

NEAT EVALUATION FOR QUALITEST:

Quality Engineering

Market Segments: Overall, Application Security Testing,
RPA-Based Test Automation, AI-Based Analytics & Automation

Introduction

This is a custom report for Qualitest presenting the findings of the NelsonHall NEAT vendor evaluation for *Quality Engineering* in the *Overall, Application Security Testing, RPA-Based Test Automation* and *AI-Based Analytics & Automation* market segments. It contains the NEAT graphs of vendor performance, a summary vendor analysis of Qualitest for quality engineering services, and the latest market analysis summary.

This NelsonHall Vendor Evaluation & Assessment Tool (NEAT) analyzes the performance of vendors offering quality engineering services (formerly referred to as software testing services). The NEAT tool allows strategic sourcing managers to assess the capability of vendors across a range of criteria and business situations and identify the best performing vendors overall, and with specific capability in application security testing, RPA-based test automation, AI-based analytics & automation, UX testing, cloud migration testing, and ERP & COTS testing.

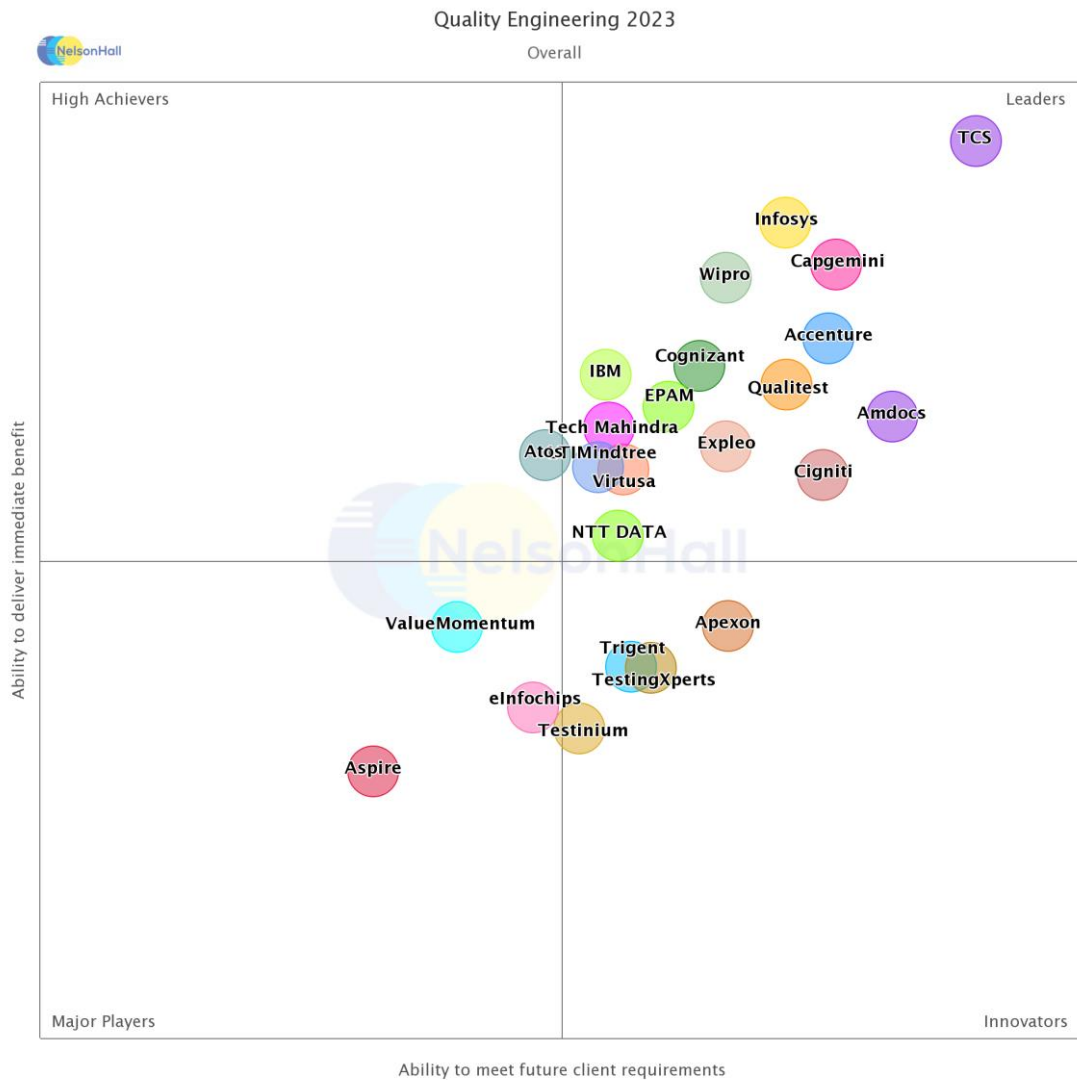
Evaluating vendors on both their ‘ability to deliver immediate benefit’ and their ‘ability to meet client future requirements’, vendors are identified in one of four categories: Leaders, High Achievers, Innovators, and Major Players.

Vendors evaluated for this NEAT are: Accenture, Amdocs, Apexon, Aspire Systems, Atos, Capgemini, Cigniti, Cognizant, eInfochips, EPAM Systems, Expleo, IBM, Infosys, LTIMindtree, NTT DATA, Qualitest, TCS, Tech Mahindra, TestingXperts, Testinium, Trigent, ValueMomentum, Virtusa, and Wipro.

Further explanation of the NEAT methodology is included at the end of the report.



NEAT Evaluation: Quality Engineering (Overall)



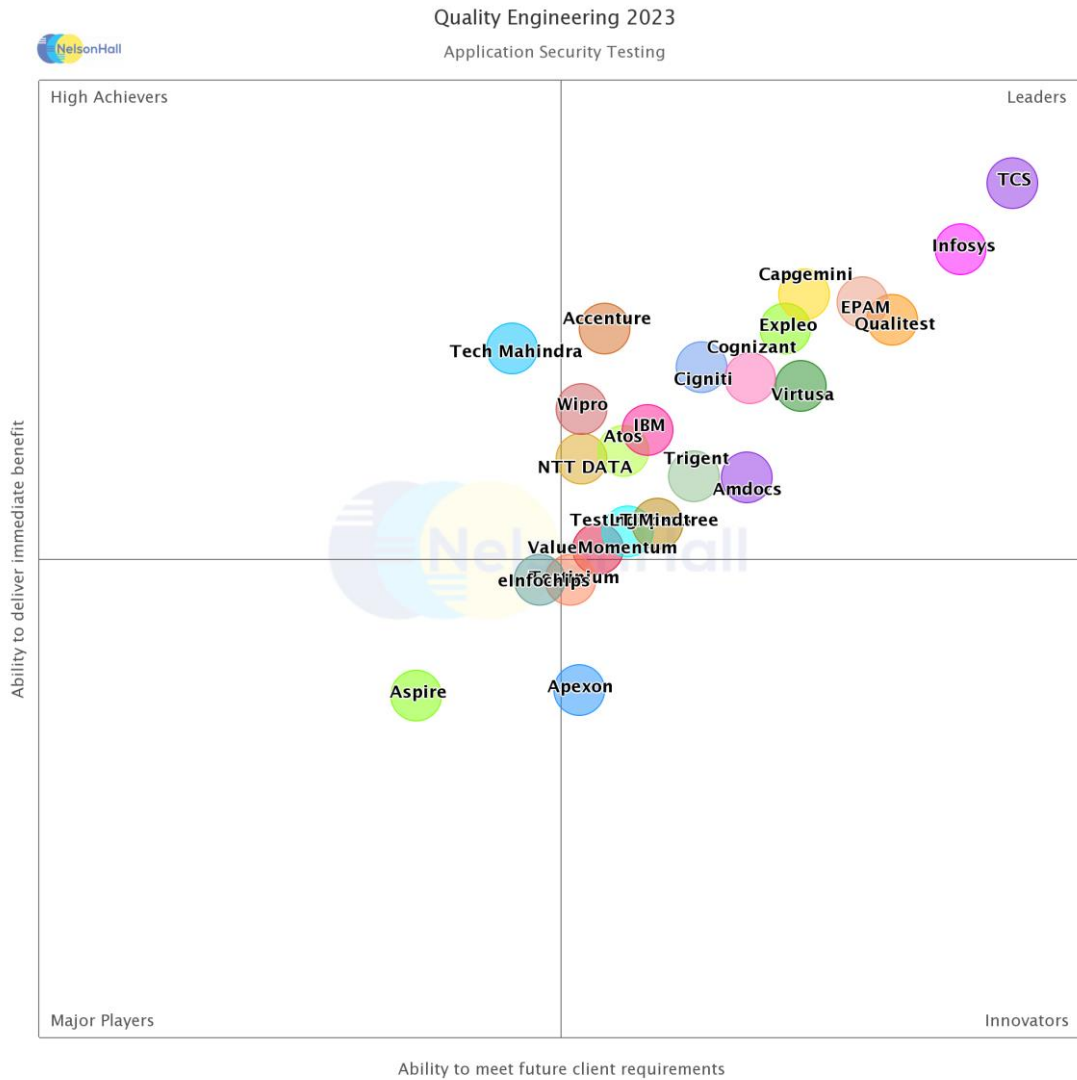
NelsonHall has identified Qualitest as a Leader in the *Overall* market segment, as shown in the NEAT graph. This market segment reflects Qualitest’s overall ability to meet future client requirements as well as delivering immediate benefits to its quality engineering clients.

Leaders are vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet future client requirements.

Buy-side organizations can access the *Quality Engineering* NEAT tool (*Overall*) [here](#).



NEAT Evaluation: Quality Engineering (Application Security Testing)

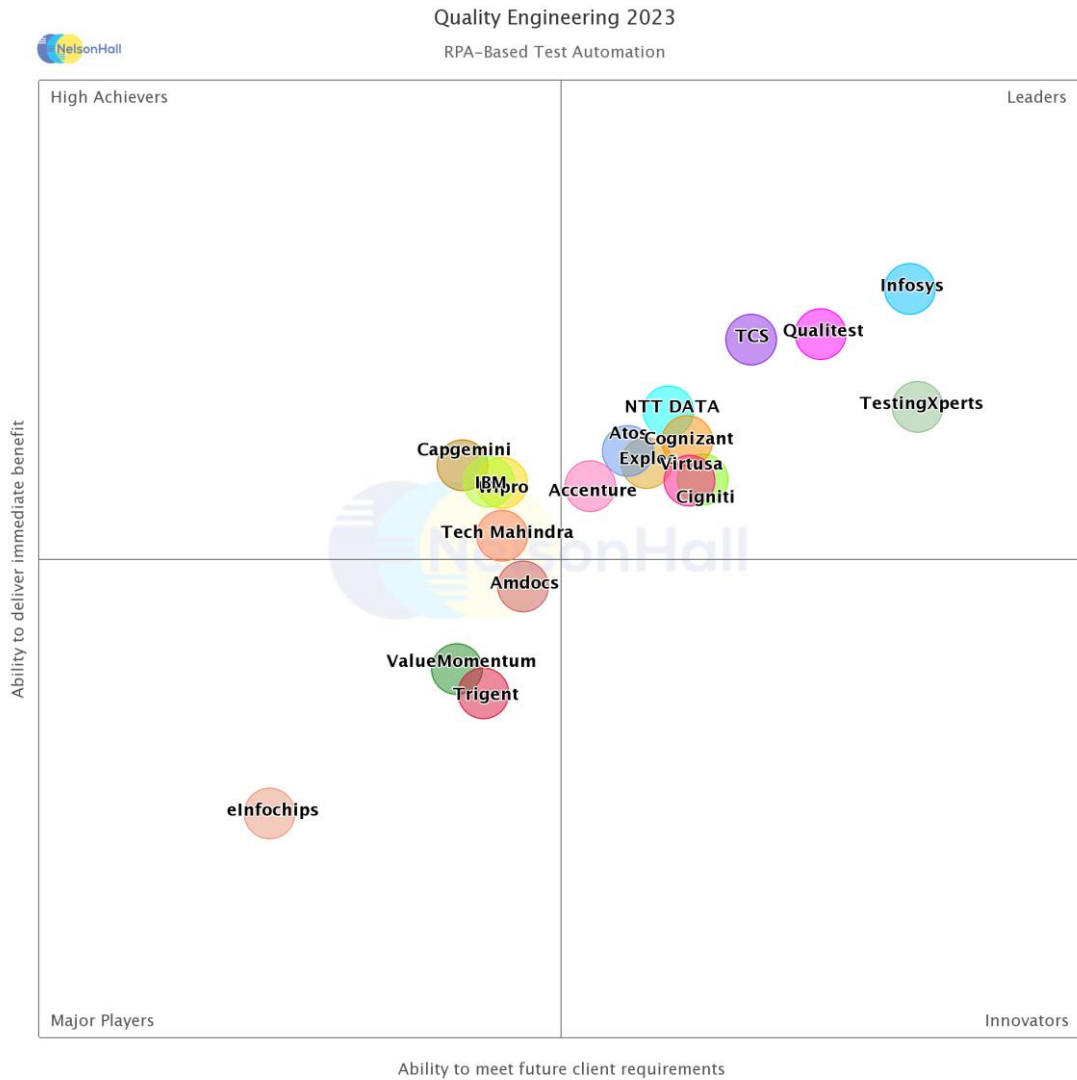


NelsonHall has identified Qualitest as a Leader in the *Application Security Testing* market segment, as shown in the NEAT graph. This market segment reflects Qualitest’s ability to meet future client requirements as well as delivering immediate benefits to its quality engineering clients with specific capability in application security testing.

Buy-side organizations can access the *Quality Engineering* NEAT tool (*Application Security Testing*) [here](#).



NEAT Evaluation: Quality Engineering (RPA-Based Test Automation)

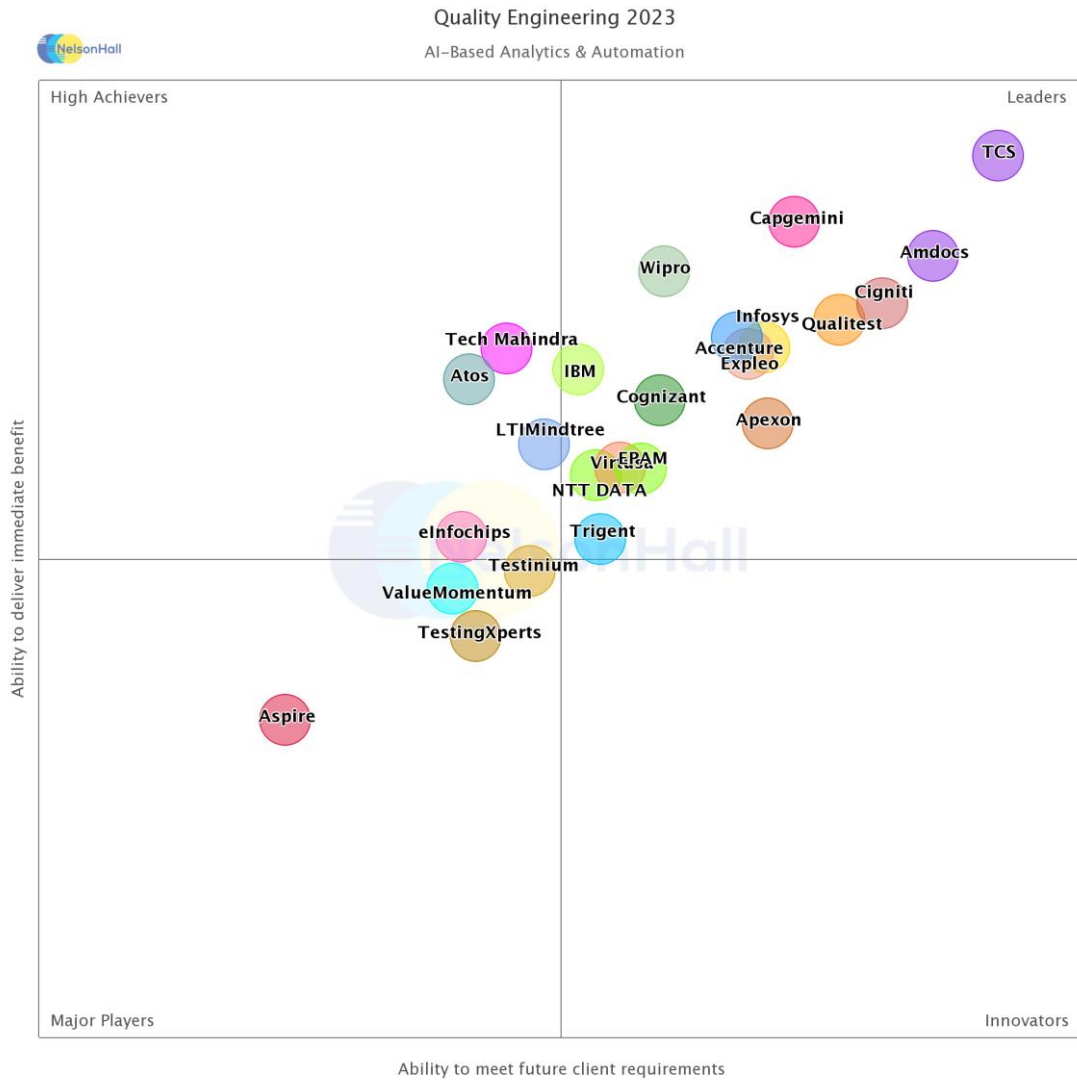


NelsonHall has identified Qualitest as a Leader in the *RPA-Based Test Automation* market segment, as shown in the NEAT graph. This market segment reflects Qualitest’s ability to meet future client requirements as well as delivering immediate benefits to its quality engineering clients with specific capability in RPA-based test automation.

Buy-side organizations can access the *Quality Engineering* NEAT tool (*RPA-Based Test Automation*) [here](#).



NEAT Evaluation: Quality Engineering (AI-Based Analytics & Automation)



NelsonHall has identified Qualitest as a Leader in the *AI-Based Analytics & Automation* market segment, as shown in the NEAT graph. This market segment reflects Qualitest’s ability to meet future client requirements as well as delivering immediate benefits to its quality engineering clients with specific capability in AI-based analytics & automation.

Buy-side organizations can access the *Quality Engineering* NEAT tool (*AI-Based Analytics & Automation*) [here](#).



Vendor Analysis Summary for Qualitest

Overview

Qualitest positions itself as “the leading AI-powered quality engineering company.” The firm has expanded its service portfolio beyond testing and focuses on digital transformation. Qualitest is in investment mode to accelerate its growth, backed by its majority owner, PE firm Bridgepoint. The company has aggressive plans to reach \$1bn in revenue in the next three years.

Qualitest has moved from a decentralized, country-led business to an integrated organization in support of its drive to accelerate growth. It is deploying intelligent automation and AI internally to drive its transformation.

The company continues to focus on functional automation with agile/continuous testing. Qualitest is also pushing its capabilities around digital, application migration to the cloud, data and analytics, and enterprise COTS/package applications. The company invests in its employees through training in technical skills, complementing its hiring and M&A activities.

In December 2019, the acquisition of Israeli start-up AlgoTrace helped kickstart its AI offerings, focusing initially on AI-based analytics. Since then, the company has expanded its AI analytics and automation portfolio, e.g., visual testing test case optimization and AI and immersive technologies with its recent Q Analysts acquisition. The company recognizes data models as the new frontier.

Qualitest has also rolled out several verticalized AI use cases in support of business assurance needs for organizations. Examples include next best offer/action, insurance fraud detection, and manufacturing fault prediction. The portfolio transformation continues, with AI and continuous testing as priorities.

In August 2022, Qualitest acquired ZenQ and gained digital transformation and PES expertise. ZenQ strengthened Qualitest in DevOps/continuous testing consulting and brought specialized digital expertise such as blockchain. It also opened Qualitest to the world of product engineering QE around high-growth areas such as connected devices/IoT (e.g., pet care devices and fetus monitoring), including AI-intensive equipment such as drones.

In addition to its portfolio expansion toward digital QE, ZenQ reinforced Qualitest’s capabilities in three countries. It expanded its onshore presence in the U.S. and Canada (Toronto), and it grew its delivery capabilities in India, adding Hyderabad to Qualitest’s presence in Bangalore, Noida, and Chennai.

In April 2023, Qualitest acquired Q Analysts, a specialized QA vendor servicing technology firms engaged in AR/VR/MR, wearables, and virtual assistant devices. The company has ~600 employees, is headquartered in Kirkland, WA, and has offices in Santa Clara, CA. Q Analysts has testing labs in Kirkland, Santa Clara, and Antananarivo (Madagascar). The acquisition further builds on Qualitest’s investments in next-gen digital technology QE.

Qualitest had ~5,800 employees at the end of 2021. NelsonHall estimates the company reached ~6,900 employees at the end of 2022.

Financials

In 2021, Qualitest had pro forma revenues of ~\$355m. NelsonHall estimates Qualitest reached pro forma revenues of ~\$435m in calendar 2022.

Strengths

- *Continuous testing*: the offering is comprehensive, aggregating specialized services and IPs well beyond continuous testing. The offering is in line with that of tier one vendors
- *AI-based analytics*: definitively one of the strongest areas of Qualitest, with systematic investments. The company has gone beyond common use cases such as test case optimization, defect triaging, and test impact analysis to more selective ones such as requirement analysis, PII detection, security false positive triaging, and video frame content detection
- *Application migration to the cloud testing*: Qualitest has progressed well in this area, with benchmarks (around functional, performance, SEO, and accessibility testing) and API testing (reading through the API definitions to generate test scripts). It has also expanded to the cloud infrastructure area, with IAC validating configuration files and provisioned environments. Qualitest has some space to expand here toward cloud infrastructure features testing
- *RPA*: Qualitest had a differentiated offering by being able to load its Qualiframe libraries to its UiPath-based framework. This is promising
- *COTS testing*: Qualitest has specialized its COTS testing portfolio toward application integration, focusing on the data layer, with automation at its core. While the offering is not comprehensive, it certainly is unique in the market
- *UX research and testing*: The company has revamped its service portfolio around crowdtesting (and its InterACTIVE meta platform, which integrates with those of crowdtesting pure-plays), accessibility, and localization testing. We welcome Qualitest's efforts in creating a platform approach to the highly tool-fragmented UX testing space
- *Application security testing*: Qualitest goes beyond a pure expert-based offering and has introduced AI for false-positive analysis.

Challenges

- *AI-based automation*: Qualitest has a test script maintenance/"self-healing" engine, but the company does not have an AI-based mechanism to create test scripts automatically.

Strategic Direction

Qualitest has positioned itself as an "integrated QE partner" rather than an independent testing vendor.

The company sees QE's future around next-generation technologies testing, application security testing/DevSecOps, and performance engineering, combined with UX testing. With its recent ZenQ acquisition, Qualitest has expanded into the broader product engineering services area, providing specialized services such as connected device testing.

AI remains at the core of Qualitest's automation efforts. The company has rolled out AI use cases across its offerings and continues to deepen existing use cases.



Outlook

Under the ownership of Bridgepoint, Qualitest has quickly transformed its portfolio. The transformation is visible primarily in automation and AI, where Qualitest has clear strengths. The company has strengthened its service portfolio in many aspects; this investment has taken the form of specific IPs and specialized services in areas such as COTS testing, application security testing, application migration testing, and UX testing.

We expect Qualitest to continue to deepen its portfolio: We think AI-based automation, with the intention of automating the creation of test scripts, is the priority. AI-based automation bears the prospect of a true paradigm shift in the QE industry, something that has not happened since the creation of Mercury Software.

Bridgepoint is also investing in Qualitest through M&A: with the acquisitions of QA InfoTech and ZenQ, Qualitest tripled its presence in India. QE remains an India-centric industry with the proper alignment to low prices, access to talent, and the Indian systematic technical accelerator focus. We welcome Qualitest's increased strategic presence in India. With its recent acquisition in Germany, Qualitest is expanding from its core client base in Israel/the U.S./the U.K. to Germany. We think Australia is probably the next step geographically. Expect more acquisitions, as Qualitest wants to become a \$1bn firm.

Quality Engineering Market Summary

Overview

The quality engineering (QE) market, also called software testing or quality assurance, is going through an extended growth cycle focused on continuous testing (i.e., testing under agile methodologies, using DevOps tools, and deploying automation). This cycle has been going for five years and still has significant growth potential: spending continues to grow in mid- to high-single digits.

QE vendors continue to invest in their continuous testing platforms, driving automation beyond functional testing to support services such as test environment and test data management, and non-functional testing.

AI is playing an increasing role, initially using analytics to conduct more selective and informed testing, driving productivity up. We think QE is on the verge of disruption with the pending introduction of AI-based automation to generate test scripts automatically. AI-based automation, combined with BDD and once-promising technologies such as model-based testing, will automate the 'requirements>test cases>scripts' cycle and shorten functional testing significantly.

Finally, quality engineering is becoming increasingly technical across existing and new areas (such as API testing and chaos engineering). This increasing technicality is driving major workforce reskilling investment in the context of talent shortages.

Buy-Side Dynamics

The three major client segments for QE services are:

- 'Agile Mainstream': organizations that are transitioning to hybrid agile (with digital projects adopting agile and non-digital remaining on waterfall methodologies). They are currently implementing DevOps tools (i.e., continuous testing) to increase their level of automation
- 'Advanced Automation': organizations that are engaged in an agile and continuous testing transformation like Agile Mainstreams. However, they look at emerging automation opportunities (e.g., AI-based automated test script creation, RPA tools) to reach new levels of automation, initially in functional testing
- 'Digital Matures': organizations that have several digital programs and look to automate digital technologies (e.g., Salesforce, application cloud migration).

'Agile Mainstream' clients select their QE vendors based on their past performance in similar projects, including internally and externally (with other clients); vendors must also demonstrate their ability to:

- Deploy continuous testing technologies to drive automation to serve agile projects
- Expand automation outside of functional execution and experiment with new functionality such as test support services (e.g., test data and environment management) and AI use cases
- Reskill manual testers towards technical services.



'Advanced Automation Organizations' select their QE vendors based on their ability to demonstrate:

- Their investment in AI use cases, initially around AI-based analytics and expanding to automation
- Best practices and sharing a clear view of the art of the possible
- Change management capabilities to drive tester buy-in.

For 'Digital Matures', vendors must demonstrate the following:

- They either specialize in testing digital technology (e.g., Salesforce, applications migrated to the cloud) or have both build and test capabilities. If the digital technology comes from an ISV, vendors must demonstrate they have formalized their partnership with the technology vendor. They also need to articulate their status level and what that level means
- Their QE capabilities can effectively play the role of a quality gate and must be independent of the implementation/development team
- They bring automation capabilities rather than manual functional expertise.

Market Size & Growth

The global software testing services market size in 2023 is ~\$42bn.

NelsonHall expects a deceleration in 2023 (+6%), led by mediocre GDP growth projections. This deceleration comes after solid growth in 2022 (+8%) driven by the digital and cloud catch-up that followed the 2020 pandemic.

Spending will reach \$52bn in 2027, representing a +6% CAGR in the period 2022-2027.

Outlook

Functional testing represents most software testing services spending (82%). Its spending has specific dynamics resulting from the secular decline in manual testing, the rise of automation, the fast growth of digital testing, and the steadier acceptance of COTS testing.

Specialized testing activities cover non-functional, test support services, cognitive, and other activities (including UX testing). Organizations are turning to more specialized and technical testing activities as they expand their usage of automation (to test support services), consider the benefits of AI applied to QE, and emphasize non-functional. Overall specialized testing has a 10% CAGR, twice as fast as testing services overall.



NEAT Methodology for Quality Engineering

NelsonHall's (vendor) Evaluation & Assessment Tool (NEAT) is a method by which strategic sourcing managers can evaluate outsourcing vendors and is part of NelsonHall's *Speed-to-Source* initiative. The NEAT tool sits at the front-end of the vendor screening process and consists of a two-axis model: assessing vendors against their 'ability to deliver immediate benefit' to buy-side organizations and their 'ability to meet future client requirements'. The latter axis is a pragmatic assessment of the vendor's ability to take clients on an innovation journey over the lifetime of their next contract.

The 'ability to deliver immediate benefit' assessment is based on the criteria shown in Exhibit 1, typically reflecting the current maturity of the vendor's offerings, delivery capability, benefits achievement on behalf of clients, and customer presence.

The 'ability to meet future client requirements' assessment is based on the criteria shown in Exhibit 2, and provides a measure of the extent to which the supplier is well-positioned to support the customer journey over the life of a contract. This includes criteria such as the level of partnership established with clients, the mechanisms in place to drive innovation, the level of investment in the service, and the financial stability of the vendor.

The vendors covered in NelsonHall NEAT projects are typically the leaders in their fields. However, within this context, the categorization of vendors within NelsonHall NEAT projects is as follows:

- **Leaders:** vendors that exhibit both a high ability relative to their peers to deliver immediate benefit and a high capability relative to their peers to meet client future requirements
- **High Achievers:** vendors that exhibit a high ability relative to their peers to deliver immediate benefit but have scope to enhance their ability to meet client future requirements
- **Innovators:** vendors that exhibit a high capability relative to their peers to meet client future requirements but have scope to enhance their ability to deliver immediate benefit
- **Major Players:** other significant vendors for this service type.

The scoring of the vendors is based on a combination of analyst assessment, principally around measurements of the ability to deliver immediate benefit; and feedback from interviewing of vendor clients, principally in support of measurements of levels of partnership and ability to meet future client requirements.

Note that, to ensure maximum value to buy-side users (typically strategic sourcing managers), vendor participation in NelsonHall NEAT evaluations is free of charge and all key vendors are invited to participate at the outset of the project.

*Exhibit 1***'Ability to deliver immediate benefit': Assessment criteria**

Assessment Category	Assessment Criteria
Offerings	<ul style="list-style-type: none"> Continuous testing Application migration to the cloud QA AI-based analytics AI-based automation RPA-based automation UX research and testing: Usability UX research and testing: Accessibility UX testing: other Application security testing Enterprise application testing
Delivery	<ul style="list-style-type: none"> Indian delivery capability U.S. onshore capability EMEA onshore capability Offshore leverage
Presence	<ul style="list-style-type: none"> Customer presence globally Customer presence in N. America Customer presence in EMEA Customer presence in APAC Customer presence In LatAm
Benefits Achieved	<ul style="list-style-type: none"> Level of cost savings achieved Increased application quality/reduced production downtime Increased speed-to-market for digital initiatives Increased end-user/business satisfaction/UX Other benefits achieved Pricing approach



Exhibit 2

‘Ability to meet client future requirements’: Assessment criteria

Assessment Category	Assessment Criteria
Levels of Investment	<ul style="list-style-type: none"> Continuous testing Application migration to the cloud QA AI-based analytics AI-based automation RPA-based automation Usability testing Accessibility testing UX testing: Other Application security testing Enterprise application testing
Ability to Innovate	<ul style="list-style-type: none"> Mechanisms in place to deliver client automation innovation Extent to which client perceives that automation innovation has been delivered Suitability of vendor to meet future continuous testing needs of clients Suitability of vendor to meet future cognitive testing needs of clients Suitability of vendor to meet future UX testing needs of clients Perception of suitability to meet future needs for other technologies
Other	<ul style="list-style-type: none"> Market momentum Financial security

For more information on other NelsonHall NEAT evaluations, please contact the NelsonHall relationship manager listed below.



research.nelson-hall.com

Sales Inquiries

NelsonHall will be pleased to discuss how we can bring benefit to your organization. You can contact us via the following relationship manager:
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