World Quality Report

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Southern EU

Digital transformation is challenging the relatively immature testing and QA climate in the Southern EU

Across Italy, Spain, and Portugal – the three countries that together constitute the Southern EU in this report – one of the most significant trends over the last year has been digital transformation. In almost every sector, organizations are finding they need to build new customer journeys, and hence to create new processes, or to re-engineer existing ones. All of this places fresh demands not just on IT development and support teams, but also, and specifically, on those responsible for quality assurance (QA) and testing. For example, we're seeing increased testing activity for mobile apps, especially in the form of crowd-testing. We expect to see further growth over the coming year in this area.

As we'll shortly see in the survey data, we're also observing a move into agile and DevOps, which seems to us to be related to a demand-driven desire to move into automation in the apps development lifecycle. Security testing is growing too: organizations are exploring new architectures.

Key objectives

Our observations on the business climate in the Southern EU are reflected in responses to the general question that opens the survey. The widespread pursuit of digital transformation can be inferred from many of the figures we see here. It is not only the need to increase end-user satisfaction that is customer-driven; contributions to business growth and business outcomes are, too. The focus on security that we have ourselves observed is also corroborated, and indeed, in response to a later question, we see that enhancing security is considered by Southern EU respondents to be the most important aspect of IT strategy.

Our respondents also tell us that achieving a faster time to market is significant for them, and so, too, is cost optimization, which is their third-highest aspect of IT strategy. However, cost is a less important factor now than it was in the recession-hit world of four or five years ago.

End-to-end challenges

Far and away the greatest technical challenge in applications development in the Southern EU is the lack of end-to-end automation, from build through to deployment. Over two-thirds (68%) of our respondents mention it, against a survey-wide average of 63%, which is itself a high figure. Security validation also features as a prominent challenge (cited by 53% in the Southern EU), and a significant number (44%) also point to a lack of sufficient development and test environments.

For the Southern EU, the greatest challenges specifically in testing of key applications are, in order, "not enough time to test," at 42%; and, jointly at 37%, "don't have the right testing process/method," and "don't have an in-house testing environment." For us, the time issue points to a need for automation, and the insufficiency of testing environments and of testing experts (34%) demonstrates the relative immaturity of this region, compared to Northern Europe and to North America.

Momentum in agile

There are some national variations in relation to testing within different methodologies. For example, in Italy, testing within DevOps environments is not very advanced. Across the region, waterfall is still fairly dominant. That said, agile is now taking off, with 28% of overall project and team effort allocated to testing in this area in the region, compared to a survey-wide average of 25%.

To maintain this momentum, the Southern EU needs the right kinds of people, and as we would expect, agile-related skills needs identified in this year's survey include test automation, data analytics, and test environment and test data skills.

Incidentally, the survey also highlights significant skills needs in the field of artificial intelligence (AI), which is currently under-developed in the Southern EU. The most significant requirements are for software development engineering testing skills (S-DET) for 51% of the region's respondents, development and coding skills (46%), and an understanding of AI implications on business processes (42%).

Appetite for change

We have already noted the Southern EU need for test automation, and our survey responses highlight some of the challenges the region is facing in this respect. As in the rest of the world, so too in the Southern EU, there are automation difficulties because of the frequency with which applications are changing with every release. The availability and stability of test data and test environments are also factors, and a significant number of respondents (39%, against a survey-wide average of 27%), say they are starting too late with test automation, probably because of the region's relative immaturity in this area. Once again, at the root of this issue lies the problem of an insufficiency of skills.

Our respondents are clear about what they perceive the benefits of test automation to be, even though they may not have fully realized them yet. With a greater level of maturity, they anticipate gaining a greater level of control and transparency of their test activities. They also, and rightly, expect to see a significant reduction in test cycle times.

There is also an appetite in the Southern EU for test data management and for cloud-based test environments. Right now, the traditional permanent test environment is still the dominant model; but as the market matures, we foresee growth not just in cloud-based alternatives, but in virtualized approaches, too.

It's interesting to see the challenges the region faces in the implementation of test environments. Cost is the greatest factor by a considerable margin (72% for Southern EU, against 60% for the global sample) but defects arising from inaccurate configuration also feature strongly – an indicator, perhaps, of the fairly early stage at which the region still finds itself.

Budgeting for success

Finally, a brief look at cost issues. The percentage of total IT budget allocated to testing and QA in the Southern EU stands this year at 21%, against a survey-wide average of 23%. In other regions where the budget allocation is relatively low, it is sometimes because quality assurance and testing are gradually being subsumed into mainstream development, and are therefore less of a discrete line item. We don't expect that to be the case here. It's more likely to indicate, first, the immaturity of the Southern EU in relation to other regions – and second, the need for greater investment if the region is to achieve the full benefits of the digital transformation programs that are so essential to its success.