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World Quality Report

United Kingdom

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Summary

■ Integration testing is important in the UK to ensure better mobile applications. Thirty-nine percent of respondents say that there is a lack of test data for complex integration testing.

■ Agile teams are driving more automation in the UK. Forty-eight percent of respondents say that test automation occurs in decentralized teams.

■ Virtualization is a growing trend in the UK. Nineteen percent of testing happens in containerized test environments, such as dockers.

The **WQR 2018-19** states that the United Kingdom (UK) QA and testing sector is a tight-run ship. Testing organizations are moving out of silos and into more decentralized and agile teams. Forty-one percent of respondents in the country say that test activities are performed by all team members, without a specific test professional. Further, 48% respondents say that test automation activities in the country are decentralized, hinting at the growing demand for automation from agile teams.

Changes are in store as digital transformation and agile has become an important trend. Agile teams are actively working in companies now and even driving the demand for new tools and virtualization. The question is, how well the companies can work with these tools and acquire the right skills?

Companies are in a rush to launch new applications and employ all the tools at their disposal. Seventeen percent of respondents in the country say that they test new application launches with real users and real devices. This number is lower than the global average of 23% and needs to increase to ensure better mobile applications.

Artificial intelligence (AI) and machine learning (ML) have yet to gather momentum in the UK. A few large financial organizations are employing ML tools, but most companies are still planning to implement them. Fifty-one percent of respondents say that they have AI tools planned for external processes, compared to the global average of 45%. Within AI, there is more demand for analytics and mathematical optimization, as suggested by 21% respondents.

Furthermore, the role of QA teams in the country is also expanding. Companies now expect QA teams to deliver the right QA strategy and add more value in terms of customer experience.

A systems approach is important

Companies in the UK are in a hurry to launch customer applications at a rapid pace. However, customers are unforgiving and move away from applications quickly if there are bugs. The situation can even take a serious turn in the case of banking apps.

Experts believe that a lack of integration testing affects the quality of applications rolled out. Twenty-nine percent of respondents in the UK say that the inability to test integrations at an early stage is a big challenge in developing applications. Further, 39% say that there is a lack of test data for complex integration testing across systems and organizations.

Companies strive for a better grasp on the interaction of the various components of their IT landscape. Ensuring a smooth and accurate flow of information between the back end and the front end of applications is more important than ever. Quality should not be compromised to achieve the desired speed of rolling out applications.

Time to step out of silos

Upgrade of skills is important to ensure robust integration testing. Presently, there is a demand for more business process testers to ensure integration of different components of the system. Twenty-eight percent of respondents agree that understanding of business processes is one of the most important skills to work in modern agile teams.

There is a need for multi-skilled testers who can fit well in agile and DevOps team. Testers should also fit into the shoes of a coder or a developer. Twenty-six percent of respondents say that software development engineer in test (SDET) skills are lacking in the country. This matches the global average. Clearly, the waterfall mindset, where testers work in silos, is fading fast.

However, currently only 7% of respondents say that they don't face any real difficulties with testing in Agile. Thirty-six percent feel that they lack professional test expertise in agile teams. Further, 47% say that they face difficulty in reusing and repeating tests across sprints. This is higher than the global average of 39%.

Automation tools: the problem of plenty

There is a need to consolidate a vast number of test automation stacks that companies are using right now. This need for optimization is driven both from a cost perspective and a maintainability perspective. Thirty-six percent of respondents say that too many automation tools are a challenge in achieving the desired level of test automation. This is higher than the global average of 29%.

More possibilities with virtualized environments

Companies are demanding more virtualized environments as there is a lack of upstream testing environments. Currently, 17% of testing occurs in virtualized test environments. However, 30% is still done in traditional permanent test environments. As a result, testing teams find it difficult to perform early system testing and developer testing.

Agile teams are pushing the demand for virtualized environments to ensure continuous integration. The challenge of testing applications in different environments is driving the need for more virtualized environments (and containerized solutions, such as dockers). Only 19% of the testing in the UK currently occurs in containerized test environments, such as dockers. Nevertheless, this is an encouraging trend.

The system needs a new metric

For companies, determining the budget spent on testing is now a tricky affair. Earlier, it was easier as a tester's time could be put in a testing budget. Now with DevOps teams, even people from product teams spend considerable time in user experience testing.

This is making it tougher for companies to isolate the exact amount spent on testing teams. An interesting development in the UK is that companies are looking for new metrics with more focus on value than cost. They are interested in knowing details, such as the time spent by scrum teams on creating user stories or testing defect leakage. We recommend that companies now focus on creating metrics that link to the various aspects of a DevOps team and report business benefits (such as speed to market) more than the cost savings.

It is evident that the testing and QA market in the UK is showing signs of maturity. However, it needs a clear direction and strategy. Consolidating the tools, defining a clear testing budget, and having an infrastructure for integration testing will help companies to iron out the edges in the process.

Companies still have a low appetite for artificial intelligence and other advanced tools. A few companies are using AI, but mostly for their business processes. But the use of AI tools for testing is still to gather momentum in the UK.

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