

The Gap Between AI Hype & Test Automation Reality

A closer look at the issues that impact quality at-scale
across critical applications

Introduction

The promise of AI across the software development lifecycle is clear. Enterprises expect it to improve speed, reduce effort, and support better decisions at-scale. Leapwork and SD Times recently surveyed 302 QA professionals and results show strong belief in AI's role in testing, alongside growing attention to how accuracy and trust factor into everyday use.

Testing brings this dynamic into focus. Quality failures carry real risk, and confidence in results matters as much as speed. This report examines how enterprises view AI in the context of testing and how those expectations align with the current state of automation.

Based on survey responses, the data highlights common patterns across teams. It shows strong intent to use AI, uneven application across testing activities, and persistent automation constraints that shape how confidently teams apply AI in practice today.

Key findings include:

Software development teams want AI

Survey responses show broad interest in AI for testing and strong expectations for its impact.

- 88% of respondents said AI is a priority for their organization's future testing strategy, with 46% rating it as critical or high priority.
- 66% said faster and easier test creation is where AI would provide the most value, followed by broader coverage across critical systems at 38% and earlier defect detection at 36%.
- 65% said they currently use or explore AI across one or more testing activities, though usage varies widely across teams.

Test fragility limits confidence in AI for testing

Survey data shows that confidence in AI for testing closely tracks the stability and effort required to maintain automation.

- 54% cited concerns about accuracy and quality as factors that hold back broader use of AI in testing.
- When asked what prevents teams from automating more testing today, "tests break too often" ranked first, followed by difficulty automating flows across systems and the time required to update tests. Skills shortages ranked last.

- 71% said test creation slowed their teams down the most, followed by test maintenance at 56%.
- 45% reported that test updates take three or more days after a change in a critical system.

Together, these results show that while interest in AI remains strong, confidence depends on accuracy, reliability, and the ability to keep tests current as systems change.

The Path to AI Runs Through Strong, Stable Automation

Survey responses point to broad confidence in the long-term value of AI, alongside recognition that automation maturity shapes what teams can apply today.

- 54% cited lack of time as a barrier to adopting or improving test automation.
- Only 12.6% said they use AI across key testing activities today, despite widespread exploration and pilot use.
- 80% said AI will have a positive impact on testing over the next two years.

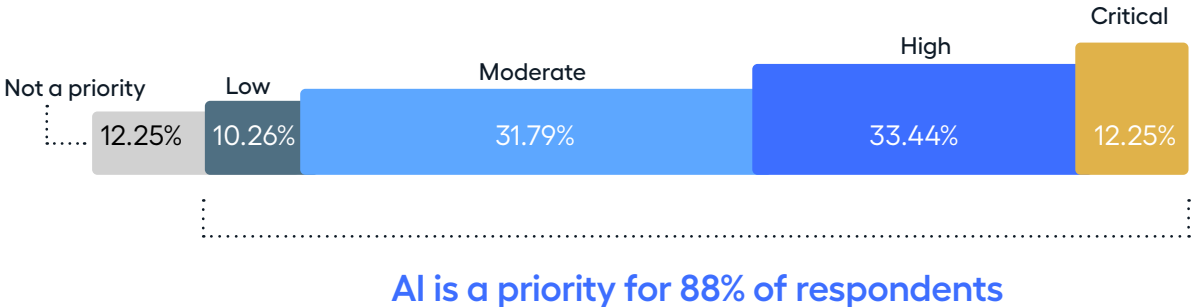
Taken together, these findings highlight a gap between AI expectations and current testing practices. Interest and optimism remain high, while manual effort, test fragility, and update speed continue to define how AI takes shape in testing environments today.

Report methodology

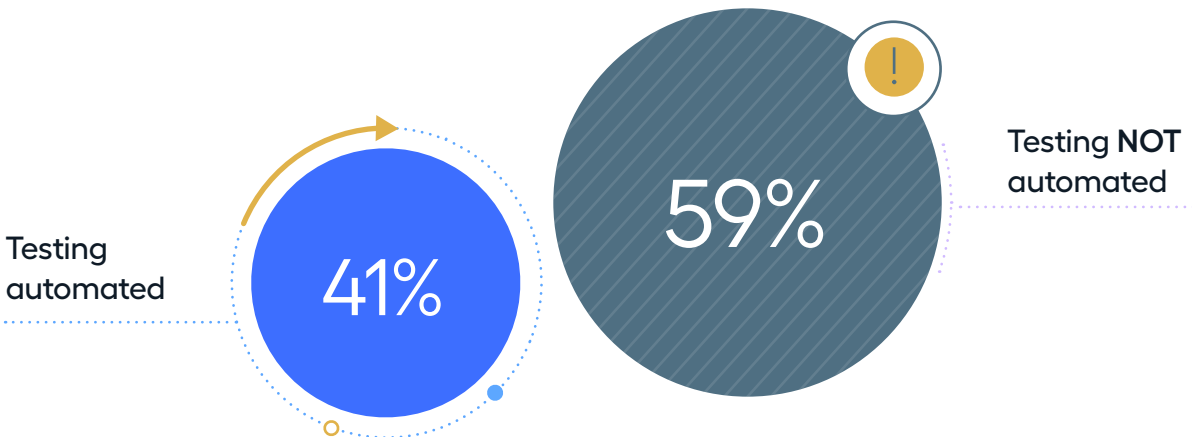
SD Times sent the survey to randomized subscribers from December 22, 2025 to January 23, 2026. 302 Respondents filled out the survey in full. The results are captured here in the dataset.

Key findings

Q1 | How important is AI to your organization's future testing strategy?

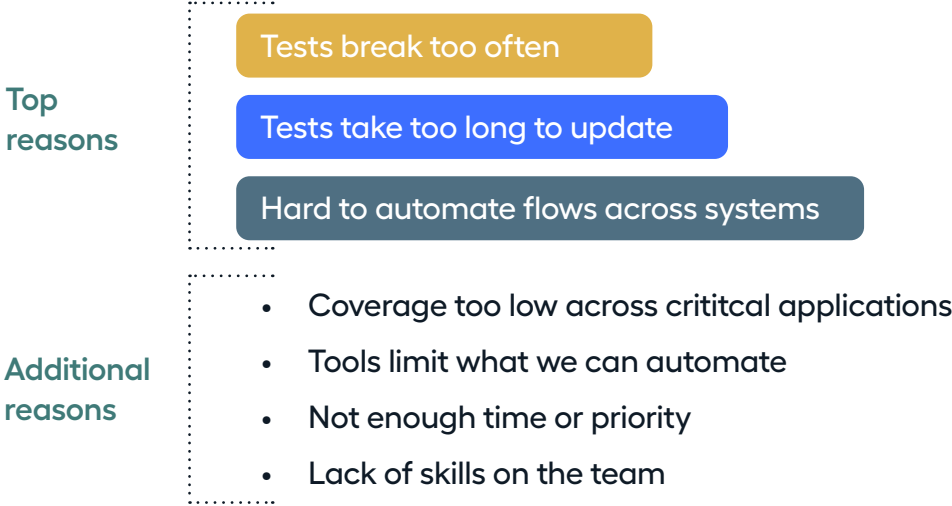


Q2 | How much of your testing today is automated?

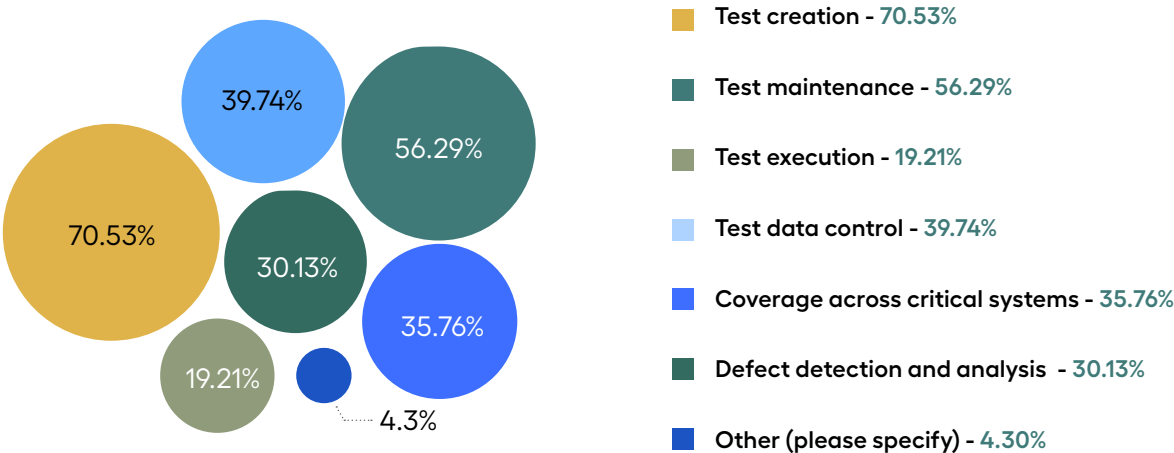


Key findings

Q3 | What prevents you from automating more of your testing today?
(The results are on a sliding scale)

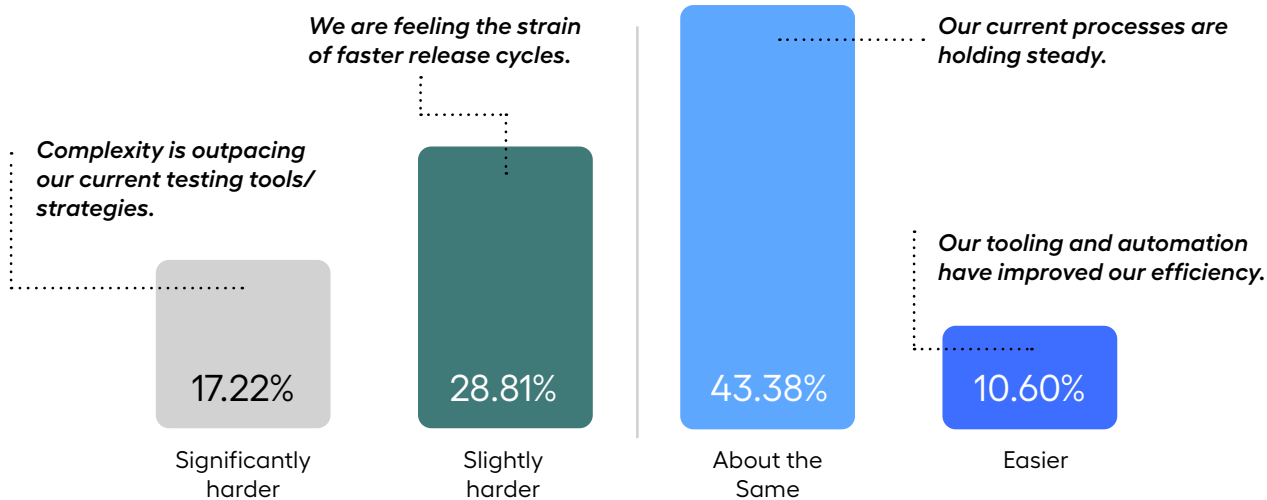


Q4 | Which parts of your testing process slow your team down the most?
(Participants selected all that apply)

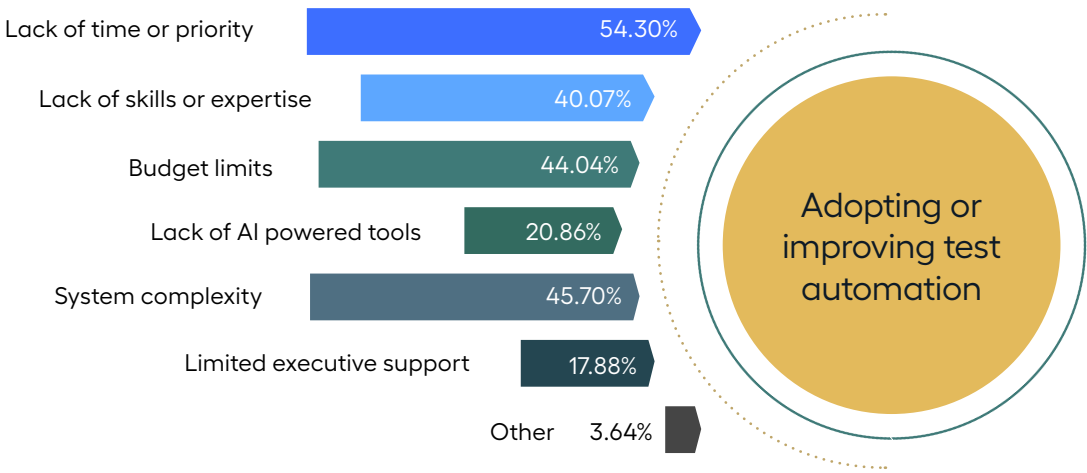


Key findings

Q5 | Has the effort to maintain the quality of applications become more difficult over the last 12 months?



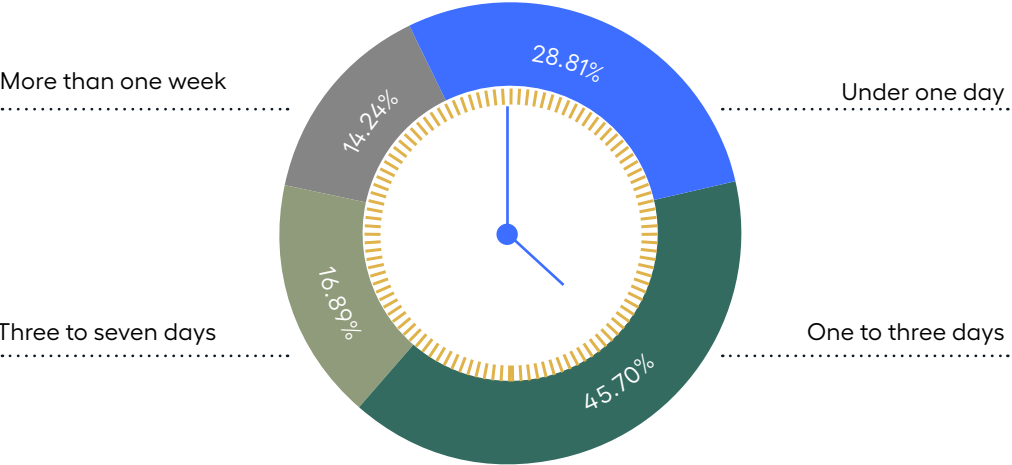
Q6 | What are the biggest barriers that prevent your organization from adopting or improving test automation today? (Participants selected multiple that applies)



Key findings

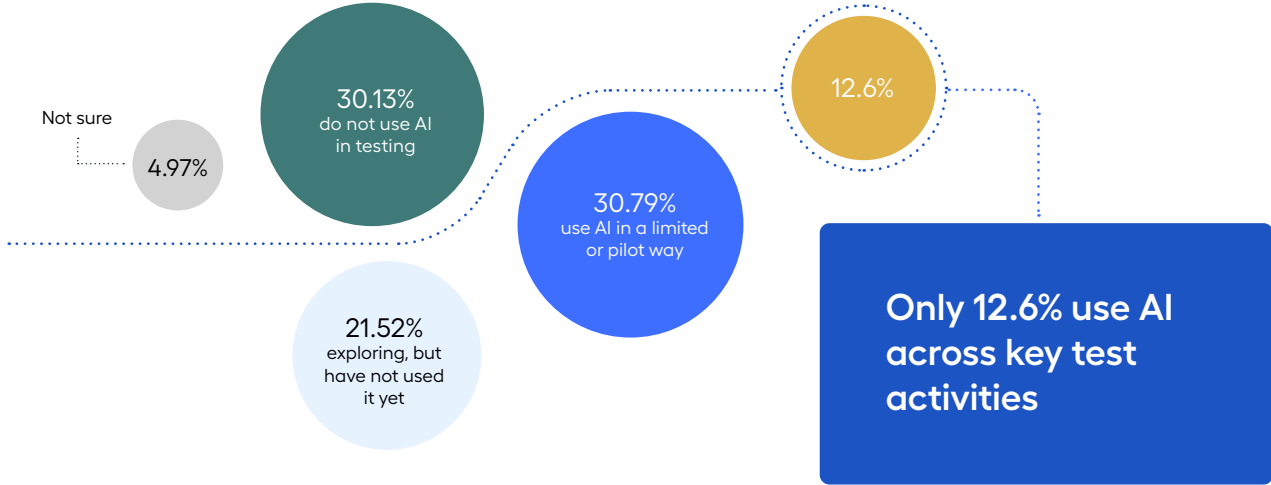
Q7 |

How long does it take your team to update tests after a change in a critical system?



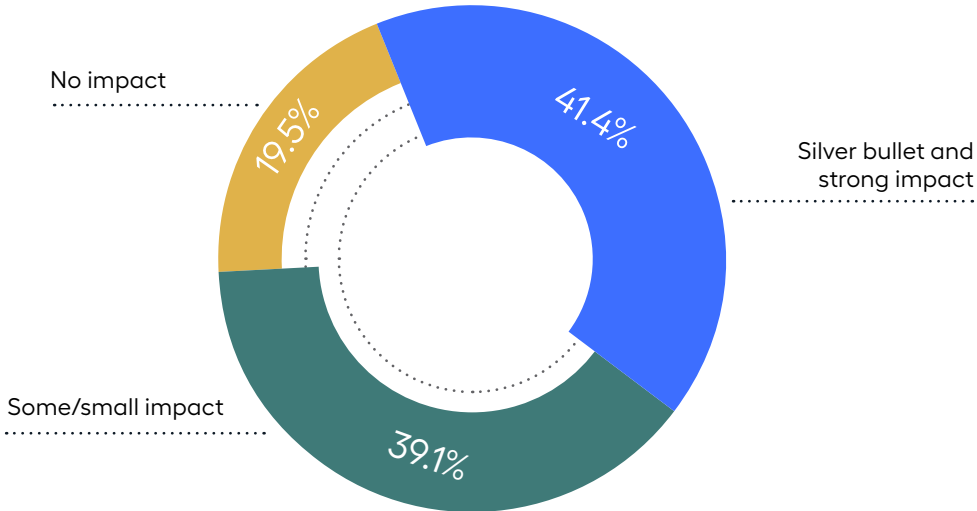
Q8 |

Which of the following best describes your current use of AI in testing today?
(Participants selected all that apply)

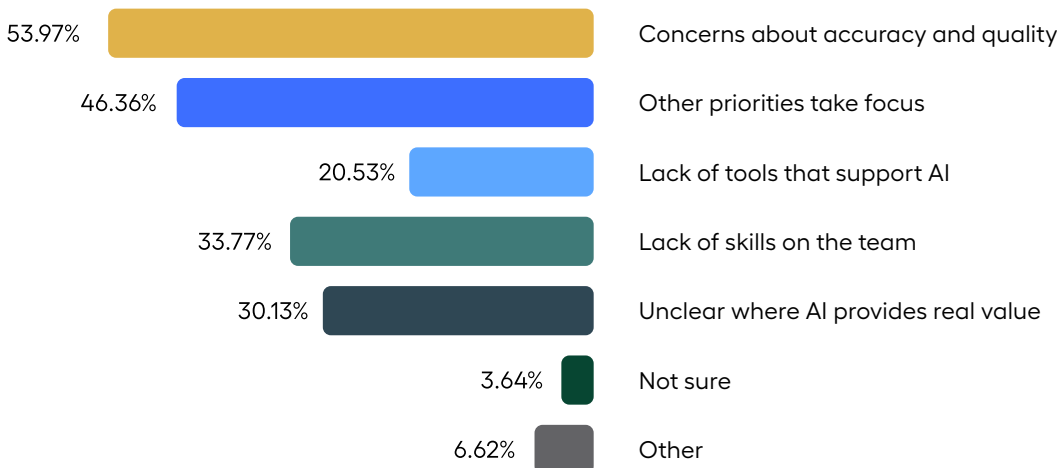


Key findings

Q9 | How confident are you that AI will have a positive impact on testing in the next two years?

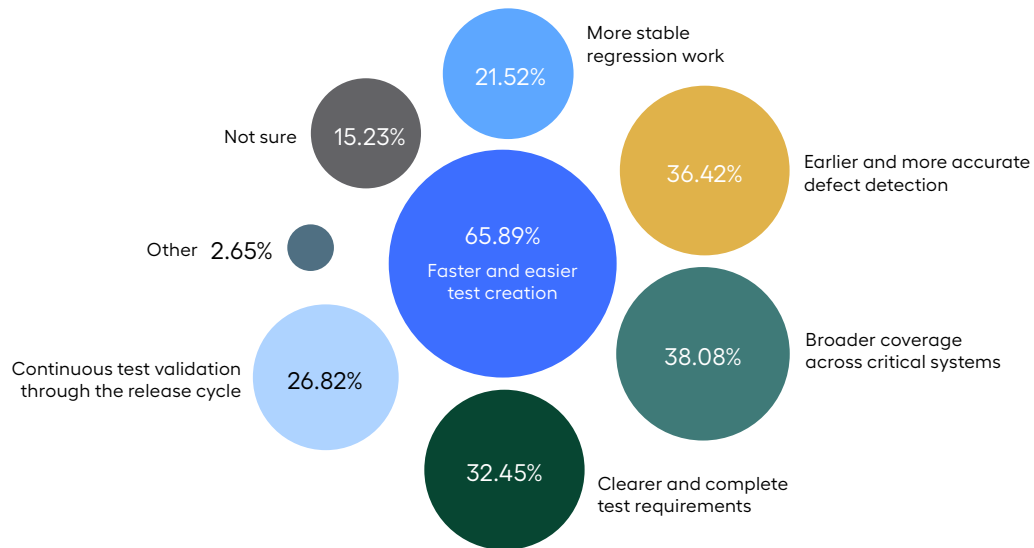


Q10 | What holds back broader use of AI in your testing efforts today? *(Participants selected all that apply)*



Key findings

Q11 | In which area would AI provide the most value for your testing efforts?
(Participants selected all that apply)



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Book a demo today and discover how Leapwork can drive end-to-end quality QA in your business.