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Digital Testing in Europe: Strategies, Challenges & Measuring Success

EXECUTIVE SUMMARY

Key Findings



Digital having a major impact on the testing/QA function. More than three quarters of European businesses agree that the expansion of their digital presence will be their number one IT priority over the next two years. Testing budget is increasingly being shifted towards supporting new projects, while the biggest challenges that stakeholders perceive around digital testing relate to supporting the integration of digital into legacy apps and taking a consistent approach across multiple platforms of engagement.



European businesses are racing to get their digital strategies in place. Only 18% of European organizations claim to have fully implemented their digital testing strategies, while a further 26% claim to have formulated them but have not yet rolled them out. But the biggest group is the 35% of business which plan to put their strategies together in the next 12 months, leaving a rump of 21% that have yet to make a move – with a large proportion of the laggards based in Southern Europe.



Quality is king. One of the most interesting findings of the study is that the need to improve quality remains the number one driver for both digital testing projects as well as the testing of existing applications. There is a greater need for speed in supporting the former, with “accelerating test cycles” cited as a bigger priority, but quality and a push for greater efficiency in the way that testing is performed remain the top two goals. There is an increasing focus on end-to-end business process quality.



Diverse digital tactics. There is no single magic formula that European businesses are following to tackle digital testing. More than 60% of businesses use the same team to test both digital projects and existing applications, while the majority of companies use an array of tools (in-house, packaged, open source) and approaches (virtualization, in-production testing) as part of their digital testing strategies. Automation coverage looks set to expand rapidly in the next 12 months.

The European Picture

UK

- More than **one quarter** of businesses have already **fully implemented** their digital testing strategy.
- **74%** expect their testing strategy to become **more business process centric**
- Only 34% test digital apps in production, while 69% use virtualization

Benelux

- More than **one third** automate testing for **30%-50%** of business processes
- **67%** plan to accelerate investment in **Performance Engineering** in 2016

France

- **49%** will have **digital testing strategy** in place in next 12 months
- Just **23%** currently monitor **end user experience** and get user feedback
- Less than **25%** have separate teams for testing digital and existing applications

Spain

- **80%** plan to increase investment in **Agile** tools & methodologies in 2016
- **40%** plan to launch **digital testing strategy** in next 12 months

Nordics

- **48%** use **different resource teams** for testing digital and existing apps
- **88%** monitor **end user experience** and get user feedback
- **One third** plan to adopt **crowdsourcing** testing solutions in the next 12 months

Germany

- **65%** test digital apps in production, and **74%** use real device testing.
- **49%** plan to increase investment in DevOps in 2016
- **23%** plan to adopt crowdsourcing in next two years


Switzerland

- **40%** of businesses will roll out their digital testing strategy in the next 12 months
- **75%** cite security testing as a priority area for testing new development projects

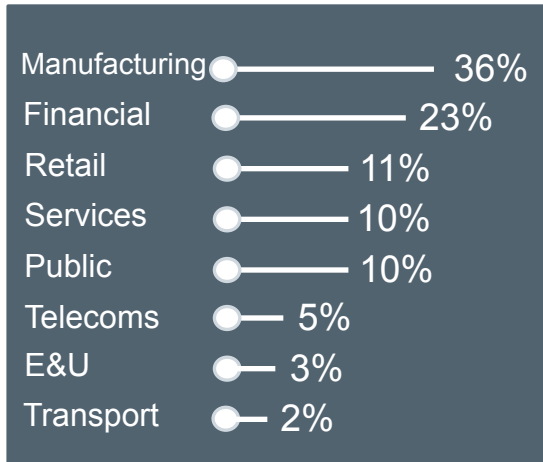
Italy

- **47%** expect their testing strategy to become more **applications centric**
- **40%** claim that their internal testing organizations are **fully centralized**



Survey of Testing CxOs in Europe



200 survey respondents in Western Europe



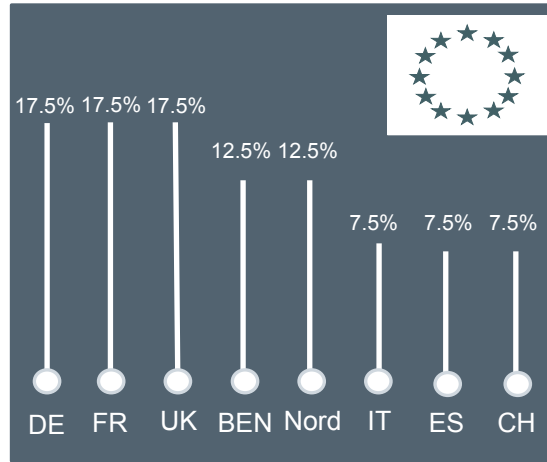
54% CIO/ITD respondents

30% Head of Testing respondents



All respondents had over 500 employees

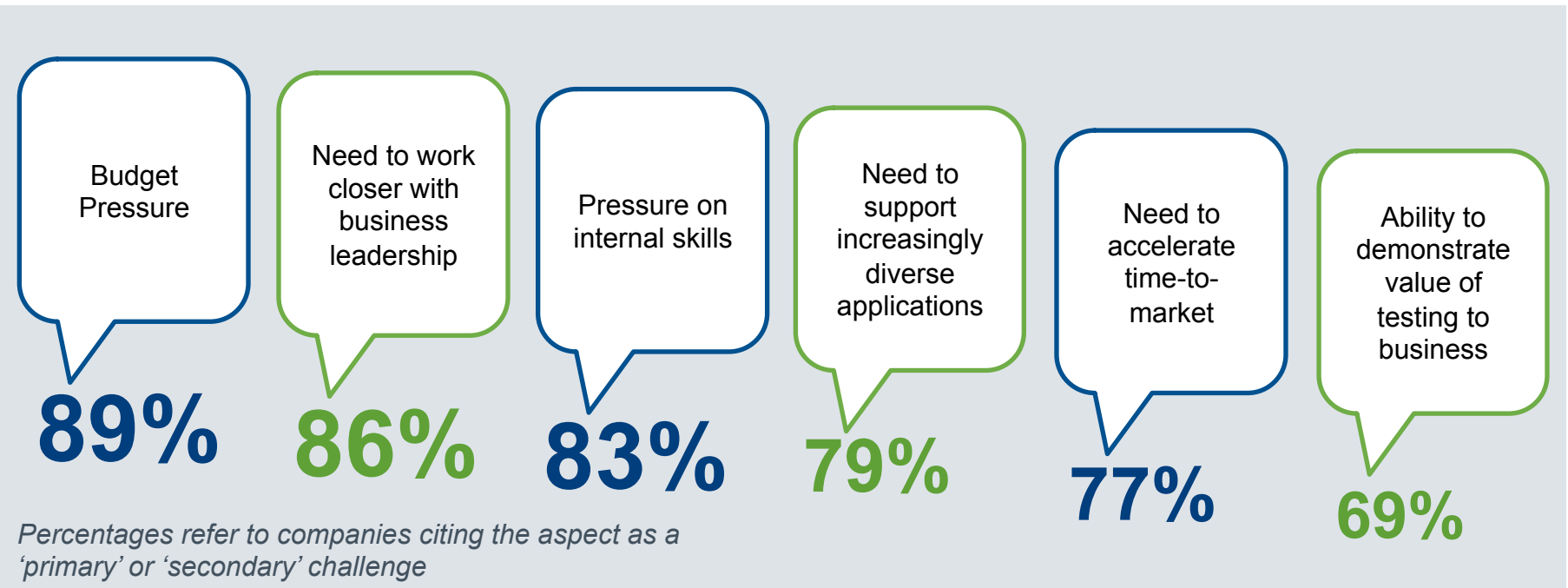


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Survey conducted in July/August 2015

Testing Challenges

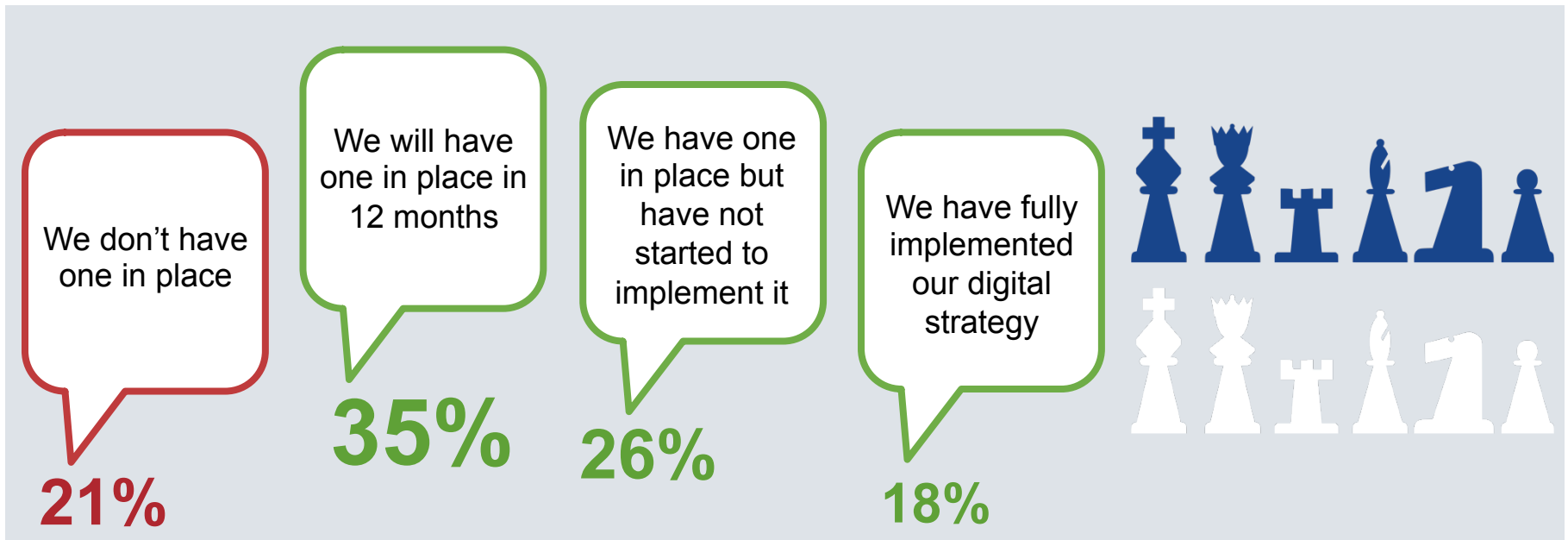
Q. What are the main challenges facing your testing organization today?



Many European testing leaders have spent the last decade focused on improving the efficiency of the testing function, through **centralization**, **offshoring** and **standardization** initiatives. But it is clear that budget constraints remain a key concern, with **89%** of study participants citing it as a primary or secondary challenge facing their testing organization. The **importance of the digital agenda** was highlighted by the level of participants citing the need to work closer with business leadership (**86%**) and the need to accelerate time to market (**77%**) as significant challenges. It is interesting to see that the ability to demonstrate **the value of testing to the business** ranked bottom in the list of challenges, which underlines how the issue of software quality has become a business issue as organizations become increasingly dependent on their software platforms.

Digital Testing Strategies

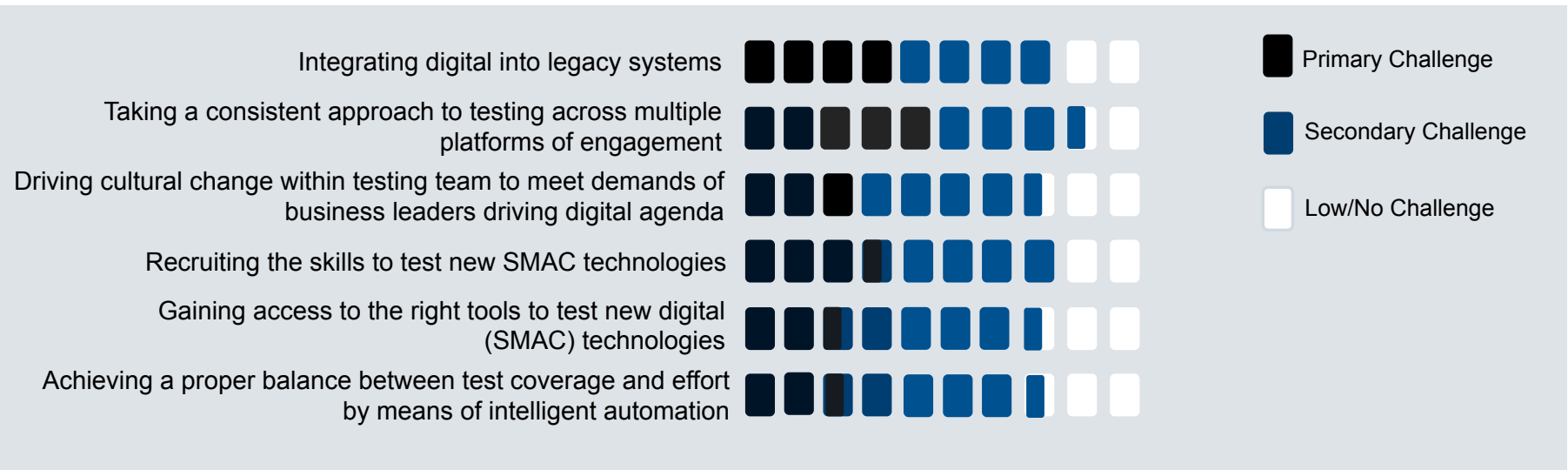
Q. Which of the following best describes your digital testing strategy?



European businesses clearly expect digital to have a significant impact on their business, but how far have they got in terms of **developing a strategy** for testing these technologies? It is clearly a work in progress, with just **18%** having **fully implemented their strategy** and more than **one half** yet to put one in place – although **35%** are aiming to draw up a strategy in the next 12 months. Businesses in the **UK** and **Germany** lead the way. In the former, **26%** claim to have fully implemented their digital testing strategies, with a further **32%** having one in place with implementation planned in the next 12 months. A very polarized picture emerges in the **Benelux** region where **28%** have a strategy in place, while the same level have yet to start planning. The laggards include **Italy**, where **53%** have no strategy in place or in the pipeline.

The Key Challenges of Digital Testing

Q. What do you see as the biggest challenges for your digital testing strategy?



What challenges are European businesses looking to tackle with their digital testing strategies? The biggest obstacle is perceived to be taking a **consistent approach** to testing across **multiple channels of engagement**, which was cited as a primary challenge by **almost half** of all participants. This is a particularly strong challenge in the **financial services** sector, where **63%** of participants cite it as a major challenge, reflecting the impact they believe mobile and social channels are having on their business. The second biggest issue is that of integrating digital into legacy systems, which was flagged as a ‘primary’ challenge by 39% of participants. As we shall see, many European organizations run separate teams and leverage different tools to support digital and legacy testing, which makes **bridging the gap** a real issue, and one that needs solutions not just in terms of technology platforms, but also in culture and leadership. It was also interesting to see the issue of **recruitment** raised as a concern (**35%** named it a primary challenge), which is reflected in the strong growth being enjoyed by many testing services and staffing agencies in 2015 as they help fill their clients’ skills gaps around the SMAC stack.

New Testing Approaches

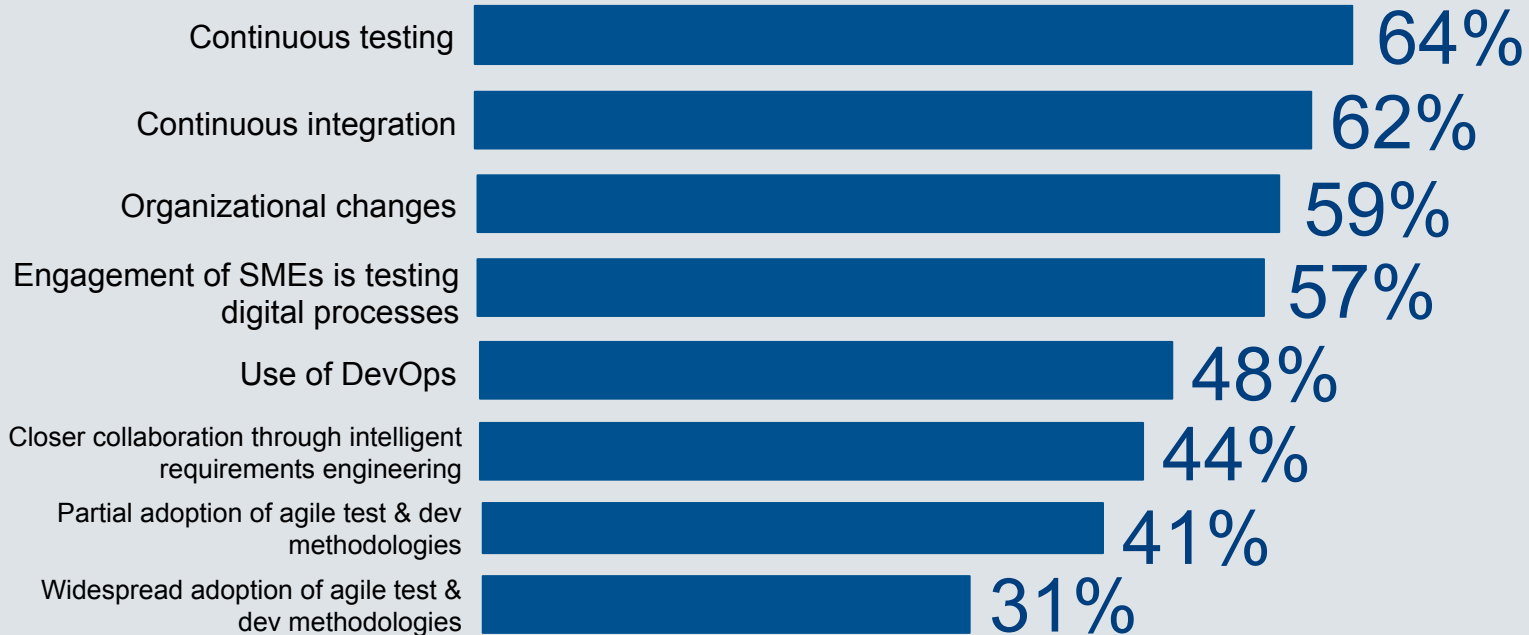
Q. How will your digital strategy change your approach to testing and QA?



Digital projects are designed to enable businesses to gain value from new technology, but the impact on the testing function appears to be to make it more business process-centric than **applications-centric**. Some **60%** of participants expect this swing towards the business process, which is encouraging as the growing complexity of IT estates means that **end-to-end processes** can span many **different enterprise apps and digital platforms**. At a regional level, the general trend is that the more mature markets show a stronger swing towards becoming more business process-centric. **Three quarters of UK** businesses expect their testing approach to head in this direction as a result of their digital agendas, with organizations in the **Nordic region (67%)** not far behind. In contrast, just **under half** of the respondents in both **Spain and Italy** expect their testing approach to become more applications-centric. There is also a broader shift for the testing function to **work more closely with business leadership**, and the key drivers are mapped on the following slide.

Getting Closer to the Business

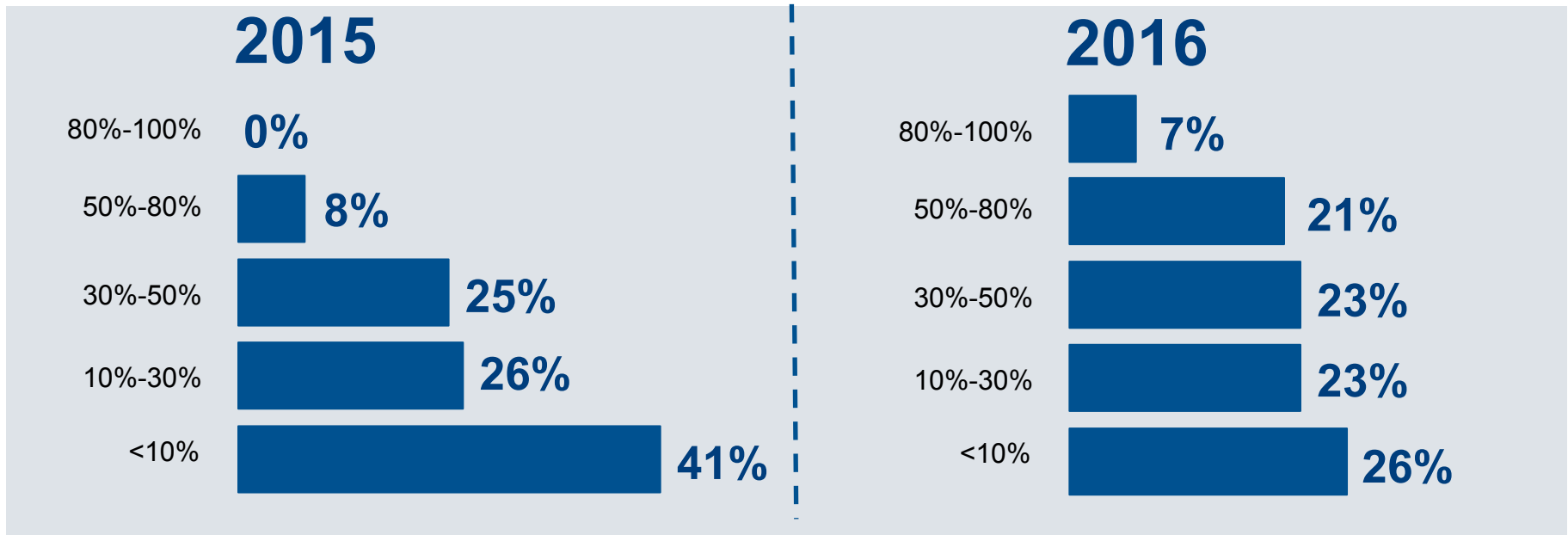
Q. Which drivers are making your testing function work more closely with business leadership?



It is interesting to see that it is **IT topics** that are the main drivers for moving the testing function towards a closer relationship with business leaders. **Continuous testing** and **continuous integration** (where developers integrate code into a shared repository several times a day) are seen as the most important dynamics at play here, as testing is more closely aligned to business requirements and keeps pace with increasingly rapid development cycles. Both are seen as a way to close the feedback loop between the testing function and the business.

Testing Automation

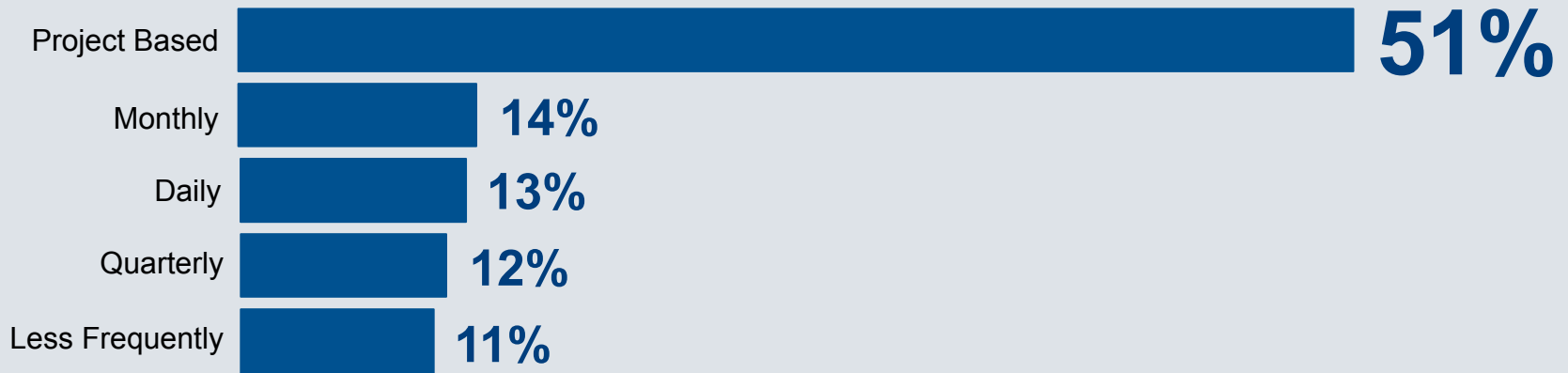
Q. What percentage of your business processes are covered by automated testing and how will this change in the next 12 months?



Test automation is set to be a major focus for European businesses during the next 12 months. The study found that a large proportion (**41%**) of organizations currently have less than 10% test automation coverage of their business processes. This is interesting as many other market surveys have typically found a much higher rate, but we think that this is because this study focused on business process rather than test process automation. But automation is clearly on the rise, with the percentage of businesses with coverage of more than 50% growing from just **8%** to **28%**. There are some interesting differences at a regional level. Italian businesses are bottom of the pile, with a huge **two thirds** of participants stating that less than 10% of processes are supported with test automation. In contrast, organizations in the Benelux and Nordic territories lead the way, with **one third** of respondents in each market having between **30% to 50%** of their processes supported with test automation.

Digital Testing Frequency

Q. What is your frequency of testing digital processes?



Digital initiatives have different testing requirements, ranging from the highly complex (testing of a new group-wide analytics platform or e-commerce engine) to the simple (launch of mobile app update). As a result, the frequency with which businesses need to test their digital processes also varies. The study found that the majority (51%) of European businesses test their digital processes on a project basis, with more than a quarter testing on either a monthly or quarterly basis. This may be a perfectly reasonable approach given the level of risk or change that sits within the processes in question, but the general trend that we see in the market is towards more regular testing, as the pace of digital change accelerates. Just 13% of participants (of which a third were based in the Benelux region) test on a daily basis, and we would expect this level to increase in the coming years as the need for a more agile testing approach becomes paramount. There is an interesting overlap between the tendency towards project-based testing and the use of non-dedicated resources for digital testing projects. Project-based testing requires interdisciplinary teams, while regular testing of digital apps as part of a release cycle could be performed by stand-alone specialist resources.

Analyst conclusion



Nick Mayes
Research Director - PAC

The digital agenda is having a profound impact on the testing strategies of many European organizations.

It is moving testing closer to the business, it is driving them to leverage different tools, methodologies and external partners, and it is forcing them to move at greater speed. It is also posing major new challenges in terms of resourcing, culture, consistency and integration with the legacy environment.

There isn't a right and a wrong way of approaching the digital testing challenge. Our study found that the majority of businesses are using the same teams to test both new development projects and existing applications, and for some, this may be the best approach – particularly if their core testing team has the bandwidth and mind set to embrace new approaches and tools to keep up with the pace of their company's digital ambitions.

For others undergoing a more radical digital transformation – and we are seeing some dramatic change programs taking place across all industry sectors from banks to public sector agencies – the best solution may be a two-pronged approach. In this case, the challenge will be in bridging the gap between the two sides, to ensure quality as well as speed. It is not surprising that many businesses are increasingly looking to leverage external tools and expertise to help them on this journey.

One of the most interesting findings is that quality remains the most important driver for both testing existing applications and digital projects. Digital may be shaking up the testing function, but the ultimate goal remains the same – to drive continuous improvement in the quality of software, which in the digital age has become the lifeblood of the business.

Contact



Founded in 1976, Pierre Audoin Consultants (PAC) is part of CXP Group, the leading independent European research and consulting firm for the software, IT services and digital transformation industry.

CXP Group offers its customers comprehensive support services for the evaluation, selection and optimization of their software solutions and for the evaluation and selection of IT services providers, and accompanies them in optimizing their sourcing and investment strategies. As such, CXP Group supports ICT decision makers in their digital transformation journey.

Further, CXP Group assists software and IT services providers in optimizing their strategies and go-to-market approaches with quantitative and qualitative analyses as well as consulting services. Public organizations and institutions equally base the development of their IT policies on our reports.

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Worksoft - Company Profile (1/2)



Automation Software for Business Process Validation, Functional Testing, and Process Discovery

Ensure Every Business Process Works!

Worksoft automation helps enterprises understand every core business process and ensure they work flawlessly when enterprise apps change.

Ensuring the success of digital business. Today, every business is a digital business. End-to-end processes can span dozens of enterprise apps and digital platforms, and companies need to ensure that each process performs as designed. A disruption to business continuity is unacceptable – so every platform needs to work flawlessly. That’s where Worksoft automation comes in.

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- **Fast Results.** Achieve astounding automation results in 90 days or less. 40% faster projects. Huge labor savings. Accurate process documentation. And no more software glitches.

Worksoft - Company Profile (2/2)



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