rest of South America
- 10.5 Rest of the World (RoW)
 - 10.5.1 Middle East
 - 10.5.1.1 Saudi Arabia
 - 10.5.1.2 United Arab Emirates
 - 10.5.1.3 Qatar
 - 10.5.1.4 Israel
 - 10.5.1.5 Rest of Middle East
 - 10.5.2 Africa
 - 10.5.2.1 South Africa
 - 10.5.2.2 Egypt
 - 10.5.2.3 Morocco
 - 10.5.2.4 Rest of Africa

11 STRATEGIC MARKET INTELLIGENCE

- 11.1 Industry Value Network and Supply Chain Assessment
- 11.2 White-Space and Opportunity Mapping
- 11.3 Product Evolution and Market Life Cycle Analysis
- 11.4 Channel, Distributor, and Go-to-Market Assessment

12 INDUSTRY DEVELOPMENTS AND STRATEGIC INITIATIVES

- 12.1 Mergers and Acquisitions
- 12.2 Partnerships, Alliances, and Joint Ventures
- 12.3 New Product Launches and Certifications
- 12.4 Capacity Expansion and Investments
- 12.5 Other Strategic Initiatives

13 COMPANY PROFILES

- 13.1 Cognoa, Inc.

- 13.2 EarlyBird AI
- 13.3 LinusBio Inc.
- 13.4 Qbtech AB
- 13.5 CogniFit Ltd.
- 13.6 Cambridge Cognition Ltd.
- 13.7 Philips Healthcare
- 13.8 GE HealthCare Technologies Inc.
- 13.9 Siemens Healthineers AG
- 13.10 Medtronic plc
- 13.11 Natus Medical Incorporated
- 13.12 EMOTIV Inc.
- 13.13 Neuroelectronics S.L.
- 13.14 BrainCheck, Inc.
- 13.15 Compumedics Limited

List Of Tables

LIST OF TABLES

Table 1 Global AI-Based Neurodevelopment Screening Market Outlook, By Region (2023–2034) (\$MN)

Table 2 Global AI-Based Neurodevelopment Screening Market, By Screening Type (2023–2034) (\$MN)

Table 3 Global AI-Based Neurodevelopment Screening Market, By Autism Screening (2023–2034) (\$MN)

Table 4 Global AI-Based Neurodevelopment Screening Market, By ADHD Screening (2023–2034) (\$MN)

Table 5 Global AI-Based Neurodevelopment Screening Market, By Learning Disability Screening (2023–2034) (\$MN)

Table 6 Global AI-Based Neurodevelopment Screening Market, By Developmental Delay Screening (2023–2034) (\$MN)

Table 7 Global AI-Based Neurodevelopment Screening Market, By Other Screening Types (2023–2034) (\$MN)

Table 8 Global AI-Based Neurodevelopment Screening Market, By Technology (2023–2034) (\$MN)

Table 9 Global AI-Based Neurodevelopment Screening Market, By Machine Learning (2023–2034) (\$MN)

Table 10 Global AI-Based Neurodevelopment Screening Market, By Computer Vision (2023–2034) (\$MN)

Table 11 Global AI-Based Neurodevelopment Screening Market, By Natural Language Processing (2023–2034) (\$MN)

Table 12 Global AI-Based Neurodevelopment Screening Market, By Predictive Analytics (2023–2034) (\$MN)

Table 13 Global AI-Based Neurodevelopment Screening Market, By Other Technologies (2023–2034) (\$MN)

Table 14 Global AI-Based Neurodevelopment Screening Market, By Screening Mode (2023–2034) (\$MN)

Table 15 Global AI-Based Neurodevelopment Screening Market, By Clinic-Based (2023–2034) (\$MN)

Table 16 Global AI-Based Neurodevelopment Screening Market, By Remote Screening (2023–2034) (\$MN)

Table 17 Global AI-Based Neurodevelopment Screening Market, By School-Based Screening (2023–2034) (\$MN)

Table 18 Global AI-Based Neurodevelopment Screening Market, By Home-Based

Screening (2023–2034) (\$MN)

Table 19 Global AI-Based Neurodevelopment Screening Market, By Other Screening Modes (2023–2034) (\$MN)

Table 20 Global AI-Based Neurodevelopment Screening Market, By Age Group (2023–2034) (\$MN)

Table 21 Global AI-Based Neurodevelopment Screening Market, By Infants (2023–2034) (\$MN)

Table 22 Global AI-Based Neurodevelopment Screening Market, By Toddlers (2023–2034) (\$MN)

Table 23 Global AI-Based Neurodevelopment Screening Market, By Children (2023–2034) (\$MN)

Table 24 Global AI-Based Neurodevelopment Screening Market, By Adolescents (2023–2034) (\$MN)

Table 25 Global AI-Based Neurodevelopment Screening Market, By End User (2023–2034) (\$MN)

Table 26 Global AI-Based Neurodevelopment Screening Market, By Pediatric Hospitals (2023–2034) (\$MN)

Table 27 Global AI-Based Neurodevelopment Screening Market, By Diagnostic Centers (2023–2034) (\$MN)

Table 28 Global AI-Based Neurodevelopment Screening Market, By Schools (2023–2034) (\$MN)

Table 29 Global AI-Based Neurodevelopment Screening Market, By Early Intervention Centers (2023–2034) (\$MN)

Table 30 Global AI-Based Neurodevelopment Screening Market, By Other End Users (2023–2034) (\$MN)

Note: Tables for North America, Europe, APAC, South America, and Rest of the World (RoW) are also represented in the same manner as above.

I would like to order

Product name: AI-Based Neurodevelopment Screening Market Forecasts to 2034 – Global Analysis By Screening Type (Autism Screening, ADHD Screening, Learning Disability Screening, Developmental Delay Screening and Other Screening Types), Technology, Screening Mode, Age Group, End User, and Geography

Product link: <https://marketpublishers.com/r/A7CE0461576FEN.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

Payment

To pay by Credit Card (Visa, MasterCard, American Express, PayPal), please, click button on product page <https://marketpublishers.com/r/A7CE0461576FEN.html>