

STATE *of* TESTING

2013



A short intro from the authors

We are testers. We observe, we measure, we analyze, we understand, and finally we share our knowledge with the people around us in order to make a difference and hopefully to improve the current state of things.

This is the rationale behind this State of Testing report.

We want help the Testing and QA Community to get a better understanding of what is going on around the world, and with this knowledge allow our fellow testers to improve their professional work and their personal reality.

After analyzing the results of our survey we believe that we've managed to paint a clearer picture of the testing world around us.

Understanding is good in itself, but it is even better if it becomes the inspiration for action and for change.

This picture will help testers to approach their work in a different way, with an additional understanding of what is going on in other organisations and teams, giving them additional ideas and the confidence needed to achieve higher levels of improvement in their professional endeavours.

Still, just like any other picture there are areas in this State of Testing that can be interpreted in different ways, and so it is logical that different people will have different opinions on the meaning of the results.

There are also aspects that require deeper focus and understanding, things that can be achieved only by follow-up analysis efforts.

And even other questions that will require trend analysis, that can only be reached by conducting additional surveys in the years to come.

This is the reason that we intend to make this survey an on-going endeavour and not a one-time-project. So, you can expect to hear from us once again towards the end of 2014 :-)

We cannot finish this introduction without thanking all the people who helped us to make this State of Testing survey and report a huge success.

Starting from the large number of bloggers who contributed by posting articles about the survey (you can see all of them on the last page of this report), as well as all tweeps who tweeted and re-tweeted the calls for participation.

And of course every participant who took the time to answer our questionnaire. Without the help and participation of all of you this survey could not have achieved its goal. THANKS!

We hope you will enjoy and gain value from this State of Testing report!

Thanks,

Lalit & Joel.

Executive Summary

Testers by the numbers

It is interesting to see that (maybe in contrary to the belief of many in the industry) testing is not a “very young” profession with most of the participants having 6 or more years of experience in the testing field. On the other hand, we see that testers like staying and growing within their organisations, with the majority of them having worked “only” in 1, 2 or 3 companies during their professional careers.

Maybe as a result of this maturity in the testing workforce we see a relative feeling of stability, with most testers (55%) saying they plan to continue testing in the foreseeable future. Having said that, an important part (19%) are not certain what they plan to do in the next 5 years, and 12% of respondents see themselves in “business” roles in coming times.

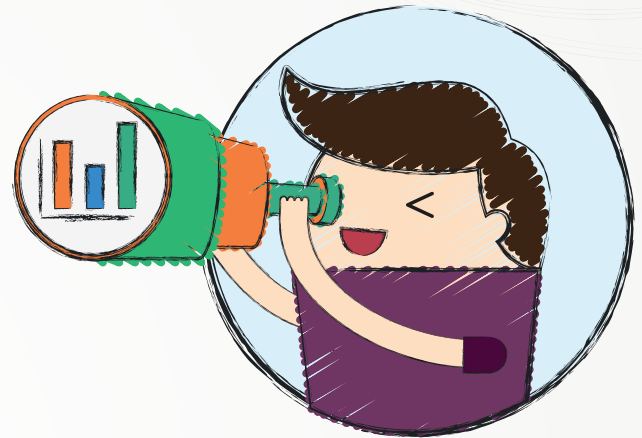
Companies and R&D teams

Most testers work in companies that have 50 employees or more, and maybe not surprisingly only a small number of them work on companies with less than 10 employees overall. Still most testing team are either very small (between 1 and 5 testers) or very large (with 50 or more testers)

Something that surprised us at first was the large number of companies that are using Agile or Agile-like practices with around 78% of respondents. Having said that, many companies like working with a number of different practices in parallel such as Agile and Waterfall. There are also an important number of tester who said that their companies are actually not using any structured development model to manage their process - and we thought that we were in the 21st century... :-)

Testing techniques and documentation

We also see that testers like using different techniques and approaches in their work, and so it was nice to see this blend in the responses with the vast majority of people (86%) working with Exploratory techniques, but important number of testers using (or also using) Scripted Testing (66%), Bug Hunts (42%) and other approaches during their work.



In addition to dynamic testing we also see testers performing various static testing activities such as requirement and risk analysis, code reviews, retrospectives, and more.

Testing documentation also appears to be varied, with different organizations working with blends of test plans, mind maps, checklists and lean documentation. On the other hand most test reporting is still performed via email.

Test automation

81% of respondents report having some sort of automation, although most of them have less than 50% automation coverage.

Most of the automation is done around functional testing, but we also see important number of organizations using automation for test data generation and Continuous Integration.

Testing challenges

A large number of the testers see challenges in the areas of team size and the tools available to perform their work. They also see challenges around workplace politics, training, communication and the influence they have on the day-to-day decisions of their company.

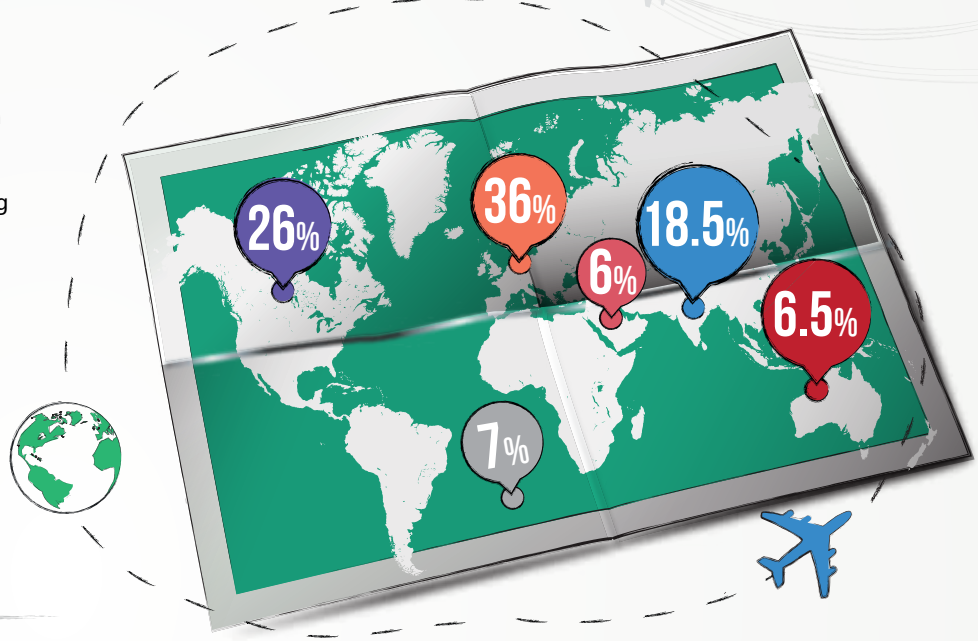
Also, on a global level many testers feel either somewhat or very concerned with the stability of their jobs in the years to come.

RESPONDENT DEMOGRAPHICS

WHERE FROM?

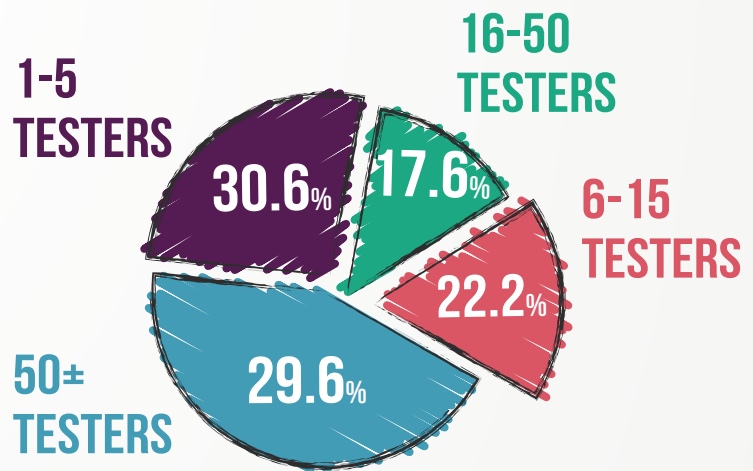
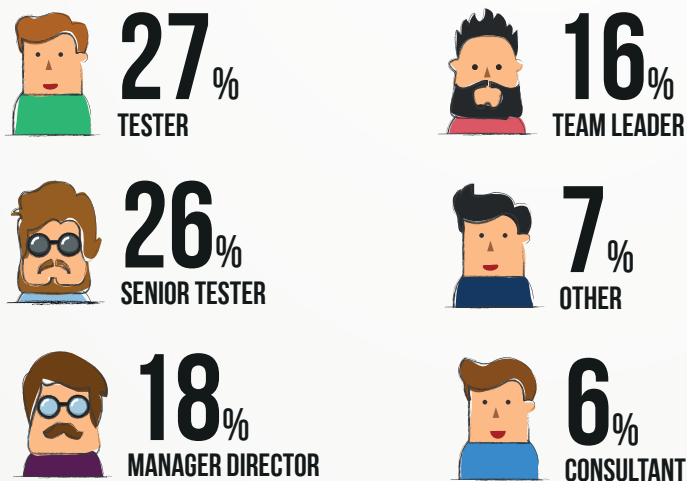
More than one third of the responses come from Europe followed by respondents from North America. Responses from India are close to 18.5%, with Australia and New Zealand providing a little over 6.5%.

- USA/Canada
- Europe
- India
- Auz/NZ
- Middle East
- Other



TESTERS AND SENIOR TESTERS 53%

More than half of the participants are either testers or senior testers. Management comes second with a little over a quarter of the respondents. Consultants appear to have an important representation with 6%. Among the "others" we have Test Architects, Automation Engineers, Hardware Engineers and even "Heads of Marketing"!

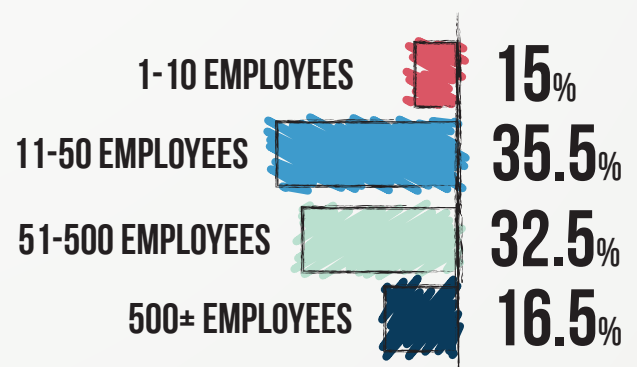


EITHER LARGE OR SMALL TEAMS WITH LESS IN-BETWEEN

It is surprising that smaller teams and larger teams each has around 30% of the respondents.

R&D TEAM SIZE

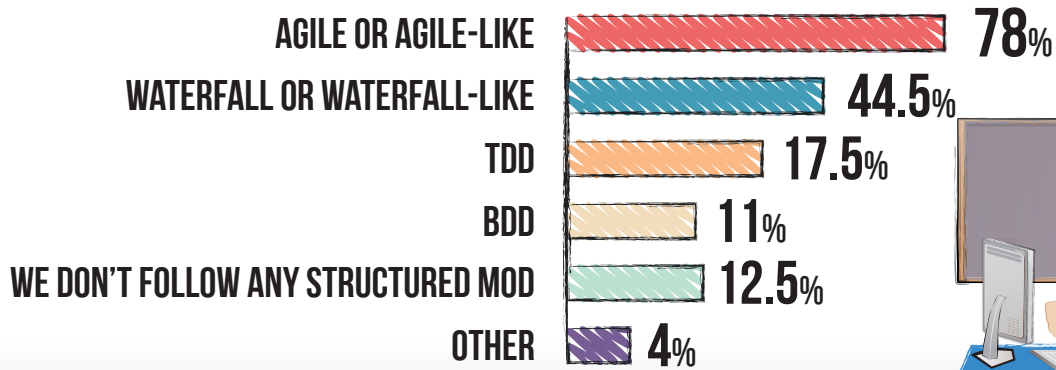
On the other hand, most respondents come from organisations that have medium size development teams.



TESTING & DEVELOPMENT PRACTICES

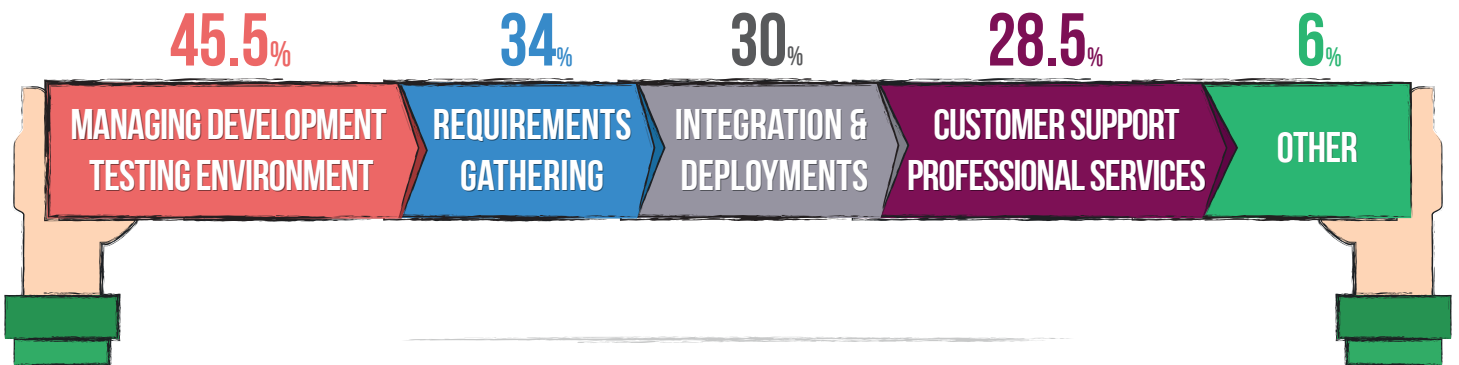
STRONG AGILE ADOPTION OF 78%
(more than one answer per participant -> total is more than 100%)

It is interesting to see that many teams are following two or more development models at once. Still, over three quarters (78%) of respondents say they are working under agile or agile like development models, with 44.5% working waterfall or waterfall-like, and even 12.5% that in the 21st century still do not follow any structured model. As a note, our favorite among the "other" answers was the respondent who wrote that his team followed an "unholy agile-waterfall hybrid" :-)



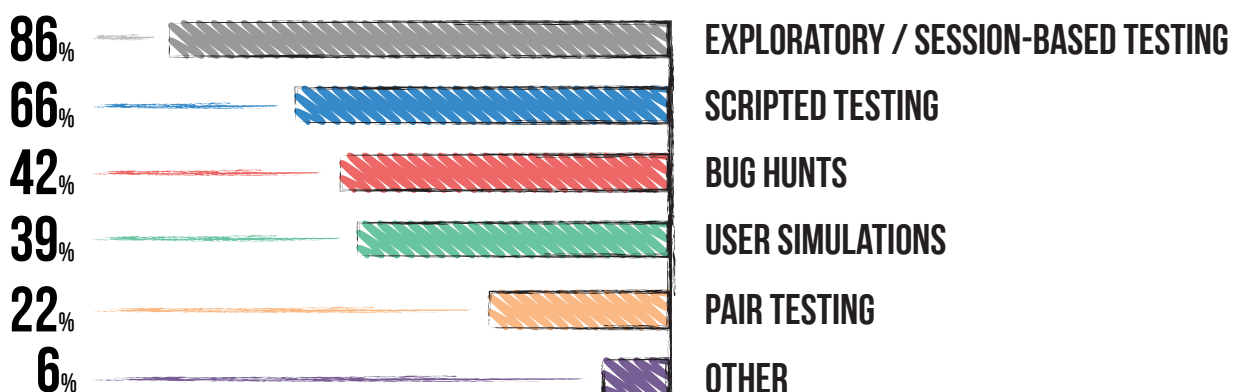
**ROLES OF TESTERS
(OTHER THAN TESTING! OF COURSE)**
(more than one answer per participant -> total is more than 100%)

Close to half of the respondents are in charge of maintaining the testing and/or development environments (guess we are good and making our systems work!). An interesting finding is that 28.5% of respondents are also in direct contact with their users via Customer Support and Professional Services tasks, work that also provides them with good inputs they can use to test based on their users "real needs"



It is also good to see that a blend of methodologies are used by testers as part of their day-to-day work. Still ET and SBT are the strong favorites of our respondents.

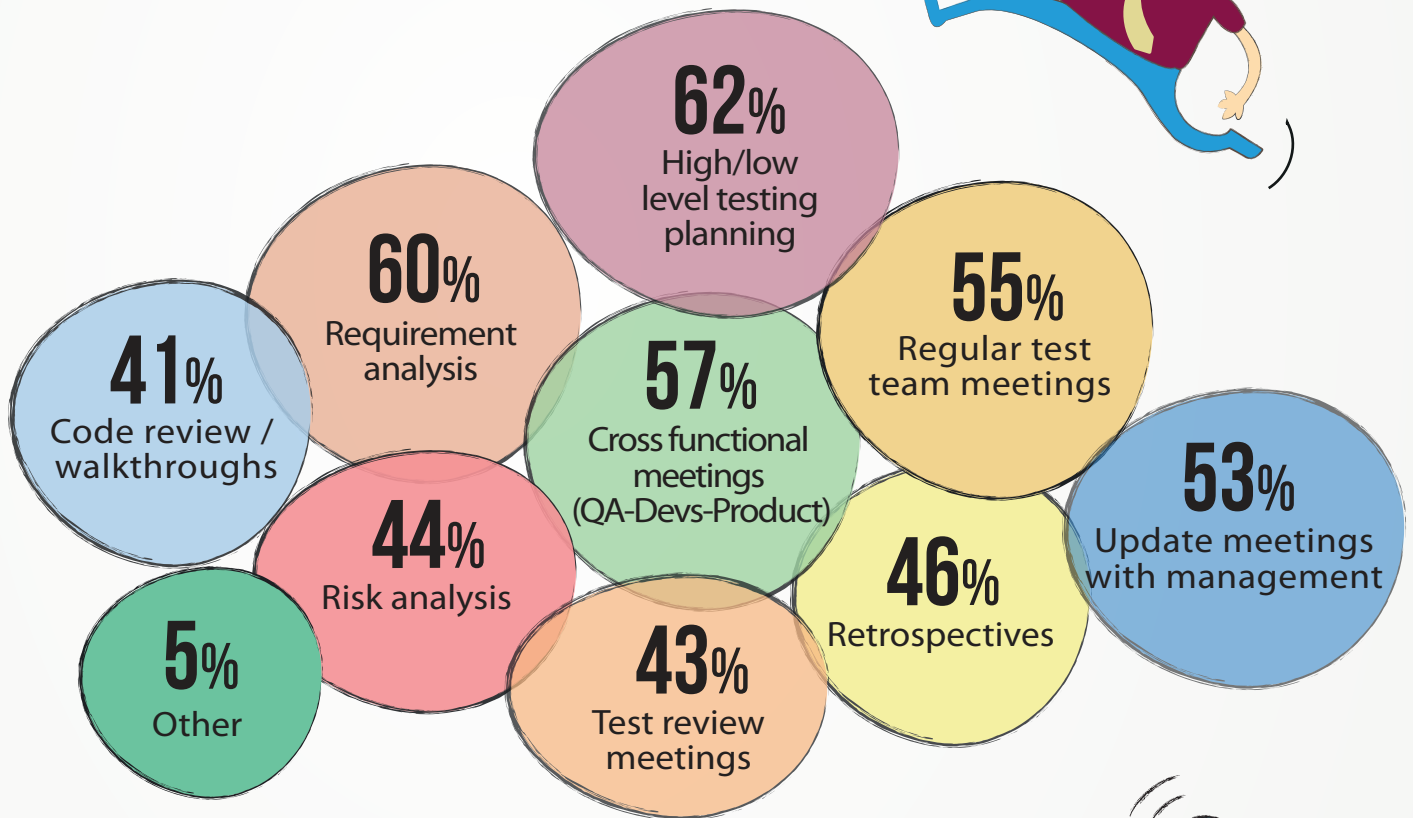
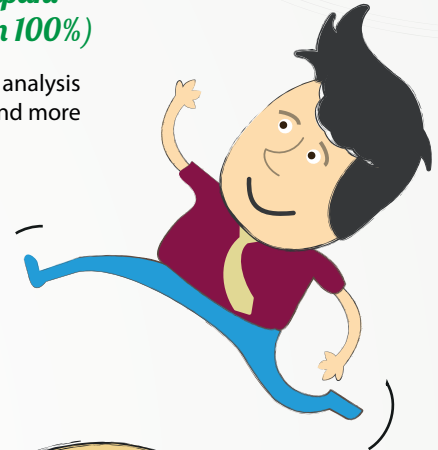
86% USE EXPLORATORY OR SESSION-BASED TESTING
(more than one answer per participant -> total is more than 100%)



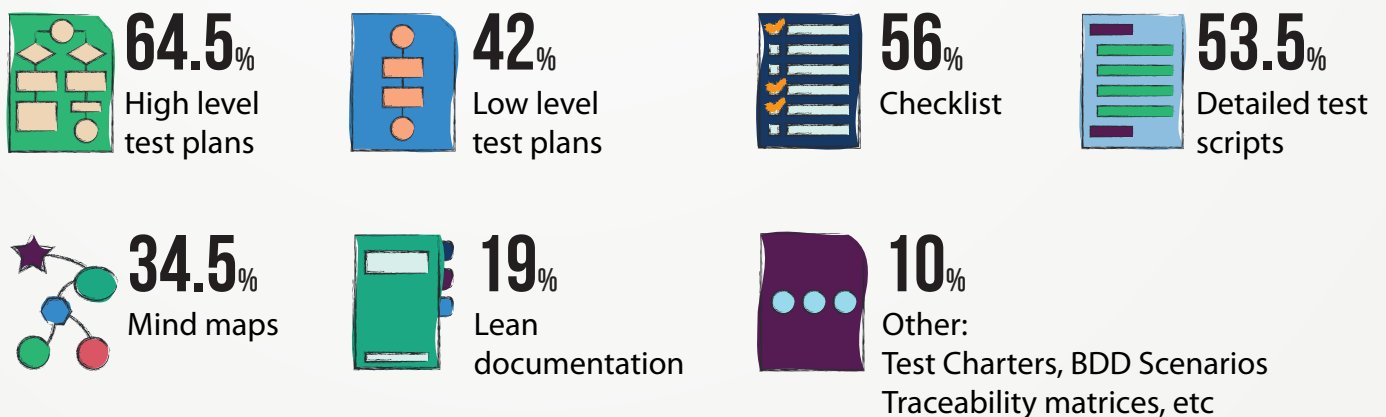
LARGE NUMBER OF STATIC TESTING AND REVIEW ACTIVITIES

(more than one answer per participant -> total is more than 100%)

It was fairly obvious to expect that many teams perform test planning and requirement analysis operations. What is not trivial is to see that over 40% testers participate in code reviews, and more than half of the respondents have regular meetings with their Management teams.

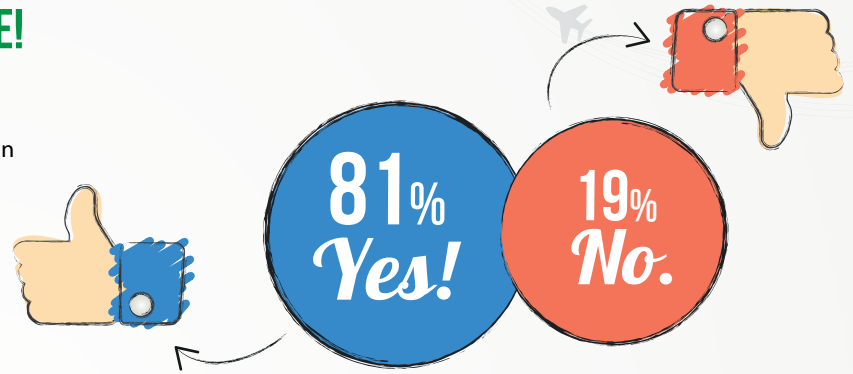


WHAT TEST DOCUMENTATION DO YOU USE?



81% OF RESPONDENTS AUTOMATE!

This is a nice surprise, over ¾ of our respondents have automation in their companies. This doesn't mean that everything is great, but at least this is a very good start in the right direction.

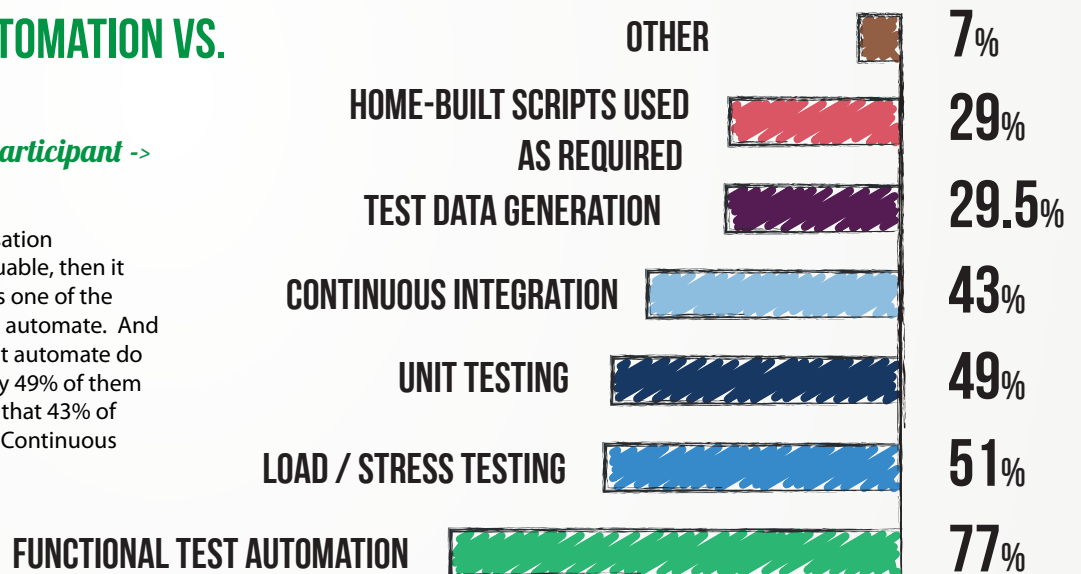


77% FUNCTIONAL AUTOMATION VS.

49% UNIT TESTING

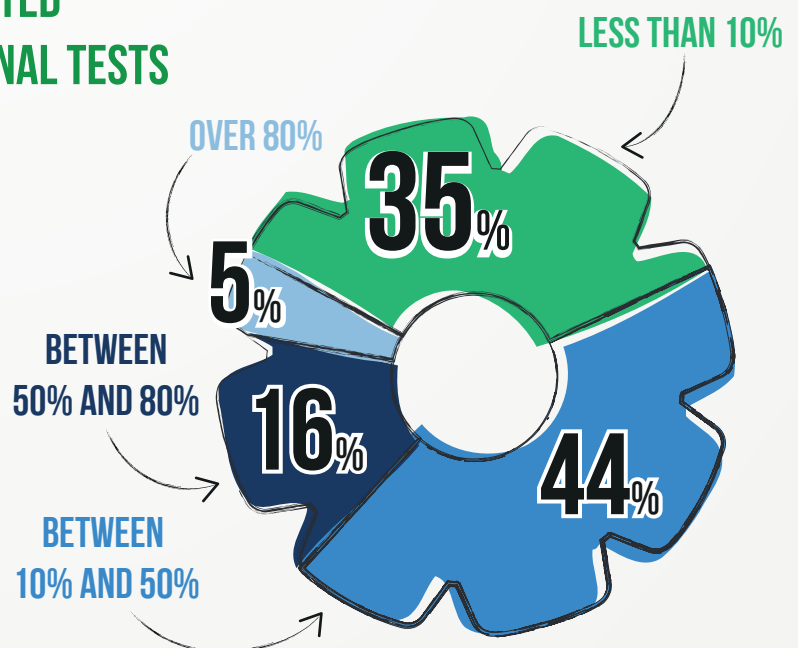
(more than one answer per participant -> total is more than 100%)

It stands to reason that if an organisation understands that automation is valuable, then it also understands that Unit Testing is one of the simplest and most effective ways to automate. And yet while 77% of the companies that automate do functional test automation, and only 49% of them unit test... A nice trend to follow is that 43% of respondents answer that they have Continuous Integration in their organizations.



1/3 OF RESPONDENTS HAVE AUTOMATED LESS THAN 10% OF THEIR FUNCTIONAL TESTS

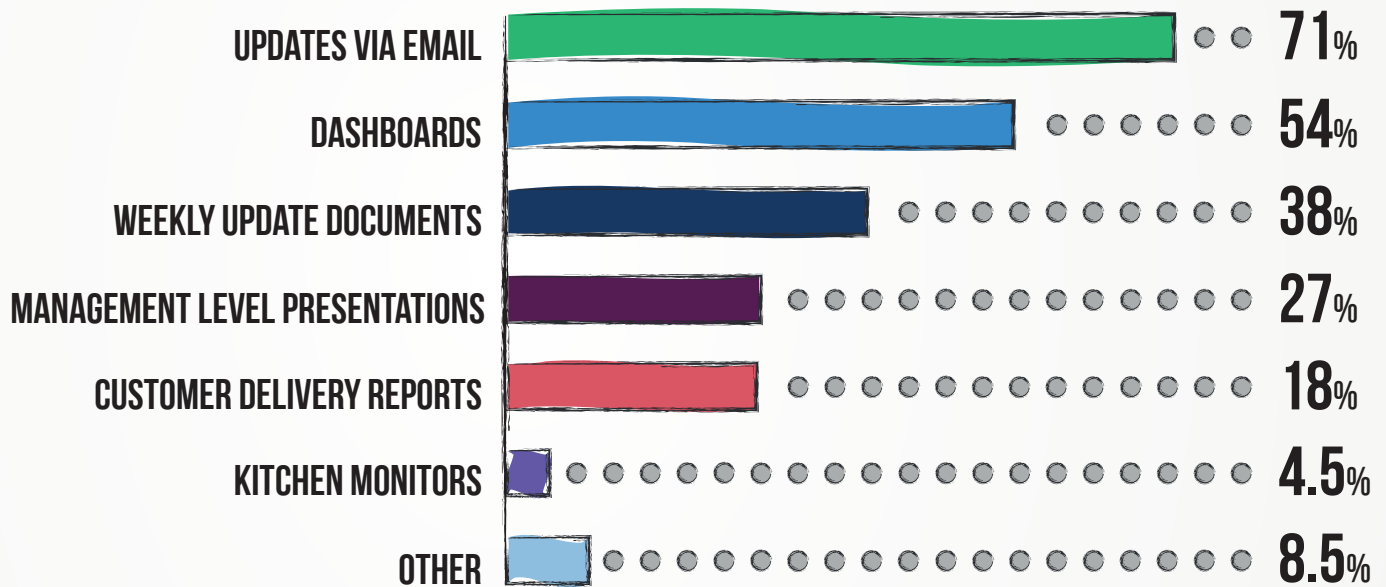
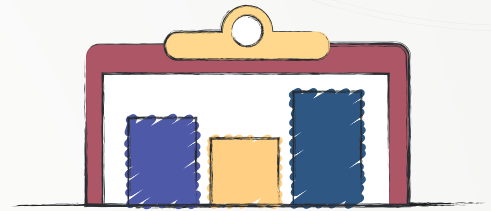
35% of the respondents have automated less than 10% of their functional testing coverage and close to ¼ (79%) have less than 50% tests automated. This information may show that it is impractical to automate high percentages of our work, something we can share with those managers who like asking "how come we don't automate all the tests in our teams..."



HOW DO YOU REPORT YOUR TESTING?

(more than one answer per participant -> total is more than 100%)

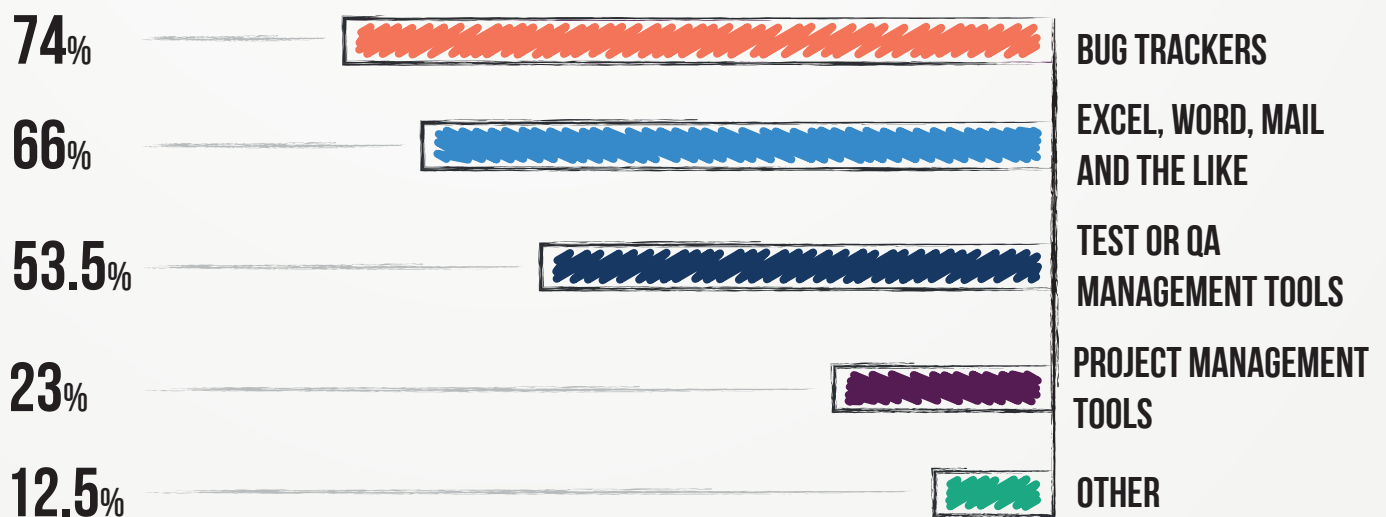
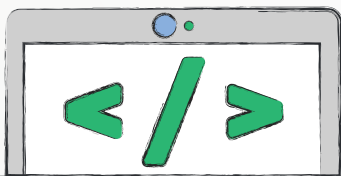
It is strange that 71% of respondents still rely on email to report their results, while Dashboards and Kitchen monitors (together) amount to less than 60% of overall responses. It makes us wonder, if stakeholders expect to get the information directly delivered; is it because it is not important enough to go and find it, or because we don't make it easy enough to be found...?



HOW DO YOU MANAGE THE INFORMATION IN YOUR PROJECT?

(more than one answer per participant -> total is more than 100%)

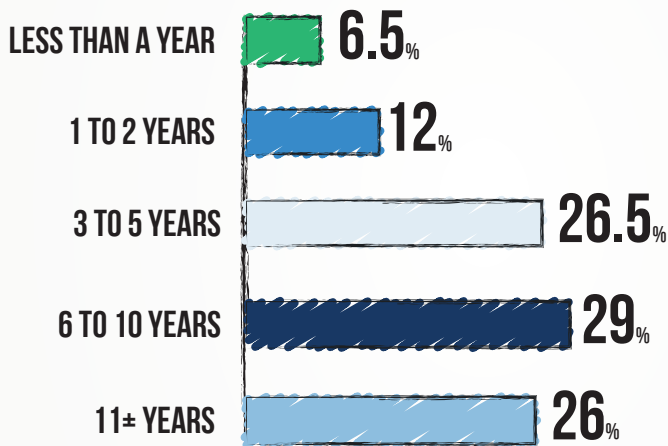
¾ of respondents have bug tracking systems, while over half of them (66%) still use non-specialized tools such as Excel, Word or Email to manage their process. Among the "others" we can find: Wikis, Sharepoint, Trello, etc.



TESTER'S PROFESSIONAL PROFILE

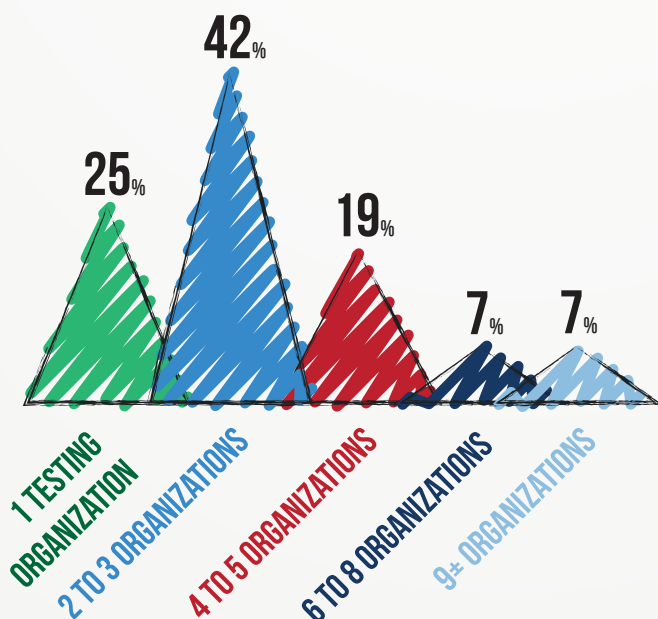
YEARS TESTING?

Testing seems to be maturing faster than we thought, with most respondents (29%) in the 6 to 10 years of experience in range. From the data behind the numbers we can see that North American testers are among the more mature, with 50% being in the 11+ years range. Middle Eastern and European respondents come in second place with around 40% of respondents in the 11+ year of experience category too.



COMPANIES WORKED AS A TESTER?

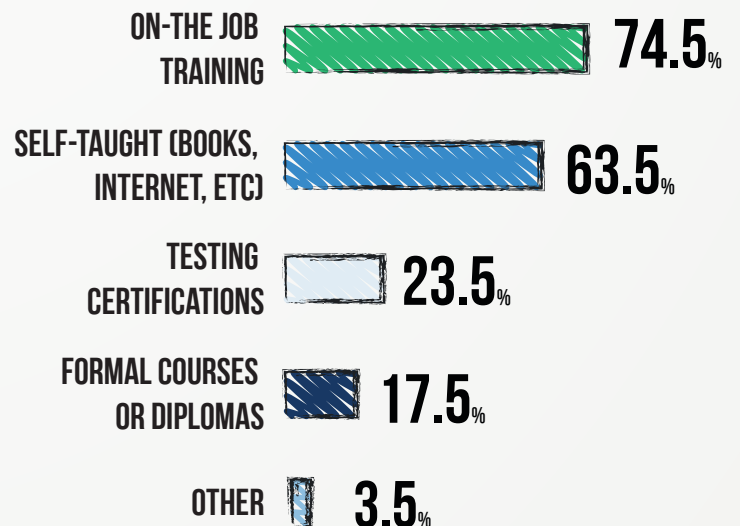
With respondents working for so long as testers, it is slightly surprising to see so many of them having worked with relatively less number of companies throughout their professional career till date. Might be because testing is a happy profession after all?



HOW DID YOU LEARN TO TEST?

(more than one answer per participant -> total is more than 100%)

The majority of respondents learned to test as part of their work and based on their own efforts (on-the-job training & self-taught). Still a high number of respondents (above 40%) do have some sort of certification or testing diploma on their name.



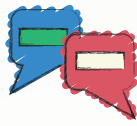
ON-GOING TESTING EDUCATION

(more than one answer per participant -> total is more than 100%)

No surprise that most respondents to an "Internet Survey" keep up to date via Blogs, Communities and Forums. It was interesting to see that Weekend Testing has a considerable following i.e. 8.5%, and so do testing competitions as per 8% of respondents.



86%
TESTING BOOKS
AND BLOGS



60%
ON-LINE COMMUNITIES
AND FORUMS



46%
TESTING CONFERENCES
AND SEMINARS



44%
TESTING
MAGAZINES



26%
FORMAL
COURSES



8.5%
WEEKEND
TESTING



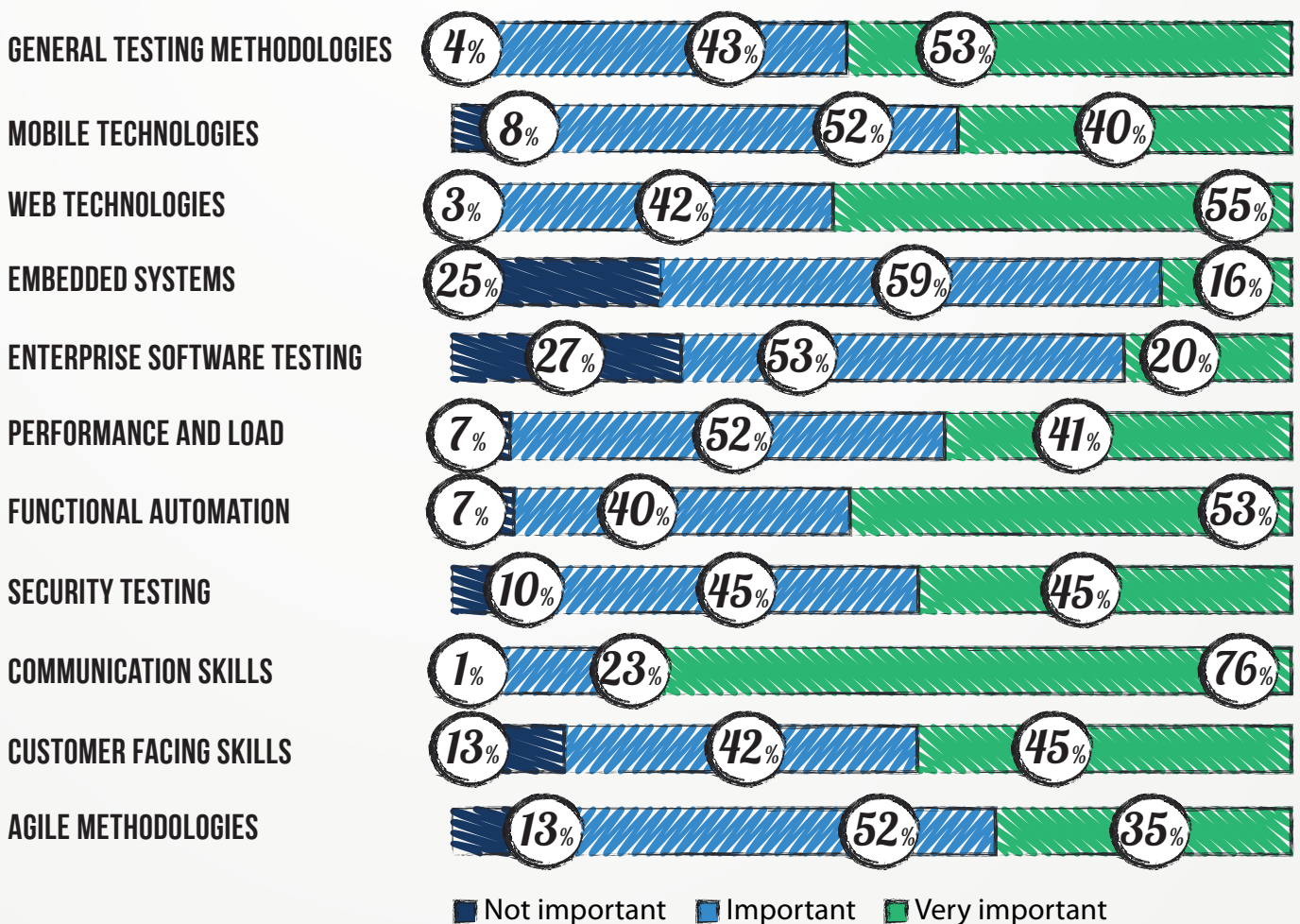
8%
TESTING
COMPETITIONS



8%
OTHER

HOW IMPORTANT ARE THE FOLLOWING TESTING SKILLS?

Communication skills is by far the most important skill, general testing and web technologies were also ranked as the very important skills as well.

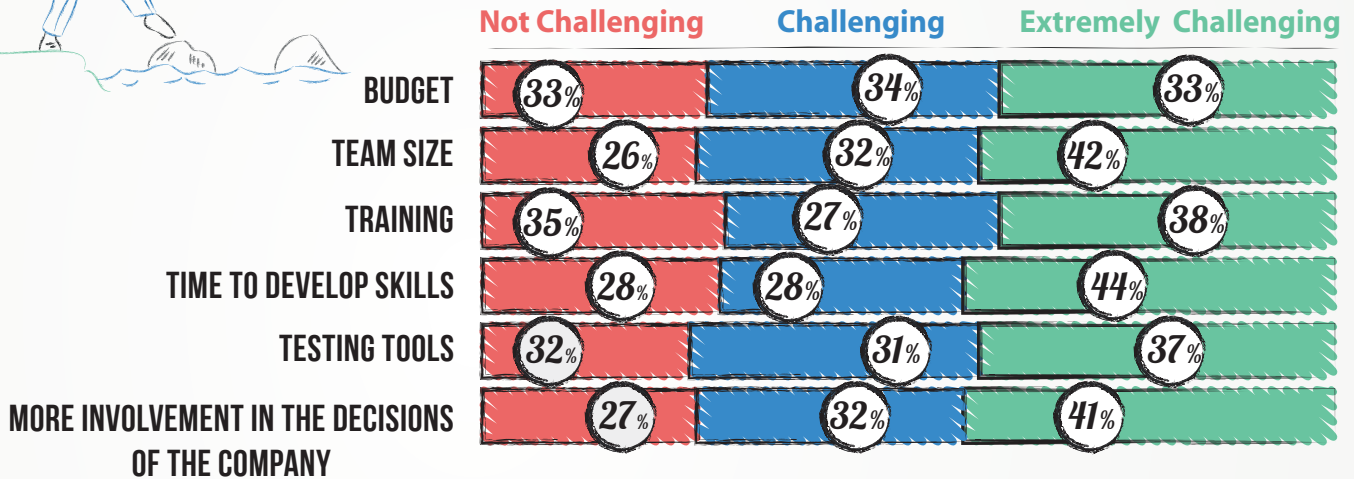


** Among other skills cited were: Curiosity, Flexibility, Problem solving, and self learning skills; and also technical skills such as general programming, SQL/DB skills, and scripting.

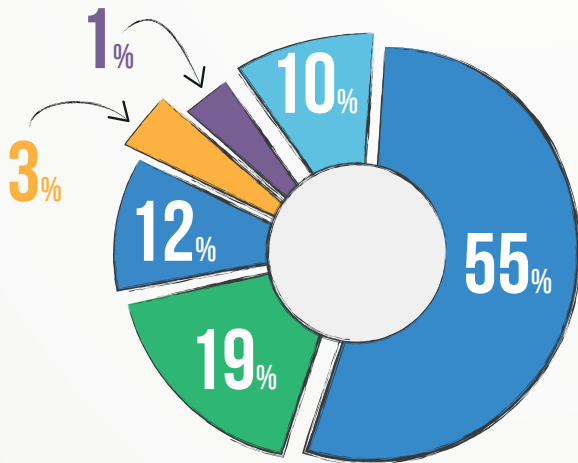
TESTING CHALLENGES AND YOUR PREDICTIONS TO THE FUTURE



TEAM CHALLENGES



** Among other challenges cited were: Politics, Testing in Agile, Recruiting good testers, working as the single tester, and communicating the work we do as testers.



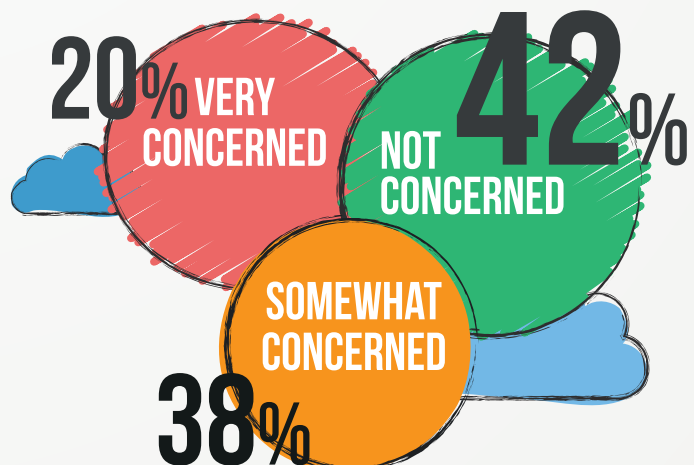
WHERE WILL YOU BE IN 5 YEARS?

More than half of the responders see themselves in testing within the next 5 years, but almost 1/4 don't really know where will they be. Among the "other" replies we got: Product or Project manager, Consultant, and some people who hope to be retired and enjoying life :-)

- Tester or test manager
- Don't know what will I do in 5 years
- Business role
- Programming
- I will not be in the technology industry
- Other

ARE YOU CONCERNED ABOUT YOUR JOB?

It is slightly troubling to see that over half of the respondents are concerned about their future in testing to some extent. Could this be caused by some global trend not related to our profession or by something that is testing-specific...? We guess we will need to figure this out in our next year's survey.



A FINAL NOTE

Regardless of different locations, experience level, nature of our projects, or testing environments, it is interesting to learn that we testers face more or less similar challenges. This common reality should serve as 'food for thought' for the next steps we all plan to do as we embark in the future of our careers.

It will be worth reviewing how the facts related to software testing change in coming years. As we all know by now, to understand our paths we need to understand where we stood yesterday and where we will be leading our profession in the future. This is why we plan to conduct this 'State of Testing Survey' for years to come.

As testers we understand that we need to learn from our experience and so we would love to get your feedback. If you have any ideas or suggestions to improve this survey and if you would wish to help us for next survey, please feel free to get in touch.

We recognise this survey a success as a whole. We thank all the awesome people listed in the collaborators page for their support and we look forward to see more test enthusiasts joining us in this project next time.

See you by end of 2014!

ABOUT TEA-TIME WITH TESTERS

Tea-time with Testers, is the largest-circulated software testing monthly in the world. As the wave of change sweeps business, testing field and community of testers like never before, Tea-time with Testers has ensured that its readers have all the necessary upgrades to challenge tomorrow. It takes its readers deeper to give a complete understanding of the world of software testing.

Ever since its inception in 2011, it has set one benchmark after another in testing publication circle. It was the first to do serious reporting on software testing theories and thoughts. And then again, it is the first to bring a whole new genre of technical/corporate journalism more upclose and more incisive. It is the only monthly magazine in global testing community known for quality of its content, authors and unique way of presenting the information. Today, Tea-time with Testers commands the highest circulation and readership among all English language testing magazines in the world.

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ABOUT PRACTITEST

PractiTest is a privately-held company that focuses on providing a QA and test management solution that is quick to deploy and easy to use on the one hand, but methodological and customizable on the other hand. As a technological and methodological leader in the field of Application Life Management, PractiTest provides its customers with the best in class system to meet their Testing and QA needs. Founded in 2008, PractiTest strives to provide high-quality products with a focus on integrity and honesty.

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www.practitest.com

COLLABORATORS

The Social Tester

<http://thesocialtester.co.uk>

Quality Remarks

<http://qualityremarks.com>

MORE Software Test

<http://moresoftwaretest.blogspot.co.il>

All Things Quality

<http://www.allthingsquality.com>

Qxf2 Services

<http://qxf2.com/blog>

World of Clean Software

<http://www.stagsoftware.com/blog>

TESTHEAD

<http://www.mkltesthead.com>

Tester's Notebook

<http://testersnotebook.wordpress.com>



<http://www.qualitytesting.info/forum>

The Testers Edge

<http://thetestersedge.com>

Adventures in QA

<http://dnlkntt.wordpress.com/>

QualityContinuous

<http://andrei.contan.ro>

Inspired Tester

<http://www.inspiredtester.com>

Stephen Janaway

<http://www.stephenjanaway.co.uk>

Testing Curator Blog

<http://blog.testingcurator.com>



<http://enjoytesting.blogspot.in>



<http://qainsights.com/>



<http://geekonomicon.wordpress.com>

ANNA BE TESTING

<http://annabetesting.blogspot.co.uk>

My Technology Fetish

<http://www.mytechfetish.com>

Warptest

<http://warptest.com>

Club QA Blogs

club quality assurance. users blogs

<http://clubqa.ru/blogs>

MIKE LYLES' BLOG

<http://mikelyles.wordpress.com>

Software Testing - Research..Learn..Share



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Pasión por el Software Testing

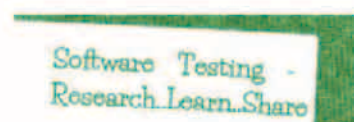
<http://testingbaires.com>



<http://www.jayphilips.com>

TestSheepNZ

<http://testsheepnz.blogspot.in/>



<http://testingeduindia.blogspot.in>

* If you have helped us promote this survey and don't see your name listed here, please let us know.