

CHINA

WORLD 20 QUALITY 13- REPORT 14

TOP TRENDS

- Chinese companies continue to invest in application quality: 22% of the total IT budget is being allocated to QA and Testing function – an increase from 20% last year.
- A large portion of the QA budget is still being spent on maintenance work – as opposed to new, transformational projects.
- Despite growing levels of organizational maturity, companies in China lag behind on the journey toward QA centralization and industrialization.

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China remains the world's fastest-growing major economy, and as part of this rapid advancement, Chinese companies continue to invest in application quality. The research for this year's *World Quality Report* found that as much as 22% of the total IT budget is being allocated to QA and Testing function – an increase from 20% last year. The sustained high levels of spending on quality are the result of growing consumer expectations and most companies' awareness of the importance of application quality and the cost savings that can be achieved by shifting QA activities to earlier in the lifecycle, and especially by making quality an integral part of the application delivery process. Executives interviewed for the research in China predict that investment in quality will continue to rise – perhaps to as much as a quarter of the overall IT budget by 2015.

A large portion of the QA budget, however, is being spent on maintenance work – as opposed to new, transformational projects. The IT leaders interviewed from China estimate that their companies spend an average of 66% of their QA resources maintaining existing applications – a sharp contrast with the global average of just 54%. Interestingly, over three-quarters (77%) of respondents said that legacy transformation projects are among their organization's top three IT priorities – along with cost optimization (77%) and business analytics (83%). However, the process of modernizing the IT landscape takes time and resources, and until companies can truly invest in mapping and optimizing their

applications, a large share of IT and QA resources will need to be spent on maintenance of a wide variety of applications across multiple platforms. The outlook on modernization is rather positive though, with Chinese IT leaders predicting that by 2015, the share of QA resources dedicated to maintenance work will fall back to 54%, freeing up people and budgets to focus on forward-facing transformational initiatives.

Despite growing levels of organizational maturity, and compared with the global average, companies in China are still somewhat behind on the journey toward QA centralization and industrialization. Only 18% of interviewed CIOs and IT directors from China report that their QA function is centralized as a single stream across the organization – compared to 26% worldwide average. As many as 42% of IT leaders state that they have no plans to create a standardized Testing Center of Excellence (TCOE) – again, a much greater proportion than the 26% worldwide average. The overwhelming majority (92%) of Chinese respondents cite lack of methods as the main barrier on the way to industrializing application testing, followed by lack of skilled resources (50%).

However, most companies seem to prefer to work through these issues in-house, rather than involve a third-party professional services vendor to bring both qualified staff and advanced methodologies and processes to improve the quality outcomes. Respondents state that 47% of their testing is performed using only in-house resources, with



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an additional 17% engaging partners solely on a temporary basis as an extension of their internal team. Only 12% of their testing takes place under a managed services engagement model where the partner manages and owns the testing delivery function and shares responsibility for application quality results. However, during the interviews, most IT leaders seemed aware of the benefits of a centralized approach to testing and would consider the move towards a TCOE or a managed services engagement. The transformation and change of mindset toward testing has already begun, and China is likely to catch up with the most advanced markets for industrialized testing in the next three to five years.

Chinese businesses are among those most interested in adopting cloud computing. Similar to the worldwide trend, this year's research shows a slight decline in the percentage of applications hosted in the Cloud – down from 25% in 2012 to 22% in 2013. However, China is still ahead of the global average of 20%. The percentage of testing performed in the Cloud is also significantly higher among Chinese companies. Research participants report that as much as 31% of all testing today occurs using cloud-based environments – compared to just 24% global average. The situation in China may be somewhat different from the rest of the world, due to the significant government involvement in setting up cloud infrastructure to provide small- and medium-size companies in the region with the means to grow and gain competitive advantage. Overall, trends toward Cloud adoption and Testing in China mirror

global attitudes. After the initial push in migration, companies – especially large players in heavily regulated industries – proceed cautiously toward moving their production applications to the Cloud, captivated by the cost-saving potential of the cloud infrastructure, but still concerned about data security and privacy. Consistent with the rest of the world, Chinese research participants forecast continued growth in Cloud adoption, with as many as 33% of applications being hosted in the Cloud, and 40% of all testing occurring in the cloud environment by 2015.

By size, China is the fastest growing market for mobile technology. Yet only 46% of executives interviewed from China state that they currently test mobile applications and devices. The majority of respondents (56%) cite lack of appropriate testing processes and methods, followed by shortage of mobile testing experts (53%). Unlike businesses in other regions that often turn to external service providers to deliver mobile testing platforms and expertise, Chinese QA organizations prefer to build these capabilities in-house. It appears that organizations may need to find new resources and skills to ensure the appropriate level of attention is given to this important testing activity.

Overall, the research shows that Chinese businesses continue to move along the path of QA and Testing maturity. The growing investment in application quality and adoption of specialized skills will help bring advanced-quality practices and leading-edge technology to Chinese organizations.

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66%

of the Testing budget on average is spent on maintenance work

31%

of Testing occurs in cloud-based environments

