

Automated Software Testing Adoption and Trends



Automated software testing reduces human error and speeds up efficient delivery, but how integrated is it in modern software engineering organizations, and which trends stand to impact it? Find out.

One-Minute Insights:



Respondents commonly automate API testing and use automated testing continuously throughout the development cycle



Many respondents' organizations chose to automate testing to improve product quality and increase deployment speed



Respondents report higher test accuracy after automating testing, but some struggle with implementation



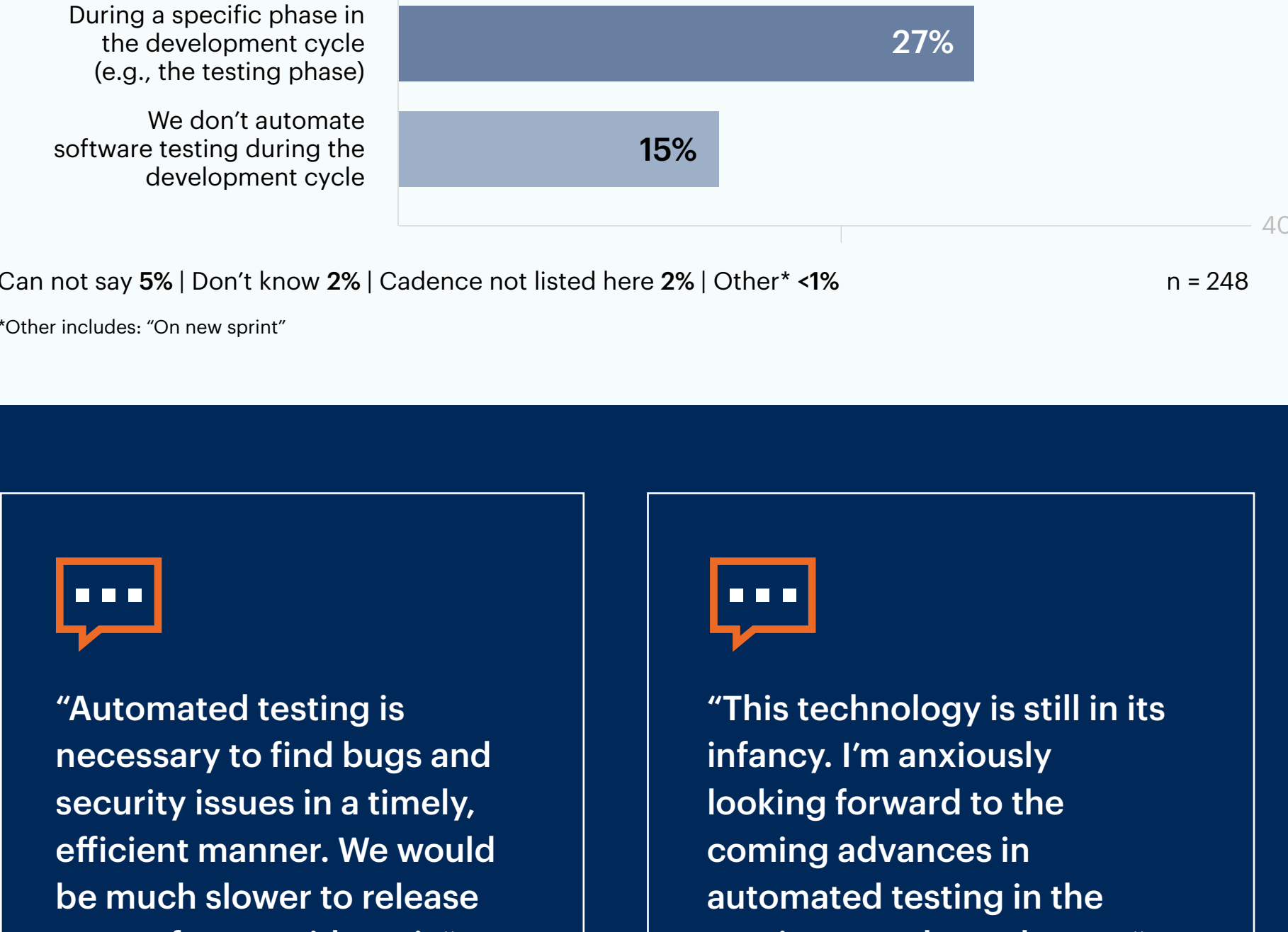
Tech leaders predict generative AI will impact the future of automated testing and that we will see a change in QA headcount and daily responsibilities

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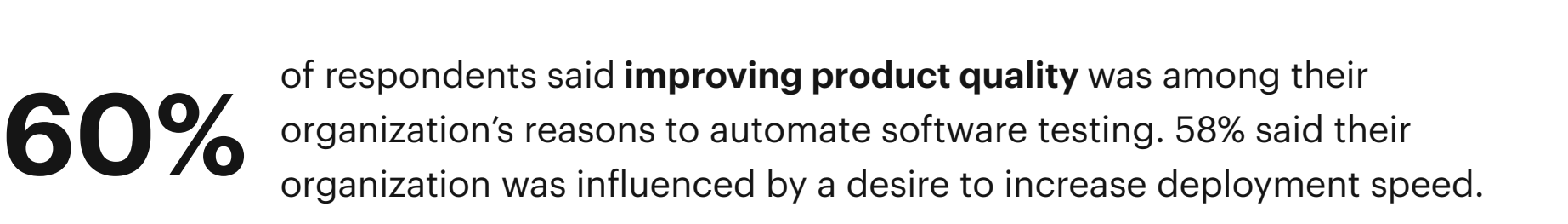
Data collection: May 27 - June 27, 2023

Respondents: 248 IT and software engineering leaders involved in managing and/or making decisions related to their organization's automated software testing

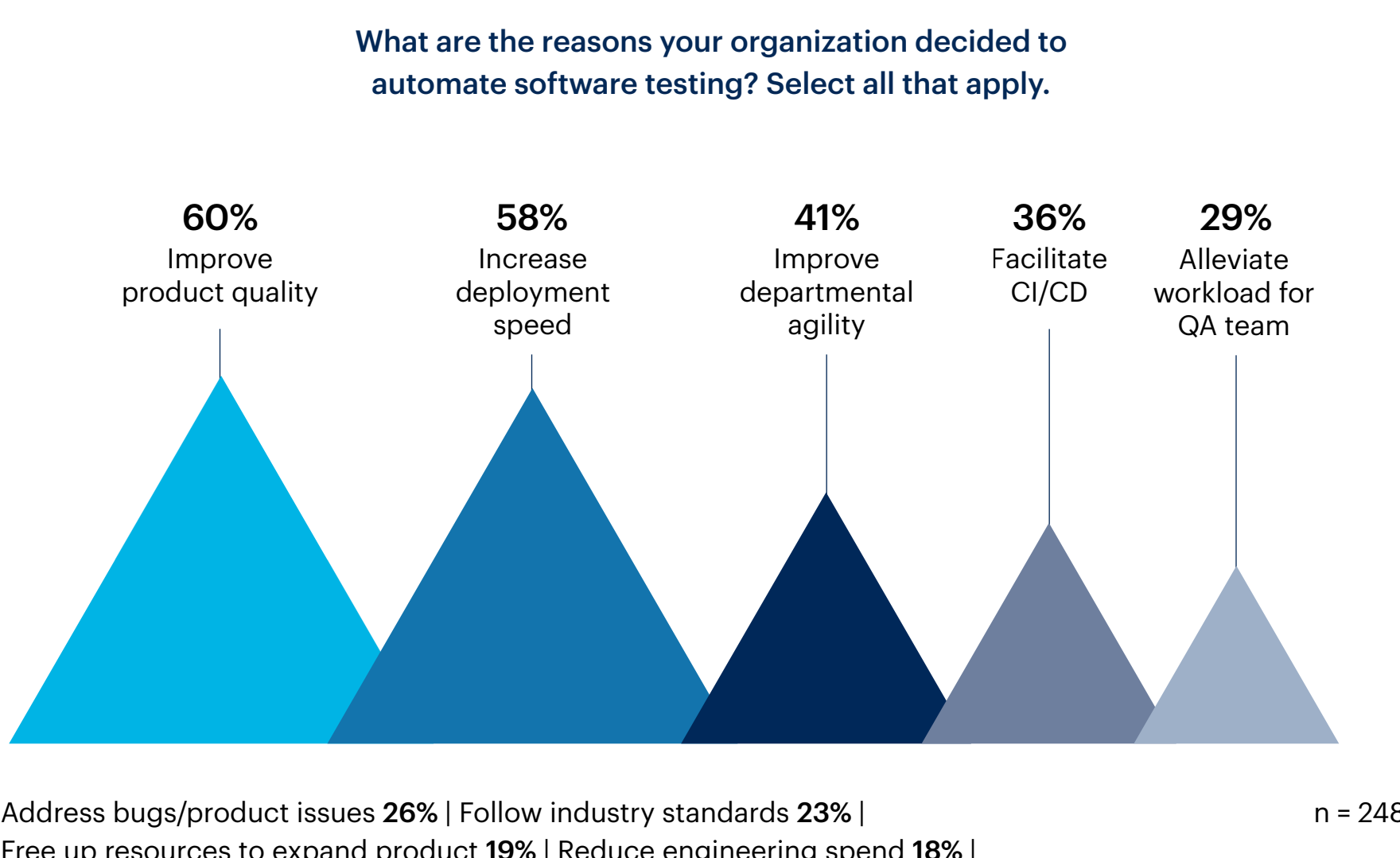
A range of automated software testing types and cadences are in place



40% of respondents **automate software testing continuously** during their development cycle. Other common timing options included at set milestones (38%), like prior to a commit, and at set intervals (32%), such as a specific number of days.



*Other includes: "On new sprint"

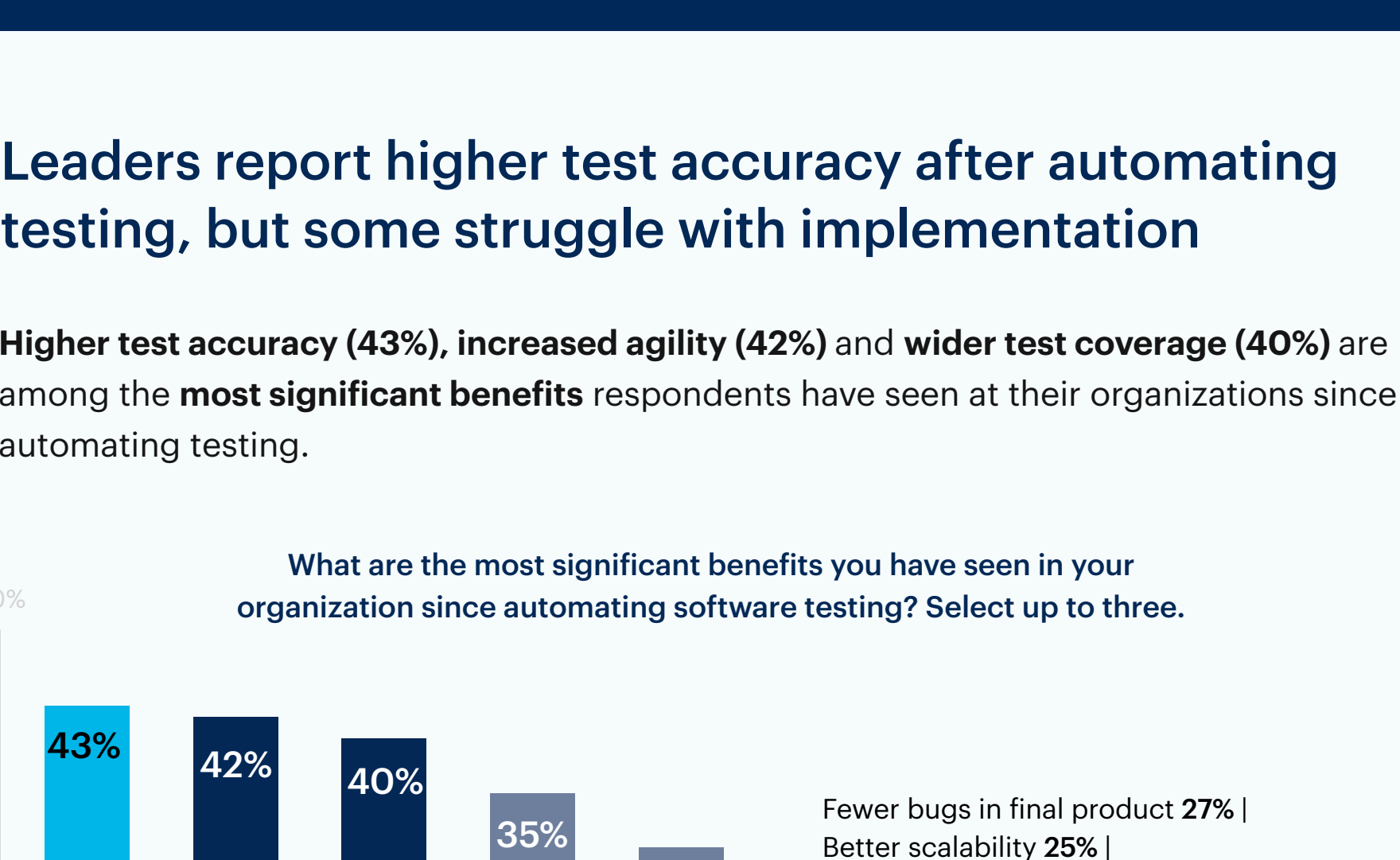


Question: What are your final thoughts on automated software testing?

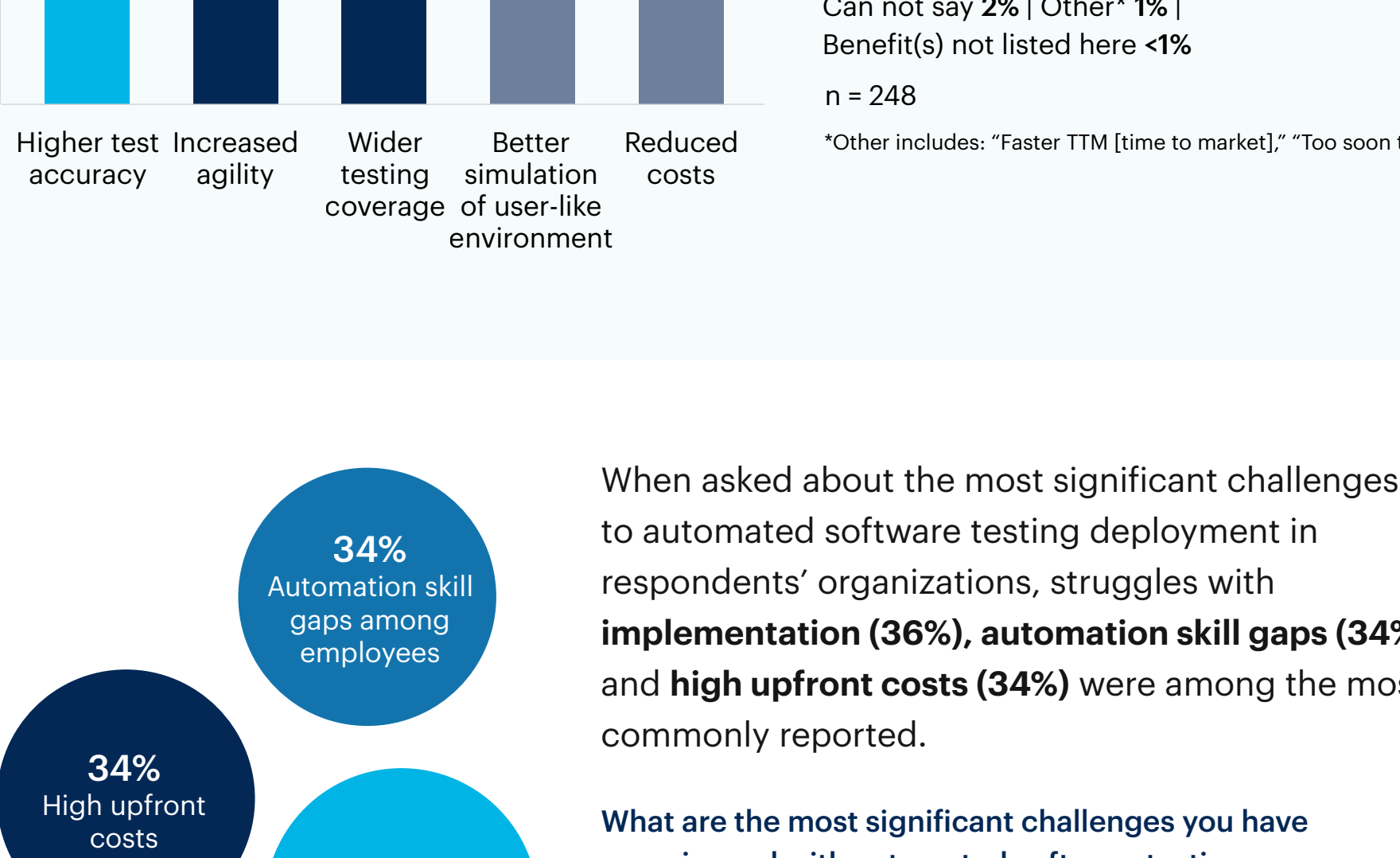
Organizations automate software testing to improve product quality and increase deployment speed

60% of respondents said **improving product quality** was among their organization's reasons to automate software testing. 58% said their organization was influenced by a desire to increase deployment speed.

Other common reasons for automating testing included improving departmental agility (41%), facilitating CI/CD (36%) and alleviating the QA team's workload (29%).



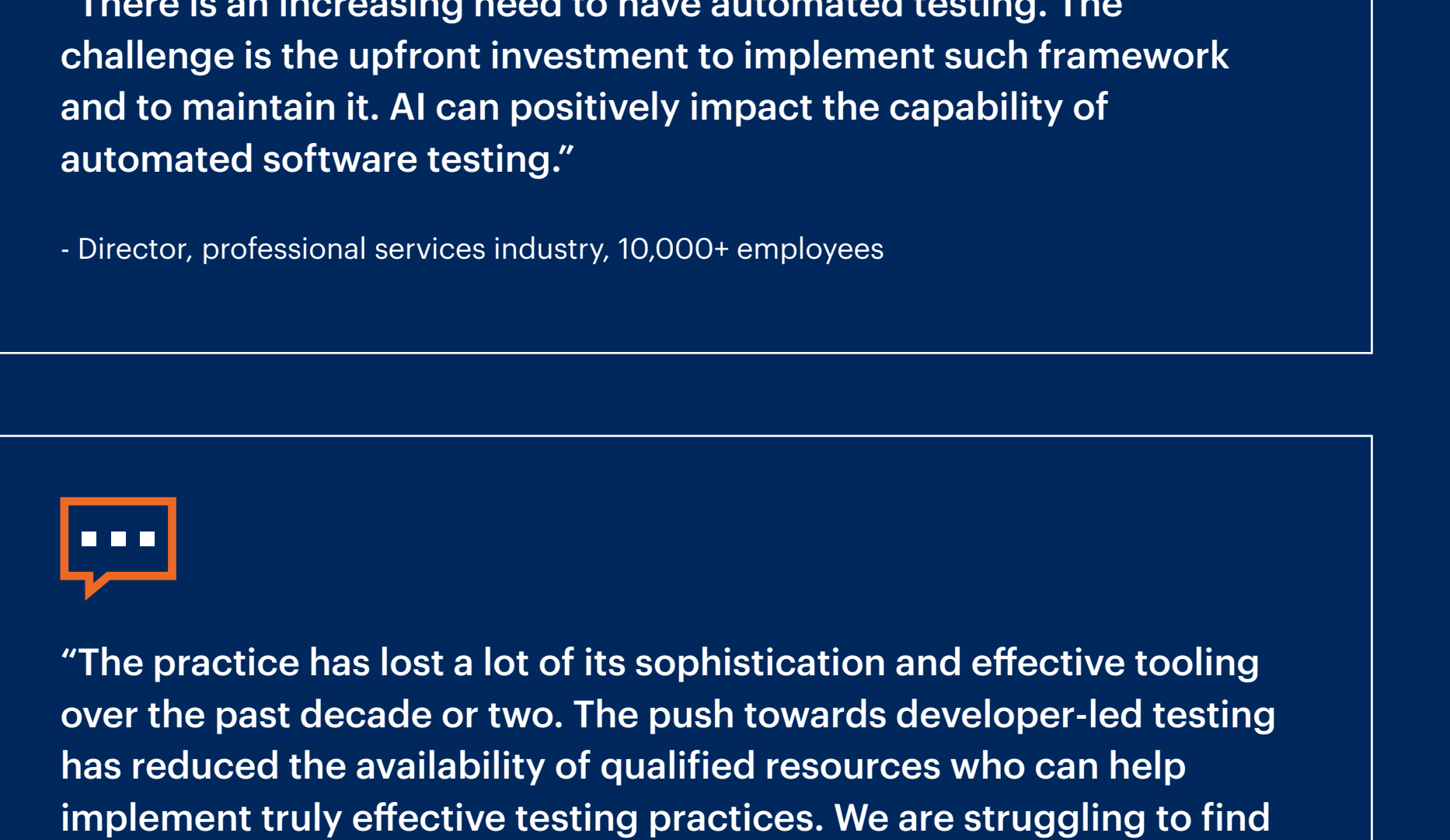
*Other includes: "Reduce human errors"



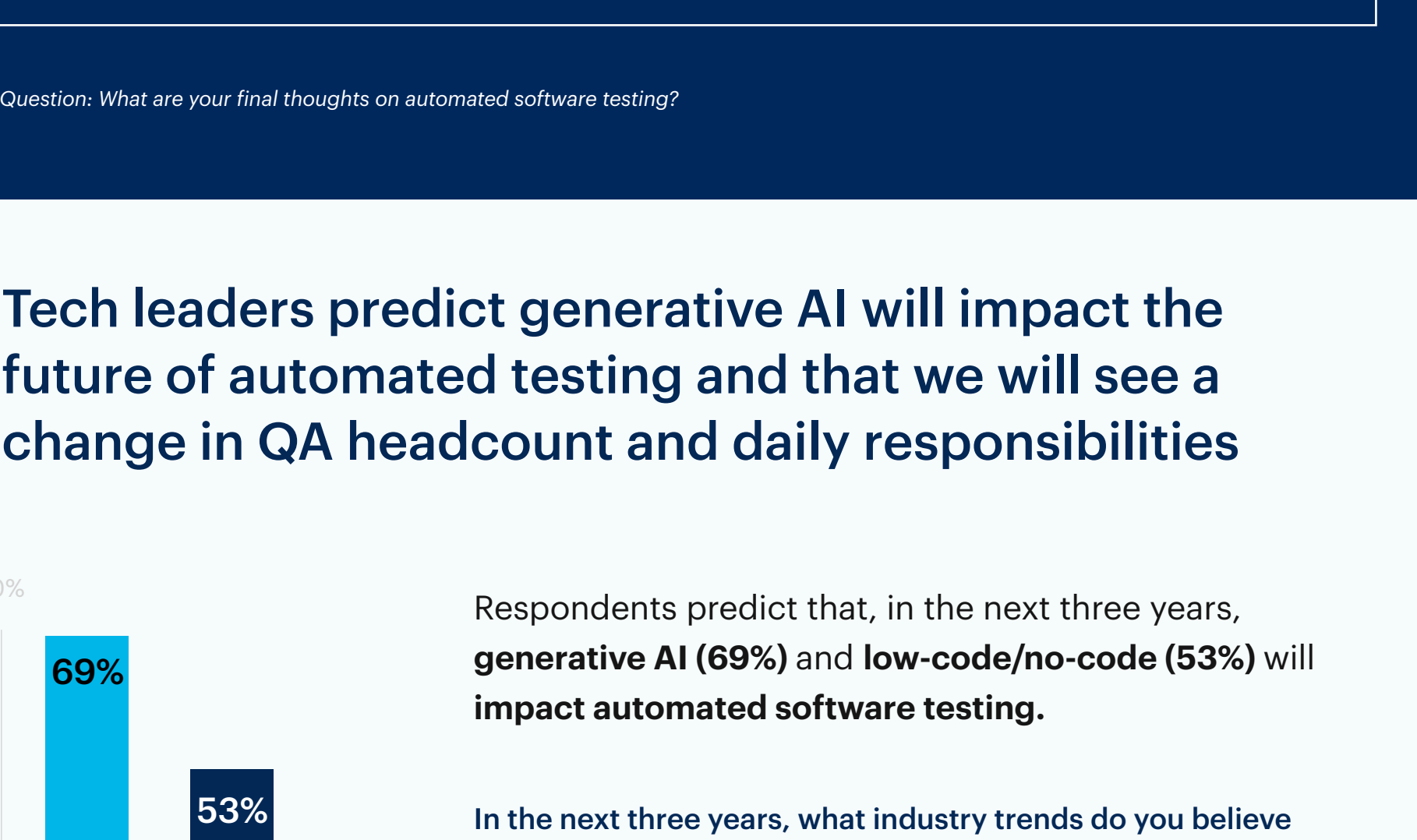
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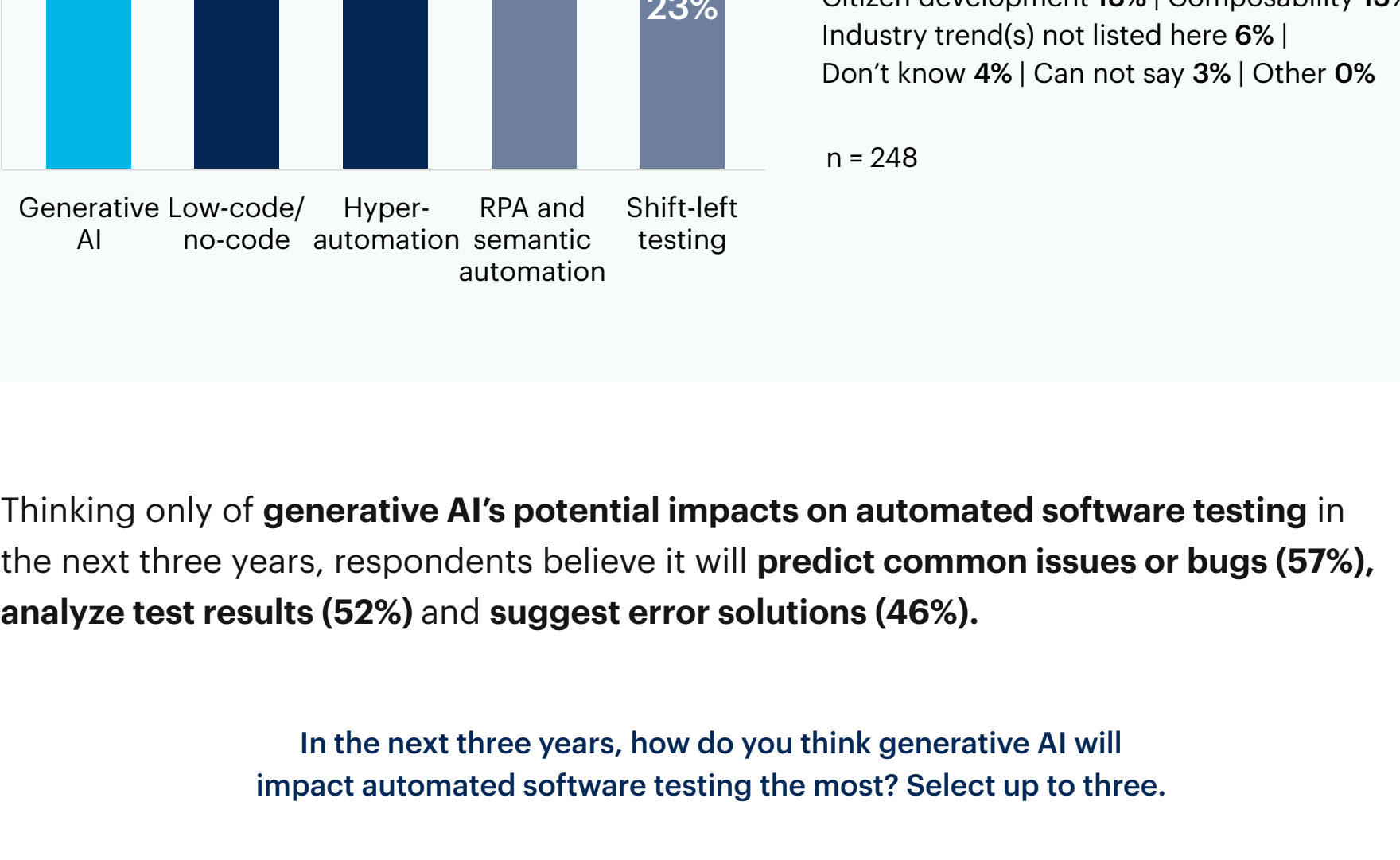
Higher test accuracy (43%), increased agility (42%) and wider test coverage (40%) are among the **most significant benefits** respondents have seen at their organizations since automating testing.



*Other includes: "Faster TTM [time to market]," "Too soon to say"



*Other includes: "Firewall or internal security preventing execution of automated script"

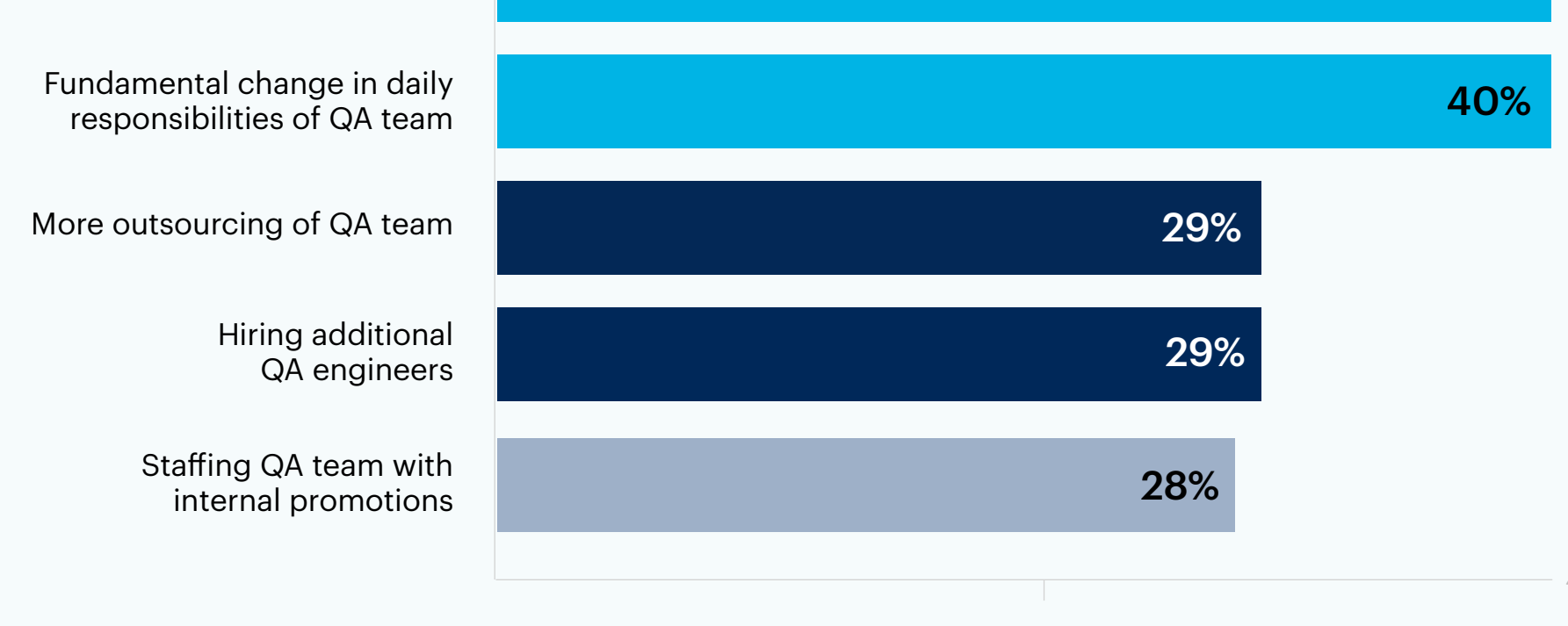


Question: What are your final thoughts on automated software testing?

Tech leaders predict generative AI will impact the future of automated testing and that we will see a change in QA headcount and daily responsibilities

Respondents predict that, in the next three years, **generative AI (69%) and low-code/no-code (53%)** will impact automated software testing.

In the next three years, what industry trends do you believe will impact automated software testing? Select all that apply.



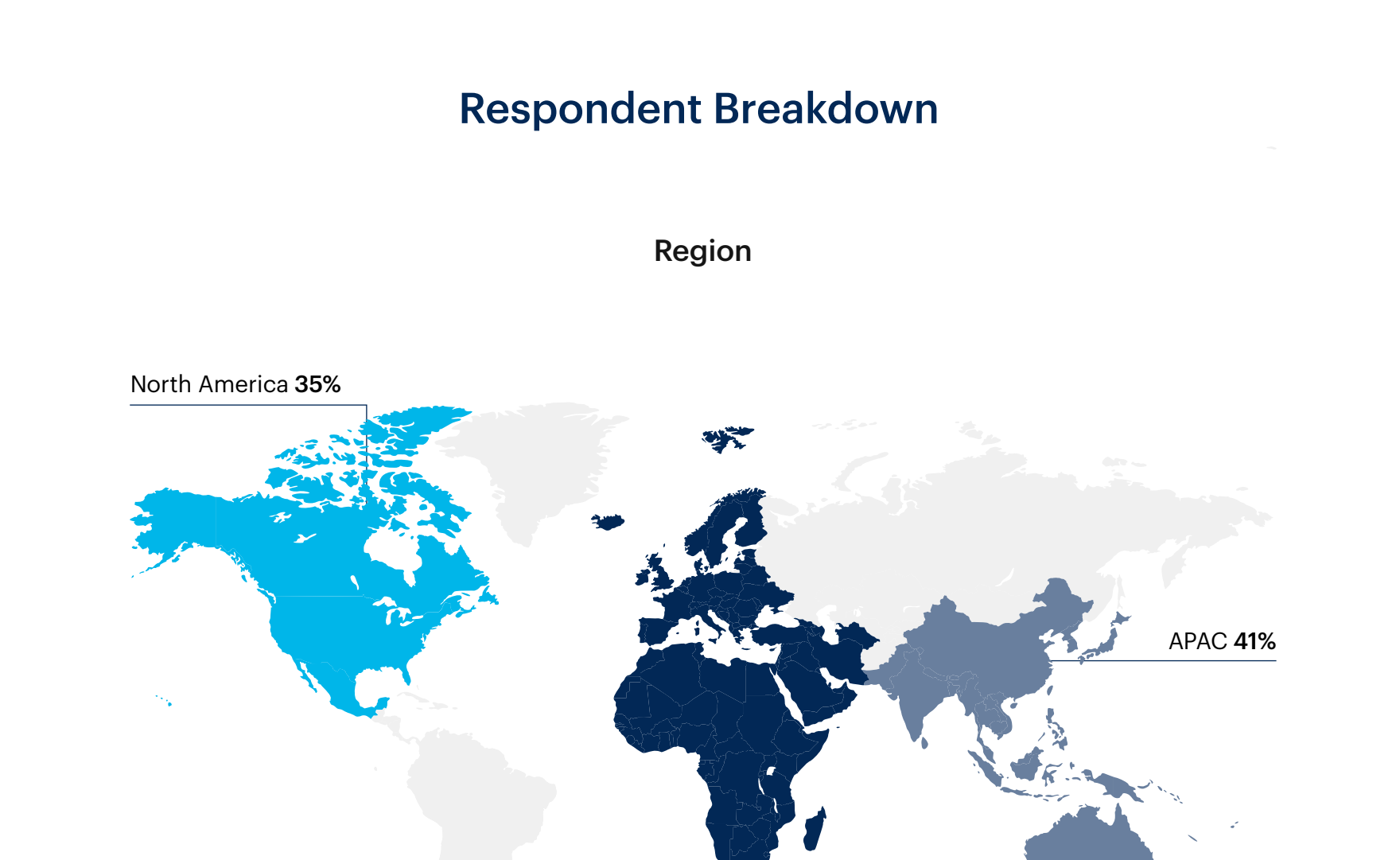
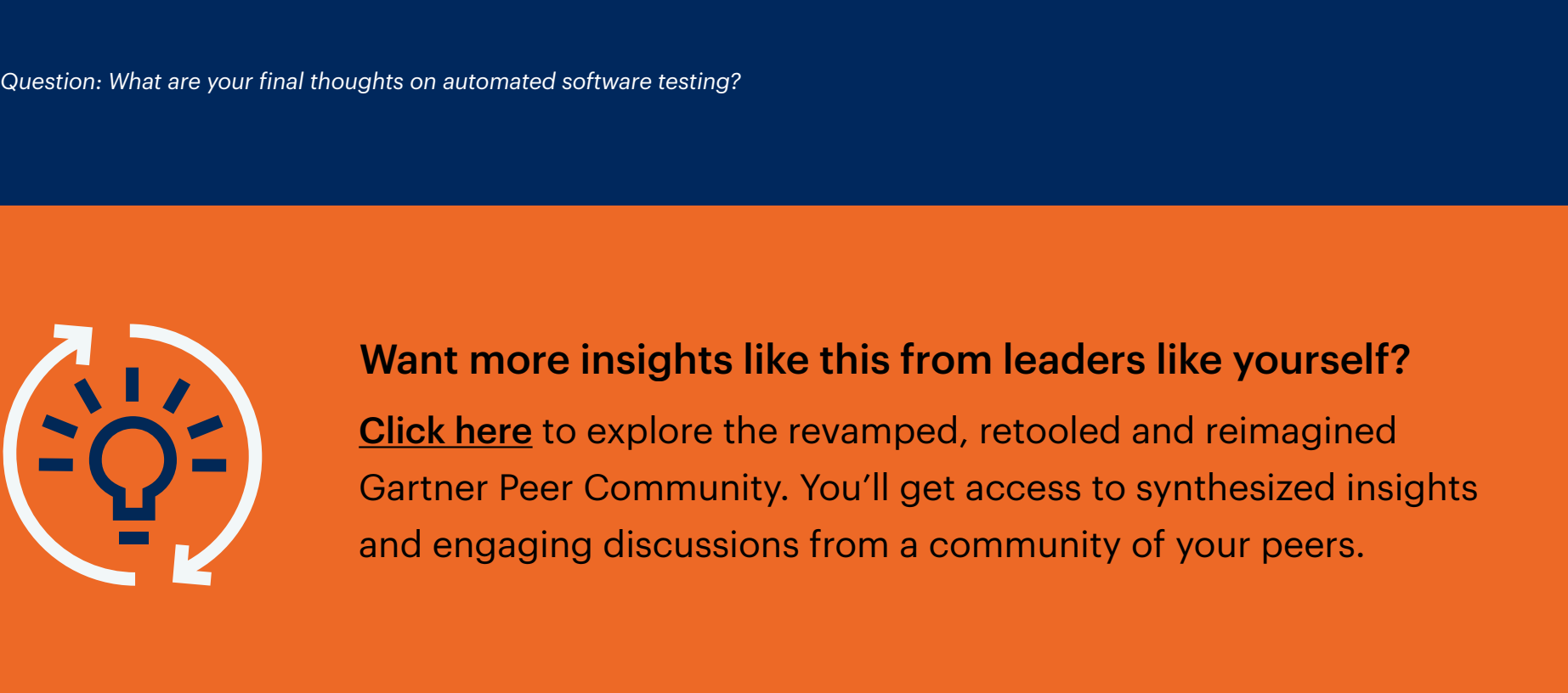
Thinking only of **generative AI's potential impacts on automated software testing** in the next three years, respondents believe it will **predict common issues or bugs (57%), analyze test results (52%) and suggest error solutions (46%)**.

In the next three years, how do you think generative AI will impact automated software testing the most? Select up to three.



Considering automated software testing's potential impact on the QA department or roles, respondents believe that, in the next three years, we will see a **reduction in QA headcount (40%)** and a **fundamental change to QA's daily responsibilities (40%)**.

In the next three years, how do you believe automated software testing will impact the QA department/roles? Select all that apply.



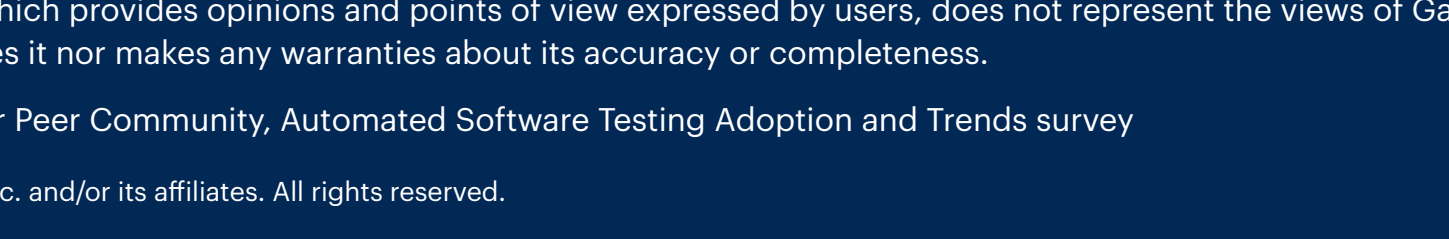
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Respondent Breakdown

Region



Job Level

Company Size

Note: May not add up to 100% due to rounding

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