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International Software Testing Qualifications Board

Software Testing Career Progression

19 April 2016

Brisbane

Marie Walsh

Who are you?
and
What are your thoughts?

Open a web browser and go to:
respond.cc

What is your current job title?

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Job Title

What is your current job title / role?

- ○ Tester
- ○ Test Analyst
- ○ Test Lead
- ○ Test Automation Specialist
- ○ Test Consultant
- ○ Test Manager
- ○ Developer
- ○ Project Manager
- ○ Systems Analyst
- ○ Business Analyst
- ○ Trainer
- ○ Coach
- ○ Systems Admin
- ○ Other IT role
- ○ Other Non-IT role

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What is your current job title?

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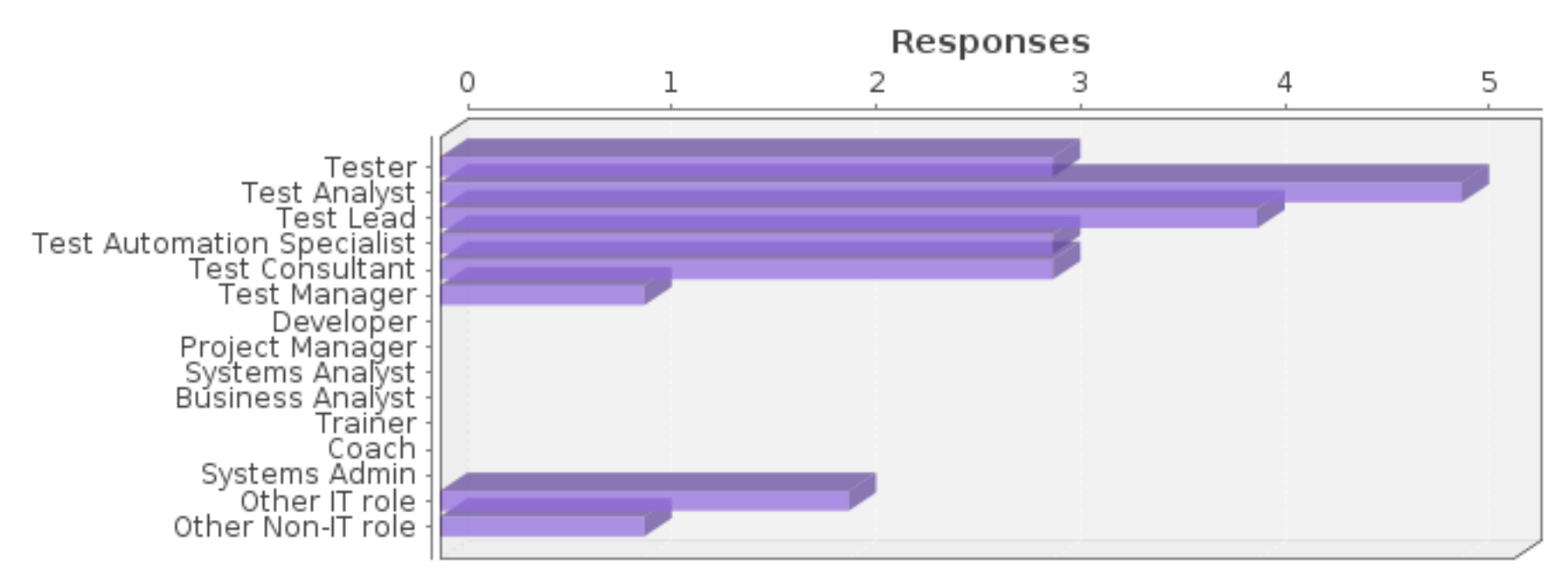
Brisbane SIGIST Responses



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Length of time in Testing?

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Length of time

How long have you been in in the software testing industry?

- 0
- < 1 year
- 1 - 2 years
- 3 - 5 years
- 5 - 10 years
- 10 - 15 years
- 15 - 20 years
- > 20 years

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Length of time in Testing?

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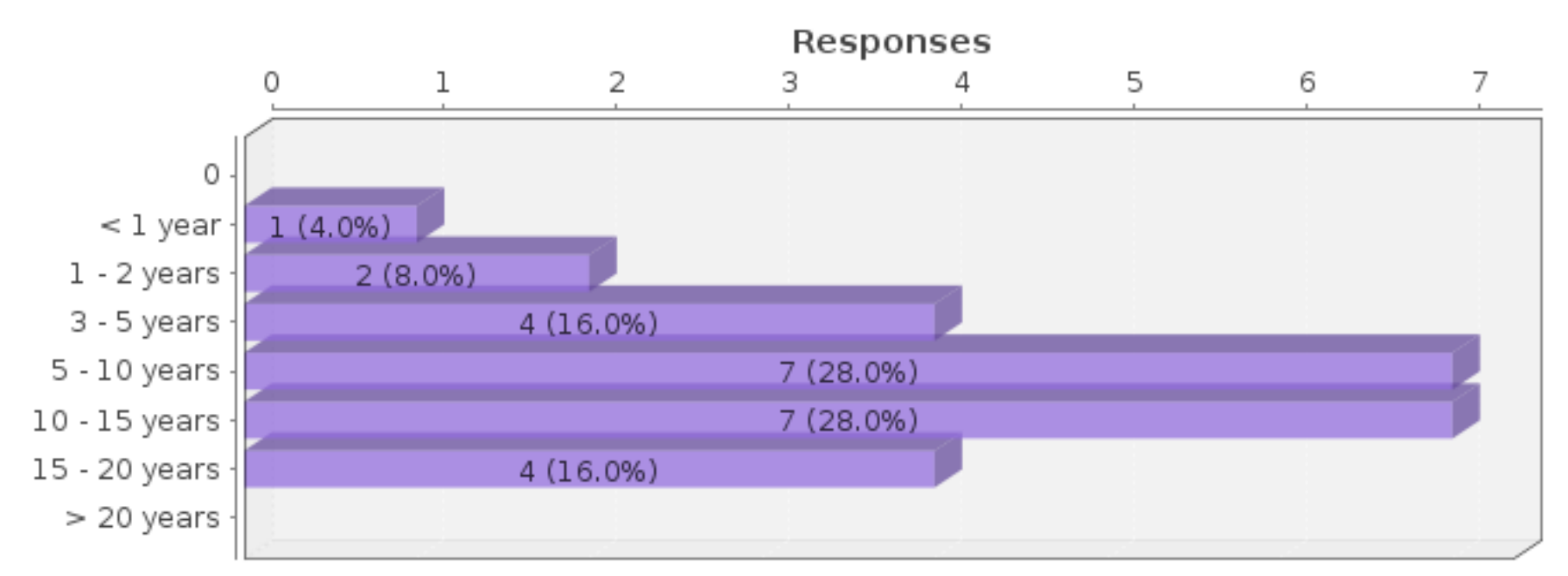
Brisbane SIGIST Responses



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Development Methodology / Approach?

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Methodology / Practice

Which software development methodology / practice do you currently use at work?

- ○ Waterfall
- ○ VModel
- ○ Agile - Scrum
- ○ Agile - Kanban
- ○ Agile - Lean
- ○ Agile - Other
- ○ I'm not sure
- ○ I don't work in IT

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Development Methodology / Approach?

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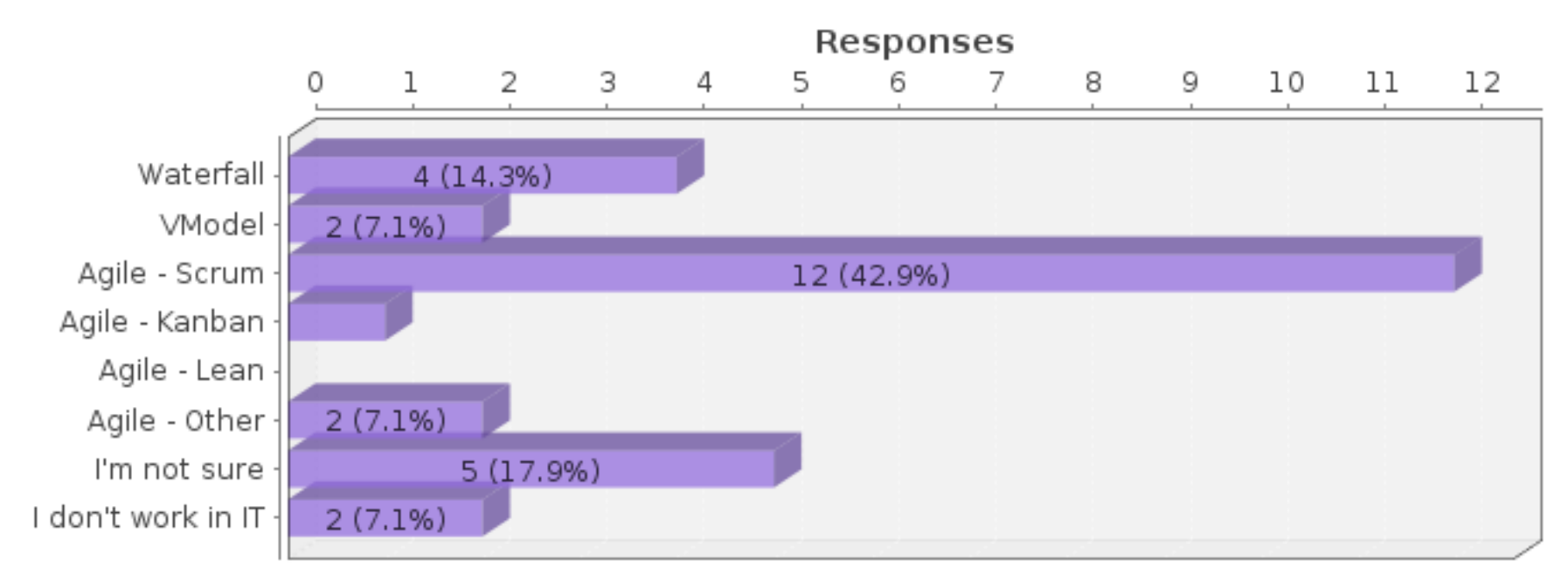

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Future of Software Testing?

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Future of Testing

What do you believe is the future of Software Testing (in the next 5 to 10 years)

- ○ No Change
- ○ Move towards more Test Automation
- ○ Move towards DevOps
- ○ Move towards crowdsource testing
- ○ Move towards outsource testing

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Future of Software Testing?

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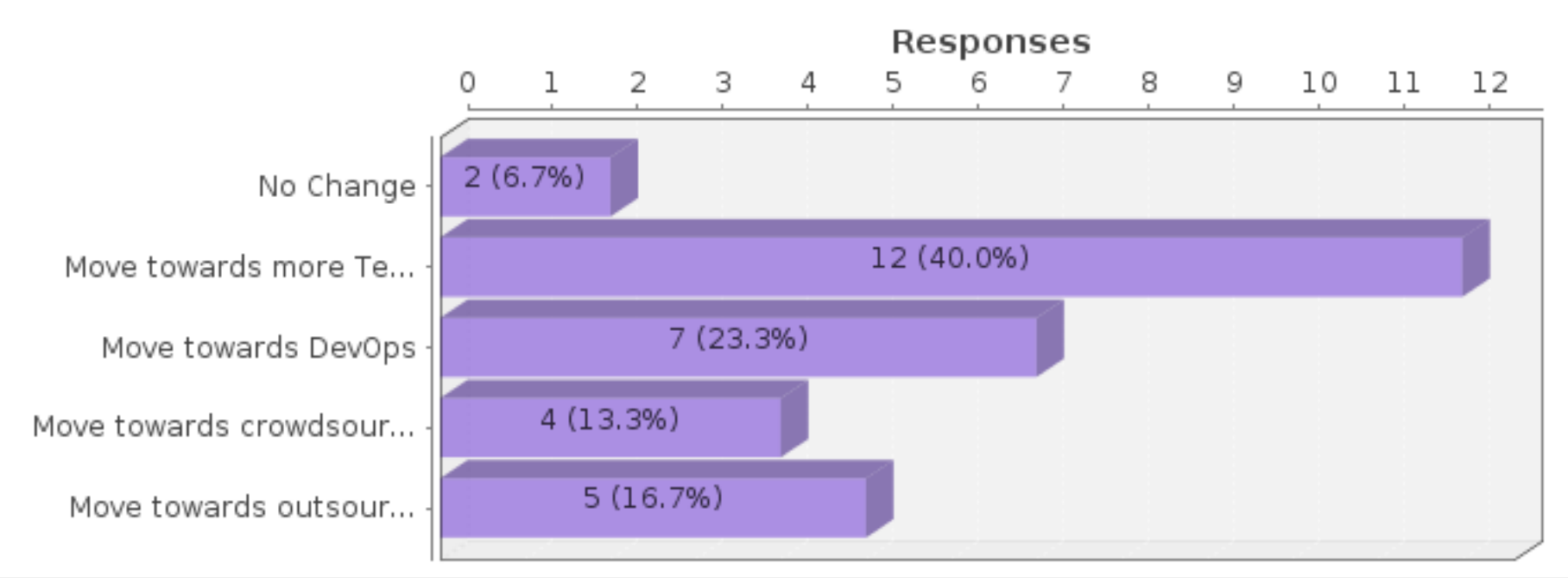

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Industry Trends?

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Industry Trends

Which industry trends / technology do you believe will influence development and software testing in the next 5 years? (select as many as applicable)

- [ ] Test Automation
- [ ] Agile
- [ ] DevOps
- [ ] Mobile
- [ ] Cloud
- [ ] Virtualisation
- [ ] Continuous Integration
- [ ] Continuous Delivery
- [ ] Digital
- [ ] Security
- [ ] Big Data
- [ ] Business Intelligence
- [ ] Web
- [ ] Off shoring
- [ ] Crowdsourcing
- [ ] Open Source

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Industry Trends?

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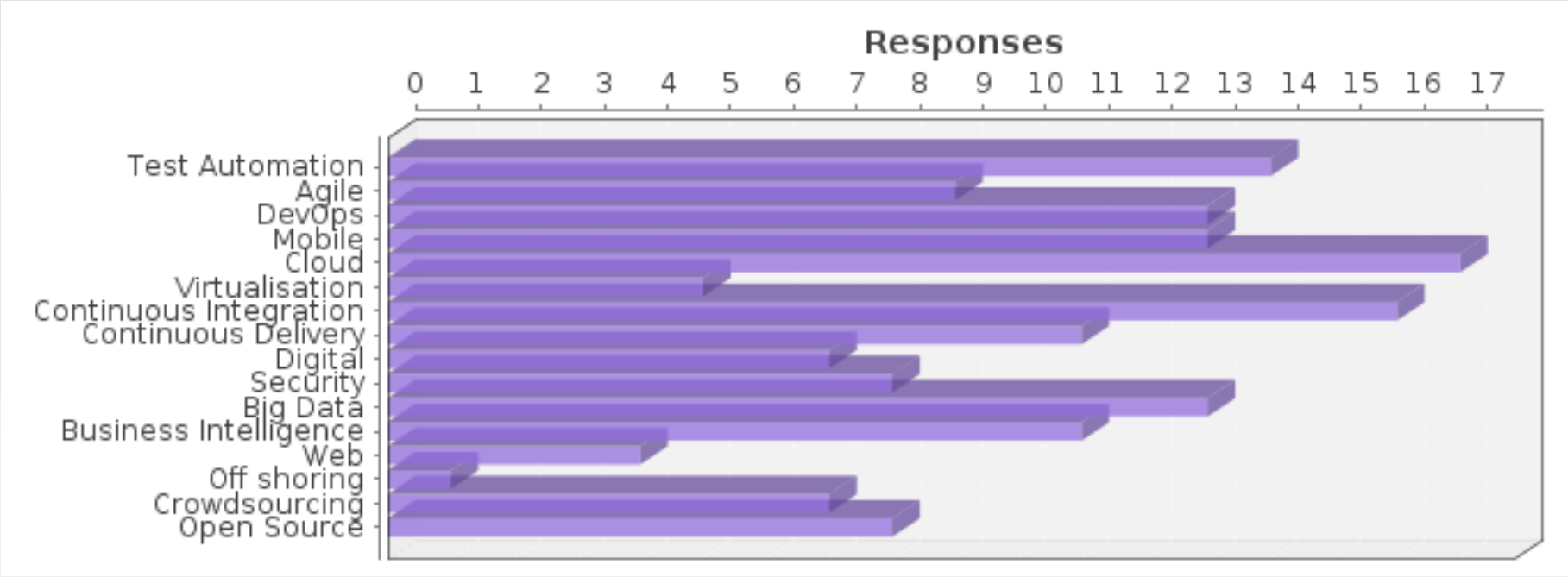
Brisbane SIGIST Responses



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Industry Trends?

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Code	Response	#	%
A	Test Automation	14	8.9
B	Agile	9	5.7
C	DevOps	13	8.3
D	Mobile	13	8.3
E	Cloud	17	10.8
F	Virtualisation	5	3.2
G	Continuous Integration	16	10.2
H	Continuous Delivery	11	7.0
I	Digital	7	4.5
J	Security	8	5.1
K	Big Data	13	8.3
L	Business Intelligence	11	7.0
M	Web	4	2.5
N	Off shoring	1	0.6
O	Crowdsourcing	7	4.5
P	Open Source	8	5.1

Responses **27** Selections **157**

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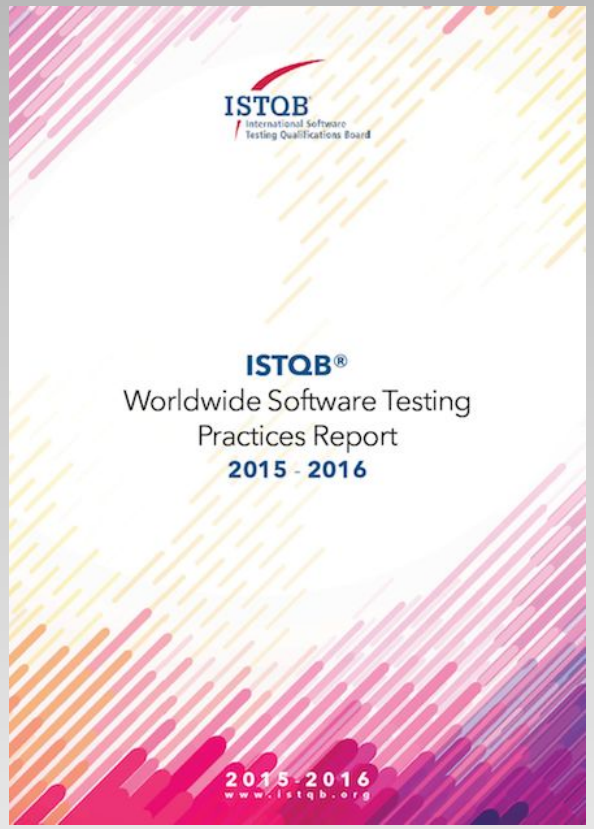
ISTQB® Worldwide Software Testing Practices Report 2015-2016



http://www.istqb.org/references/surveys/istqb-worldwide-software-testing-practices-report.html

The most significant findings from ISTQB® Worldwide Software Testing Practices Report 2015-2016

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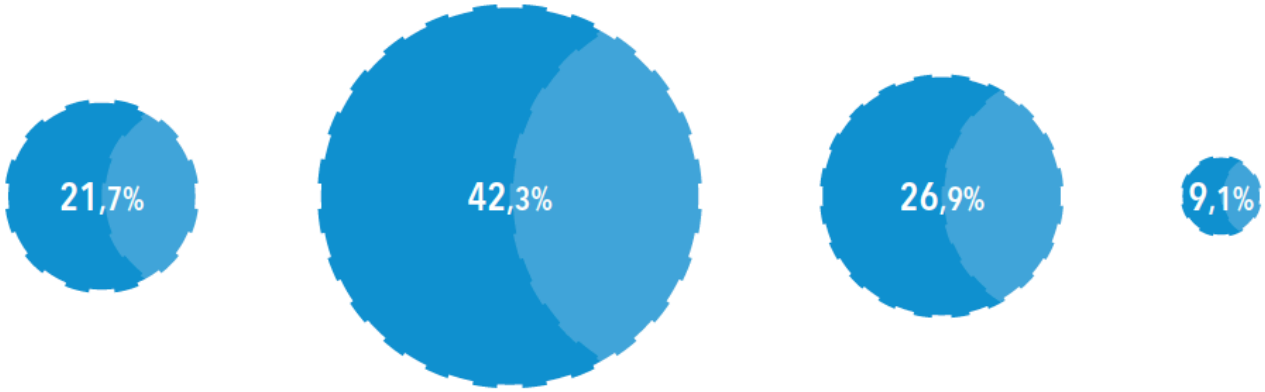
1. Budgets assigned to testing are large and keep on growing.

What percent of a typical IT/ R&D project budget is allocated to software testing?



The large majority of respondents indicate budgets between 11% and 40%.
This is in line with World Quality Report 2015-16 that indicates an average expenditure of 26% for 2014 and 35% for 2015.

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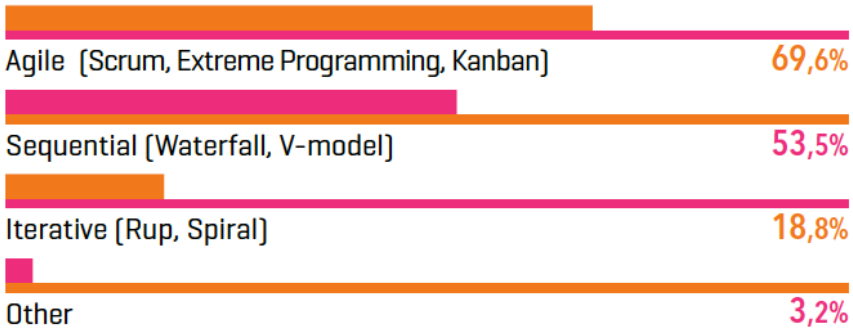
2. Agile based SDLCs are being adopted ahead of traditional ones (Waterfall or V-Model).

Which Software Development Lifecycle (SDLC) model are you using? (Multiple answers were allowed.)



Agile based SDLCs are being adopted significantly more often than traditional ones.(Waterfall or V-Model)

Agile methodologies are significantly increasing in popularity; this underlines the need to have appropriate testing processes and techniques also for Agile, combined with certification of testing competences.

ISTQB® has recently launched a specific certification module for "Agile Tester" with a strongly positive reply by the market, and in the near future will further extend the certifications on Agile testing at an Advanced level.

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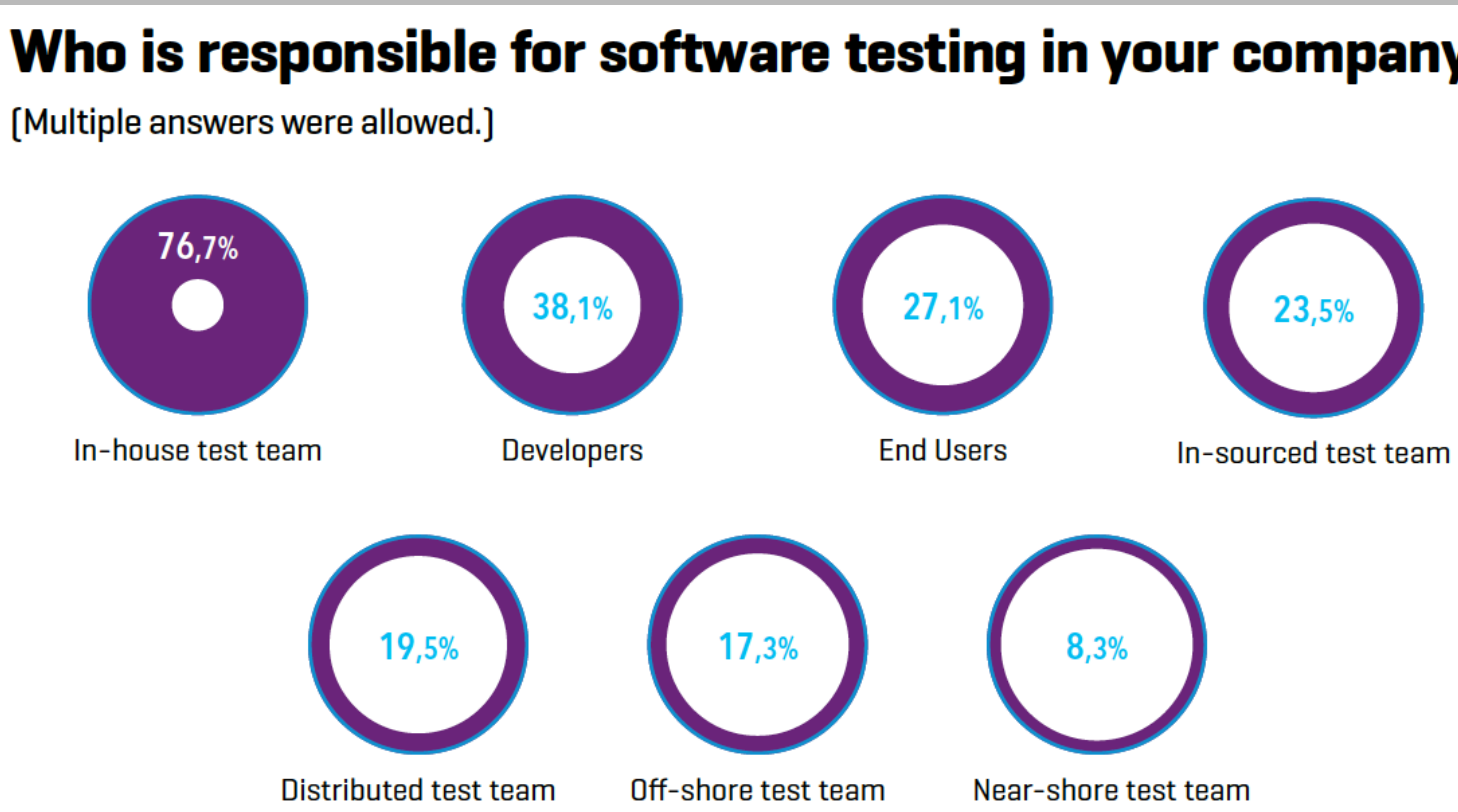
3. Segregation of duties has become a standard practice from an organizational point of view



In close to 80% of the cases, the responsibility of SW testing is assigned to an in-house test team; this confirms the increasing adoption of "segregation of duties", that is one of the key factors for the effectiveness of testing activities.

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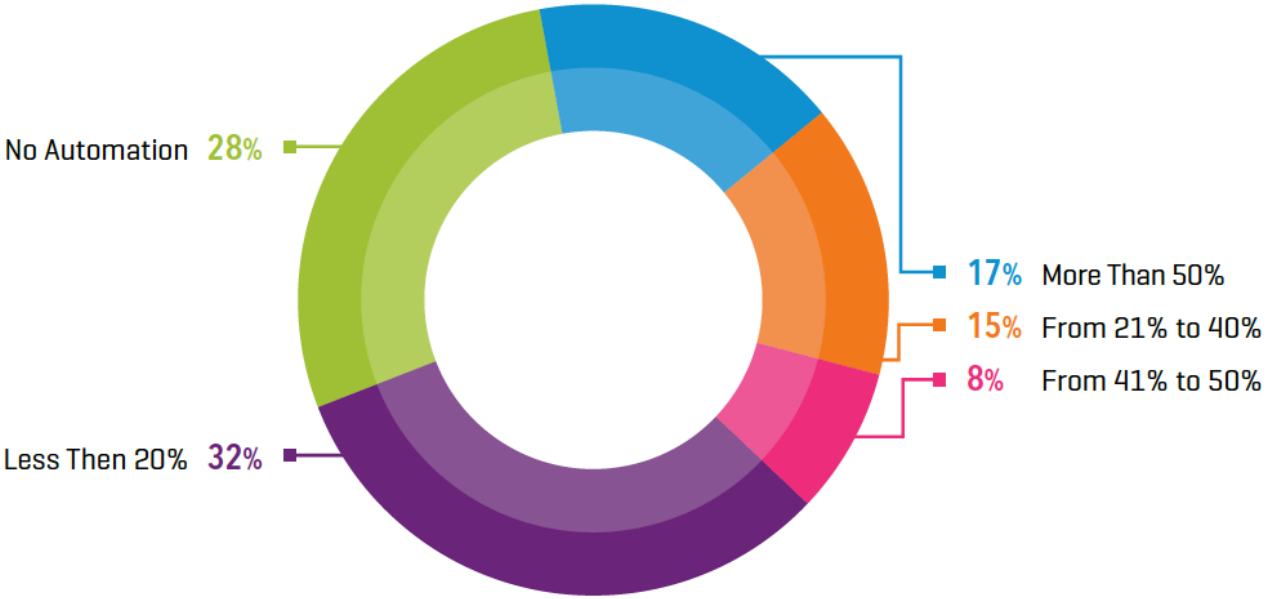
4. Test tools are widely adopted.

What is the percentage of automated test cases you use with respect to your overall test cases?



Test automation has become very widespread in the market, with 72% adoption; in 40% of the cases the percentage of automated test cases is well beyond 20%.

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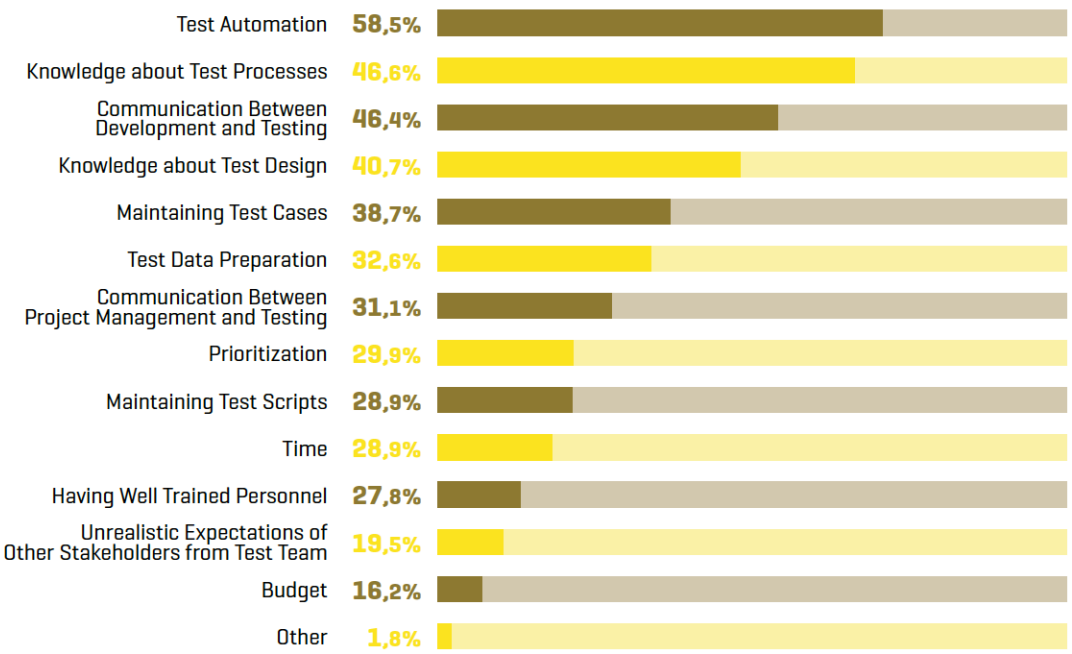
5. Test automation is a hot topic.

What are the main improvement areas in your testing activities? [Multiple answers were allowed.]



Test automation confirms to be a very hot topic, because it is at the same time one of the most adopted practices, an activity for which external support is sought and the area with highest improvement potential.

In this respect, ISTQB® is completing additional certification modules dedicated to test automation for both the traditional SDLC and for the Agile context.

The survey indicates that there are still significant improvement opportunities in test process, communication and test techniques, that have been cornerstones of ISTQB® syllabi since the certification scheme began.

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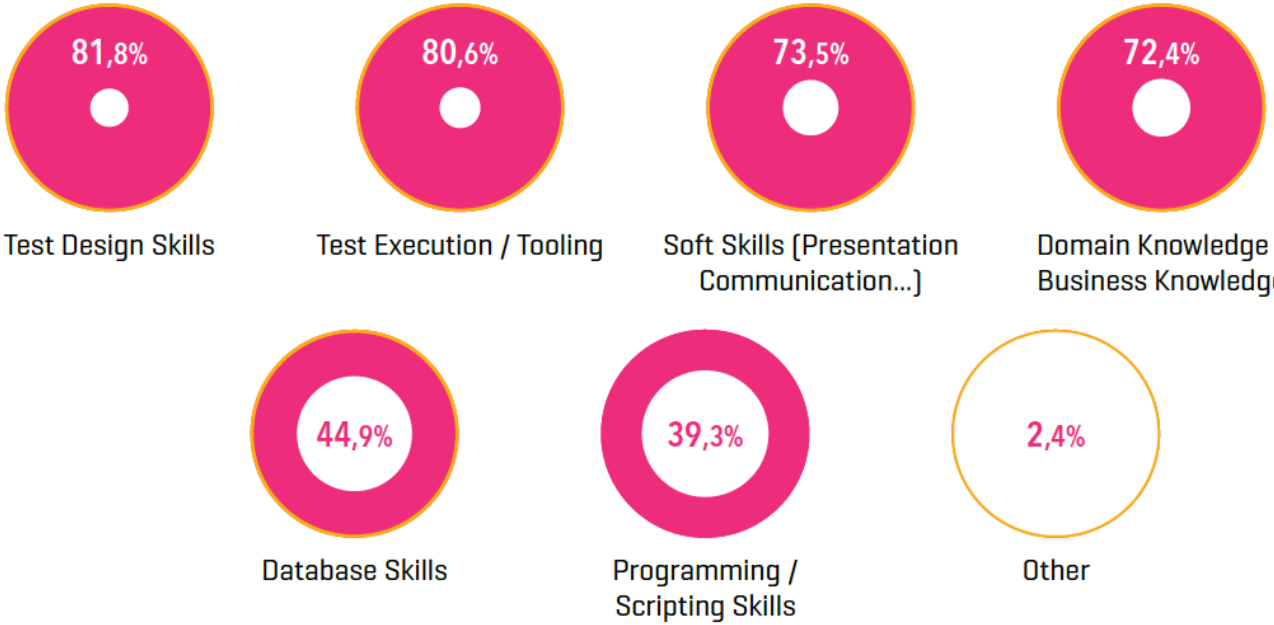
6. Testing requires a wide range of skills and competencies.

Which skills do you expect from testers?

[Multiple answers were allowed.]



A good tester should be able to combine Technical Skills (especially on test design and test execution tools) together with Soft Skills and Domain Knowledge.

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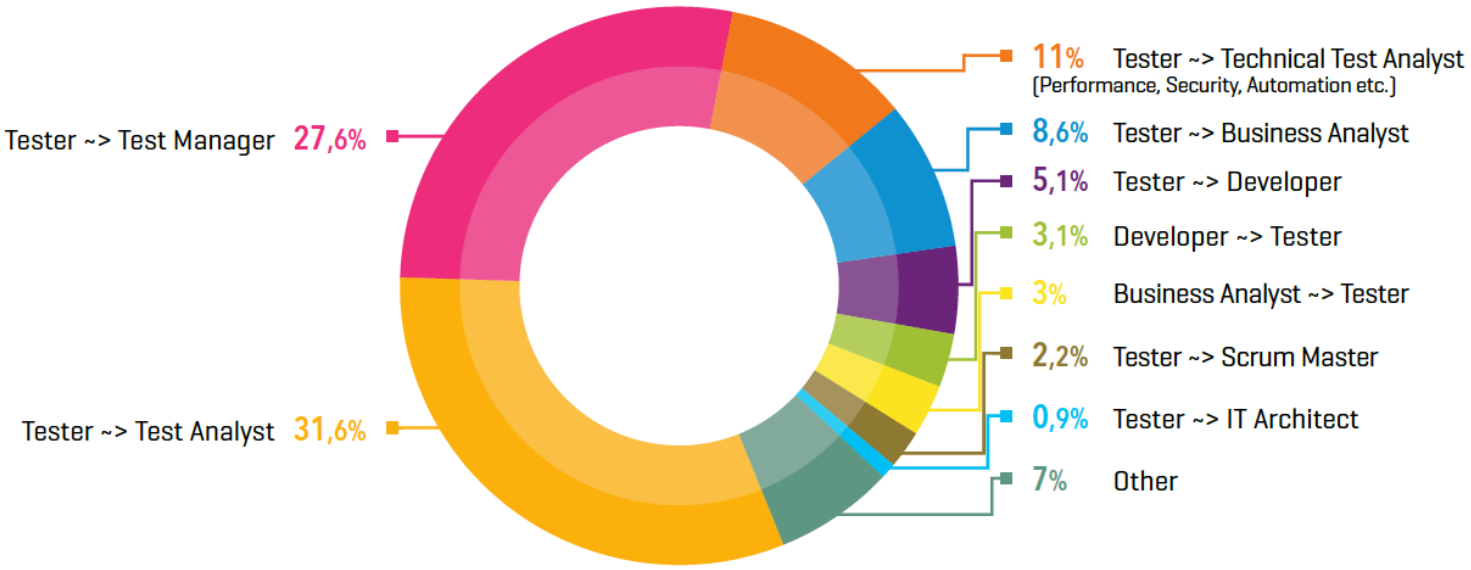
7. Important career paths are available for testers and test managers.

Which Career Path is more Common for a Tester in Your Organization?



In a typical tester's career path the next step is either becoming a test analyst (31.6%) or a test manager (27.6%).

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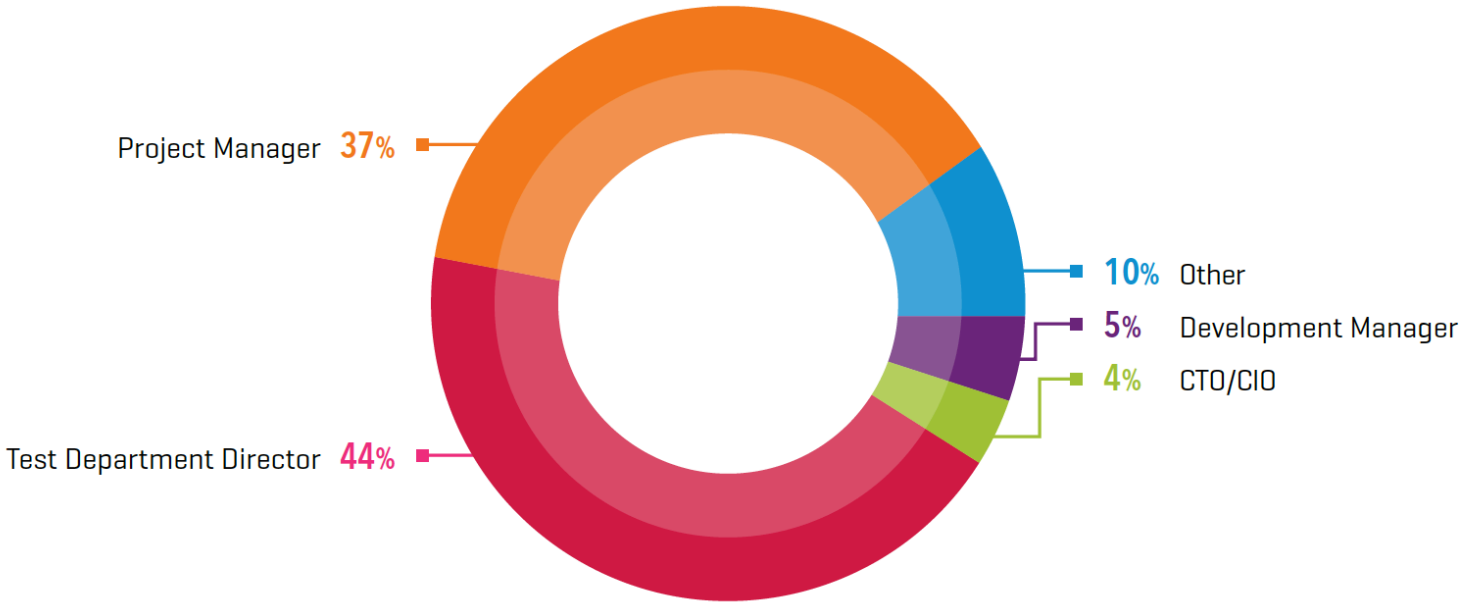
7. Important career paths are available for testers and test managers.

What could be the next level in the career path for a Test Manager?



The most common next step in the career path for a test manager is becoming test department director (44%) or project manager (37%).

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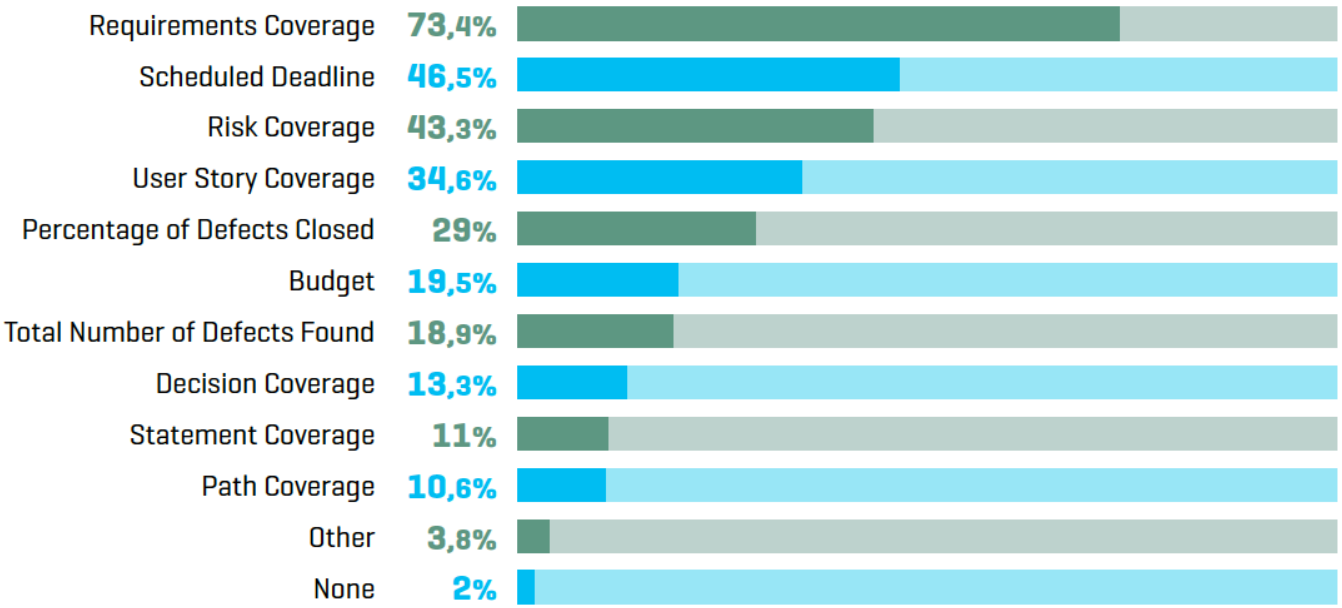
8. The decision of "When to stop testing" is mainly based on requirements coverage.

What are your test exit criteria? (Multiple answers were allowed.)



Requirements coverage is by far the most adopted criterion to decide when to stop testing. It is a bit worrisome to see that constraints imposed by scheduling is the second criterion, knowing by the quantitative analysis of Capers Jones (http://namcookanalytics.com/about/) that this one of the most dangerous practices in terms of quality and costs throughout the whole life cycle (including maintenance).

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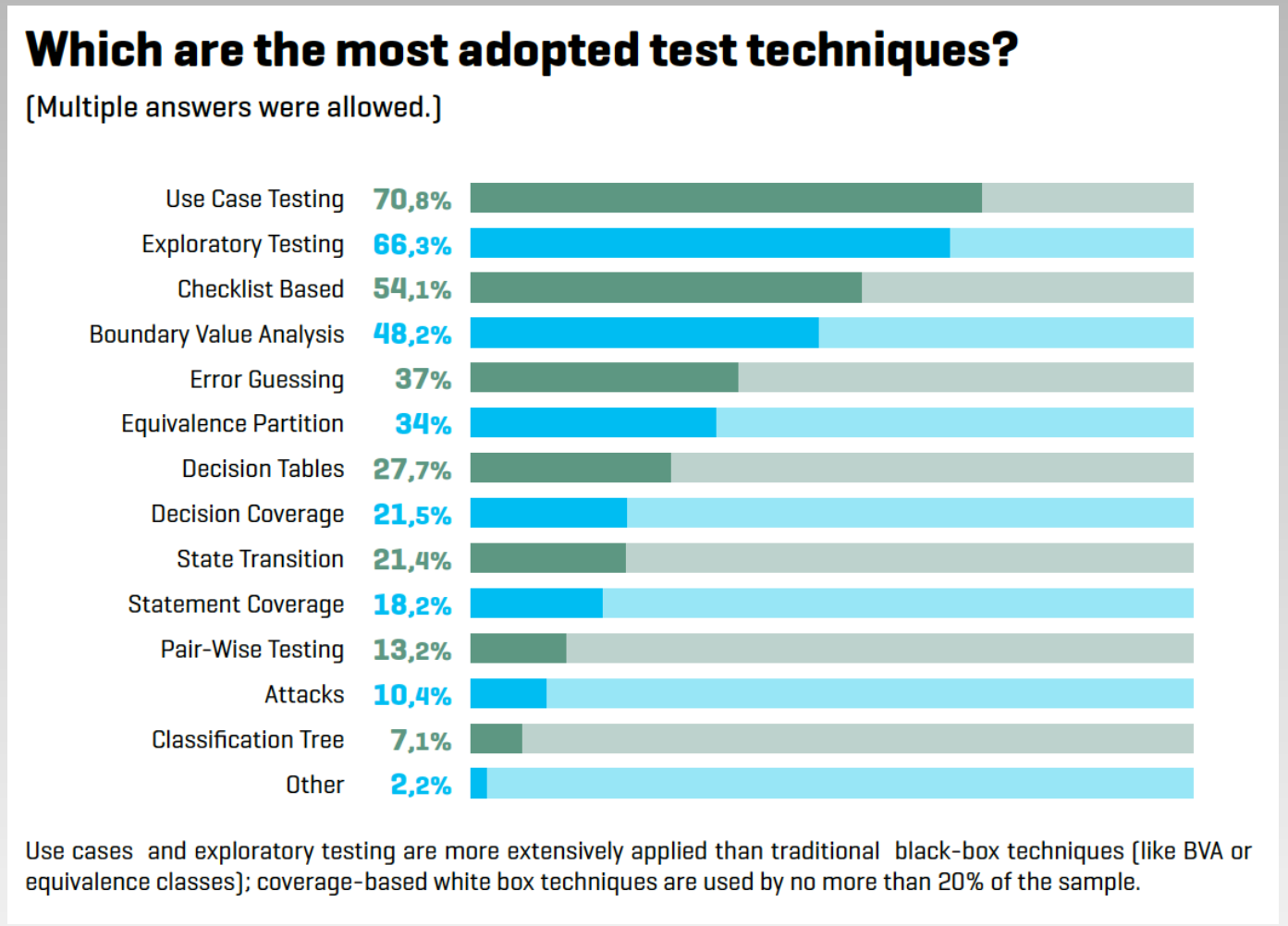
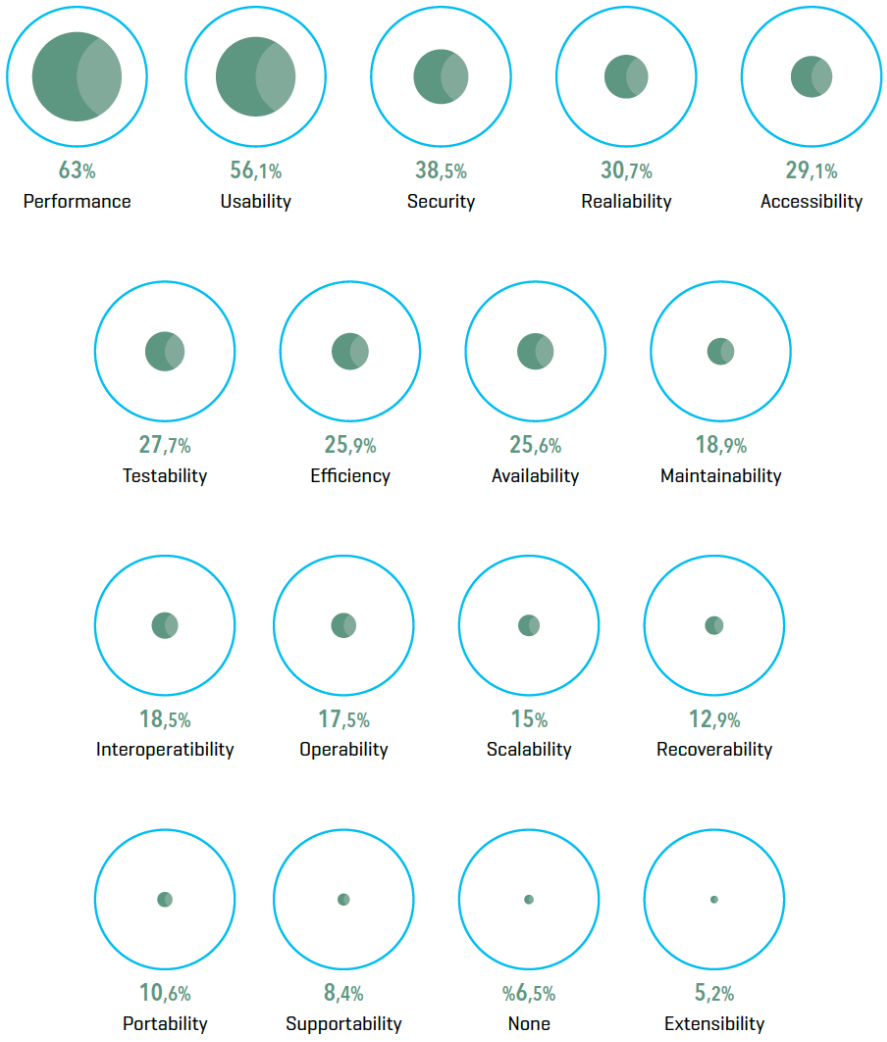
9. Use cases and exploratory testing are the most adopted test techniques in the business practices.



Which of the non-functional testing activities does your test team normally perform?

[Multiple answers were allowed.]



Performance, Usability and Security testing are the top-three non-functional testing activities. In the ISTQB® product portfolio evolution road-map these are among the highest priorities.

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10. Performance, usability and security tests are gaining traction.

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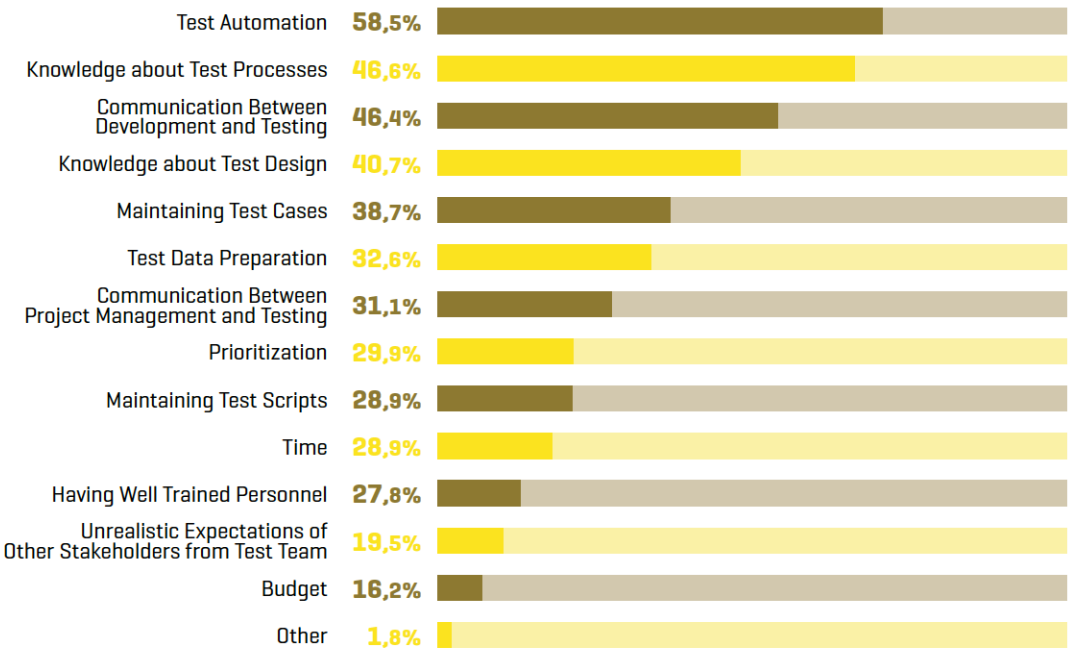
11. Several improvement opportunities are recognized

What are the main improvement areas in your testing activities? (Multiple answers were allowed.)



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Which career path to follow?

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How do you progress your career?

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- Participate and keep up to date with industry trends via surveys / indexes, examples include:
  - ISTQB® surveys
  - Planit Testing Index
  - World Quality Report
- Attend conferences and special interest group meetings, examples include:
  - ANZTB Conference
  - SIGISTS / Testers User Groups
  - Technical User Groups
  - Agile User Groups
  - UX user groups

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How do you progress your career?

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- Self Education, examples include:
  - Online technology courses (SQL, Java, Ruby, etc.)
  - Downloading and using open source tools (Selenium, SoapUI, LoadUI, etc.)

- ISTQB® Testing Certifications – new syllabi being released to keep up with industry requirements:
  - Foundation Level Agile Tester (Released)
  - Advanced Level Security Tester (due to be released soon)
  - Advanced Level Test Automation Engineering (in Beta review)
  - Foundation Level Usability Tester (in Beta review)
  - Advanced Level Agile – Technical (in Development)

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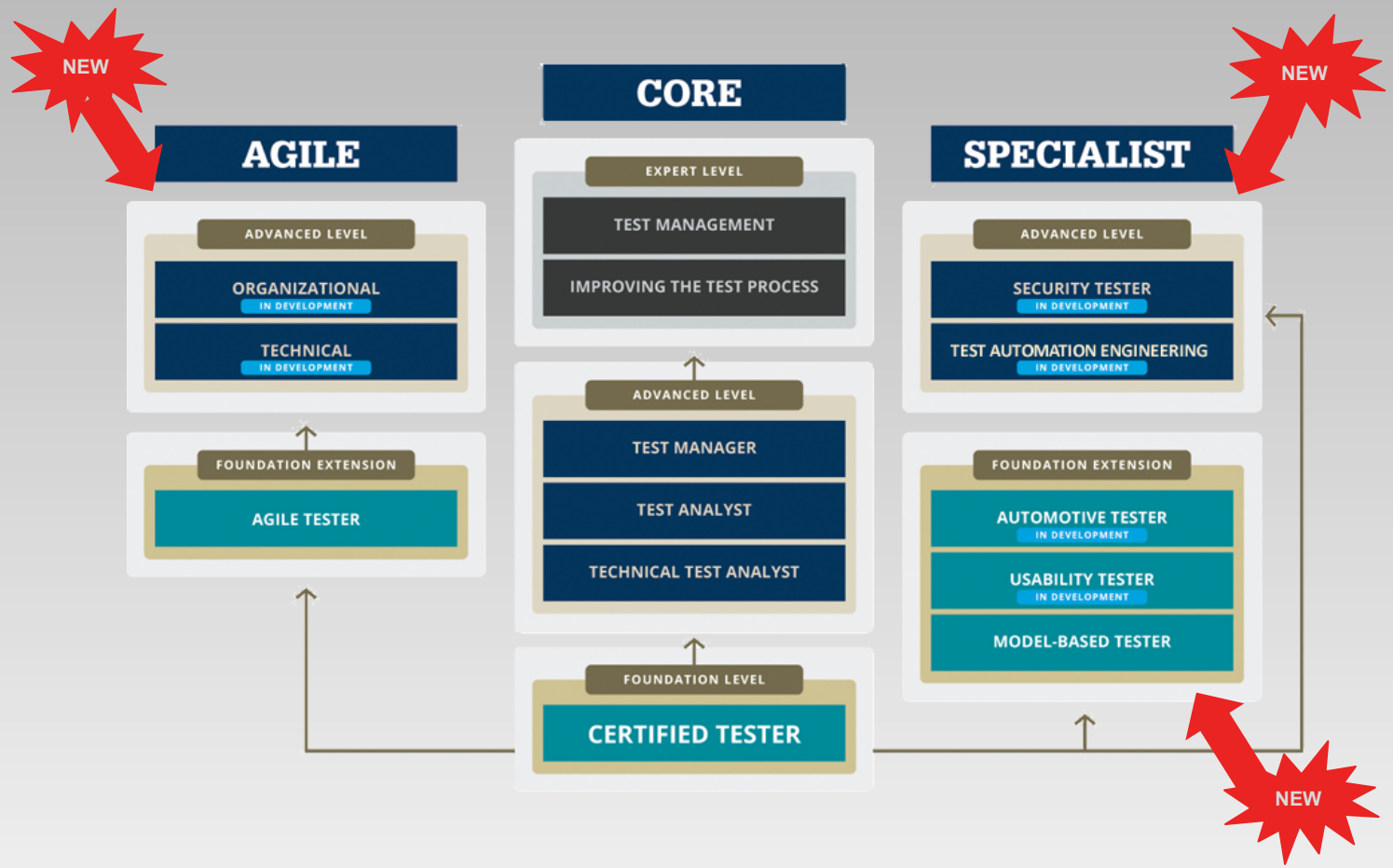
ISTQB® Certification Product Portfolio



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Any questions?