SWEDEN

Steady development

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WORLD QUALITY REPORT

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THE CLOSER YOU LOOK
THE MORE YOU SEE

Sweden's economy is big, busy, mixed, and export-driven, so it's no surprise that there is so much dynamism in information technology (IT) that underpins its industries. Banking, insurance, telecommunications, and manufacturing are sectors in which we see a great deal of focus, not just on IT in general, but on quality engineering (QE) in particular.

Swedish organizations haven't been especially innovative with respect to quality and testing. The approach has generally been traditional, but that doesn't mean quality isn't valued, and it doesn't mean that attitudes are complacent either. For instance, there's a growing demand for test management skills. It's a recognition, we believe, of the need not just to test – something that's well covered in Sweden – but to plan and organize for quality outcomes.

We see skills gaps in other areas too. There is an increased demand for technical skills. For instance, the adoption of test automation is increasing, driven by workload and time-to-market pressures, and skills are needed to maintain the pace.

There is also a deficit in what might be termed soft skills: many Swedish organizations are keen to develop strengths in coaching, communication, and team building, as well as in the field of test management mentioned above.

Time to market

The main business priorities for quality and testing are functionality and time to market. For example, in the financial services and telecommunications sectors, it is not uncommon to see teams going into production more quickly, even if that sometimes means taking a risk. This year's World Quality Report

includes a focus on value stream mapping, in which organizations look at where they are now, look at where they want to be, and map out the intermediate process stages – and in our experience, time to market and functionality are key elements of this mapping sequence.

Agile development approaches are now widespread in Sweden and larger enterprises are adopting the Scaled Agile Framework (SAFe Methodology). Quality engineers tend to be embedded in agile teams rather than operating discretely, and this is a trend we expect to continue.

Current challenges

Swedish organizations face challenges when it comes to automation tooling. In some cases, the knowledge and budgets are lacking, while in others, there can be a puzzling reluctance to invest. By contrast, scriptless tools are trending, and we're seeing a big push in that direction. However, many organizations are still using open-source tools, partly because of cost, and partly because it's a simpler approach and the requisite skills are easier to find.

Globally, cloud platform strategies have been on the rise for some time now, and growth in Sweden is quite strong. To some extent, it's been tempered of late by security concerns, both in the private and public sectors – probably because of the disruptions we've been seeing in world geopolitics.

Test data is a perennial problem, and not many Swedish organizations are addressing it as rigorously as they should. They tend to use production data, even though they know this isn't always satisfactory. The management of test data isn't regarded

as having much business value. Indeed, for many in Sweden, it's seen as little more than a compliance issue. In our view, it should be taken more seriously.

Growth areas

The new and emerging technologies currently making the greatest impact in Sweden include the metaverse, 5G, and the Internet of Things. Given Sweden's strong manufacturing base, this is to be expected. These technologies bring with them their own quality challenges. How, for instance, can organizations set up an end-to-end metaverse testing environment? The faster the pace of change in these areas, the greater the need will be to address these QE challenges.

While, as we've noted, Sweden's approach to quality and testing hasn't been overly innovative, we have nonetheless seen movement in the use of artificial intelligence (AI). A few years ago, businesses started to organize themselves more to accommodate AI approaches, and while the pace has slowed a little of late, we're still seeing some interesting initiatives in some areas.

An impetus for progress

In general, we feel that Swedish organizations have reason to be proud of the progress they're making in quality and test. Yes, there are still some skills gaps and budget pressures, but when was that ever not the case? The end of the COVID-19 pandemic and the current global energy and cost of living crisis are together creating new demands – and these are driving the need for further progress to be made.

Survey watch: Agile Quality Maturity of Swedish organizations

47% of agile teams have professional quality engineers integrated

51% of agile teams have test automation implemented

46% of teams achieved better reliabiity of systems through test automation

47% of teams achieved faster release times through test automation