



2026 Quality Transformation Report

Operationalizing quality
and trust in the era of
agentic software delivery



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Foreword

The past year has marked one of the most supercharged periods in the history of modern software development. Unlike anything before, AI acceleration has transformed every stage of the software development lifecycle (SDLC), fundamentally changing how organizations build, test, release and manage software.

As uncovered in Tricentis' second annual *Quality Transformation Report*, there is a growing tension at the heart of modern software delivery. Organizations are under mounting pressure to move faster in an AI world, yet many lack the operational trust, alignment, and oversight needed to scale software quality confidently, and at AI speed.

The **Tricentis 2026 Quality Transformation Report** endeavors to uncover what has changed since the inaugural report in 2025, as well as explore how modern organizations are using AI differently than they did a year ago.

This year's findings showcase persistent concerns about shipping untested code, the strains that AI is putting on software quality systems, an increasing challenge related to operational trust within organizations, and the growing importance of governance on agentic software delivery.



Executive summary

AI has reshaped how software is built, tested, and delivered. But while organizations have accelerated their software delivery through AI-assisted development and increasingly autonomous workflows, many quality systems, governance models, and operational processes are struggling to keep pace. And as a result, **60% of organizations are still shipping untested code due to top-down leadership pressure (32%) and having too much code to test (30%).** The costs of poor software quality continue to pose significant financial consequences for global organizations, with **one in five (20%) companies reporting annual losses of up to \$5 million.**

While 68% of organizations have implemented AI across some or all software delivery workflows, it's also

led to operational complexity as 53% say they are managing between six and 10 AI or automation tools.

A crucial trust gap between leadership and operational practitioners continues, with **nearly all (93%) C-level respondents feeling confident that their testing strategies address the most critical risk areas, whereas nearly one-third (30%) of Quality Assurance (QA) and DevOps leaders are uncertain or explicitly unconfident in their testing strategies' effectiveness.** Further, **81% of CEOs** have high trust in the AI-driven systems, data, and automation tools that inform the organization's software delivery decisions, compared to just **56% of QA and DevOps professionals.**

Governance is becoming another critical aspect of the AI proliferation, with 82% of organizations feeling at least somewhat prepared to govern AI agents and autonomous software workflows, but **only 35% say they feel fully prepared** to manage those environments at scale.

Taken together, these findings reveal a lack of a shared understanding of operational readiness as development environments are becoming increasingly AI-driven. As risks like financial performance and customer trust become more visible and measurable, software quality is rapidly becoming a boardroom concern, akin to cybersecurity before it.



The state of software delivery in 2026

2026 saw unprecedented advances in AI, yet many organizations continue to struggle with how to embrace the speed of delivery that AI enables, without being to the detriment of software quality. A majority of global businesses (60%) admit they still regularly ship untested code into production, largely unchanged from the previous year (63%). **This is highest amongst those in Germany (68%), Ireland (66%), and Japan (66%), and lowest for those in the UK (49%).**

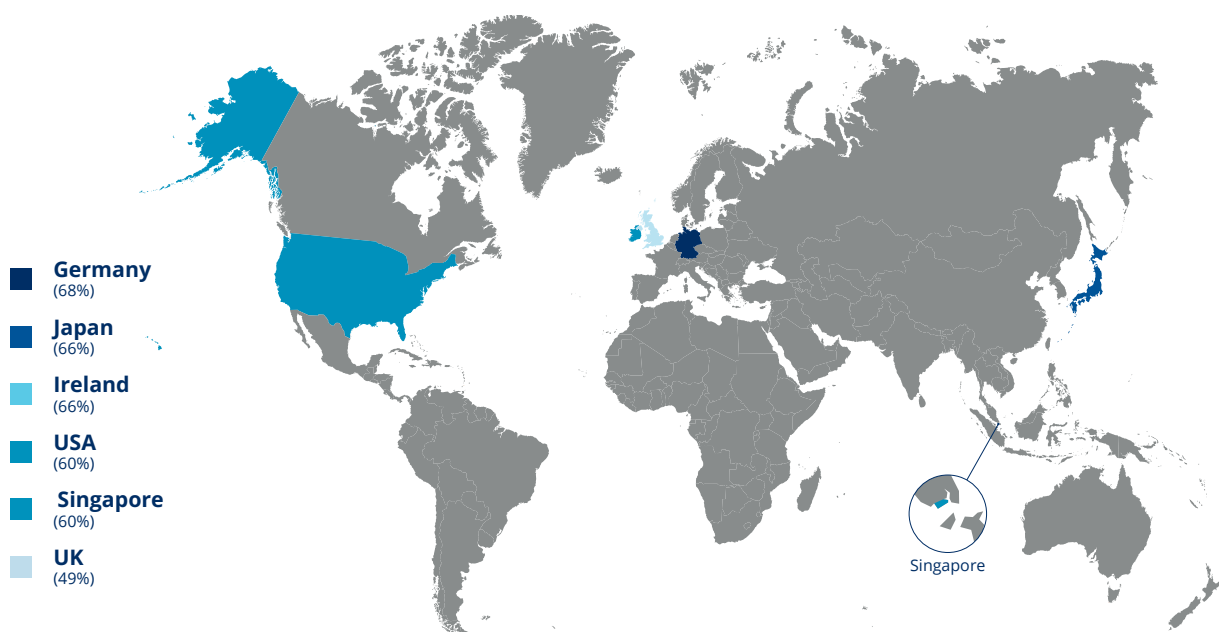
Notably, today's organizations are more upfront about allowing software quality to take a back seat. In 2025, respondents largely attributed these incidents to accidental quality slips (40%), whereas this year's respondents admit software development teams knowingly push untested code to

production due to top-down leadership pressure to accelerate delivery (32%) and having too much code to test (30%).

While in today's market the demand to move faster proves a business imperative in order to remain competitive, the uneven prioritization of software speed over software quality presents material business risks. Organizations cite security breaches and compliance failures (30%), technical debt and rework costs (28%), and loss of customer or partner trust (25%) as top business impacts as result of poor-quality software. From a financial perspective, one in five companies (20%) reported that poor software quality is costing them up to \$5 million annually.

Leading concerns vary across industries, with operationally intensive

Global businesses regularly shipping untested code into production

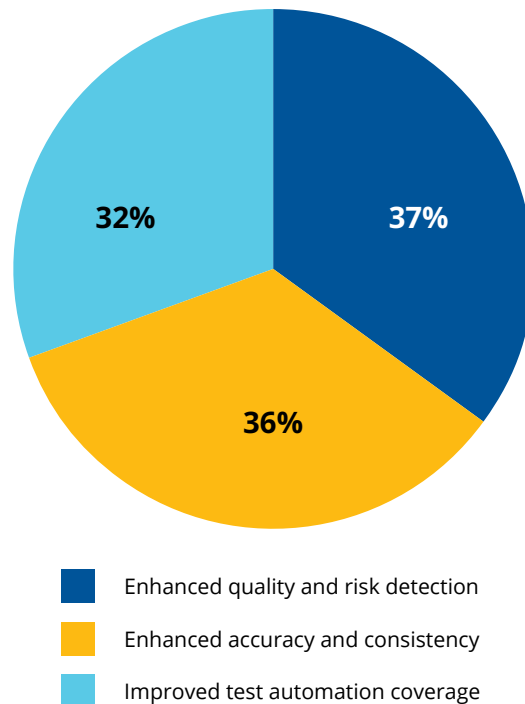


sectors like manufacturing most concerned about security breaches and compliance failures (34%), while more regulated industries, like the public sector, are most troubled by the loss of customer or partner trust (28%). It's critical to find the right balance between accelerating delivery speed and ensuring strong software quality to ensure innovation doesn't come at the cost of security and trust.

While AI proliferation has introduced its own set of difficulties, not dissimilar to any other major technological breakthrough, organizations are confident that AI also holds the key to tackling many core business challenges. More than one-third (36%) cite implementing AI agents within the software development lifecycle (SDLC) as a top IT priority for the year, with a reassuring majority of organizations (68%) having already implemented AI in some or all of their development and delivery workflows. As result of their AI implementations, early adopters are achieving exciting gains in enhanced quality and risk detection (37%), enhanced accuracy and consistency (36%), and improved test automation coverage (32%).

The promise of AI in software delivery is already becoming clear, but turning early gains into lasting business value will require organizations to modernize quality practices at the same pace as AI adoption.

Where AI has delivered the most value within internal software development and delivery





AI-scale delivery is straining traditional quality systems

As software delivery environments become increasingly AI-assisted and agentic, businesses are realizing that current quality systems are struggling to keep pace with the scale and complexity of modern software development. Many organizations report a lack of confidence in delivering both high-quality AI-generated code (21%) and non-AI generated code (33%) on deadline, highlighting a disconnect between how quickly software can be generated and how effectively outputs can be validated. Further, only 37% report they're very confident that their testing strategy addresses the most critical risks to software quality and business performance.

21%

of organizations reported a lack of confidence in delivering both high-quality AI-generated code on deadline.

37%

report they're very confident that their testing strategy addresses the most critical risks to software quality and business performance.

What was once a manageable testing and validation process is becoming significantly more fragmented as organizations attempt to balance growing code volumes, expanding

AI toolsets, and faster release expectations simultaneously.

Over half (53%) of organizations juggle between six to 10 separate AI or automation tools across the SDLC. One-third of organizations (33%) report this growing tool sprawl is creating operational complexity that impedes their ability to achieve continuous software quality at scale. Another 28% say code volume is scaling faster than software development teams can realistically manage, and 27% cite gaps in AI-related skills and expertise as a major barrier. This emphasizes how quickly operational environments are evolving relative to the teams and systems responsible for validating them.

A lack of clarity on what constitutes 'high-quality' software further exacerbates these issues. Nearly half of organizations (49%) admit that software developers and executives are only somewhat aligned on what 'good' software looks like, introducing the 'nearly right' phenomenon. This is reflected by organizations' responses to what's considered the most effective indicator of software quality, where the reported key indicator is widely split across different metrics, including customer trust and satisfaction (19%), production stability and outage reduction (16%), speed of development and release (13%), and mean time to resolve defects (11%).

To help organizations maintain governance, visibility and release confidence in AI-driven software environments, Tricentis introduced the world's first end-to-end enterprise agentic quality engineering platform.

Serving as the system of record and 'control tower' for agentic quality engineering, the Tricentis Agentic Quality Engineering Platform orchestrates intelligent AI agents across testing, automation, performance and quality intelligence, enabling enterprises to deliver rapid innovation while maintaining human oversight and operational control.

The cost of AI-scale development and delivery outpacing quality system modernization extends beyond just operational friction and internal misalignment. Almost half of organizations (45%) report losses of between \$500,000 and \$1 million USD annually as a result of poor software quality, including associated impacts such as inefficiencies from technical debt and increased maintenance costs. Furthermore, one in five organizations report hemorrhaging up to \$5 million USD annually due to poor software quality. A company's size and industry can also scale these costs significantly, with 40% of large enterprises (more than 1,000 employees) and nearly one-fourth of energy and utilities companies (24%) incurring costs between \$1 million and \$5 million USD annually.

The growing financial and operational impact of poor software quality proves scaling AI successfully requires more than new tools alone. It demands organizational alignment – from the boardroom down, shared quality standards, and trust across the entire SDLC.

Meet the Tricentis agents driving the new agentic SDLC

The Tricentis Agentic Quality Engineering Platform coordinates specialized AI agents to help organizations scale software delivery with greater governance and release confidence.

- **Tricentis Agentic Quality Intelligence:** continuously evaluate change, risk, and release readiness across the SDLC.
- **Tricentis Agentic Test Automation:** accelerate and optimize enterprise test execution.
- **Tricentis Agentic Performance Testing:** autonomously validate application performance and stability.
- **Tricentis Agentic Test Creation:** generate reusable test cases using natural language and shared context.

The real challenge is operational trust

A CEO's Message to the C-Suite:

"Realizing the full value of AI requires organizations to fundamentally rethink three key areas. First, the goal of software quality must be considered from the very beginning. Before even a single line of code is written, organizations need to rethink their approach to quality engineering and design a technology-driven, AI-enabled, and highly automated quality process built for today's speed and complexity. Second, attention must be focused on the teams actually driving the process. This often means evolving traditional operating models to reorder how work is executed and who owns each step. Finally, organizations must take a more structured and disciplined approach to managing risk. You don't need to test everything—just test what matters. Focus on understanding the changes, their impacts, and where risk truly lies."

Kevin Thompson
CEO, Tricentis

Many businesses tend to focus on tooling issues when operational standards and initiatives are not executed as expected. But the core of these challenges often sits closer to home.

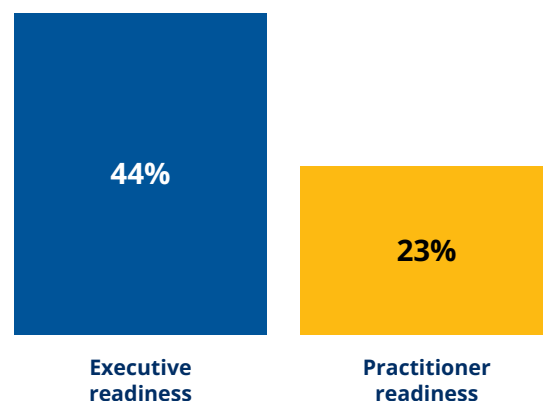
CEOs, CIOs, and CTOs largely believe (93%) their testing strategies address the most critical risks to software quality and business performance, but this level of optimism isn't shared across the business. QA and DevOps professionals responsible for managing day-to-day testing, validation, and release operations are significantly less confident (70%).

The same pattern appears when it comes to trust in AI and automation technologies.

Over four in five CEOs (81%) report having high trust in the AI-driven systems, data, and automation tools that inform the organization's software delivery decisions, compared to just 56% of QA and DevOps practitioners.

Further, while most (83%) organizations believe they can trust agentic AI to make release decisions, leadership is nearly twice more confident (44%) than practitioners (23%) that their business is very prepared to actually operationalize, govern, and scale these agents.

Executive vs practitioner readiness and confidence gaps



This implies that where leadership is likely to evaluate strategic transformations through the lens of innovation and progress, practitioners are more likely to see operational friction.

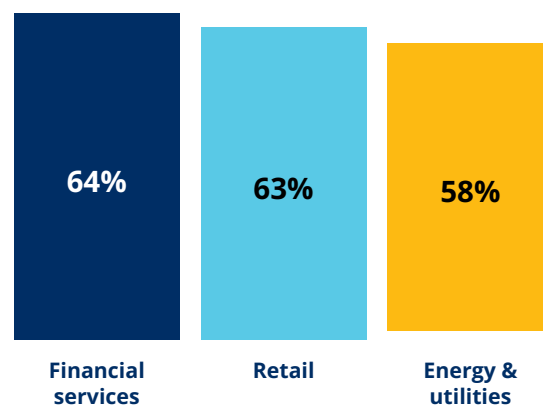
Internal misalignment on operational readiness and trust is one thing, but lacking awareness of said alignment gap is far riskier. Almost half of C-level leaders (42%) believe software developers and executives are fully aligned on code quality and delivery readiness, but just 22% of QA and DevOps leaders share the same sentiment.

As AI agents and autonomous workflows become more deeply integrated across software delivery environments, this gap increasingly matters. Internal alignment around testing readiness, validation standards, and operational trust is becoming just as important as the technology itself.

The findings uncovered that no industry is immune to the pressures to move faster, with over 50% of companies across all major industries surveyed reporting to shipping untested code to production. Financial services shipped the most untested code (64%), followed by retail (63%) and energy & utilities (58%). This suggests that executives and technology leaders across all sectors are tackling the persistent challenge of speed v. quality.

With the current pace of AI acceleration, maintaining operational trust and continuous quality may become especially challenging for organizations operating between startup agility and enterprise complexity as well as seeking new solutions partners to achieve both.

Industries reporting to ship untested code into production



Governing agentic software delivery at scale

The rapid proliferation of AI agents and autonomous actions make governance and oversight increasingly business critical. Organizations are continuing to prioritize AI agent implementation across the SDLC, with most (36%) reporting it as a top IT priority for the year. However, as adoption increases, trust in AI agents making release-impacting decisions has declined year-over-year, dropping from 48% high confidence in 2025 to 34% in 2026.

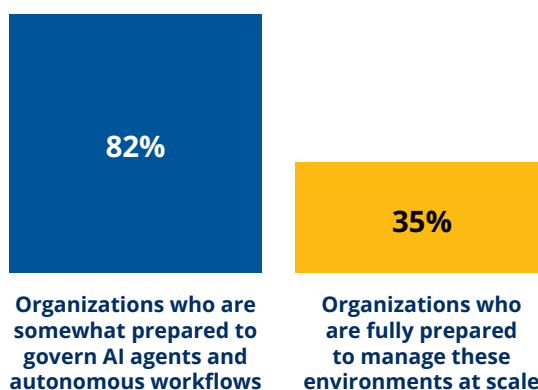
“Autonomous agents are about to flood the software stack. More code, more tests, more surface area – and the bottleneck won’t be capacity, it’ll be trust. The teams that win are the ones that figure out governance for autonomous systems before they need to.”

Dave Colwell
VP of AI, Tricentis

The findings suggest organizations are becoming more measured in how they scrutinize AI agent accuracy and trustworthiness, after agentic AI has moved from theoretical and rudimentary-level deployments to operationalized usage in real workflows.

That growing caution is reflected in governance preparedness. While

AI agent implementation as an IT priority paired against the dropping trust in AI-agent release decisions and lacking governance preparedness



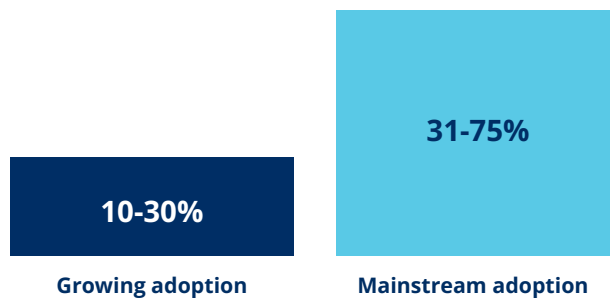
82% of organizations say they feel at least somewhat prepared to govern AI agents and autonomous software workflows, only 35% say they feel fully prepared to manage those environments at scale. This is reflected in organizations' biggest blockers to AI readiness, where 27% point to security concerns and another 22% cite regulatory and compliance requirements as the top challenges.

Fortunately, there's time to turn things around. Nearly half (48%) of today's organizations are still in the early phases of offering AI-enabled features in their external facing products. One in five organizations (20%) currently have just a simple AI search or customer service chatbot as their sole available AI feature, 16% are still

piloting AI features with a limited group of customers, and 12% remain stuck in internal research or proof-of-concept phases.

For those who do have AI features available to their customers, a majority (82%) are seeing growing (10-30%) adoption or mainstream (31-75%) adoption. However, just one in 10 (11%) have experienced fundamental (over 75%) adoption, leaving significant room for further customer adoption.

AI adoption rate among organizations who have AI features available for customers



To achieve ubiquitous internal and customer AI adoption, it's essential organizations situate governance, control, and trust at the center of all systems, procedures, and products.



Conclusion

Organizations have made significant progress implementing AI across software development and testing environments over the last year, but a few key challenges remain. Quality systems, governance models, and operational processes continue to struggle to keep pace with modern software delivery, presenting undeniable operational and financial risk.

As AI-generated code volumes rise, software delivery pipelines become more fragmented, and AI agents take on broader operational responsibilities, quality can no longer operate as a separate checkpoint layered onto software delivery after the fact. It must become continuously embedded throughout the lifecycle itself.

Simply put, AI-driven development requires AI-powered quality.

C-level executives and technology leaders across industries and geographies need to approach this AI-powered software revolution with a strategic, aligned and risk-conscious mindset from the board-level down.

The next phase of AI-powered quality transformation will be defined by how effectively organizations operationalize continuous quality, governance, and oversight alongside AI acceleration to achieve the greatest time to value. Organizations making the strongest progress are moving beyond reactive quality models and toward more adaptive, orchestrated approaches capable of validating software continuously across rapidly evolving delivery environments.

The Tricentis AI Workspace brings together specialized AI agents and a centralized orchestration layer to operate quality as a continuous system. Functional testing, test management, quality intelligence, and performance validation no longer operate in silos. Instead, they work together through connected workflows designed to continuously adapt to change across the SDLC.

That shift also represents a major opportunity. Organizations that successfully align software velocity with operational trust will be better positioned to innovate confidently, scale AI-assisted and increasingly agentic delivery environments responsibly and maintain resilience as software ecosystems continue evolving. The organizations best prepared for the future will not simply be the ones moving fastest with AI. They will be the ones capable of maintaining quality, governance, and release confidence at AI speed.

Survey methodology and participant demographics

Tricentis conducted the Quality Transformation Report with Censuswide via a global survey fielded in April 2026, with 2,501 respondents from US, UK, Ireland, Germany, Japan, and Singapore. Respondents included senior IT decision-makers (CIOs, CTOs, VPs of Engineering), investors, and QA/DevOps professionals from organizations with 150+ employees across Manufacturing, Energy & Utilities, Retail, Financial Services, and the Public Sector.

