![ISTQB logo] ISTQB®
International Software
Testing Qualifications Board

ISTQB®
EFFECTIVENESS
SURVEY
2019-2020

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SURVEY
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International Software
Testing Qualifications Board

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MESSAGE
FROM THE PRESIDENT

**OLIVIER DENOO,
ISTQB® PRESIDENT**

ISTQB® (International Software Testing Qualifications Board - www.istqb.org) has created the world's most successful scheme for certifying software testers. As of January 2020, ISTQB® had administered over 1,000,000 exams and issued more than 700,000 certifications in over 117 countries world-wide, with a growth rate of about 50,000 certifications per year.

As a non-profit organization, with its mission of "advancing the software testing profession", ISTQB® regularly conducts international online surveys to assess trends in the testing industry.

We are convined that this survey provides useful information for anyone working in or involved in testing, as well as providing valuable direction for further evolution of the ISTQB® scheme. This is an exciting time in the testing industry and the survey data will help ensure that ISTQB® develops and maintains syllabi that continue to reflect changing testing practices and meets market demands.

In our 2019 edition, more than two thousand people from 89 countries contributed to the ISTQB® Effectiveness Survey. They confirmed the results of 2013 and 2016, with a very positive evaluation of the ISTQB® certification scheme as the majority of the respondents (74%) indicate the significant value of formally accredited training to certification success.

Similar to ISTQB® Effectiveness Surveys conducted in 2013 and 2016, the main motivations behind obtaining Certified Tester Foundation Level (CTFL) certification are career path and test skills development. Employee career path development and company image improvement are still the main motivations for managers to have their employees achieve ISTQB® CTFL certification.

Moreover, Advanced Level certification is highly rated by respondents as 71% of them indicate that obtaining Advanced Level certification is significantly or very significantly important to their careers.

Last but not least, ISTQB® Agile Tester certification is highly rated by respondents as 65% of them indicate that obtaining Agile Tester certification is significantly or very significantly important to their careers.

Continuous testing is the top-rated topic demanded to be addressed in near future by ISTQB® from respondents in this year's survey followed by cloud testing and business intelligence/big data testing respectively.

This survey was designed by the ISTQB® Marketing Working Group and endorsed by ISTQB® Member Boards, accredited training providers and exam providers.

I would like to thank all of you who responded to the survey. Be sure your valuable feedback will significantly contribute to the future of the ISTQB® scheme.
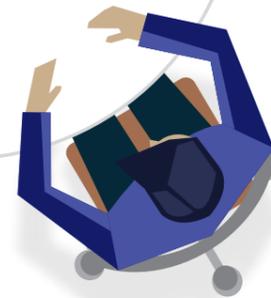
EXECUTIVE
SUMMARY

1
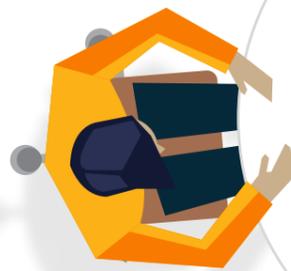
More than two thousand people from 89 countries contributed to the ISTQB® Effectiveness Survey 2019.

2

The outcome of the 2019 survey confirms the results of the 2013 and 2016 with a very positive evaluation of the ISTQB® Certification Scheme.

5

The majority of the respondents (74%) indicates that accredited training adds significant value to achieving certification success.
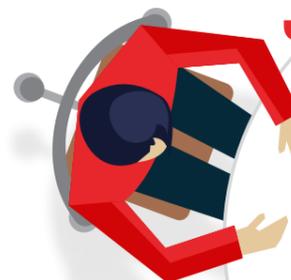
6

Similar to the previous survey conducted in 2016, Advanced Level certification is highly rated by respondents. 71% of respondents indicate that obtaining Advanced Level certification is significantly or very significantly important to their careers.

3

Similar to ISTQB® Effectiveness Surveys conducted in 2013 and 2016, the main motivation for obtaining Certified Tester Foundation Level (CTFL) certification are career path and test skills development.

4

In comparison to previous surveys conducted in 2013 and 2016, employee career path development and company image improvement are still the main motivation for managers to have their employees achieve ISTQB® CTFL certification.

7

ISTQB® Agile Tester certification is highly rated by respondents. 65% of respondents indicate that obtaining Agile Tester certification is significantly or very significantly important to their careers.
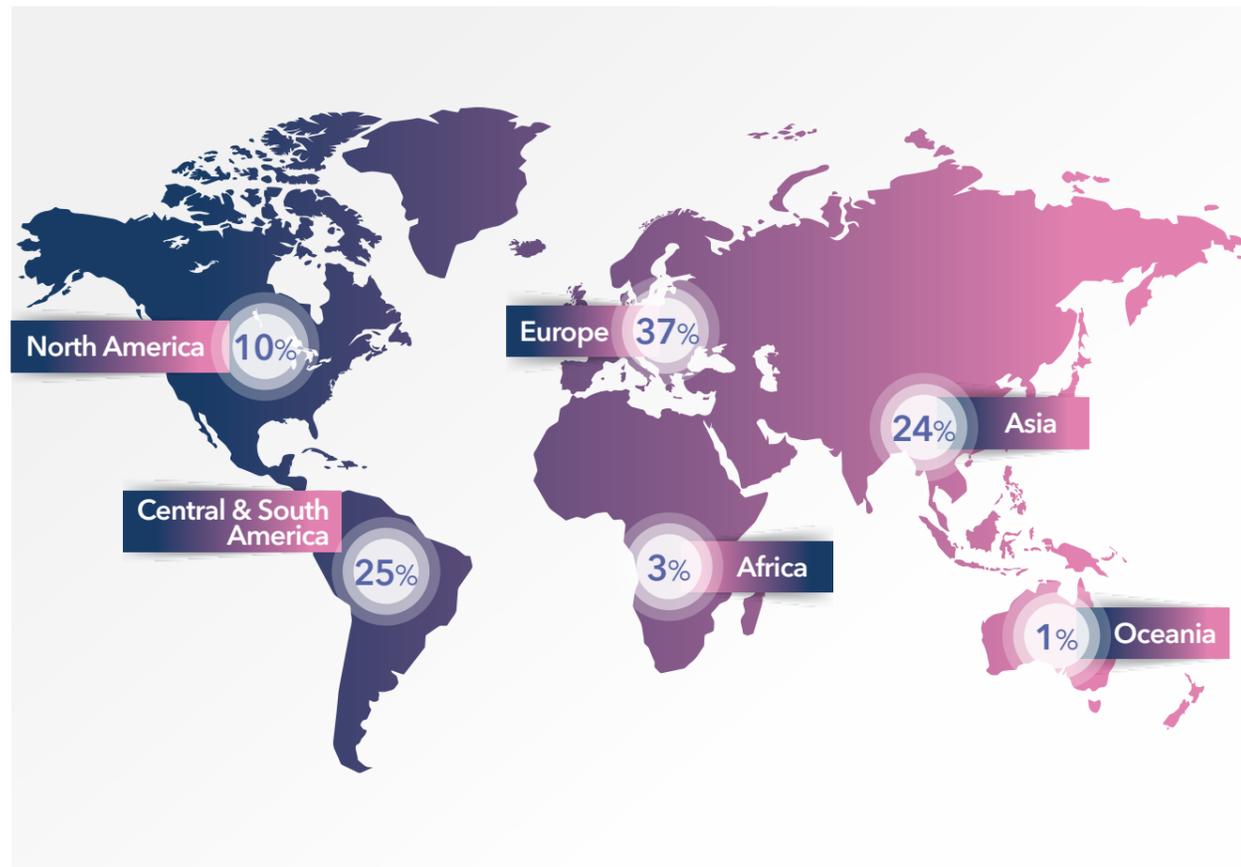
8

Continuous testing is the top-rated topic that ISTQB® should address, according to respondents in this year's survey, followed by cloud testing, and business intelligence/big data testing respectively.

IN WHICH COUNTRY
DO YOU CURRENTLY WORK?

HOW MANY YEARS OF EXPERIENCE
DO YOU HAVE IN SOFTWARE TESTING?

Geographic distribution of survey responses

North America **10%**

Central & South America **25%**

Europe **37%**

Asia **24%**

Africa **3%**

Oceania **1%**

2019   **2016**   **2013**

Less than 1 year	1-5 years	6-10 years	11-15 years
13% 12% 3%	42% 41% 46%	23% 25% 30%	12% 17% 13%

16-20 years	21-25 years	More than 25 years
5% 9% 5%	2% 4% 2%	3% 4% 1%

More than two thousand people from 89 countries contributed to the ISTQB® Effectiveness Survey.
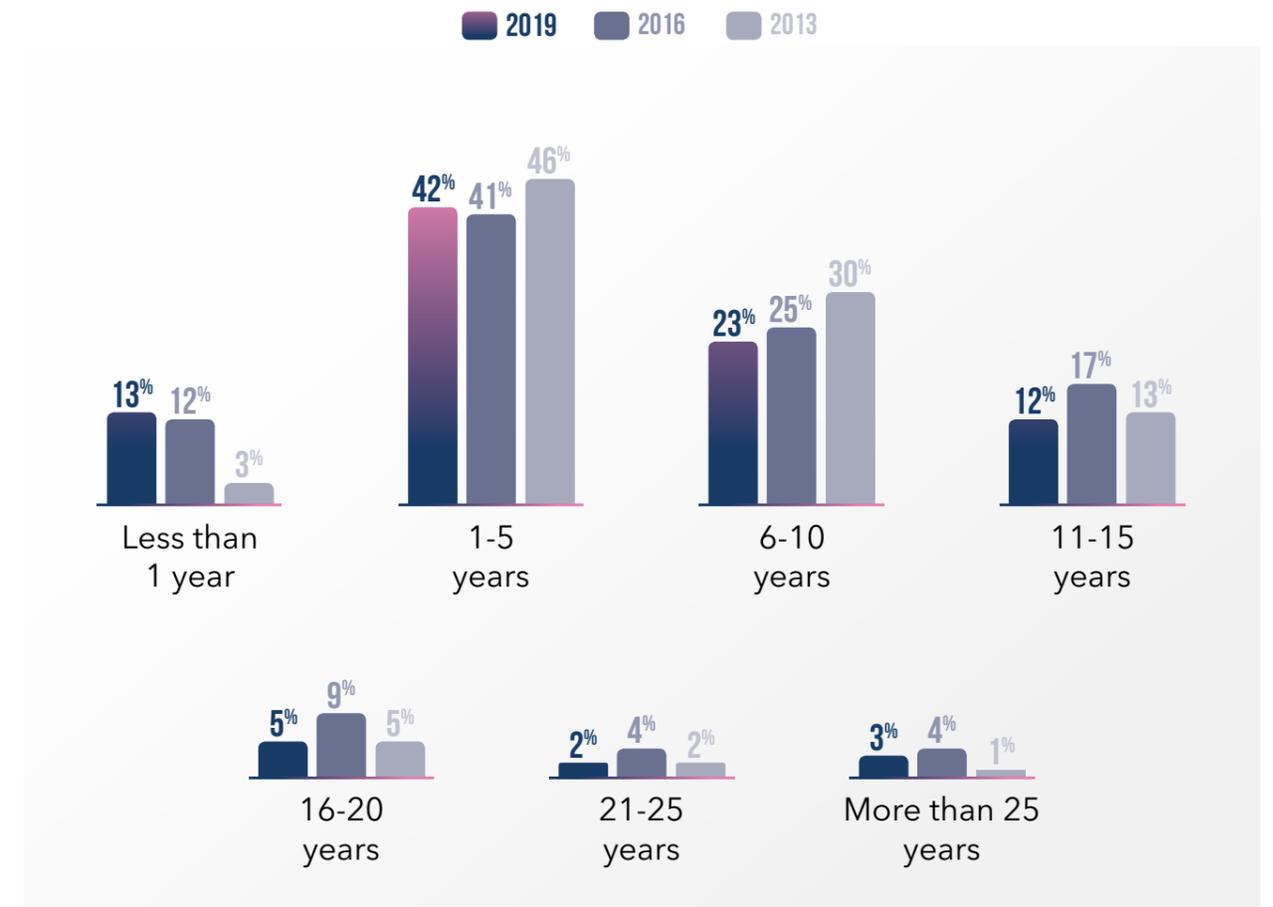
2019 survey respondents have a similar distribution in testing work experience to those in the 2016 survey. More than half of the respondents have 5+ years of experience.
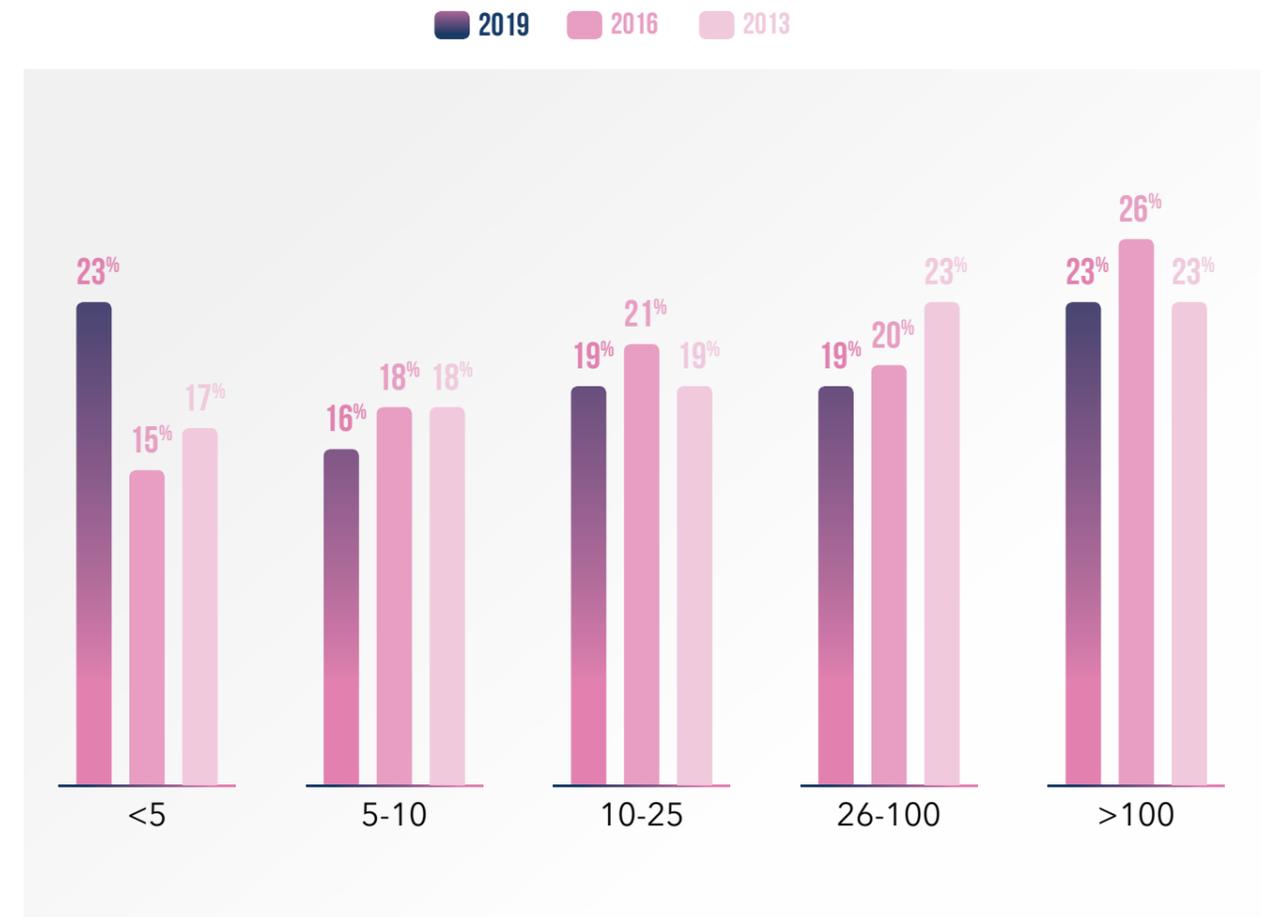
HOW MANY EMPLOYEES
DOES YOUR ORGANIZATION HAVE?

2019 2016

	<10	10-25	26-100	101-500	>501
2019	9%	9%	19%	24%	39%
2016	8%	7%	16%	25%	44%
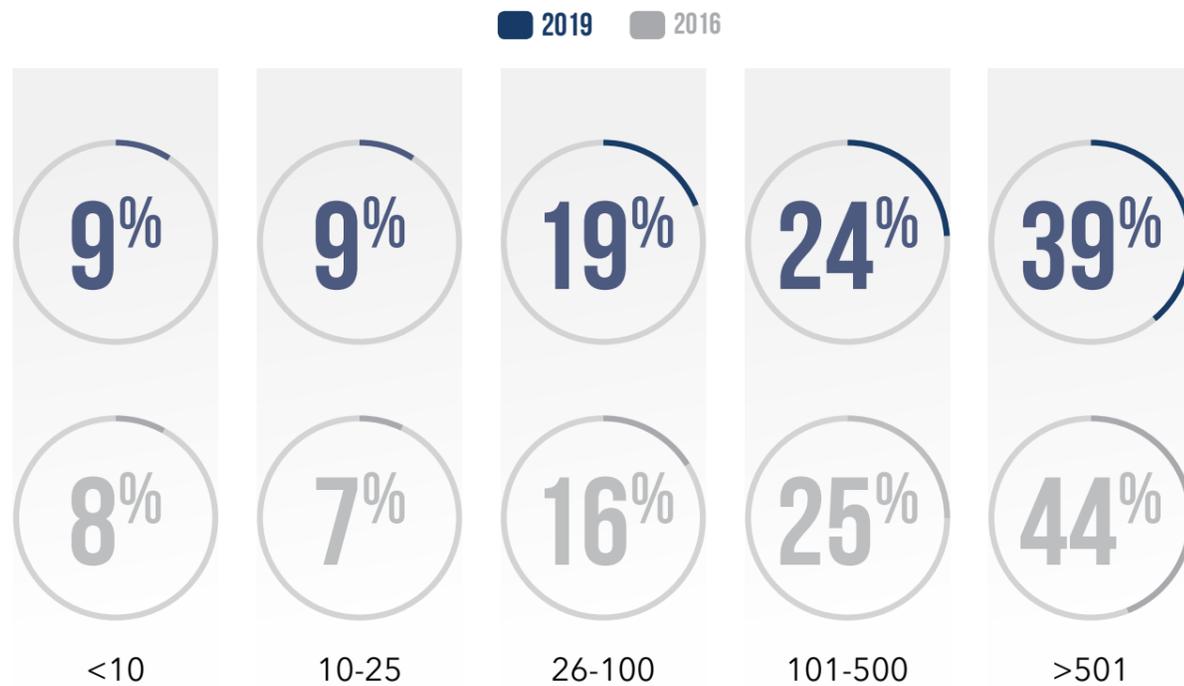
39% of respondents are employed by larger enterprise organizations with more than 500 employees. 63% of the total number of respondents' in this year's survey were from companies with more than 100 employees.

HOW MANY TESTING PROFESSIONALS
DOES YOUR ORGANIZATION HAVE?

2019 2016 2013

	<5	5-10	10-25	26-100	>100
2019	23%	16%	19%	19%	23%
2016	15%	18%	21%	20%	26%
2013	17%	18%	19%	23%	23%

Survey respondents indicated that 23% of [their] organizations had less than 5 testing professionals and 23% had more than 100 testing professionals.

WHICH FROM THE NEXT STATEMENTS WILL BEST DESCRIBE YOUR ROLE IN TESTING?

■ 2019 ■ 2016

64%
56%
Define or Define and Execute Tests

27%
33%
Manage/Lead Test Engineers

9%
11%
Consulting/ Training for Test Managers and Engineers
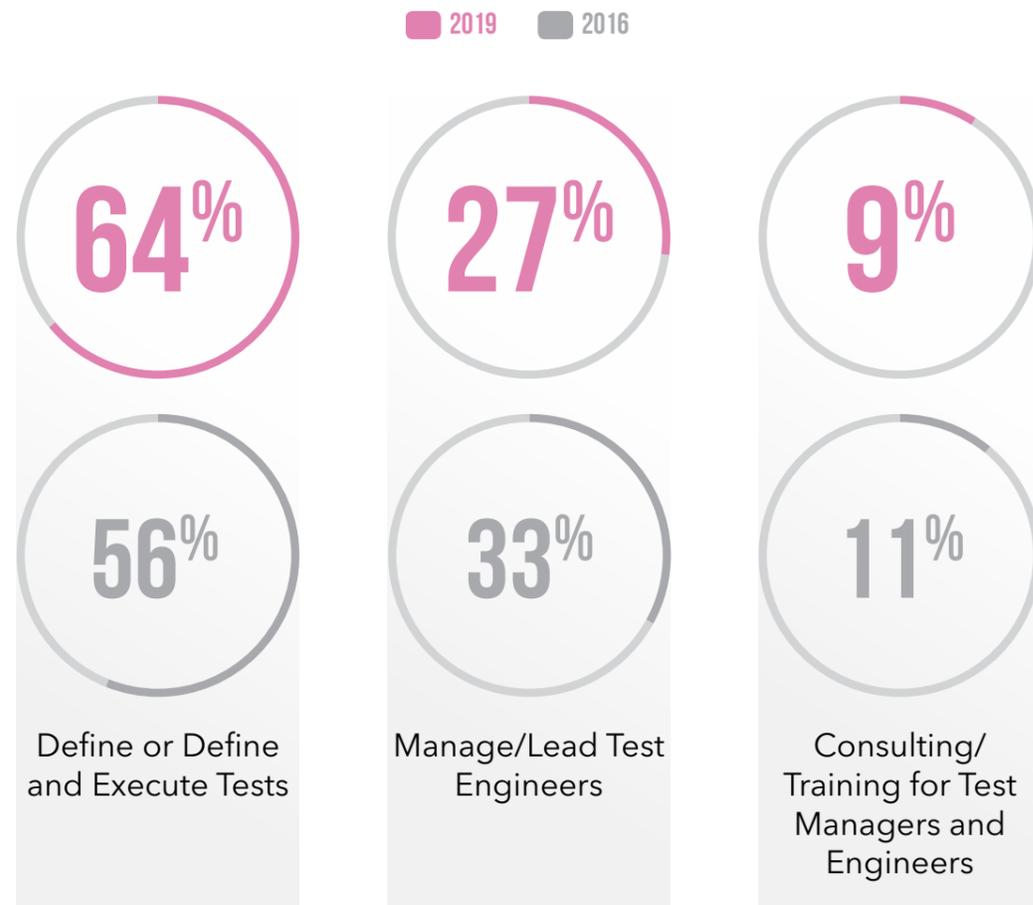
In parallel with the Effectiveness Survey conducted in 2016, the majority of responses were received from test engineers who define or define and execute tests.

TO WHICH INDUSTRY DOES YOUR ORGANIZATION BELONG?

	2019	2016	2013
Computers (Hardware, Desktop Software)	32%	28%	32%
Finance / Banking / Insurance	16%	17%	13%
Consulting	10%	13%	20%
Other	10%	10%	9%
Telecommunications	8%	7%	8%
Aerospace / Aviation / Automotive	4%	5%	3%
Internet	4%	5%	2%
Healthcare / Medical	4%	5%	3%
Education	3%	3%	2%
Engineering / Architecture	3%	2%	2%
Government / Military	3%	3%	3%
Biotechnology	1%	1%	1%
Pharmaceutical / Chemical	1%	1%	1%
Research / Science	1%	1%	1%

Similar to the previous survey conducted in 2016, the highest number of survey participants are from computers, finance, and consulting – more than half of the respondents belong to companies in these industry sectors.
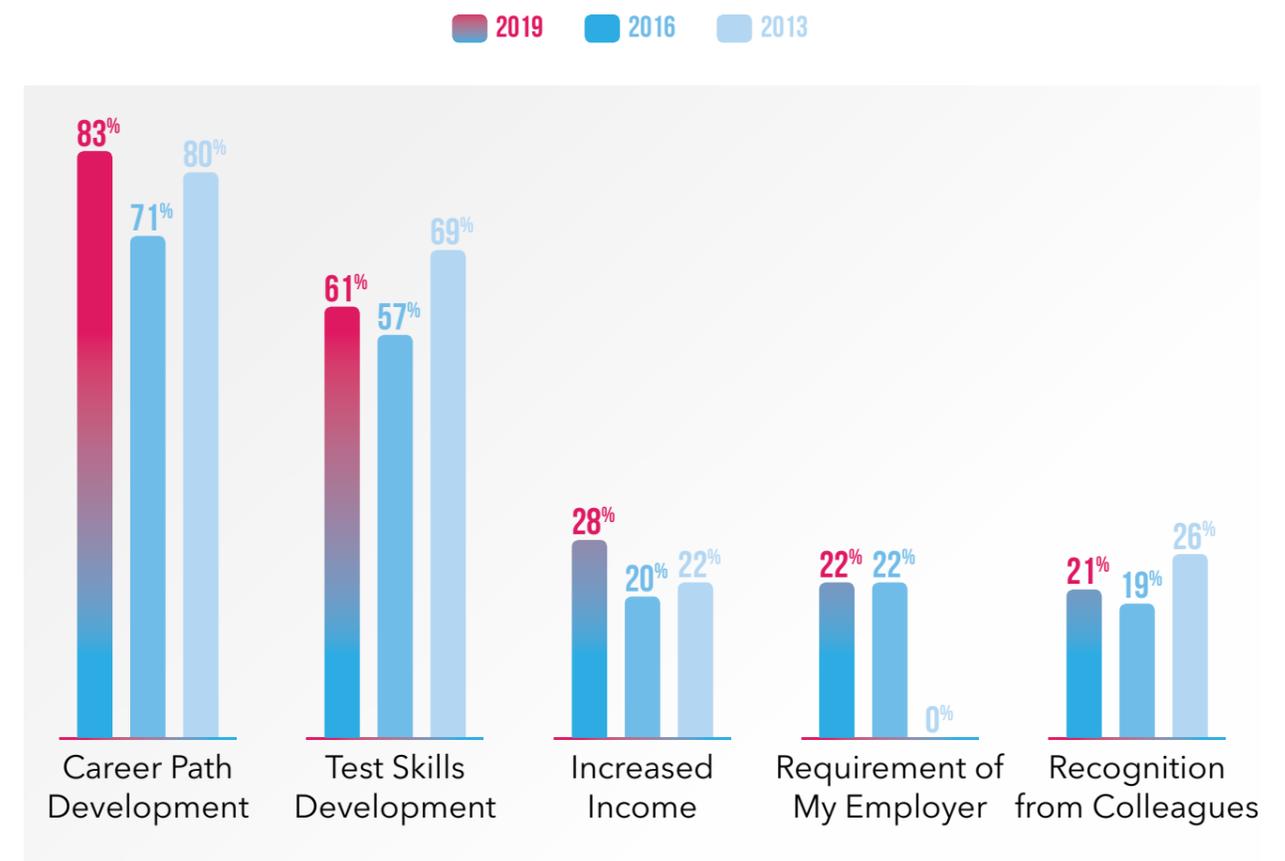
HOW MANY YEARS OF MANAGEMENT EXPERIENCE DO YOU HAVE?

~50%
of respondents have

4+YEARS
management
experience

~20%
of respondents have

10+YEARS
management
experience

Almost half of the respondents have management experience of 4 or more years.

Almost 20% of the respondents have management experience of 10 or more years.

WHAT WAS YOUR MOTIVATION IN OBTAINING YOUR ISTQB® CERTIFIED TESTER FOUNDATION LEVEL (CTFL) CERTIFICATION?

■ 2019   ■ 2016   ■ 2013

|	Career Path Development	Test Skills Development	Increased Income	Requirement of My Employer	Recognition from Colleagues
2019	83%	61%	28%	22%	21%
2016	71%	57%	20%	22%	19%
2013	80%	69%	22%	0%	26%

Similar to ISTQB® Effectiveness Surveys conducted in 2013 and 2016, the main motivations for obtaining Certified Tester Foundation Level (CTFL) certification are career path and test skills development.

WHAT WAS YOUR MOTIVATION TO HAVE YOUR EMPLOYEES ACHIEVE ISTQB® FOUNDATION LEVEL (CTFL) CERTIFICATION?
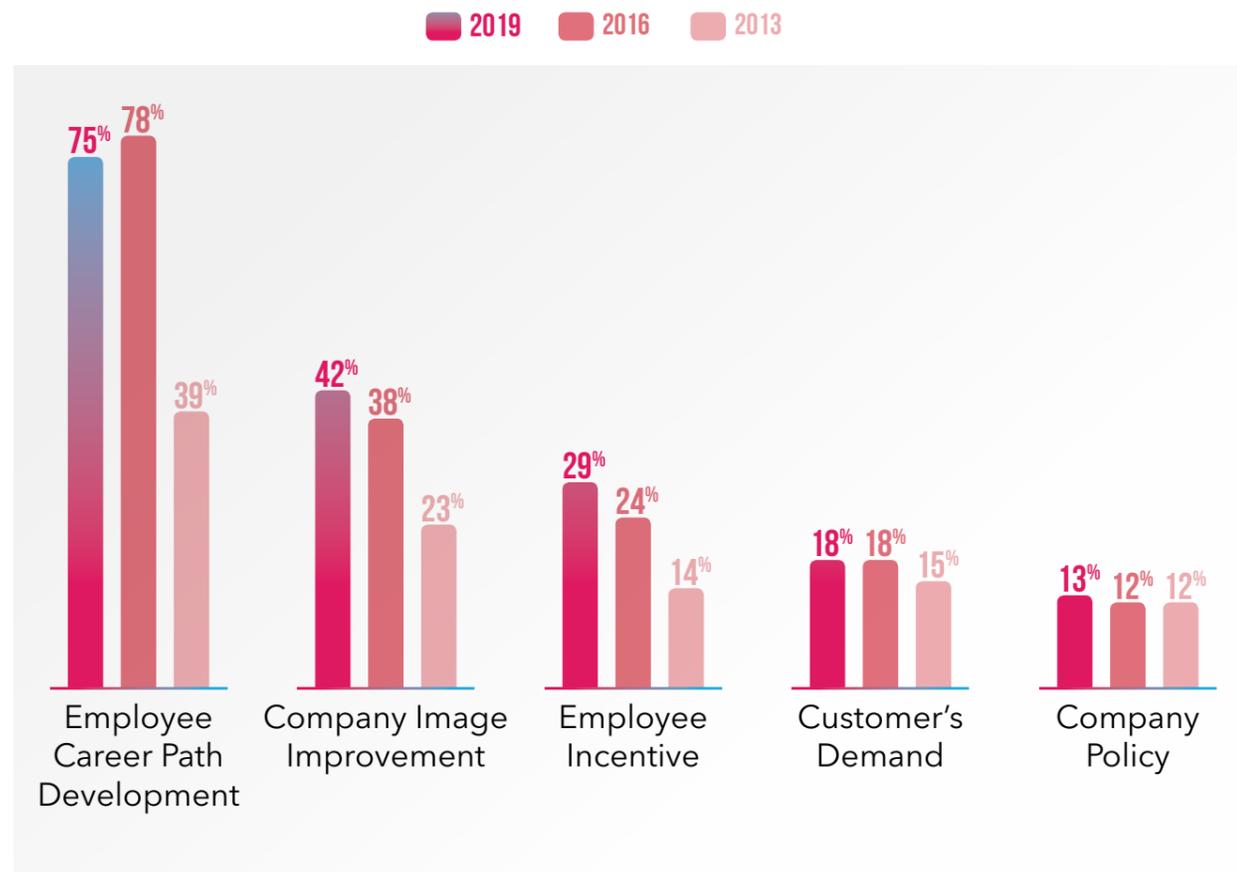
2019 **2016** **2013**

In comparison to previous surveys conducted in 2013 and 2016, employee career path development and company image improvement are still the main motivations for managers to have their employees achieve ISTQB® CTFL certification. These motivations are followed by employee incentive, customer's demand, and company policy.

WHAT PERCENTAGE OF YOUR TESTING STAFF WOULD YOU LIKE TO SEE CERTIFIED AT THE ISTQB® FOUNDATION LEVEL?
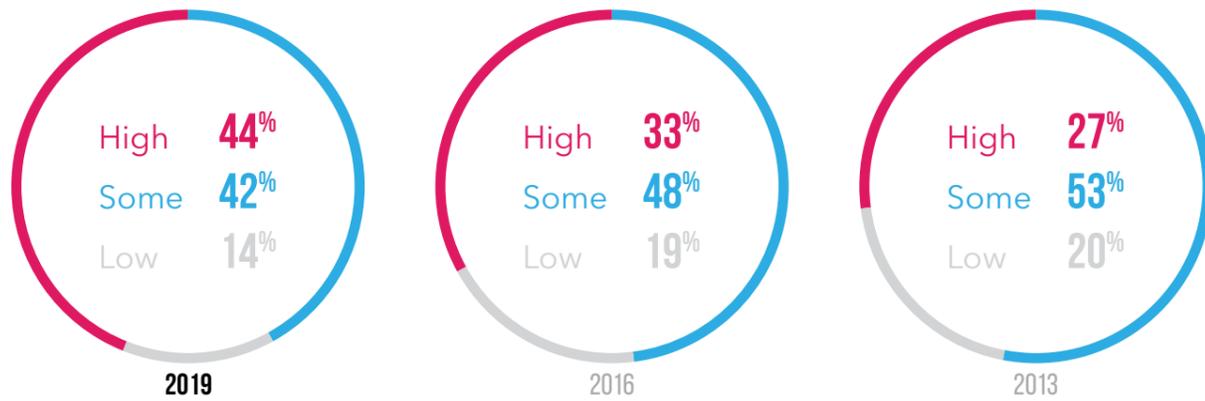
2019 **2016** **2013**
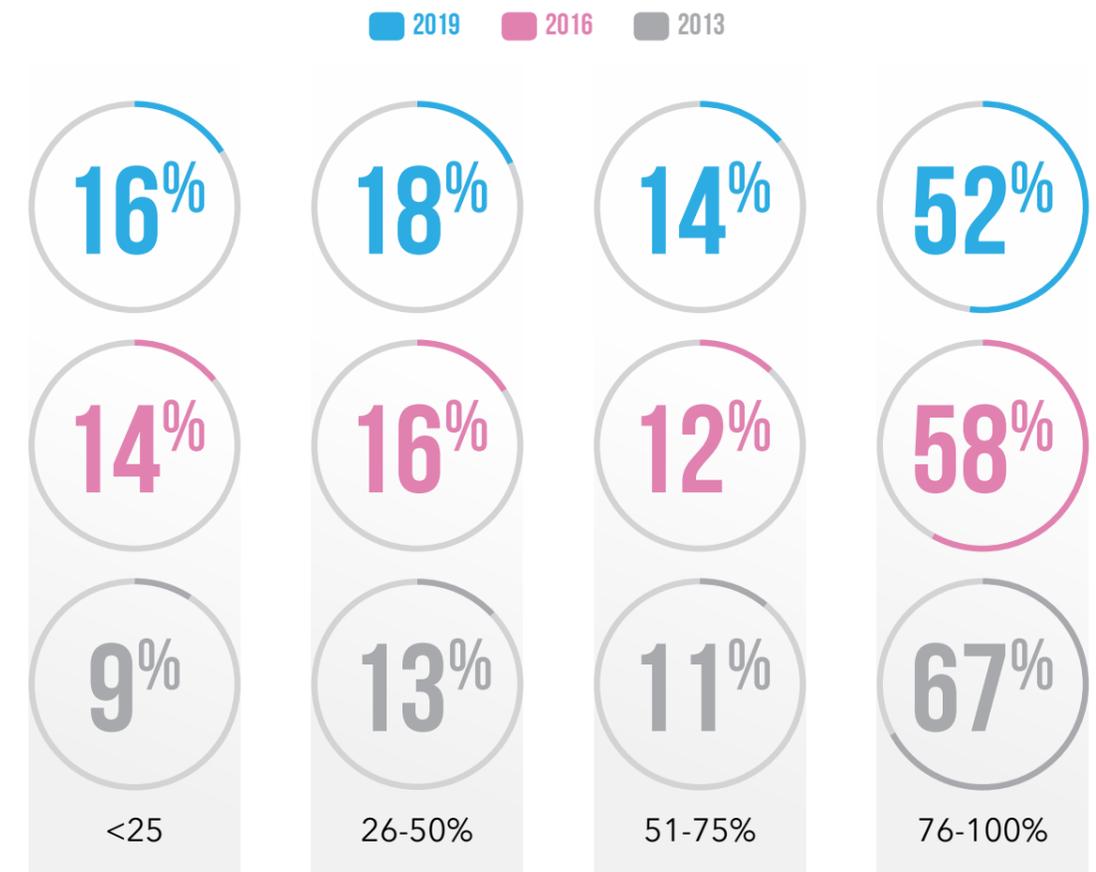
More than half of the managers who answered the survey are considering that 80% or more of their staff will obtain ISTQB® CTFL certification.

Although there is a small decline compared to the previous survey conducted in 2016 (53% vs 58%), managers still strongly preferred that high percentages of their team achieve certification.

TO WHAT EXTENT DO YOU THINK THE ISTQB® CTFL CERTIFICATION WILL AFFECT/IMPROVE YOUR FUTURE?
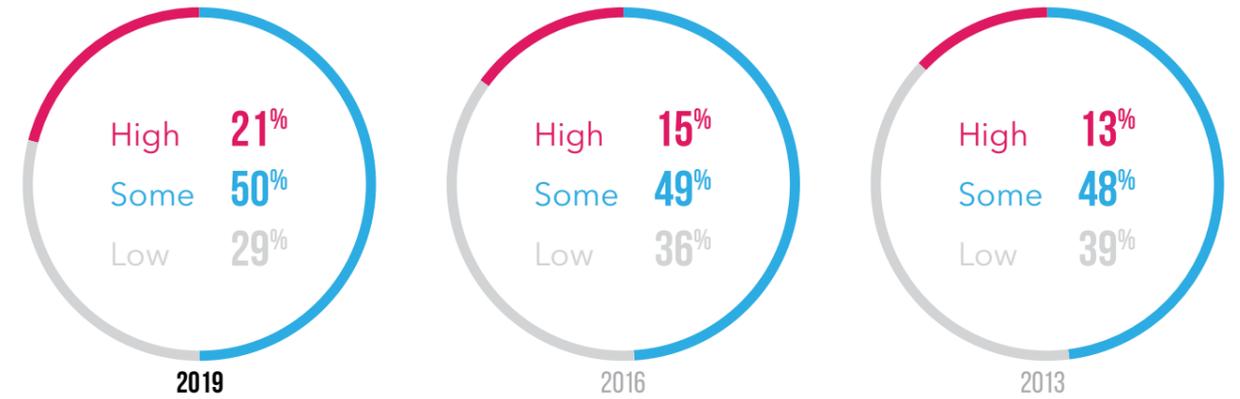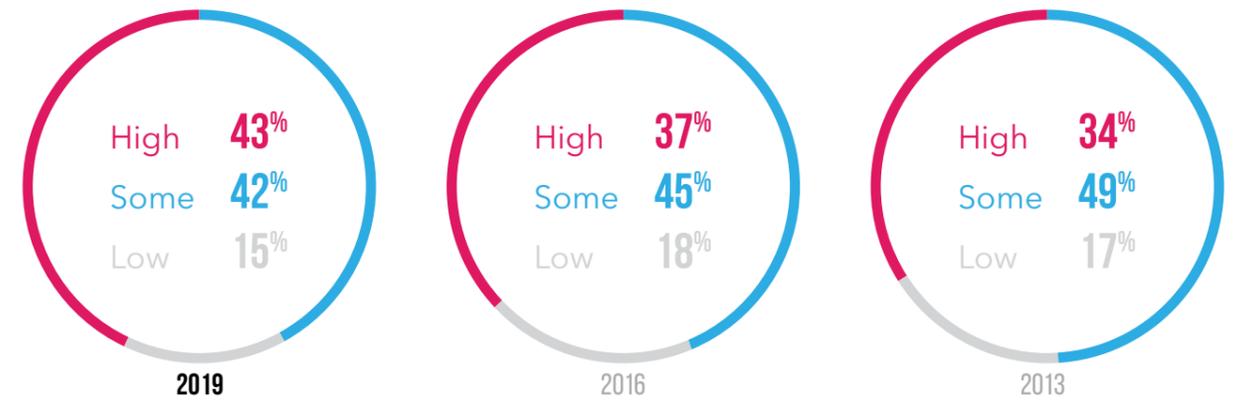
COLLEAGUES' RECOGNITION
(DEGREE)

2019
- High **21%**
- Some **50%**
- Low **29%**

2016
- High **15%**
- Some **49%**
- Low **36%**

2013
- High **13%**
- Some **48%**
- Low **39%**

YOUR CAREER PATH
(DEGREE)

2019
- High **44%**
- Some **42%**
- Low **14%**

2016
- High **33%**
- Some **48%**
- Low **19%**

2013
- High **27%**
- Some **53%**
- Low **20%**

YOUR TEST SKILLS
(DEGREE)

2019
- High **43%**
- Some **42%**
- Low **15%**

2016
- High **37%**
- Some **45%**
- Low **18%**

2013
- High **34%**
- Some **49%**
- Low **17%**

YOUR INCOME
(DEGREE)

2019
- High **20%**
- Some **47%**
- Low **33%**

2016
- High **14%**
- Some **43%**
- Low **43%**

2013
- High **9%**
- Some **41%**
- Low **50%**
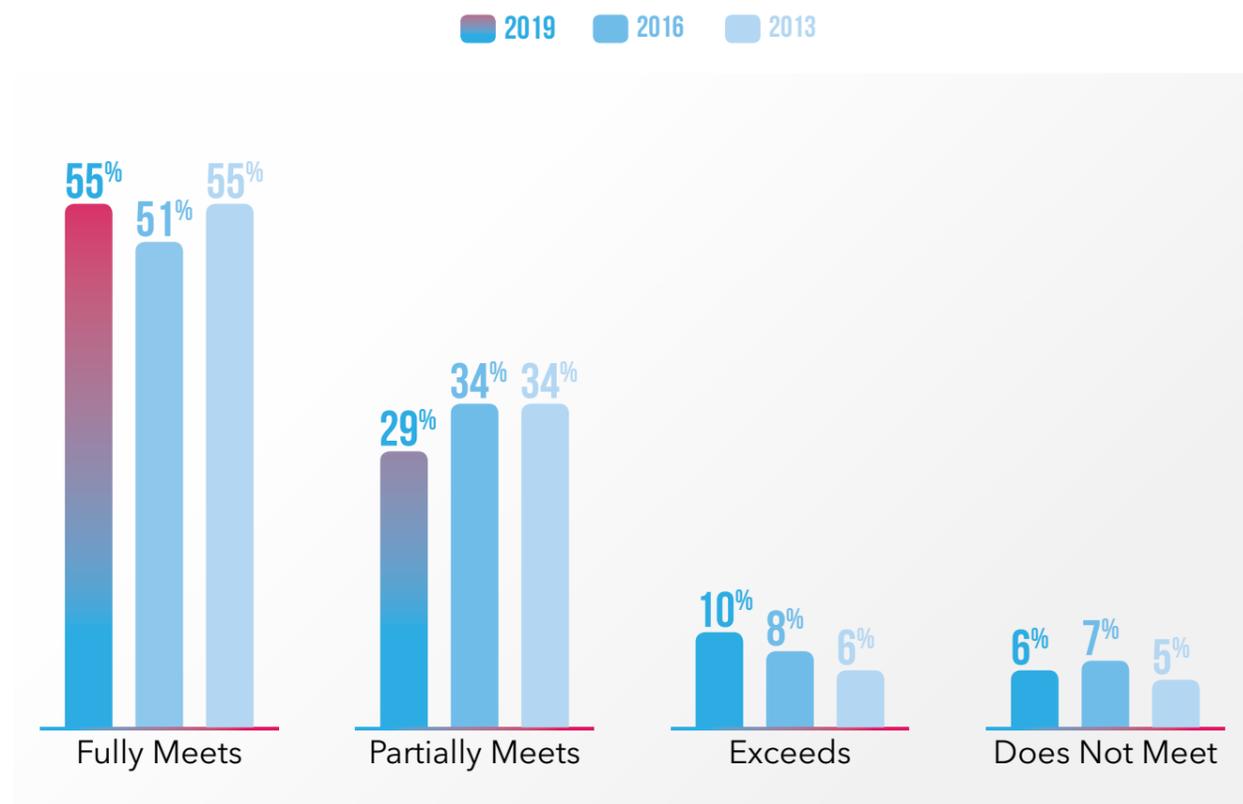
Respondents perceive that ISTQB® CTFL certification will affect/improve their future by improving their test skills (85%) and in supporting their career path (87%).

There is a slight increase in both of these metrics compared to the previous survey conducted in 2016.

TO WHAT EXTENT DOES ISTQB® CERTIFICATION MEET YOUR EXPECTATIONS?

Legend: 2019 · 2016 · 2013

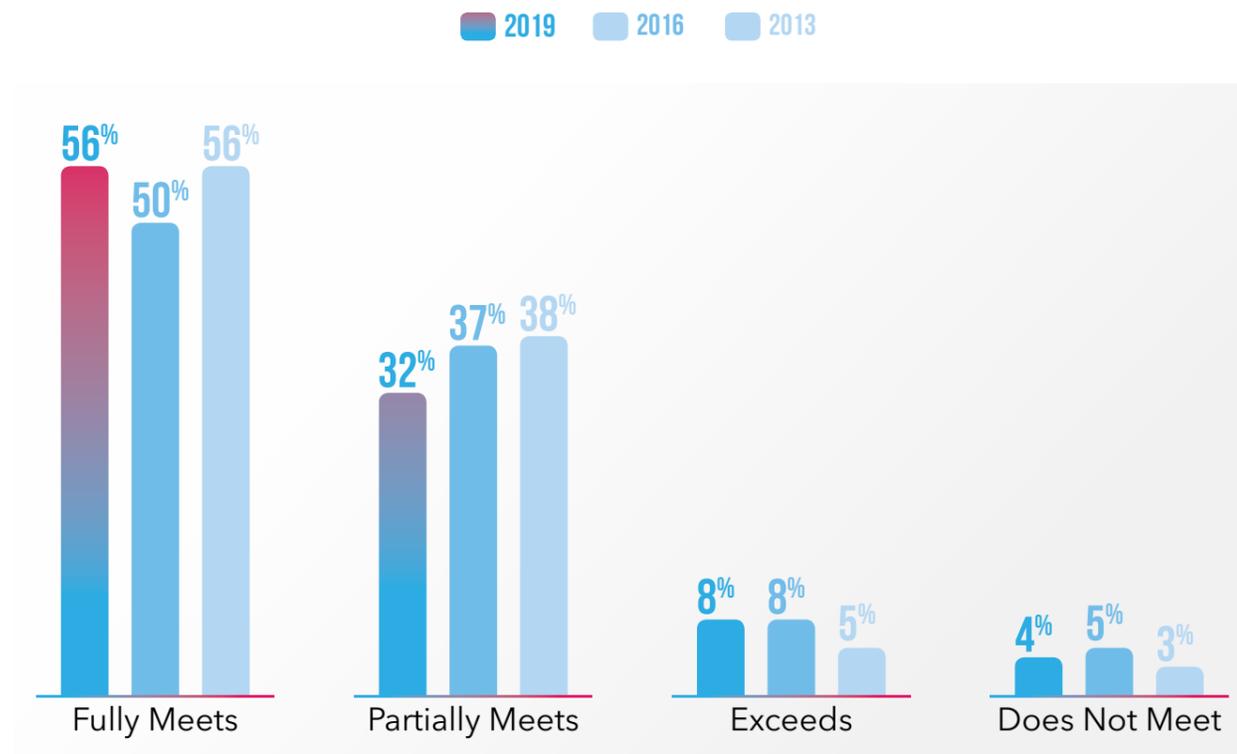|	Fully Meets	Partially Meets	Exceeds	Does Not Meet
2019	55%	29%	10%	6%
2016	51%	34%	8%	7%
2013	55%	34%	6%	5%

65% of respondents state that ISTQB® certification fully meets or exceeds their expectation. 29% consider that ISTQB® certification meets their expectations partially and only 6% indicated that their expectations were not met. These results align with the results of the previous surveys conducted in 2016 and 2013.

WOULD YOU RECOMMEND THE ISTQB® FOUNDATION LEVEL (CTFL) CERTIFICATION TO YOUR COLLEAGUES?

YES

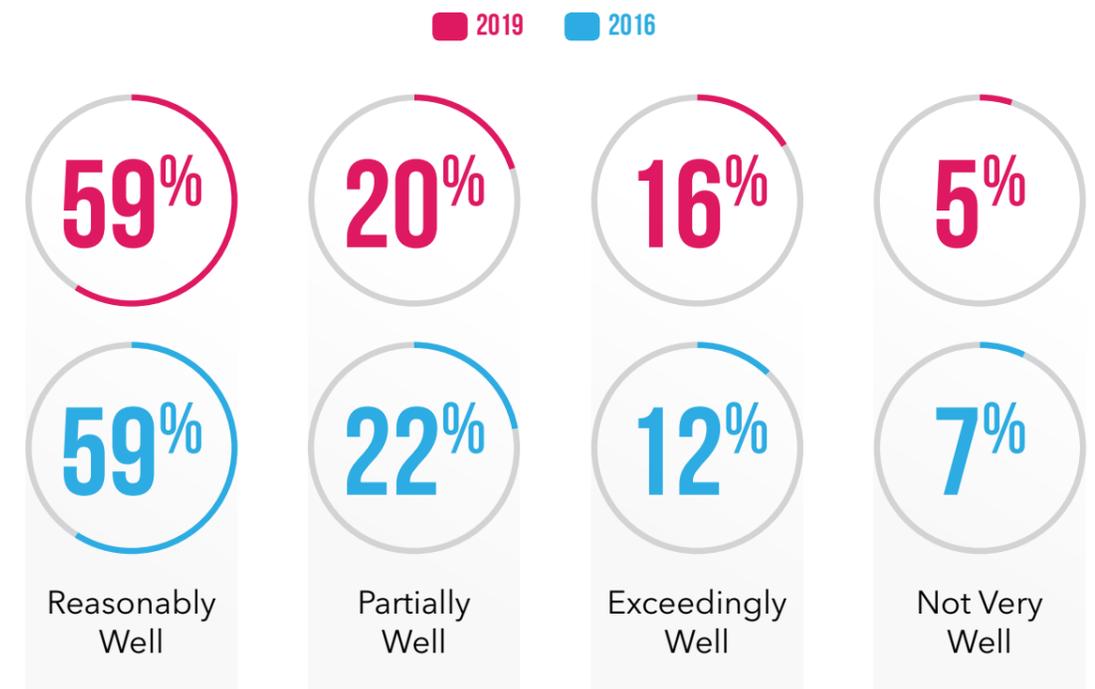|		
92%	2019	8%
89%	2016	11%
91%	2013	9%

NO
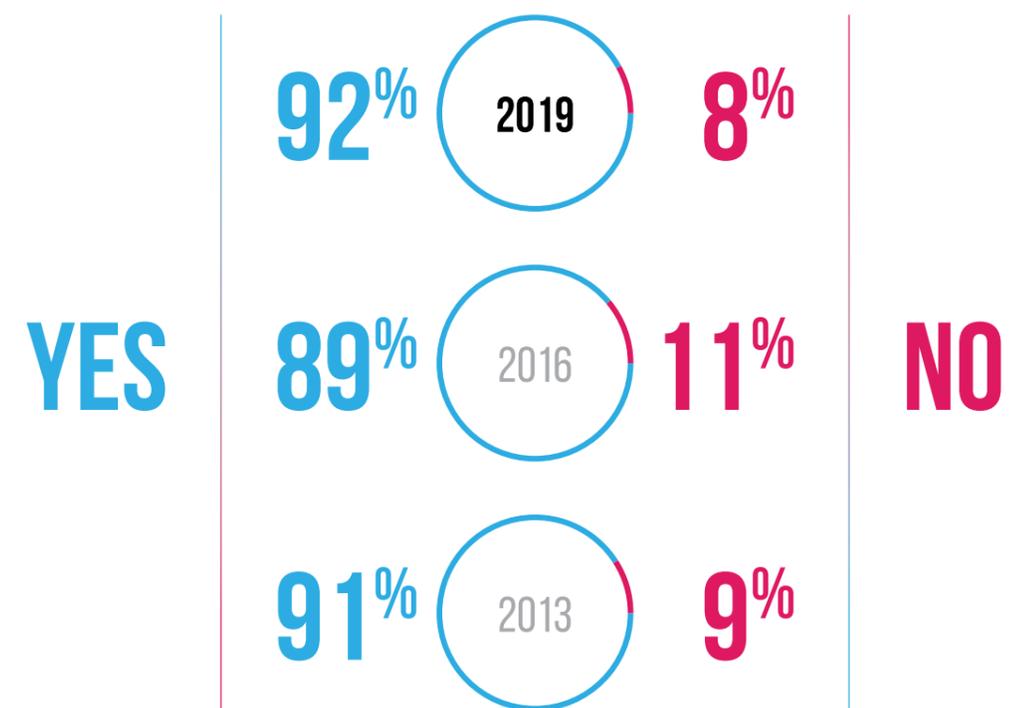
As per the results of the previous surveys conducted in 2013 and 2016, 92% of the respondents are happy to recommend the ISTQB® Foundation Level (CTFL) certification to their colleagues. This result demonstrates a high level of satisfaction of test professionals with CTFL certification.

HOW WELL DOES THE ISTQB® CTFL SYLLABUS MEET YOUR EXPECTATIONS?

2019 **2016** **2013**

|	2019	2016	2013
Fully Meets	56%	50%	56%
Partially Meets	32%	37%	38%
Exceeds	8%	8%	5%
Does Not Meet	4%	5%	3%

The ISTQB® CTFL syllabus is meeting (partially, fully or exceedingly) the expectations of 96% of the test professionals who answered the survey.

TO WHAT EXTENT DO YOU FEEL THE ISTQB® FOUNDATION LEVEL CERTIFICATION EXAM REFLECTS THE KNOWLEDGE OF THE CANDIDATES?

2019 **2016**

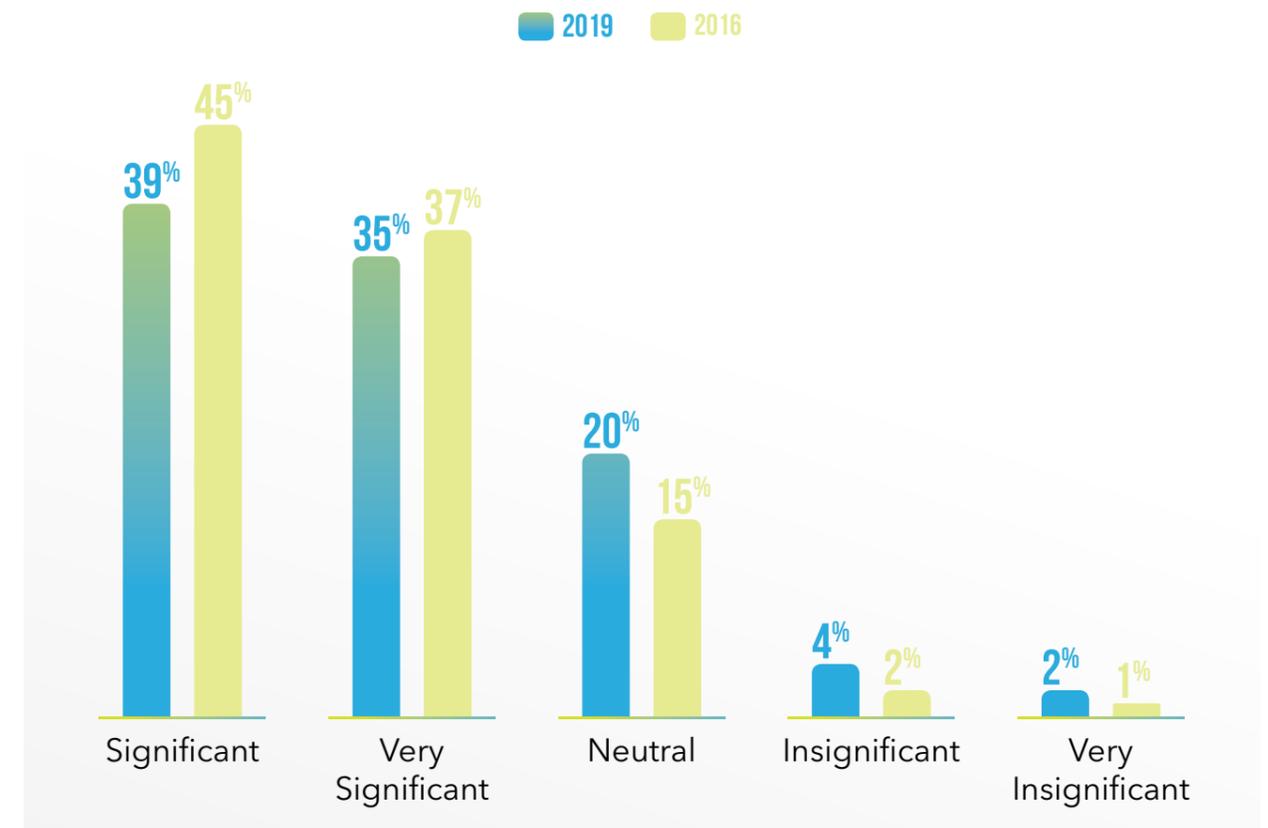|	Reasonably Well	Partially Well	Exceedingly Well	Not Very Well
2019	59%	20%	16%	5%
2016	59%	22%	12%	7%

74% of respondents consider that the ISTQB® Foundation Level certification exam reflects the knowledge of the examinees either reasonably well or exceedingly well. The same level of satisfaction was demonstrated by test professionals in the previous surveys conducted in 2013 and 2016.

DID YOU TAKE A FORMALLY ACCREDITED TRAINING COURSE BEFORE THE CERTIFICATION EXAM?
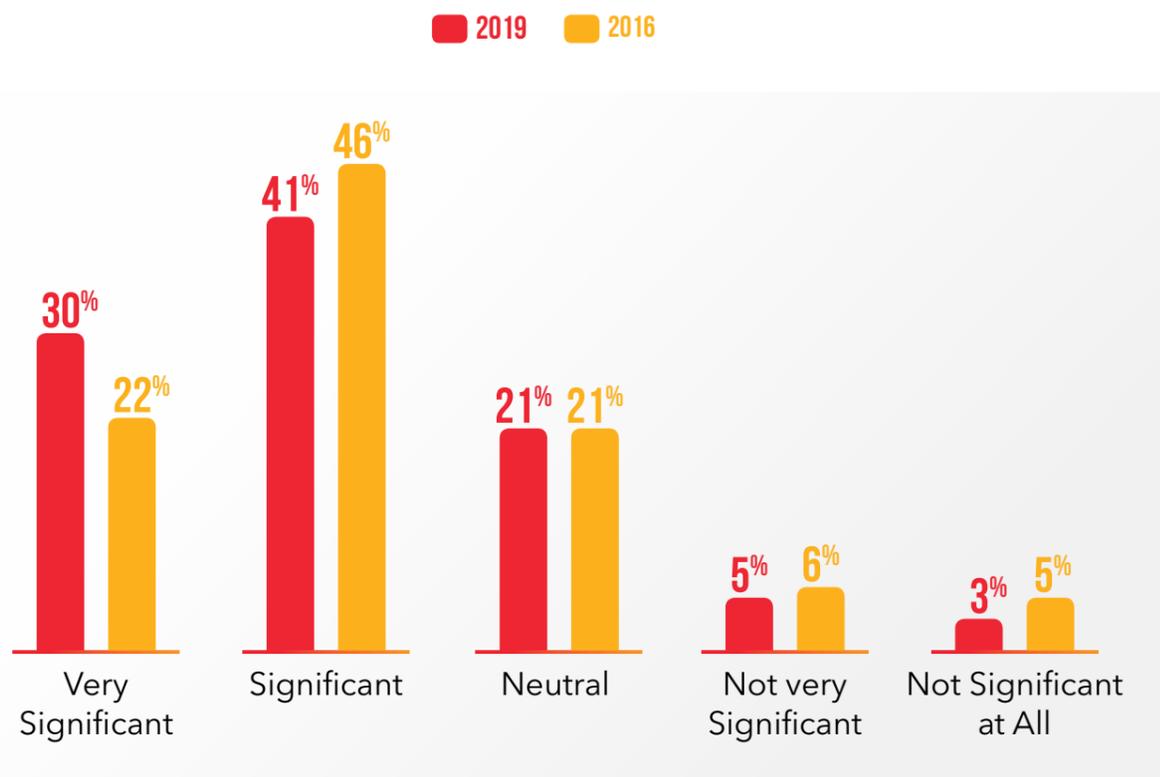
YES

48% **2019** 52%

47% 2016 53%

NO
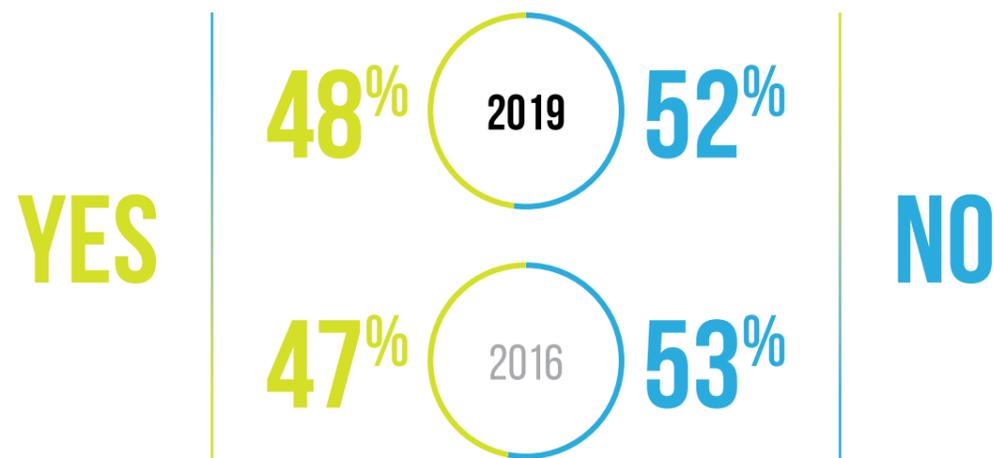
As per the results of the previous survey conducted in 2016, the 2019 survey results indicated that 48% of respondents prepared for ISTQB® CTFL certification by attending a formally accredited training course.

HOW SIGNIFICANT DO YOU THINK THE TRAINING WAS IN YOUR CERTIFICATION SUCCESS?

Legend: ■ 2019 ■ 2016

|	Significant	Very Significant	Neutral	Insignificant	Very Insignificant
2019	39%	35%	20%	4%	2%
2016	45%	37%	15%	2%	1%

The majority of respondents (74%) indicate the significant value of training to certification success. Only a minority of the respondents (6%) question the value of training to certification success.

HOW IMPORTANT DO YOU THINK IT IS TO OBTAIN AN ISTQB® ADVANCED LEVEL (CTAL) CERTIFICATION?

DO YOU PLAN TO OBTAIN AN ISTQB® ADVANCED LEVEL CERTIFICATION?

2019   **2016**

	Very Significant	Significant	Neutral	Not very Significant	Not Significant at All
2019	30%	41%	21%	5%	3%
2016	22%	46%	21%	6%	5%

2019   **2016**

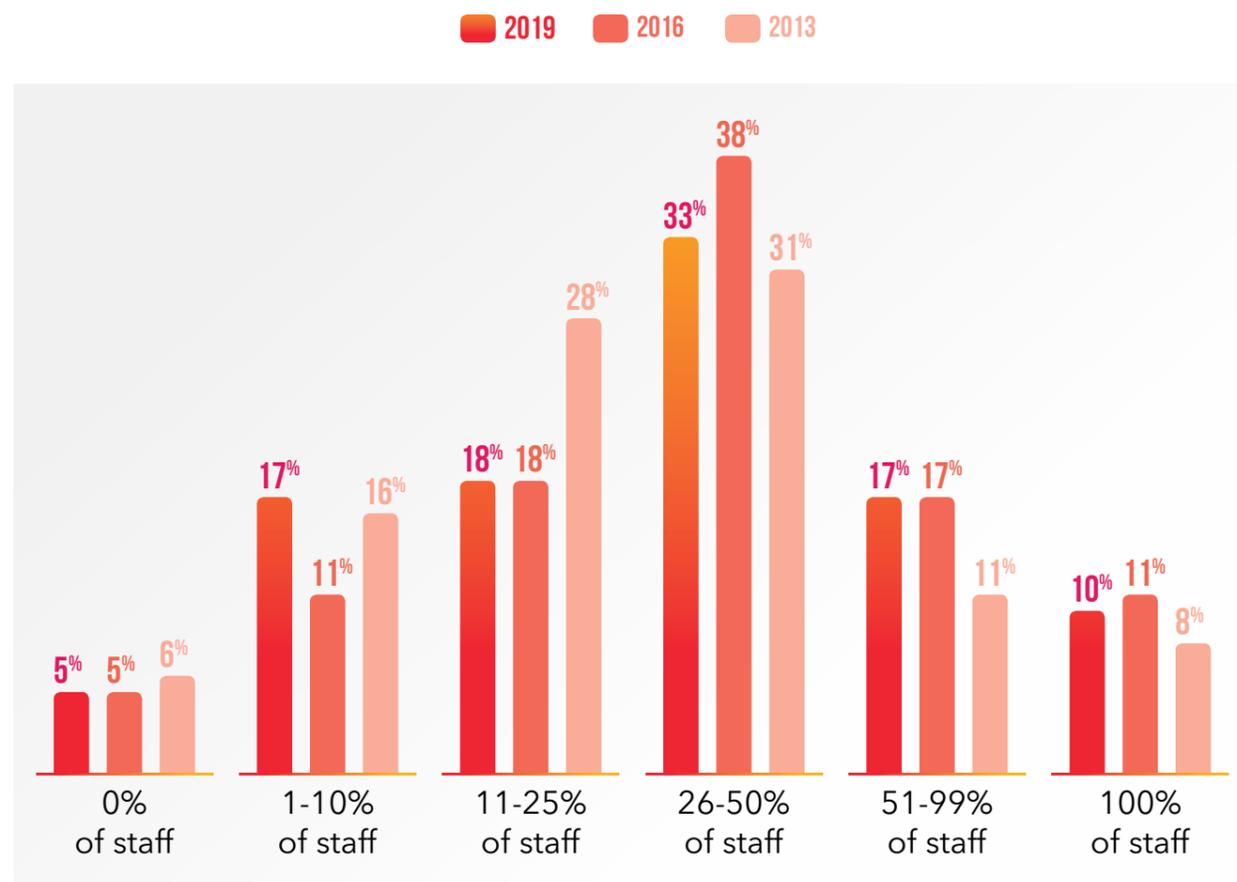| Yes, in next 2 years	Yes, sometimes in a future	Unsure	No
40%	37%	12%	11%
34%	39%	14%	13%

Similar to the previous survey conducted in 2016, Advanced Level certification is highly rated by respondents. 71% of respondents indicate that obtaining Advanced Level certification is significantly or very significantly important to their careers; a slight increase from 68% to 71% compared to the previous survey.
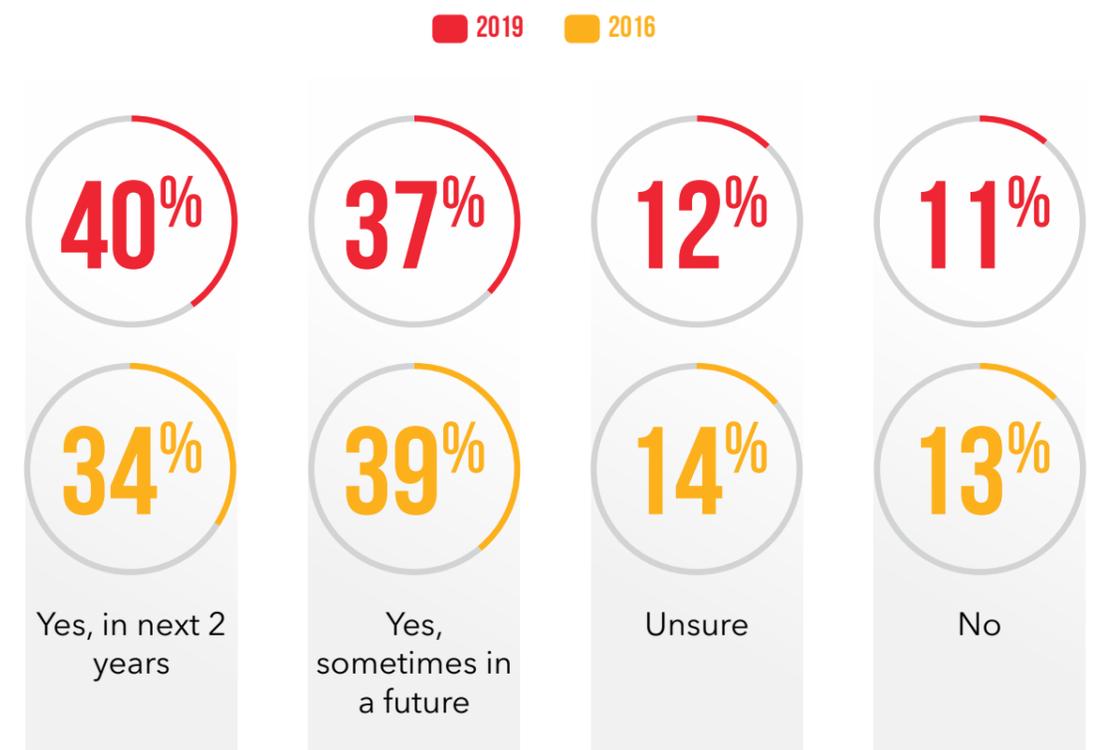
According to the surveys conducted in 2013, 2016, and 2019, there is an increasing trend in the number of test professionals planning to obtain an ISTQB® Advanced Level certification. Compared to the previous survey conducted in 2016, the interest of test professionals in ISTQB® Advanced Level certification has increased from 73% to 77%.

WHAT PERCENTAGE OF YOUR TESTING STAFF WOULD YOU LIKE TO SEE CERTIFIED AT AN ISTQB® ADVANCED LEVEL?

HOW IMPORTANT DO YOU THINK IT IS TO OBTAIN AN ISTQB® AGILE TESTER CERTIFICATION?

Legend: 2019 | 2016 | 2013

Bar chart values by category:
- 0% of staff: 5% (2019), 5% (2016), 6% (2013)
- 1-10% of staff: 17% (2019), 11% (2016), 16% (2013)
- 11-25% of staff: 18% (2019), 18% (2016), 28% (2013)
- 26-50% of staff: 33% (2019), 38% (2016), 31% (2013)
- 51-99% of staff: 17% (2019), 17% (2016), 11% (2013)
- 100% of staff: 10% (2019), 11% (2016), 8% (2013)

Donut charts:
- 28% Very Significant
- 37% Significant
- 25% Neutral
- 7% Not Very Significant
- 3% Not Significant at All

As per the previous survey conducted in 2016, companies want to see ISTQB® Advanced Level certified testers in their teams. The percentage of companies who want 51% or more of their team composed of ISTQB® Advanced Level certified testers counts for 28% of the total number of respondents in 2019.
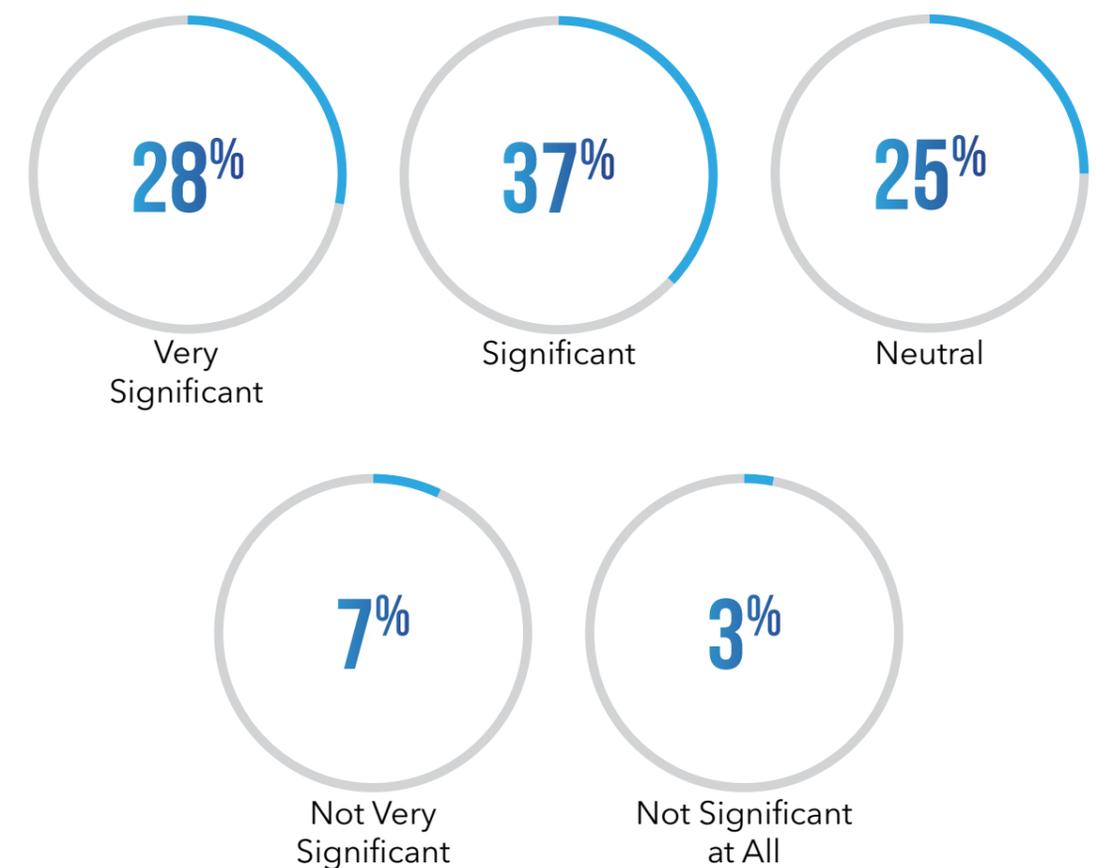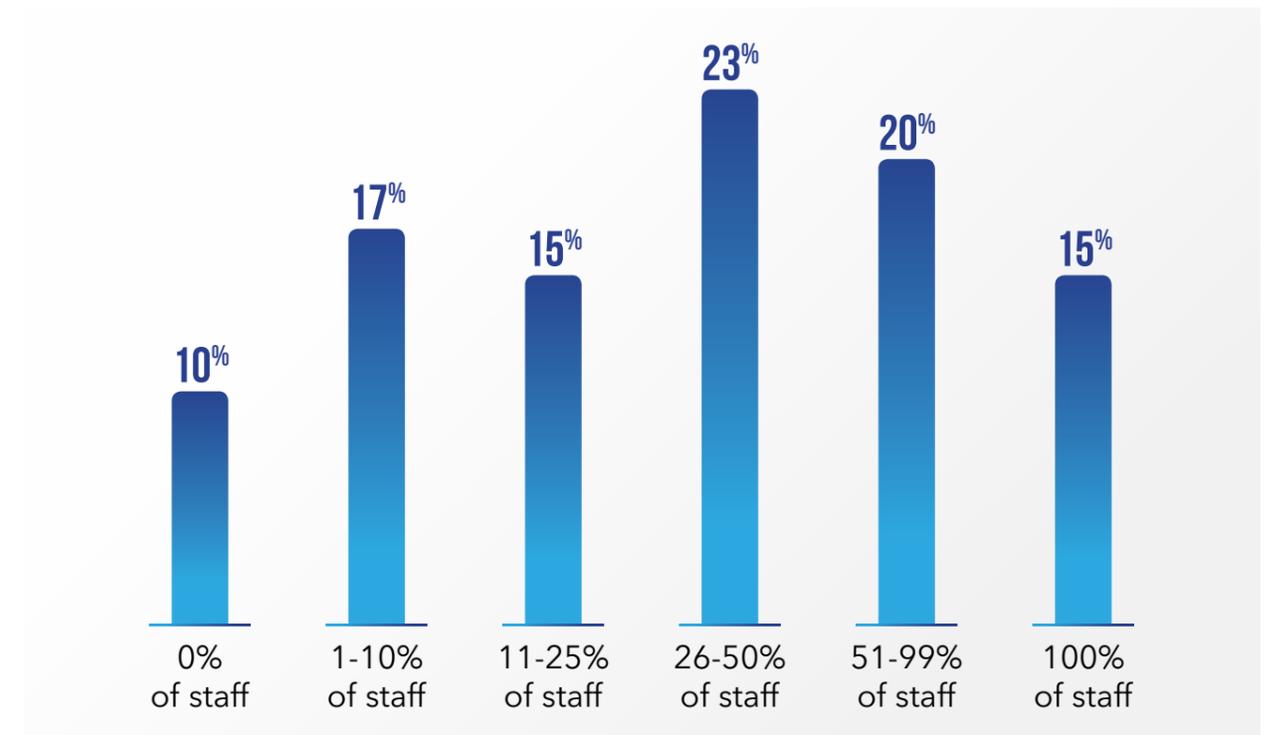
ISTQB® Agile Tester certification is highly rated by respondents. 65% of respondents indicate that obtaining Agile Tester certification is significantly or very significantly important to their careers.

DO YOU PLAN TO OBTAIN AN ISTQB® AGILE TESTER CERTIFICATION?

33%
Yes, sometimes in a future

27%
Yes, in next 2 years

21%
No

19%
Unsure
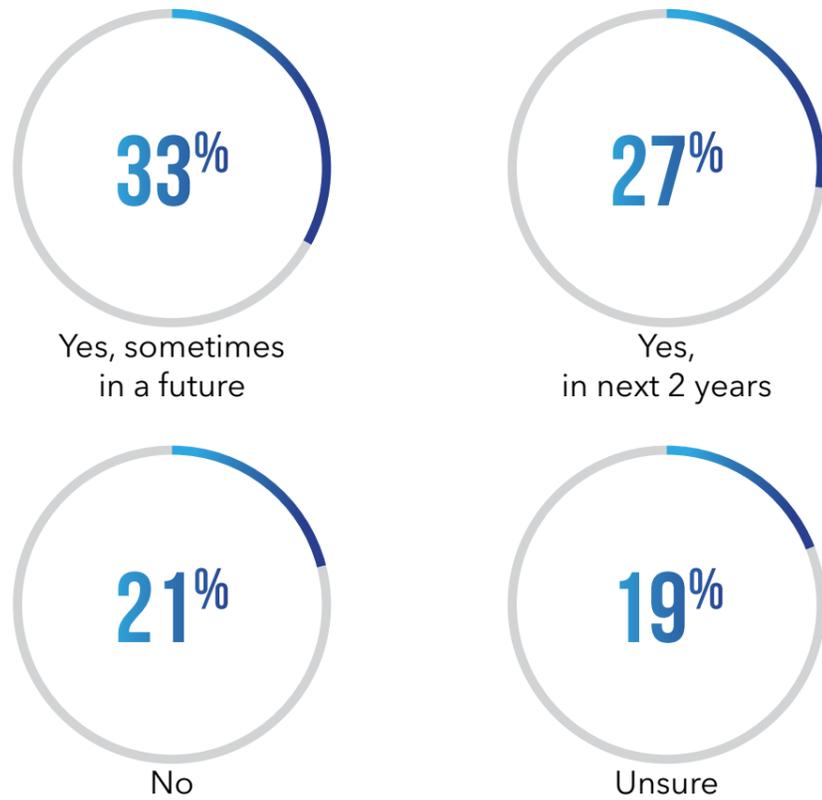
60% of the respondents indicate that they are planning to obtain an ISTQB® Agile Tester certification.

WHAT PERCENTAGE OF YOUR TESTING STAFF WOULD YOU LIKE TO SEE CERTIFIED AT AN ISTQB® AGILE TESTER?

| 10% | 17% | 15% | 23% | 20% | 15% |
| 0% of staff | 1-10% of staff | 11-25% of staff | 26-50% of staff | 51-99% of staff | 100% of staff |

58% of the managers who answered the survey are considering that 26% or more of their staff will obtain ISTQB® Agile Tester certification, which means a strong demand for Agile Tester certification.

PLEASE SELECT AT LEAST 3 TOPICS THAT YOU WOULD LIKE ISTQB® TO ADDRESS IN THE FUTURE.

37% Continuous Testing

34% Cloud Testing

25% Business Intelligence / Big Data Testing

24% Test Data Management

24% Test Metrics and Test Effort Estimation

23% Internet of Things Testing

21% Web Based Application Testing

Continuous testing is the top-rated topic in this year's survey followed by cloud testing and business intelligence/big data testing respectively.

Test metrics and effort estimation which was rated second in the survey conducted in 2016 is now rated as the fifth important topic by the respondents.

20% Exploratory Testing

18% Release Management

18% Testing in Finance

17% Testing Systems of Systems

16% Systems Integration Testing

15% Configuration Management in Testing

15% Embedded System Testing

15% Test Environments Management

14% Component Testing

14% Testing in Telecommunications
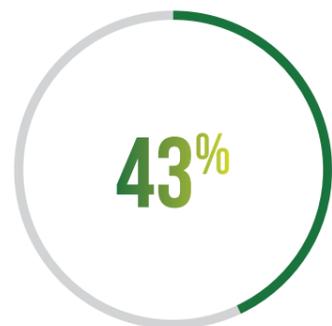
11% Effective Reviews

10% Managing Distributed Teams: Near-shore, Off-shore, On-shore

WOULD YOU BE INTERESTED IN ISTQB® TESTING CERTIFICATION
IN THE SUBJECTS THAT WE HAVE JUST RELEASED OR ARE ON OUR ROAD-MAP?
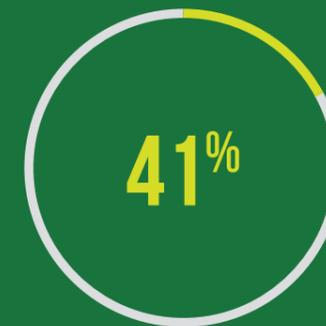
50%
Advance Level - Test Automation Engineer
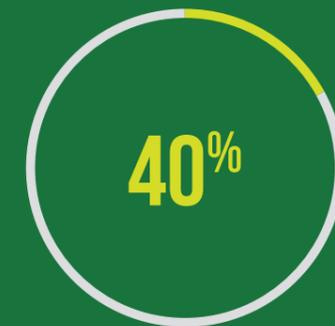
43%
Advance Level - Security Tester

43%
Agile Advanced - Agile Technical Tester

42%
Specialist - Usability Testing

41%
Mobile Application Testing

40%
Agile Advanced-Leadership & Management in Agile

40%
Specialist - Performance Testing

17%
SDET-DevTester - Testing for Developers

16%
Specialist - Automotive Software Tester

9%
Gambling Industry Testing

The latest additions to the ISTQB® portfolio/roadmap of most interest to respondents are Test Automation Engineer certification (50% of respondents), Security Tester certification (43% of respondents), and Agile Technical Tester certification (43% of respondents).

These certifications are followed by Usability Testing (42%) and Mobile Application Testing (41%) certifications.

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