



AI-Led Quality Engineering **In Action**

Real Enterprise Outcomes Delivered



How leading enterprises are transforming **quality engineering** with AI-driven automation, intelligent test design, and autonomous validation at scale.

Business impact delivered

Consistent, measurable outcomes across enterprise QE transformations.

30-45%

Testing cost reduction

Via AI-driven automation, optimization and self-healing

Zero

Defect leakage

With predictable quality and 100% regression automation

30%

Increase in test coverage

Through adaptive AI-generated test cases

30-40%

Automation uplift

Through continuous in-sprint automation

1.5-2x

QE productivity

With AI-assisted test generation and maintenance

30-40%

Faster time to market

Driven by autonomous quality engineering

ENERGY

Achieving 100% Regression Automation in Six Months

100%

Regression automation within 6 months

Energy enterprise with manual-heavy test processes impacting release predictability across critical systems

CHALLENGE

The energy client faced manual-heavy test design, late defect detection, and limited regression automation. These compounding gaps impacted release predictability and created downstream risk across clinical and operational workflows that depended on consistent software delivery.

APPROACH

Apexon deployed its AI-led QE accelerator AssureAlpha, embedding intelligent test generation, automated regression execution, and early defect detection into the client's existing delivery cadence. The engagement focused on moving quality upstream without disrupting active release cycles.

RESULTS

Apexon converted AI risk concerns into launch-ready trust and confidence.

40% Increase in test velocity

Six Months

100 % Regression automaton

Predictable

Release cycles through early defect detection

HEALTHCARE

Validating a GenAI Chatbot for Alzheimer's Caregivers

3,000+

AI prompts validated across platforms

Global energy company requiring independent validation of a mobile wellness app with strict safety needs

CHALLENGE

The client required independent validation of a mobile wellness app with a Generative AI chatbot supporting Alzheimer's caregivers. The app had strict safety and ethical requirements. Traditional testing approaches were not equipped to validate AI-generated responses at the scale and sensitivity the use case demanded.

APPROACH

Apexon delivered a risk-based QE engagement, executing hundreds of functional test cases and 3,000+ AI prompts across iOS and Android. The program tested every defined AI guardrail, safety keyword, and emergency keyword to ensure compliant and responsible chatbot behavior under real-world conditions.

RESULTS

Apexon transformed slow, manual testing into predictable release acceleration.

100% Emergency and safety keywords

On Time AI safety and compliance

3,000+ AI prompt scenarios validated

BANKING

Eliminating PII Exposure Risk Across Test Environments

40%

Reduction in testing cycle time

US-based bank and mortgage lender with integrations across multiple source systems

CHALLENGE

Integrations across multiple source systems led to uncontrolled PII exposure in lower environments. The growing regulatory risk increased the likelihood of penalties, and the organization lacked a scalable mechanism to generate compliant test data without compromising validation accuracy.

APPROACH

Apexon implemented an AI-driven Test Data Management solution to generate compliant synthetic data aligned with PII regulations. The solution preserved business rules and data relationships across source systems while ensuring every test environment operated with production-grade, regulation-compliant data.

RESULTS

Apexon helped the client turn compliance bottlenecks into a delivery advantage.

100% Compliant data across systems

40% Faster testing cycles

Zero PII incidents in test environments

DIGITAL BANKING

Unifying Web and Mobile QE with Self-Healing Automation

60%

Reduction in test maintenance effort

Digital banking platform with separate automation teams struggling to sustain regression across frequent releases

CHALLENGE

The client operated separate Web and Mobile automation teams and found it increasingly difficult to sustain regression packs due to frequent release cycles. Duplicated effort, diverging test assets, and mounting maintenance overhead eroded confidence in each release.

APPROACH

Apexon adopted a consultative, AI-led Quality Engineering approach, unifying automation across Web and Mobile using an AI-led automation platform. The strategy consolidated test assets, introduced self-healing capabilities, and optimized team structure to match the pace of delivery.

RESULTS

Apexon unified fragmented automation into a scalable speed engine.

40% Reduction in test suite size

60% Reduction in test maintenance effort

50% Optimized testing team with self-healing automation

Apexon AssureAlpha: Engineering Autonomous Quality

AI-led QE transformation embeds intelligence across the lifecycle, strengthening upstream quality, accelerating end-to-end validation, and continuously learning from production.

Context-aware AI agents

Built on QE knowledge base spanning historical user stories, defects, test cases, execution data and engineering telemetry.

Cognitive test design

Translates user stories into comprehensive positive, negative and edge-case scenarios and test cases at speed.

Autonomous test automation

Generates, executes and self-heals functional, API, UI and performance scripts to keep suites continuously current.

Intelligent test data management

Creates production-like data aligned to releases, preserving business rules and relationships for accurate validation.

AI-led automation modernization

Auto-converts legacy scripts to modern frameworks such as Cypress and Playwright while preserving logic and coverage.

AI-native QE roles

Quality Intelligence Specialists, AI Validation Engineers, Agentic Test Orchestrators to govern intelligent systems at scale.



Ready to transform your quality engineering?

Whether you are scaling AI pilots, modernizing test automation, or validating AI-driven systems, Apexon can help you engineer autonomous quality at enterprise scale.

[Schedule a QE assessment](#)

apexon.com
info@apexon.com

