United Kingdom

There are clear signs of progress in the UK in agile, DevOps, test automation, and more – and a real determination to maintain post-COVID momentum

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The global events of 2020 have obliged every country to be more outward-looking and business-conscious, but for the United Kingdom, the pressure is, perhaps, greater. British companies and individuals may disagree about the merits or disadvantages of departure from the European Union, but they all recognize the importance of continuing business success in a post-Brexit, post-COVID world.

This is very much evident in UK responses to this year's survey. When asked to rate testing and quality assurance (QA) objectives, far and away the most important for British respondents was the contribution to business growth, with 87% of them saying it was essential, against a survey average of 74%. In the field, we see projects of a technological, functional nature being delayed, at the expense of those with a clear business focus. Time to market is also important: detecting software defects before go-live, and speeding up software releases with good quality were rated highly by 81% and 76% of UK survey participants, respectively.

We see similar trends at work with respect to IT strategy as a whole. Cost optimization of IT was rated as vital by 84% of UK respondents. On the face of it, this indicates concern only with internal efficiency – but implicit in lower cost is the principle of shift-left, which aims to remove or reduce problems from an early stage. Better, earlier fixes are not only more economical, but improve the quality of the software delivered. Cost optimization can therefore also be seen as a customer service issue, and indeed, 83% of UK survey participants also said enhancing customer experience was essential to their IT strategy.

British organizations seem to be achieving targets for applications development to the same degree as the those in the rest of the world, but it's a little disappointing they aren't doing better than this. For instance, only around half

of UK respondents (51%) said their requirements are always or almost always clearly defined, and fewer than two-thirds of them (60%) said the QA tools and methods they need are always sufficient and available.

There seems to be a great deal of confidence in the extent to which testing targets are being met. A high proportion of UK respondents (90%) felt they always or almost always meet their quality goals – which is odd when only around half of them (54%) said they always have the right testing strategy. Does this mean testing success is more a matter of luck than the result of a plan? We were also surprised to note that two-thirds of them (66%) said they always have the necessary in-house testing environments. This is not what we see in the field.

Agile and DevOps: encouraging signs

In last year's survey, we saw much emphasis on the adoption of agile and DevOps development environments, and also on test automation, and these areas of focus are still very much present. Let's take a look at agile and DevOps first.

We are still seeing QA teams facing challenges in agile development, and this year's responses bear that out. For example, half (50%) of British respondents said they have difficulty in aligning the tools they should use for automated testing, and almost as many (48%) said they have difficulty in seeing what tests their teams have done, and that they have insufficient professional test expertise in their agile teams.

There are, however, plenty of encouraging signs. When asked about measures to accelerate and improve testing and QA in agile and DevOps developments, more than half (58%) said they are pretty much always shifting left, and 60% said they are making the most of test automation. It's encouraging, too,

to note that it's typical for 54% of UK respondents to ask their teams to find and remove redundant test cases.

It was a little disappointing to see that only a quarter (25%) said they make a habit of automating quality dashboards to enable continuous quality monitoring. While it can be hard to do, the rewards are considerable.

One of the biggest surprises in the UK figures this year was how many people said knowledge of business processes were lacking. The global average was 25% – but for the UK, the number was 60%. For a country as commercially oriented as the UK, this is astonishing. More clearly needs to be done to align quality assurance with the needs of the business.

The appetite for test automation

The appetite for automation is still very much present, and UK survey responses suggest a fair degree of confidence in this area. More than two-thirds (68%) of British respondents said they have the right automation tools, a similar number (64%) said they have the right skills, almost three-quarters (73%) said test data and test environments are available at the right time, and a healthy 55% said they are getting a return on their automation investment. (Incidentally, that ROI figure of 55% needs to be seen against a survey-wide average of just 37% saying the same thing.) Other perceived benefits included reduction in security risks, better control and transparency of test activities, and better detection of defects. All these numbers point to the maturity of test automation in the UK relative to many other countries.

Factors for efficiency

Which factors did UK respondents feel make the greatest difference in making testing more efficient? Implementing intelligent autonomous testing, enhancing test environment provisioning and test data generation, and shift-right testing, all featured strongly. These, alongside a continuing emphasis on shift-left testing, are signs of the increasing adoption of agile and DevOps development environments. The focus here is on delivery at speed, on the ability to provide adequate support to development and testing, and on the capacity to maintain and improve software after go-live.

In short, these responses point to the general transition of quality assurance to a point when it will no longer be a discrete activity, but will become embedded in every stage of the software development lifecycle. It's why, in response to a separate question, we see so many UK respondents point to a lack of software development engineering testing skills (S-DET) and also to a need to understand the implications of AI on business processes. In general, what's required is a cohort of people for whom quality is intrinsic to the entire cycle, for whom testing is as familiar as development, and who can see everything they do in terms of the needs of the business.

Post-COVID can-do

Finally, it's interesting to see UK organizations taking stock of the 2020 pandemic, and in particular of its effects on testing and quality assurance in a post-COVID world. A significant number of UK respondents (70%) strongly agreed that teams will need to be empowered with more responsibility for quality. This, in other words, is a responsibility that should be shared by everyone, and they should all be trusted with it.

A similar number (71%) said they will need to improve their team collaboration tools for QA and test. In lockdown, everyone has grown accustomed to working from home. Indeed, the virtual teams we now have are perhaps more capable of flexibility and versatility than is usually the case in a conventional office with conventional team structures. This also explains why as many as 84% of UK respondents said they will need a stronger QA community culture, with a commitment to quality that is, if anything, greater, because it will be arising from a less formal, more team-spirited, and more heartfelt source.

In the uncharted waters into which the world in general, and the UK in particular, is now sailing, that collective determination, commitment, and creativity will be more important than ever.