France

France still has some catching up to do in QA and automation – and a more customer-facing perspective will help it get there

Régis Curien
Head of Digital Assurance and Quality
Engineering, Sogeti France

World Quality Report

2020-21 I TWELFTH EDITION

Last year, we noted that France had been lagging behind in developing its capabilities in testing and quality assurance (QA), and that it was making an effort to catch up. This year, we have seen those efforts continue – and they have begun to pay off. We've noted special signs of determination in test data management, in the use of artificial intelligence (AI), and also in security, where the pressure has increased as a result of the upheavals of COVID-19.

It's therefore no surprise to see that last year's high figures for the importance of testing and QA objectives have been repeated in 2020. French respondents rated almost all of them higher than did our survey sample as a whole – and in many cases, by a considerable margin. Objectives given "essential" ratings included detection of software defects before go-live (87% of French respondents); contributions to business growth (84%); speeding up software releases (78%); and making testing smarter and more automated (75%). The one objective given a lower-than-average rating in France was for ensuring end-user satisfaction (64%, against a survey average of 70%). We feel this to be a sign of France's relative lack of maturity: it is a country that is still too focused on internal metrics.

Perceived skills gaps corroborate this assessment. Survey responses suggest the French are fairly comfortable with the level of their technical skills, in areas such as test automation, CI/CD pipeline tools, and test environment and test data skills – but they are less confident about their soft skills and their commercial awareness, such as collaboration and knowledge of business processes.

As far as objectives are concerned for IT strategy overall, the picture is once more to be expected: higher-than-average figures for enhancing security (81% of French respondents) and faster time to market (76%), and a below-average figure for enhancing customer experience (69%).

In many ways, the French are more confident than most of our survey respondents about their success in achieving their application development targets. Three-quarters (75%) of them felt their testing covered everything that was needed; almost two-thirds (64%) felt end-to-end automation was in place; and almost half (47%) felt their testing was efficient in terms of speed and cost. On the other hand, a lower-than-average number (45%) felt their requirements were clearly defined. It seems to us that all of this means that the French are good at doing things, but we can't be too sure about what exactly they have tested.

Once again, it relates to maturity: the focus is more on execution than on outcomes. When, In a later question, as many as 80% of French respondents said they achieve their quality goals, which could be surprising when we consider that requirements may not have been properly defined.

Working hard in agile and DevOps

French respondents do rightly acknowledge that they face challenges in applying testing to agile development. Almost two-thirds (65%) expressed difficulty in aligning the tools they need for automated testing; half (50%) said their agile teams lacked professional test expertise; and almost as many (48%) said they had difficulties with estimating test effort in their agile initiatives. The thread that runs through all these seems to be a continuing lack of maturity in setting up an efficient agile testing approach.

There seems to be much emphasis in France on using all possibilities to accelerate and optimize agile testing, including both shift-left and shift-right testing. Almost two-thirds (64%) of the nation's respondents said they pretty much always prepare and execute tests as early as possible, and an also surprisingly high 63% said they test less during development, and focus more on quality monitoring and production testing.

One of the largest differences between France and the other countries came when we asked how often organizations proactively monitor and review production logs for incidents, and performance trends, in order to identify application issues and potential defects even before end users might notice them. The proportion of our total survey participants who said they always or usually do this was 47%. The proportion of French respondents who said the same was a massive 80%. We feel this corroborates some of earlier observations: French organizations seem to be conscious they are not doing enough testing before go-live, and so they are monitoring hard in the field to pick up defects at that point instead. What's more, shift-right is also a good DevOps practice.

The French do seem to be self-aware. Among the critical success factors they highlight for agile and DevOps adoption, some of the highest-rated responses they gave were executive support (rated as essential by 77% by French respondents), business priorities (63%), and culture (61%). The technology stack earned a rating that was much lower than the global average. The indications here are, first, that French QA teams feel they have the technology covered; and second, they recognize they need to be both more collegiate and more outward-facing.

AI and automation

French respondents appear to be pretty upbeat about their plans for artificial intelligence (AI) and testing, although in our experience, this still remains fairly new territory for many of the country's organizations.

Despite some of the high numbers we see in this year's responses, the availability of test data and test environments, and the appropriateness of the automation strategy, represent fairly big challenges in France. They do, however, acknowledge they have issues with access to the right automation tools (rated highly by 45% of French respondents, against a global figure of 68%). Indeed, we see in the field that many French organizations only use one or two such tools, which isn't enough – and which may also explain why fewer than half (48%) of them are confident they have enough time to build and maintain their automated tests.

For those French organizations that have made headway in test automation, the greatest perceived benefit is, as we would expect, the reduction of test cycle time (mentioned by 71% of French respondents). Time to market is a big driver in France.

The least perceived benefit – by far – related to security. Only 21% of French respondents felt that automation had reduced their overall security risk, and the security-related issues in their code, against a much higher global response of 62%. We suspect that there simply isn't enough security-related automation taking place in France just yet. Indeed, security concerns have risen significantly in the past 12 months, in large measure because of COVID-19: more than half (57%) of French respondents said their concerns had risen significantly, against a global figure of just 15%.

Accelerating the pace

We have already noted in this analysis that testing and QA in France have been process-driven and inward-facing, but the country has been changing in this respect, and the COVID-19 pandemic seems to have accelerated this reassessment. Well over half (58%) of French respondents said they would now be significantly increasing their focus on customer experience validation and usability testing.

Partly, though, it's a question of degree. While our French respondents recognize that in a post-COVID world, they will need to build a stronger community culture, and to measure the quality of the work of teams differently, and to improve their team collaboration tools, they do so to a lesser extent than our survey respondents as a whole. While it's good to see that two-thirds (66%) of French respondents strongly agreed they need to empower their teams with more responsibility for quality, the figure for our survey as a whole was 80%.

France's QA and testing teams need to make an especial effort to subsume themselves into the software development lifecycle, and to weave quality into every aspect of it. They need, too, to be more determined to achieve their automation goals, and to be more mindful of the needs of the businesses and the customers they serve.

There is, in short, still some catching up to do.