

ISTQB® Overview



ISTQB® Marketing Working Group

June 2017

1	Introduction to ISTQB®
2	Benefits
3	Syllabi
4	Exams
5	ISTQB®: Worldwide Footprint
6	ISTQB® Partner Program
7	Special Initiatives
8	ISTQB® Next Steps
9	Contacts

WHAT IS THE ISTQB®?

- ISTQB®: International Software Testing Qualifications Board
 - Non-profit association
 - Founded 2002
 - Headquartered in Belgium
 - Has its own constitution, rules and regulations
 - Composed of volunteer international Testing Experts
 - Responsible for the “ISTQB® Certified Tester” scheme worldwide
- ISTQB® is the world’s leading organization for Certification of Professionals in Software Testing

*Advancing
the software testing profession*

- ISTQB® Videos give you insights into the ISTQB® Certified Tester scheme



<http://www.istqb.org/introduction-to-istqb.html>

“To continually improve and advance
the software testing profession by:
Defining and maintaining a Body of Knowledge
which allows testers to be certified based on best practices,
connecting the international software testing community,
and encouraging research.”

1. We promote the value of software testing as a profession to individuals and organizations.
2. We help software testers to be more efficient and effective in their work, through the certification of competencies.
3. We enable testers to progress their career through a Professionals' Code of Ethics and a multi-level certification pathway that provides them with the skills and knowledge they need to fulfil their growing responsibilities and to achieve increased professionalism.
4. We continually advance the Testing Body of Knowledge by drawing on the best available industry practices and the most innovative research, and we make this knowledge freely available to all.
5. We set the criteria for accrediting training providers, to ensure consistent delivery of the Body of Knowledge, worldwide.



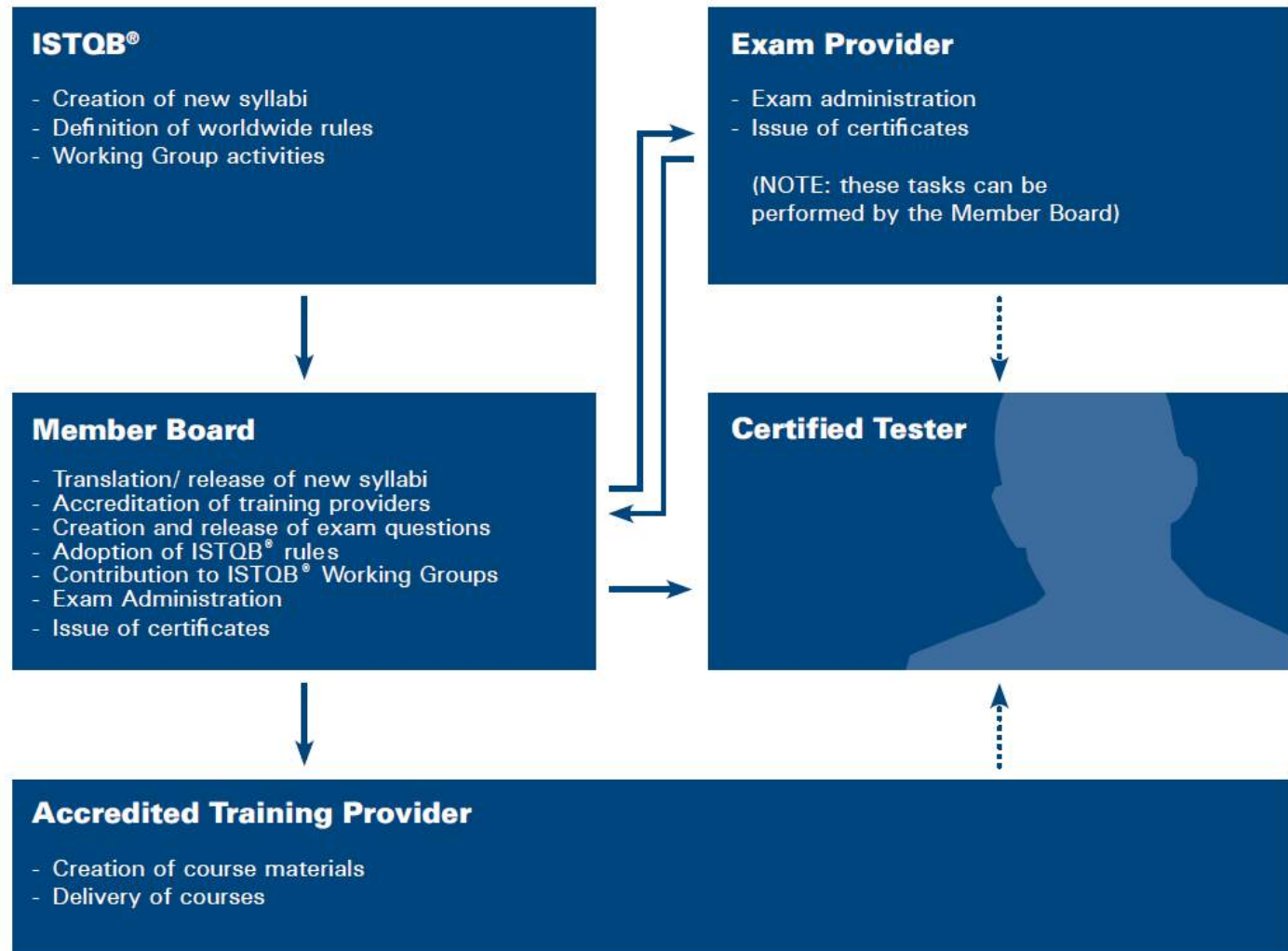
6. We regulate the content and coverage of exam questions, the examination process, and the issuing of certifications by official examination bodies.
7. We are committed to expanding software testing certifications around the world, by admitting member boards into the ISTQB®. These boards adhere to the constitution, bylaws, and processes defined by the ISTQB®, and participate in regular audits.
8. We nurture an open international community, committed to sharing knowledge, ideas, and innovations in software testing.
9. We foster relationships with academia, government, media, professional associations and other interested parties.
10. We provide a reference point against which the effectiveness of testing services can be evaluated, by maintaining our prominence as a respected source of knowledge in software testing.



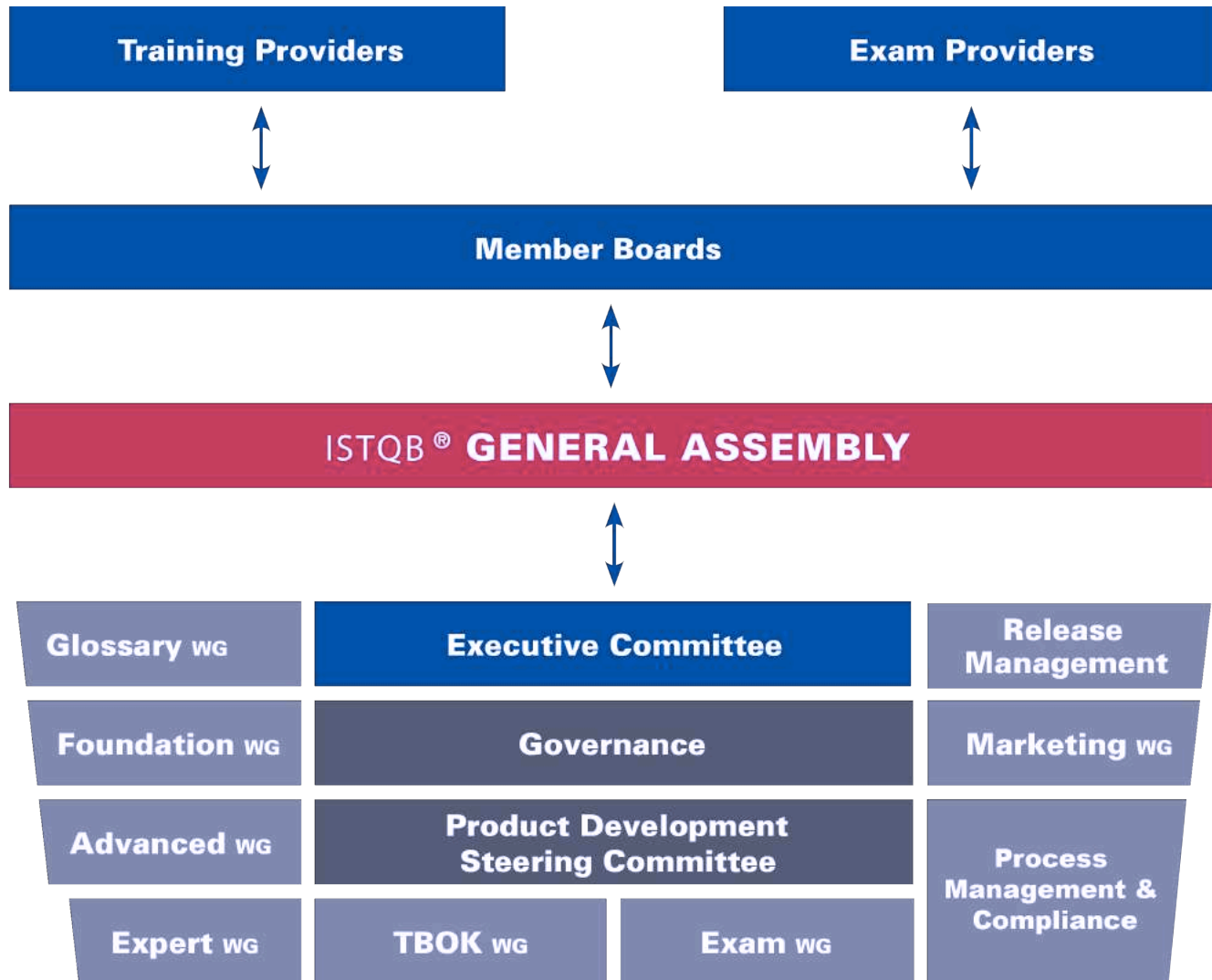


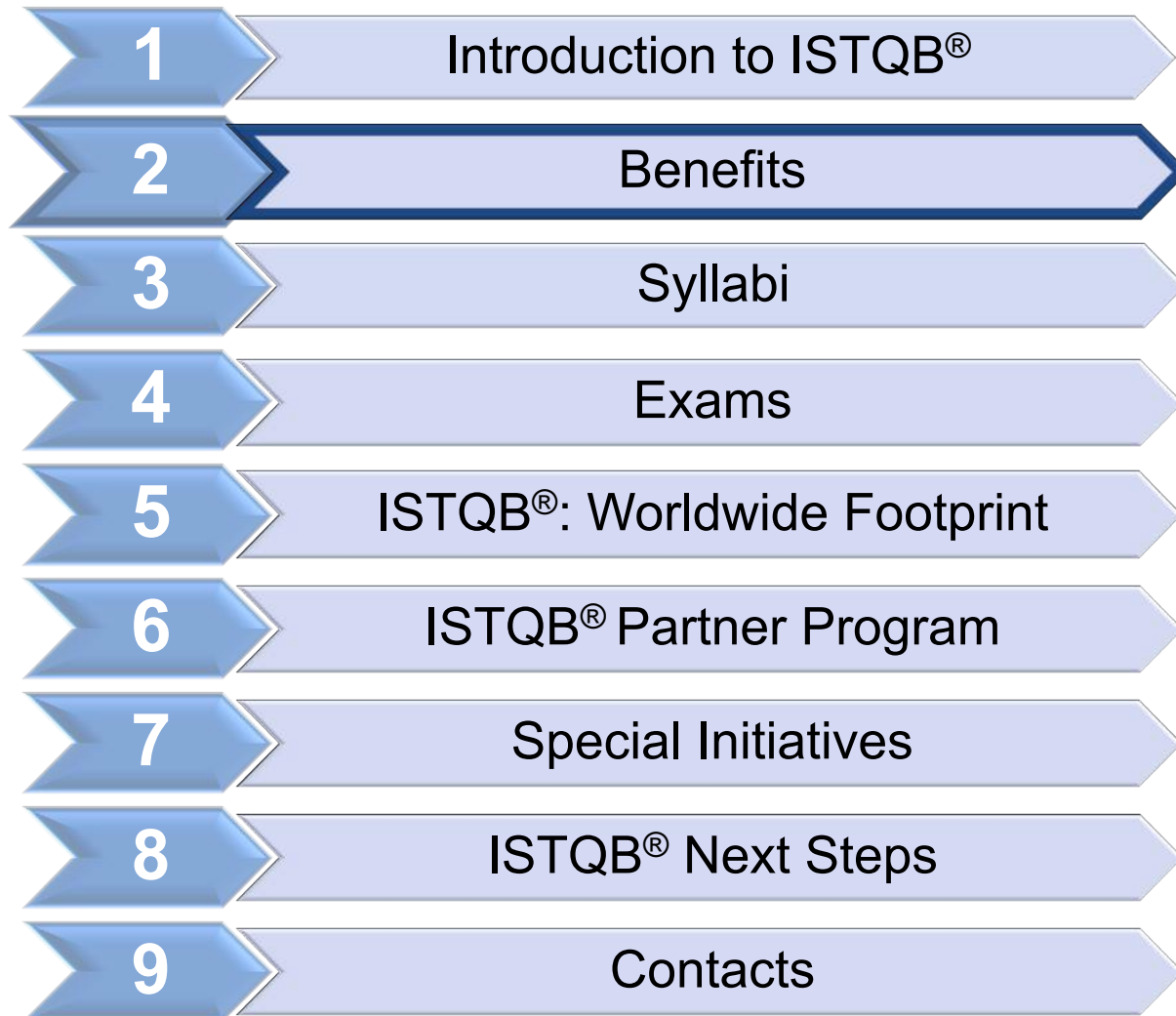


- Working Groups: <http://www.istqb.org/about-as/working-groups.html>
- Member Boards: <http://www.istqb.org/istqb-where-you-are/your-local-member-board.html>
- Training Providers: <http://www.istqb.org/istqb-where-you-are/find-a-training-provider.html>
- Exam Providers: <http://www.istqb.org/istqb-where-you-are/find-an-exam-provider.html>
- ISTQB® Partners: <http://www.istqb.org/partner/istqb-partners.html>



ISTQB® WORKING GROUPS (WGs)





INCREASING PRODUCTIVITY OF SW PROJECTS

ISTQB® CERTIFICATION CAN HELP

- Software engineering and software project management are complex activities. Both software development and software management have dozens of methodologies and scores of tools available that are beneficial. In addition, there are quite a few methods and practices that have been shown to be harmful.
- In order to evaluate the effectiveness or harm of various methods and practices Capers Jones has developed a scoring method.
- The data for the scoring comes from observations among about 150 Fortune 500 companies, some 400 smaller companies, and 30 government organizations. Negative scores also include data from 15 lawsuits. The rankings are based on about 20,000 projects that span 50 industries and 24 countries.
- The analysis is based on the author's book Software Engineering Best Practices published by McGraw Hill in 2010. Some new data is taken from The Economics of Software Quality published by Addison Wesley in 2012. This version is current through mid-2014.

INCREASING PRODUCTIVITY OF SW PROJECTS

ISTQB® CERTIFICATION CAN HELP

- In the following some factors related to testing are presented, with their impact in terms of reduction or increase in project work hours with regards to projects consisting of traditional application development methods such as “waterfall” development performed by organizations that do not have apply systematically sound software engineering practices

Factor	Impact on productivity
Experienced test teams	12% Improvement
Testing by certified test personnel	7% Improvement
Testing by developers only	6% Worsening
Informal test case design	8% Worsening
Inexperienced test teams	15% Worsening
Truncating testing to "meet schedule"	45% Worsening

(Capers Jones, *Scoring and evaluating software methods, practices, and results*, version 15.0, September 6, 2014)

SOURCING SKILLED PROFESSIONALS

ISTQB® CERTIFICATION CAN HELP

- Technavio, an independent technology research and advisory company, analyzed the key challenges faced by the Global Software Testing Services market, highlighting in particular the “Shortage of Skilled Labor”



- The Global Pure Play Software Testing Services market is growing rapidly, thus increasing the demand for skilled labor. However, this has created a disparity in supply and demand, as a result of which, **sourcing and retaining skilled labor has become a challenge.**



- The shortage of availability of required skills is now becoming a major challenge for the software testing organizations.

Since the current educational system is not geared up to the required standards and demands of the market, this challenge is expected to have a bigger impact on the market in the future.

(Global Software Testing Services Market 2011-2015, Technavio)

- As part of its commitment to continuous improvement and the advancement of the software testing profession, in 2013 ISTQB® conducted an international online survey for test engineers and managers.
- The survey was open from June to September 2013 and several thousand responses were received from almost 70 countries; in particular, respondents were:
 - 2855 test engineers
 - 779 test managers
- In the remainder of this presentation, references will be made to some key results of the survey
- The full report is available for free download from the [ISTQB® Web Site](http://www.istqb.org)



A new survey is in progress and will be published soon

BENEFITS FOR PROFESSIONALS

- International recognition of acquired competencies and skills
- Authorized to use the “Certified Tester” logo (specifying the level of certification)
- Whole of career path support, from Foundation to Expert level
- Higher appeal in the labor market



BENEFITS FOR PROFESSIONALS - SURVEY

- Would you recommend the ISTQB® Foundation Level (CTFL) certification to your colleagues?

Test Engineers



Both Test Engineers and Test Managers are highly satisfied with the ISTQB® CTFL certifications and happy to recommend these to their colleagues [91% - Test Engineers, 94% - Test Managers].

Test Managers



BENEFITS FOR COMPANIES

- ISTQB® certification can provide a competitive advantage for companies, promising a higher level of reliability of the applications being developed due to efficient and cost effective testing practices derived from the ISTQB® competencies
- Consulting companies with certified staff can offer higher-level services to customers, increasing revenues and brand value
- ISTQB® has defined a “Partner Program” in the Industry, for companies that engage and certify their testers using the ISTQB® scheme. ISTQB® is planning an Academia Partner Program, related to the Industry one already in place

BENEFITS FOR COMPANIES - SURVEY

- As a Test Manager, what percentage of your testing staff would you like to see certified at the ISTQB® Foundation Level?

Test Engineers



Test Managers appear to see a high value in having their staff trained and certified. Around 88% of Test Managers would like to see more than half of their testing staff being certified at the ISTQB® Foundation Level. On average, the desired number of certified staff is 75%.

BENEFITS FOR ACCREDITED TRAINING PROVIDERS (ATP)

- Educational institutions and consulting companies may become an ISTQB® Accredited Trainer Provider (ATP) according to processes and rules defined at the international level
- Accredited Training Providers ensure that a high standing training is delivered through having:
 - certified trainers
 - the content, quality and syllabus coverage of training materials checked by ISTQB® Boards
 - advance notice of changes to the ISTQB® Glossary and syllabi
- Accredited Training Providers are entitled to use relevant logos and are listed in the ISTQB® Website



BENEFITS FOR ACCREDITED TRAINING PROVIDERS

- How significant do you think the training was in your certification success?



Almost 70% of the survey participants felt that formal training was a significant part of their certification success.

The ISTQB® provides strong support for training providers and accredited training will continue to be an integral part of certification success.



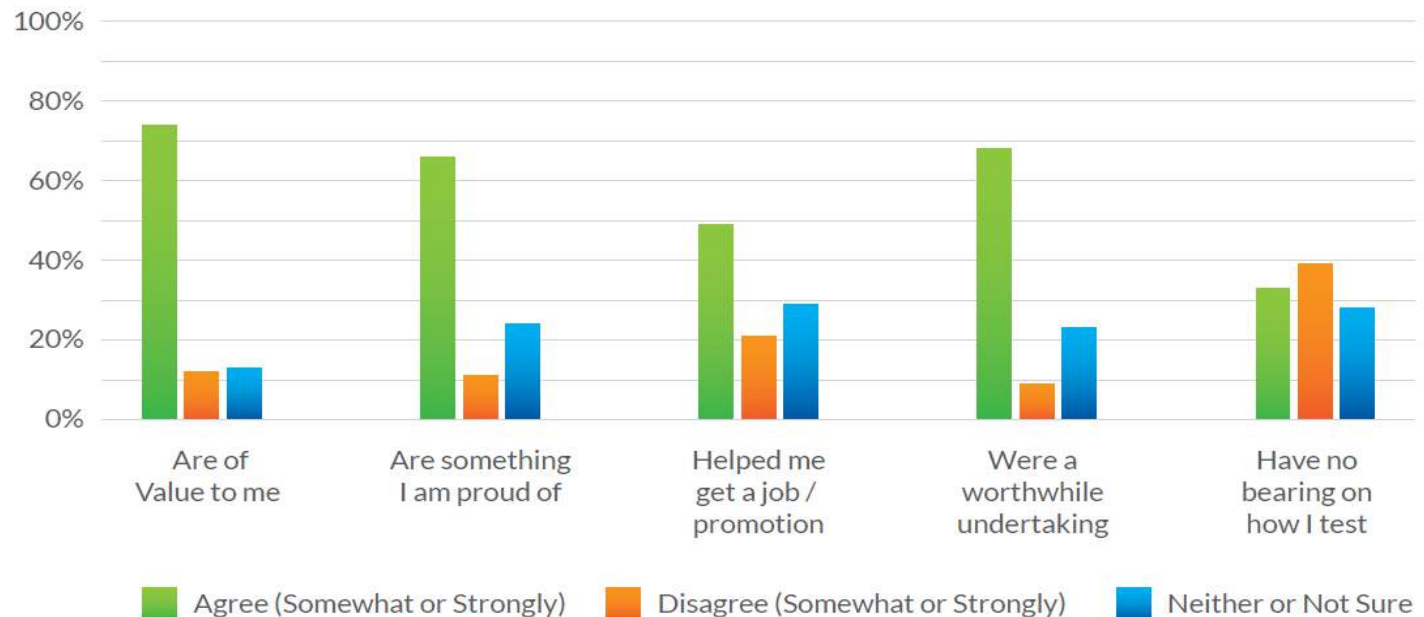
ISTBQ® ADOPTION AMONG TEST PROFESSIONALS

- EuroSTAR, one of the major testing conferences, has conducted a survey involving 631 professional software testers and testing team leads or testing and quality assurance managers from major companies across Europe
- Report: “Practices & Attitudes in Software Testing (PAST) Study” – EUROSTAR Sw Testing Report 2014
- In accordance to the survey, 85% of the respondents have an ISTQB® Foundation certificate and 26% have also an ISTQB® Advanced certification

SW TESTING CERTIFICATION VALUE

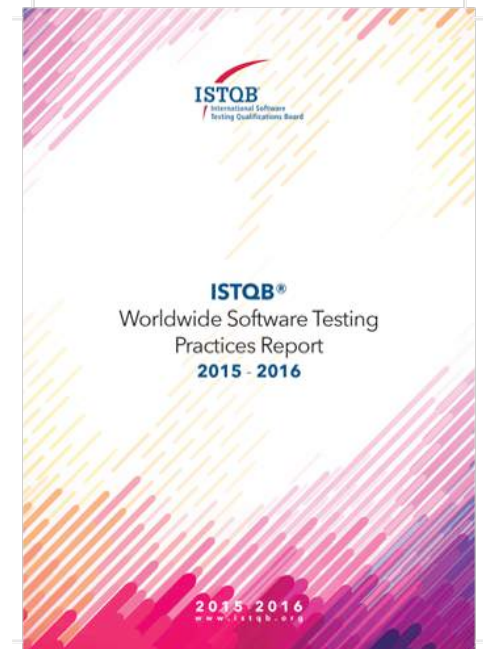
The same survey shows that the value of certifications is perceived to be high

	Agree (Somewhat or Strongly)	Disagree (Somewhat or Strongly)	Neither or Not Sure
Are of value to me	74%	12%	13%
Are something I am proud of	66%	11%	24%
Helped me get a job/promotion	49%	21%	29%
Were a worthwhile undertaking	68%	9%	23%
Have no bearing on how I test	33%	39%	28%



ISTQB® WORLDWIDE SOFTWARE TESTING PRACTICES REPORT

- In 2015 we conducted a survey looking at the “Worldwide Software Testing Practices”, the results of which are published in this report.
- The survey was open from June to September 2015 and several thousand responses were received from almost 90 countries.
- In the remainder of this presentation, references will be made to some key results of the survey
- The full report is available for free download
- [Download ISTQB Worldwide Testing Practices Report](#)



1	Introduction to ISTQB®
2	Benefits
3	Syllabi
4	Exams
5	ISTQB®: Worldwide Footprint
6	ISTQB® Partner Program
7	Special Initiatives
8	ISTQB® Next Steps
9	Contacts

3.1

General Introduction

3.2

Core

Certified Tester Foundation Level

Test Manager Advanced Level

Test Analyst Advanced Level

Technical Test Analyst Advanced Level

Test Management Export Level

Improving the Test Process Expert Level

3.3

Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

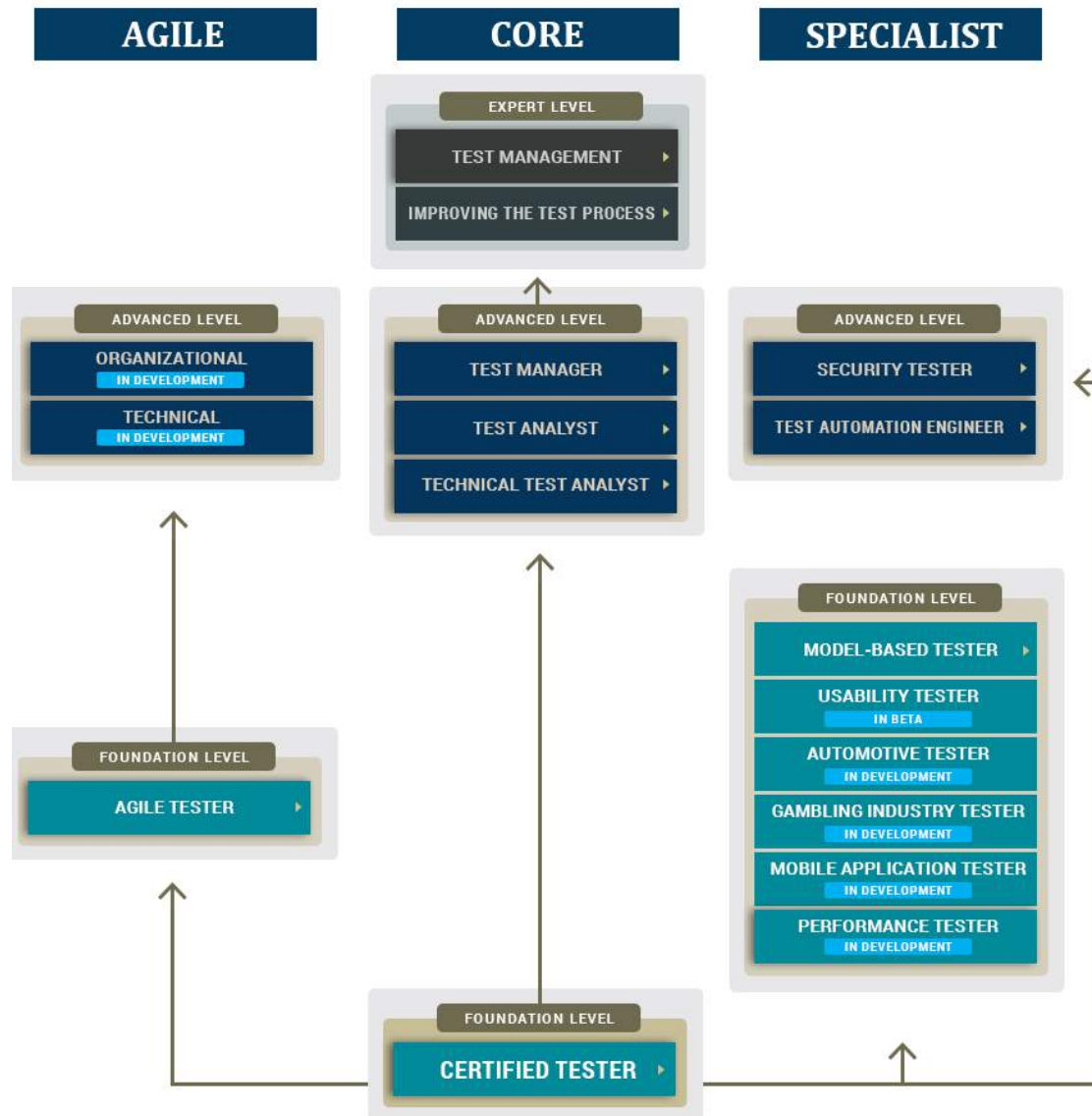
3.4

Agile

Agile Tester Foundation Level

- ISTQB® has defined three Levels:
 - Foundation
 - Advanced
 - Expert
- The ISTQB® certification scheme is split into streams
 - Core: The core stream includes the testing fundamentals in every level
 - Agile: This specific area is aimed for people interested in the Agile world (as the world is getting more and more agile)
 - Specialist: This area of knowledge is aimed for those who want to deep dive in specific testing topics
- Syllabi are publicly available for download from the ISTQB® website. They are written by testing experts and continuously reviewed and improved
- Terms used in the ISTQB® syllabi are defined in the ISTQB® Glossary
- Syllabi and Glossary are translated in many languages by the ISTQB® Member Boards - refer to local board websites to download this content

ISTQB® PRODUCT PORTFOLIO



3.1

General Introduction

3.2

Core

Certified Tester Foundation Level

Test Manager Advanced Level

Test Analyst Advanced Level

Technical Test Analyst Advanced Level

Test Management Export Level

Improving the Test Process Expert Level

3.3

Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

3.4

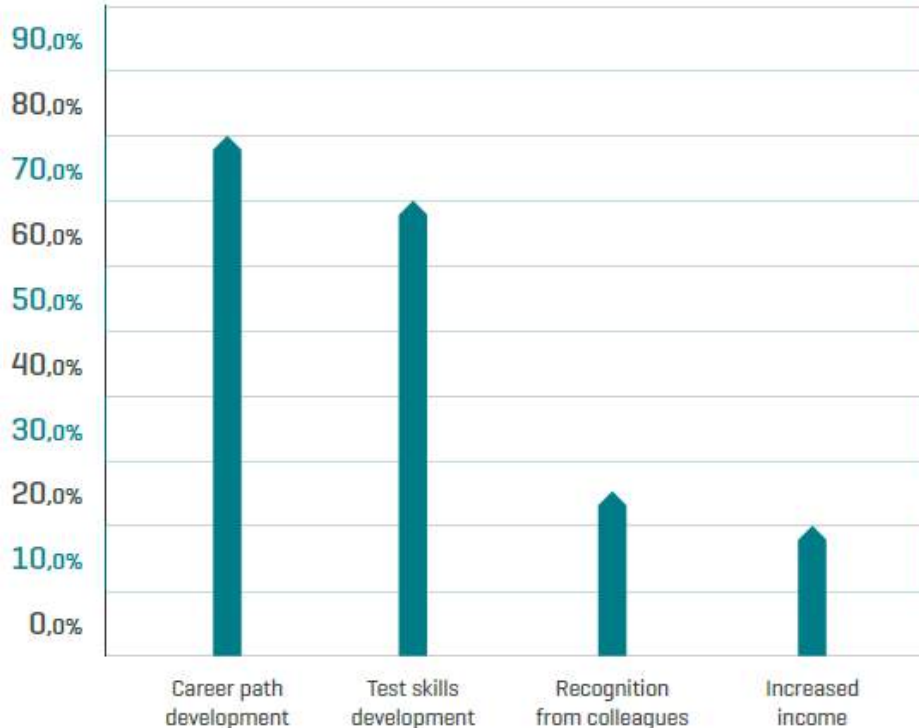
Agile

Agile Tester Foundation Level

ISTQB® – FOUNDATION LEVEL					
Fundamentals of Testing	Testing Throughout the Software Life Cycle	Static Techniques	Testing Design Techniques	Test Management	Tool Support for Testing
Why is Testing Necessary?	Software Development Models	Static Techniques and the Test Process	The Test Development Process	Test Organization	Types of Test Tools
What is Testing?	Test Levels	Review Process	Categories of Test Design Techniques	Test Planning and Estimation	Effective use of Tools: Potential Benefits and Risks
Seven Testing Principles	Test Types	Static Analysis by Tools	Specification-based Techniques (black-box)	Test Progress Monitoring and Control	Introducing a Tool into an Organization
Fundamental Test Process	Maintenance Testing		Structure-based Techniques (white-box)	Configuration Management	
The Psychology of Testing			Experience-based Techniques	Risk and Testing	
Code of Ethics			Choosing Test Techniques	Incident Management	

BENEFITS OF CTFL FOR TEST ENGINEERS – SURVEY

- As a Test Engineer, what was your motivation in obtaining your ISTQB® CTFL certification?

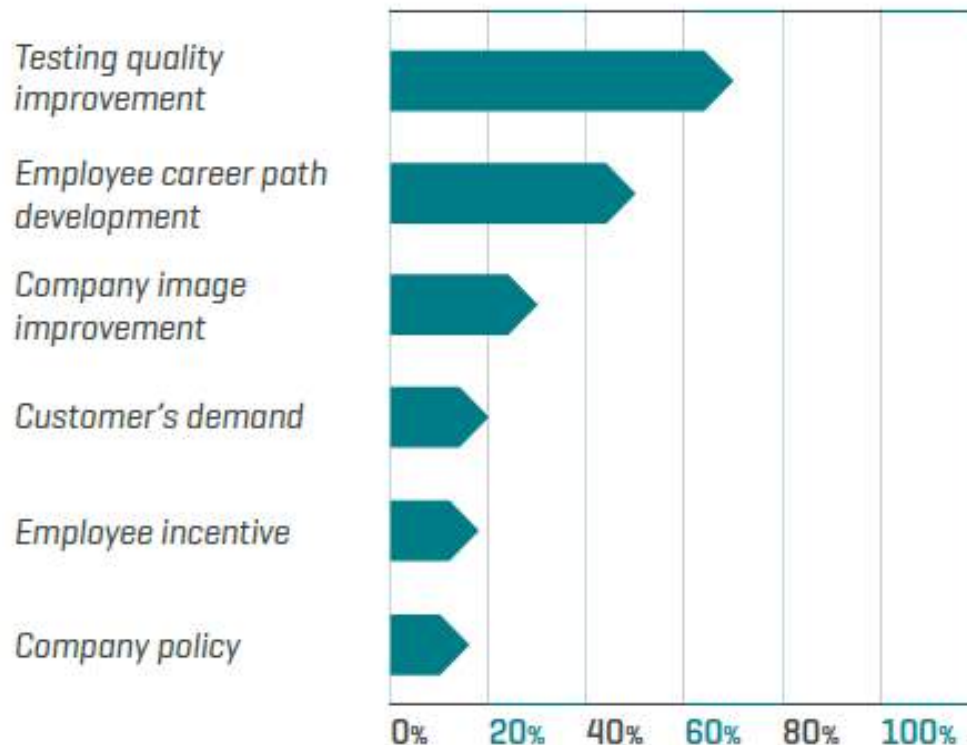


The majority of Test Engineers took the ISTQB® CTFL certification in order to enhance their career path (80%) and develop their testing skills (70%)

Some believe it will help them get more recognition from their colleagues (25%) or increase their income (20%).

BENEFITS OF CTFL FOR TEST MANAGERS – SURVEY

- As a Test Manager, what was your motivation to have your employees achieve ISTQB® Foundation Level (CTFL) certification?



The majority of Test Managers believe that participating in the ISTQB® certification scheme will positively impact testing quality in their projects [75%], and will enable them to provide positive career path to their employees [55%].

Some Test Managers believe their company image will improve [30%] as a result of having their employees participate in the ISTQB® certification.

- ISTQB® Advanced Level is composed of three independent modules:
 - Test Manager (AL-TM)
 - Test Analyst (AL-TA)
 - Technical Test Analyst (AL-TTA)
- The ISTQB® Foundation Level Certification is a pre-requisite for all of them
- When achieving all the three Advanced Core Modules, a “Full Advanced” certificate is issued

ISTQB® ADVANCED LEVEL TEST MANAGER (AL-TM)

ISTQB® – ADVANCED LEVEL TEST MANAGER

Testing Process	Test Management	Reviews	Defect Management	Improving the Testing Process	Test Tool and Automation	People Skills
Test Planning, Monitoring and Control	Risk-based Testing	Management Reviews and Audits	Defect Lifecycle	Test Improvement Process	Tool Selection	Individual Skills
Test Analysis and Design	Test Documentation	Managing Reviews	Defect Report Information	Improving the testing process with CMMi, TPI, CTP, STEP	Tool Lifecycle	Test Team Dynamics
Test Implementation and Execution	Test Estimation and Test Metrics	Metrics for reviews	Assessing Process Capability with Defect Report Info		Tool Metrics	Fitting Testing Within an Organization
Evaluating Exit Criteria and Reporting	Business Value of Testing	Managing Formal Reviews				Motivation
Test Closure Activities	Distributed, Outsourced and Insourced Testing					Communication
	Managing the Application of Industry Standards					

ISTQB® ADVANCED LEVEL TEST ANALYST (AL-TA)

ISTQB® – ADVANCED LEVEL TEST ANALYST						
Testing Process	Test Management	Test Techniques	Testing Software Quality Characteristics	Reviews	Defect Management	Test Tools
Testing in the Software Development Lifecycle	Test Progress Monitoring and Control	Specification-Based Techniques	Accuracy Testing	Using Checklist in Reviews	Defect Report Fields	Test Design Tools
Test Planning, Monitoring and Control	Distributed, Outsourced and Insourced Testing	Defect-Based Techniques	Suitability Testing		Defect Classification	Test Data Preparation Tools
Test Analysis and Design	Risk Based Testing	Experience-Based Techniques	Interoperability Testing		Root Cause Analysis	Automated Test Execution Tools
Test Implementation and Execution			Usability Testing			
Evaluating Exit Criteria and Reporting			Accessibility Testing			
Test Closure Activities						

ISTQB® ADVANCED LEVEL TECHNICAL TEST ANALYST (AL – TTA)

ISTQB® – ADVANCED LEVEL TECHNICAL TEST ANALYST					
Risk Based Testing	Structure-Based Testing	Analytical Techniques	Quality Characteristics for Technical testing	Reviews	Test Tools and Automation
Risk Identification	Condition Testing	Static Analysis	General Planning Issues	Using Checklist in Reviews	Integration and Information Interchange
Risk Assessment	Modified Condition/ Decision Coverage (MC/DC) Testing	Dynamic Analysis	Security & Reliability Testing		Defining the Test Automation Project
Risk Mitigation	Path Testing		Performance Testing		Specific Test Tools
	API Testing		Resource Utilization		
	Selecting a Structure-based Technique		Maintainability Testing		
			Portability Testing		

ADVANCED LEVEL - SURVEY

- How important do you think it is to obtain the ISTQB® Advanced Level (CTAL) certification?



Approximately 70% of Test Managers identified that it is important to obtain the Advanced Level Certification, and this was supported by 63% of Test Engineers.



- For ISTQB®, Expert really means Expert
 - “A person with the special skills and knowledge representing mastery of a particular testing subject.
 - Being an expert means possessing and displaying special skills and knowledge derived from training and experience.”
- Clearly stated expectations and business outcomes are established for each subject covered at Expert Level

- The Expert Module “Test Management” is composed of three parts:
 - Strategic Test Management
 - Operational Test Management
 - Managing the Test Team



ISTQB® EXPERT LEVEL STRATEGIC TEST MANAGEMENT

ISTQB® – EXPERT LEVEL TEST MANAGEMENT – PART 1 – STRATEGIC TEST MANAGEMENT

**Missions,
Policies,
Strategies
and Goals**

**Evaluating
Effectiveness &
Efficiency**

**Managing
Across the
Organization**

**Managing
External
Relationships**

**Domain
and
Project
Factors**

**Missions, Policies,
Metrics of
Success**

**Effectiveness,
Efficiency and
Satisfaction
Metrics for
the Test Policy
Objectives**

**Integrating
Tools Across the
Organization**

**Merging Test
Strategies with
Third Party
Organizations**

**Test Management
Considerations for
Lifecycle Models**

Test Strategies

**Quality Manage-
ment & Testing**

**Managing
Partial Lifecycle
Models**

**Alignment
of Test Policy
and Strategy
Within
Organization**

ISTQB® EXPERT LEVEL

OPERATIONAL TEST MANAGEMENT

ISTQB® – EXPERT LEVEL TEST MANAGEMENT – PART 2 – OPERATIONAL TEST MANAGEMENT

Managing External Relationships	Project Management Essentials	Test Project Evaluation & Reporting	Domain and Project Factors	Evaluating Effectiveness & Efficiency
Types of External Relationships	Estimating Effort	Tracking Information	Release Considerations	Project Retrospectives
Contractual Issues	Balancing Quality Schedule, Budget and Features Implemented	Internal Reporting		
Communication Strategies		External Reporting		
Integrating from External Sources	Performing Risk Assessment	Test Results Reporting and Interpretation		
	Monitoring and Controlling a Test Project	Statistical Quality Control Techniques		

ISTQB® EXPERT LEVEL

MANAGING THE TEST TEAM



- The Expert Module “Improving the Testing Process” is composed of two parts:
 - Assessing Test Processes
 - Implementing Test Process Improvement

IMPROVING THE TESTING PROCESS

ASSESSING TEST PROCESSES

**IMPLEMENTING TEST PROCESS
IMPROVEMENT**

ISTQB® EXPERT LEVEL

ASSESSING TEST PROCESSES

ISTQB® – EXPERT LEVEL IMPROVING THE TESTING PROCESS – PART 1- ASSESSING TEST PROCESSES

Context of Improvement	Model based Improvement	Analytical based Improvement	Selecting the Approach	Process for Improvement
Why improve?	SW Models (CMMI, ISO 15504)	Causal Analysis	Selection of Test Process Improvement	Initiating & Diagnosing the Situation
What can be Improved?	Test Process Models (TPI NEXT, TMMi)	GQM Approach		
Views of Quality	Test Content Models (CTP, STEP)	Measures, Metrics & Indicators		
Generic Improvement Process (Deming, IDEAL)				

ISTQB® EXPERT LEVEL

IMPLEMENTING TEST PROCESS IMPROVEMENT

ISTQB® – EXPERT LEVEL IMPROVING THE TESTING PROCESS – PART 2- IMPLEMENTING TEST PROCESS IMPROVEMENT



3.1

General Introduction

3.2

Core

Certified Tester Foundation Level

Test Manager Advanced Level

Test Analyst Advanced Level

Technical Test Analyst Advanced Level

Test Management Export Level

Improving the Test Process Expert Level

3.3

Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

3.4

Agile

Agile Tester Foundation Level

ISTQB® FOUNDATION LEVEL MODEL-BASED TESTER

ISTQB® FOUNDATION LEVEL CERTIFIED MODEL-BASED TESTER

Introduction to Model-Based Testing	MBT Modeling	Selection Criteria for Test Case Generation	MBT Test Implementation and Execution	Evaluating and Deploying an MBT Approach
Objectives and Motivations for MBT	MBT Modeling activities	Classification of MBT Test Selection Criteria	Specifics of MBT Test Implementation and Execution	Evaluate an MBT Deployment
MBT Activities and Artifacts	Languages for MBT Models	Applying Test Selection Criteria	Activities of Test Adaptation in MBT	Manage and Monitor the Deployment of an MBT Approach
Integrating MBT into the Software Development Lifecycles	Good Practices for MBT Modeling Activities			

- Model-Based Tester (MBT) should:
 - Collaborate in a model base testing team using standard terminology and establish MBT concepts, processes and techniques
 - Apply and integrate mode-based testing in a test process
 - Effectively create and maintain MBT models using established techniques and best practices of model-base testing
 - Select, create and maintain test artifacts from MBT models considering risk and value of features testes
 - Support the organization to improve its quality assurance process to be more constructive and efficient
- In general and ISTQB® Model-Based Tester has acquired the necessary skills to successfully contribute to MBT projects in a given context

ISTQB® ADVANCED LEVEL SECURITY TESTER

ISTQB® ADVANCED LEVEL SECURITY TESTER								
The Basis of Security Testing	Security Testing Purposes, Goals and Strategies	Security Testing Processes	Security Testing Throughout the Software Lifecycle	Testing Security Mechanisms	Human Factors in Security Testing	Security Test Evaluation and Reporting	Security Testing Tools	Standards and Industry Trends
Security Risks	Introduction	Security Test Process Definition	Role of Security Testing in a Software Lifecycle	System Hardening	Understanding the Attackers	Security Test Evaluation	Types and Purposes of Security Testing Tools	Understanding Security Testing Standards
Information Security Policies and Procedures	The Purpose of Security Testing	Security Test Planning	The Role of Security Testing in Requirements	Authentication and Authorization	Social Engineering	Security Test Reporting	Tool Selection	Applying Security Standards
Security Auditing and Its Role in Security Testing	The Organizational Context	Security Test Design	The Role of Security Testing in Design	Encryption	Security Awareness			Industry Trends
	Security Testing Objectives	Security Test Execution	The Role of Security Testing in Implementation Activities	Firewalls and Network Zones				
	The Scope and Coverage of Security Testing Objectives	Security Test Evaluation	The Role of Security Testing in System and Acceptance Test Activities	Intrusion Detection				
	Security Testing Approaches	Security Test Maintenance	The Role of Security Testing in Maintenance	Malware Scanning				
	Improving the Security Testing Practices			Data Obfuscation				
				Training				

- An ISTQB® Advanced Security Tester (AST) should:
 - Plan, perform and evaluate security tests from a variety of perspectives
 - Analyze a given situation and determine which security testing approaches are most likely to succeed in that situation
 - Evaluate effectiveness of security mechanisms, such as firewalls and encryption
 - Understand the attacker mentality so that effective defenses can be established and tested
 - Know how to deal with the human risks in Information Security
 - Analyze and document security test needs to be addressed by one or more tools

In general, an ISTQB® Advanced Security Tester should have detailed knowledge of security risks, vulnerabilities and defenses in order to create and perform tests that validate the effectiveness of existing and new security defenses in a given context.

ISTQB® ADVANCED LEVEL TEST AUTOMATION ENGINEER

ISTQB – ADVANCED LEVEL TEST AUTOMATION ENGINEER

Test Automation	Preparing for Test Automation	The Generic Test Automation Architecture	Deployment Risks and Contingencies	Test Automation Reporting and Metrics	Transitioning Manual Testing to an Automated Environment	Verifying the TAS	Continuous Improvement
Purpose of Test Automation	SUT Factors Influencing Test Automation	Introduction to gTAA	Test Automation Approach and Planning of Deployment/Rollout	Selection of TAS Metrics	Criteria for Automation	Verifying Automated Test Environment Components	Options for Improving Test Automation.
Success Factors	Tool Evaluation and Selection	TAA Design	Risk Assessment and Mitigation Strategies	Implementation of Measurement	Automation within Regression Testing	Verifying the Automated Test Suite	Test Automation Improvement
	Design for Testability and Automation	TAS Development	Test Automation Maintenance	Logging of the TAS and the SUT	Automation within New Feature Testing		
				Test Automation Reporting	Automation of Confirmation Testing		

THE CONTRIBUTION OF TEST AUTOMATION ENGINEER

- An ISTQB Test Automation Engineer (TAE) should:
 - Contribute to the development of a plan to integrate automated testing within the testing process
 - Evaluate tools and technology for automation best fit to each project and organization.
 - Create an approach and methodology for building a test automation architecture (TAA).
 - Design and develop (new or modified) test automation solutions that meet the business needs.
 - Enable the transition of testing from a manual to an automated approach.
 - Create automated test reporting and metrics collection.
 - Manage and optimize testing assets to facilitate maintainability and address evolving (test) systems.

3.1

General Introduction

3.2

Core

Certified Tester Foundation Level

Test Manager Advanced Level

Test Analyst Advanced Level

Technical Test Analyst Advanced Level

Test Management Export Level

Improving the Test Process Expert Level

3.3

Specialist

Model Based Tester Foundation Level

Security Tester Advanced Level

Test Automation Engineer

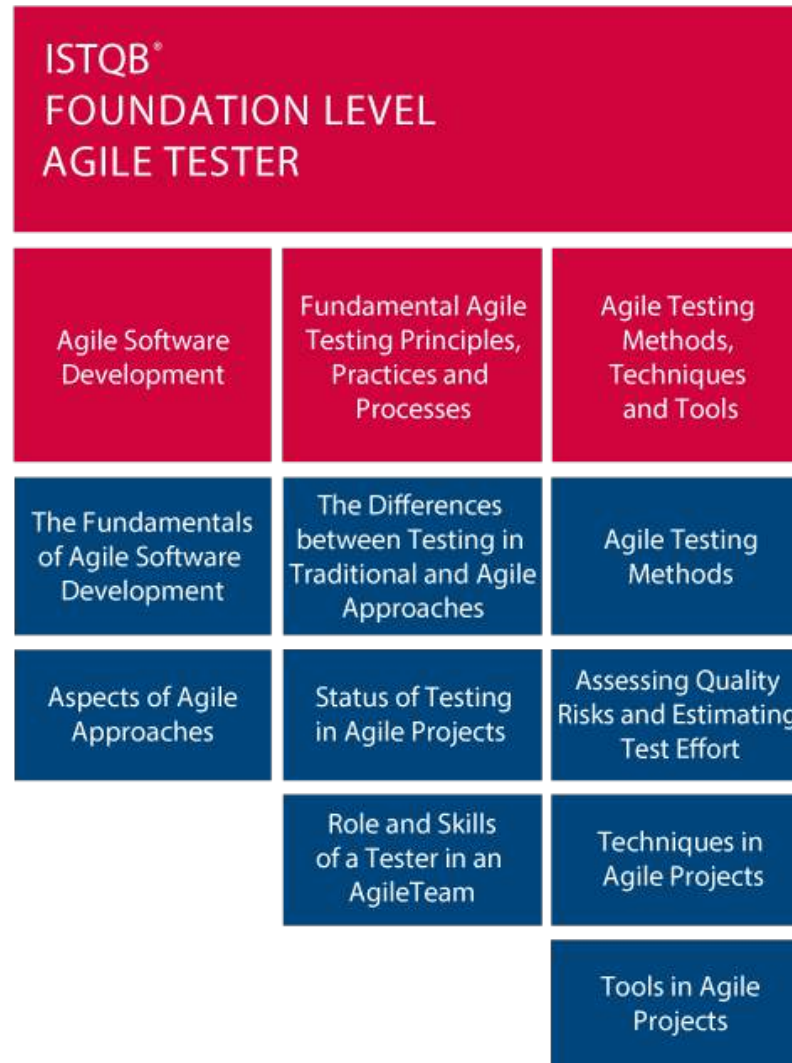
3.4

Agile

Agile Tester Foundation Level

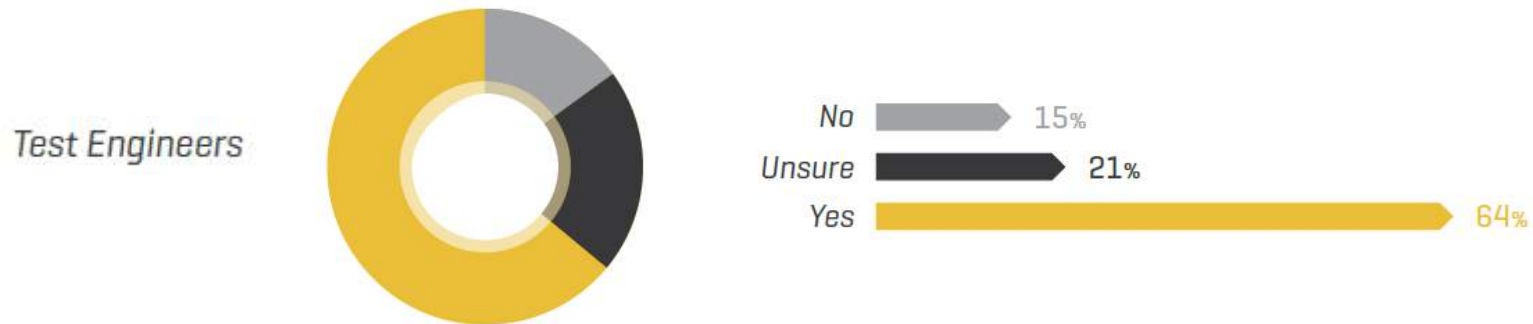
ISTQB® FOUNDATION LEVEL

AGILE TESTER

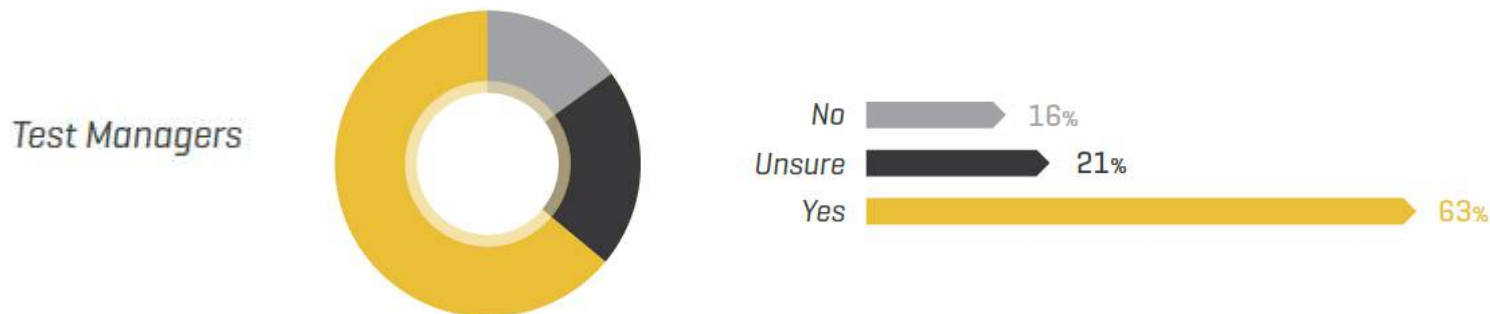


FOUNDATION LEVEL AGILE TESTER - SURVEY

- Would you be interested in Agile Tester certification?



Approximately 85% of the respondents are definitely or possibly interested in Agile testing certification. With the planned release in early 2014 of the Agile tester certification extension to the Foundation Level, ISTQB® is well-positioned to respond to the expected demand.



- Agile testers should:
 - Collaborate in an agile team, being familiar with agile principles and practices
 - Adapt existing testing experience, knowledge, and best practices
 - Support the agile team in planning test related activities
 - Apply relevant test methods and techniques
 - Assist in test automation
 - Help business stakeholders define understandable and testable user stories and acceptance criteria
 - Work and share information with other team members
- An ISTQB® Agile Tester should work effectively within an agile team and environment

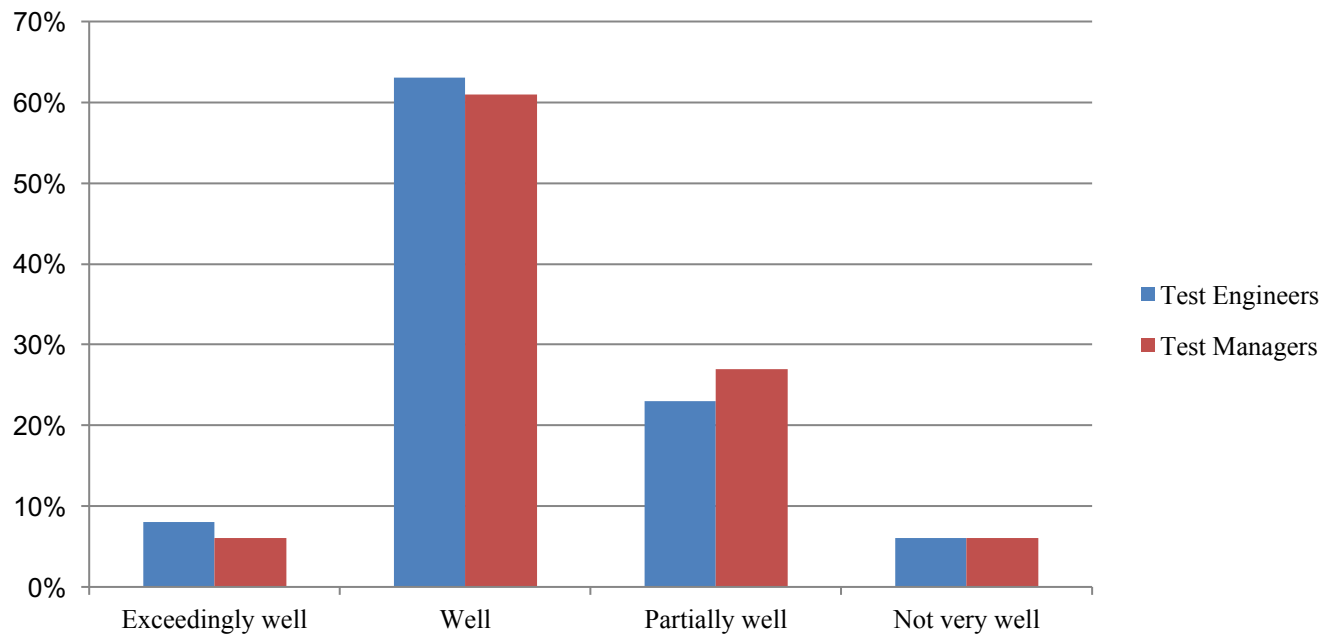
IS THE AGILE TESTER FOR YOU?

- The target professionals are:
 - Testers experienced in traditional Software Development Lifecycle methodologies
 - Entry-level testers with an interest in agile testing
 - Experienced developers with a lot to a little knowledge of testing who work in agile projects
- Roles include testers, test analysts, test engineers, test consultants, test managers, user acceptance testers, software developers
- The ISTQB® Foundation certificate is a pre-requisite



- The exam is based on multiple-choice questions for Foundation and Advanced Levels
- For Expert Level, an essay is also required
- Exams can be attempted also without having attended a training course (e.g. through self-study)

- To what extent do you feel the ISTQB® Foundation Level certification exam reflects the knowledge of the candidates?



More than 70% of respondents regard the ISTQB® Foundation Level certification exam as fully or exceedingly reliable and these results are consistent throughout the world; only 6% found the exam not very reliable

EXAMS QUESTIONS AND LENGTH

MODULE	NUMBER OF QUESTIONS	EXAM LENGTH (IN MINUTES)	EXAM LENGTH FOR NON NATIVE LANGUAGE
FOUNDATION CERTIFIED TESTER	40	60	75
AGILE TESTER	40	60	75
ADVANCED TEST MANAGER	65	180	225
ADVANCED TEST ANALYST	60	180	225
ADVANCED TECHNICAL TEST ANALYST	45	120	150
MODEL-BASED TESTER	40	60	75
SECURITY TESTER	45	120	150
TEST AUTOMATION ENGINEER	40	90	113

- Questions are classified according to the cognitive level, the K-level (also known as level of knowledge):
 - K1 = Remember (recognize a term or concept)
 - K2 = Understand (able to explain a concept)
 - K3 = Apply (select correct application of concept or technique)
 - K4 = Analyze (can distinguish between facts and inferences for deeper understanding)
 - K5 = Evaluate (can make judgments based on criteria and standards)
 - K6 = Create (can put elements together to form a coherent or functional whole)
- The number of questions for each topic is related to the length of the topic in the syllabus
- For more details, see the FAQ section in the ISTQB® Website

CRITERIA TO ACHIEVE EXPERT LEVEL

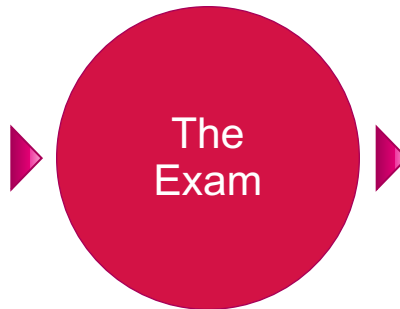
Entry criteria

Recommended :

- At least 7 years of practical testing experience
- Completion of Expert Level course

Mandatory:

- ISTQB® Foundation
- ISTQB® Advanced (depending on Expert Level module)
- Completion of Expert Level course (if a non-public exam is taken)



Exit criteria

- Exam passed (65%)
- Experience levels (may be achieved before or after passing the exam)
 - At least 5 years of practical testing experience
 - At least 2 years of industry experience in the specific Expert Level topic

The exam

- A certification scheme at Expert Level must meet the expectations and perceptions of its stakeholders and has to be seen to be truly “expert”.
- The exam therefore consists of a multiple-choice section and a written “essay” section
- A score of 65% and above is required to pass

Multiple-Choice section

- Duration: 1 Hour
- 25 Questions
- Learning objectives covered:
K2, K3, K4 (like in Advanced Level)

Essay section

- Duration:
 - Reading: ½ hour
 - Answering: 2 hours
 - Add ¾ hour for non-native speakers
- Answer 4 questions out of 5
- Learning objectives covered:
Mostly higher learning objectives
(K5,K6)

MAINTAINING EXPERT LEVEL CERTIFICATION

Expert certification is not for life

- An Expert Level certificate is valid for 5 years
- Expert certification must be renewed using one of the following two options

Repeat the exam

- A passed exam results in certification for a further 5 years

Achieve 200 „Certification Extension Credits“ (CEC)

- CECs may be achieved in a number of areas. For example:
 - Perform a professional testing activity
 - Take a relevant training course
 - Attend a testing conference
 - Present at a testing conference
 - Teaching a relevant training course
 - Write a testing article or book
 - Actively participate in a Working Group (ISTQB® Member Boards, SIGIST,)
- Verifiable evidence must be submitted to the certifier
- The Certification Extension Program is published by ISTQB®



1998	ISEB (Information Systems Examinations Board, part of the British Computer Society) develops the Certified Tester Syllabus. The first Software Testers are certified in 1998
2002	The ISTQB® (International Software Testing Qualifications Board) is founded by 8 member boards: Austria, Denmark, Finland, Germany, Sweden, Switzerland, the Netherlands and UK
2003	The syllabus for the “Advanced Level” is completed
2004	First exams for “ISTQB® Certified Tester Advanced Level” are released
2006	The number of member boards grows steadily
2007	The Foundation and Advanced Syllabi are enhanced
2009	The number of Member Boards climbs further The number of certifications reaches 100,000
2010	BCS withdraws the ISEB Test Practitioner scheme in favor of ISTQB Certified Tester Advanced Level. The first “Expert Level” syllabus is released
2011	The number of certifications exceeds 200,000 globally Issue of additional Expert Level Syllabi
2012	Launch of the “ISTQB® Partner Program”, “ISTQB® Conference Network”, “ISTQB® Recognized Mobile app” program and “ISTQB® international Software Testing Excellence Award”
2013	The number of certifications exceeds 300,000 globally

ISTQB® - THE EVOLUTION (2)

- | | |
|-------------|--|
| 2014 | Agile Tester Syllabus is made available |
| 2015 | New Product Portfolio architecture
Model-Based Tester Syllabus is made available
More than 600.000 exams and 440.000 certifications in over 110 countries world-wide |
| 2016 | Security Tester Syllabus and Test Automation Engineer released for public availability
More than 500.000 certifications issued in 117 countries world-wide
Several new member boards joining |

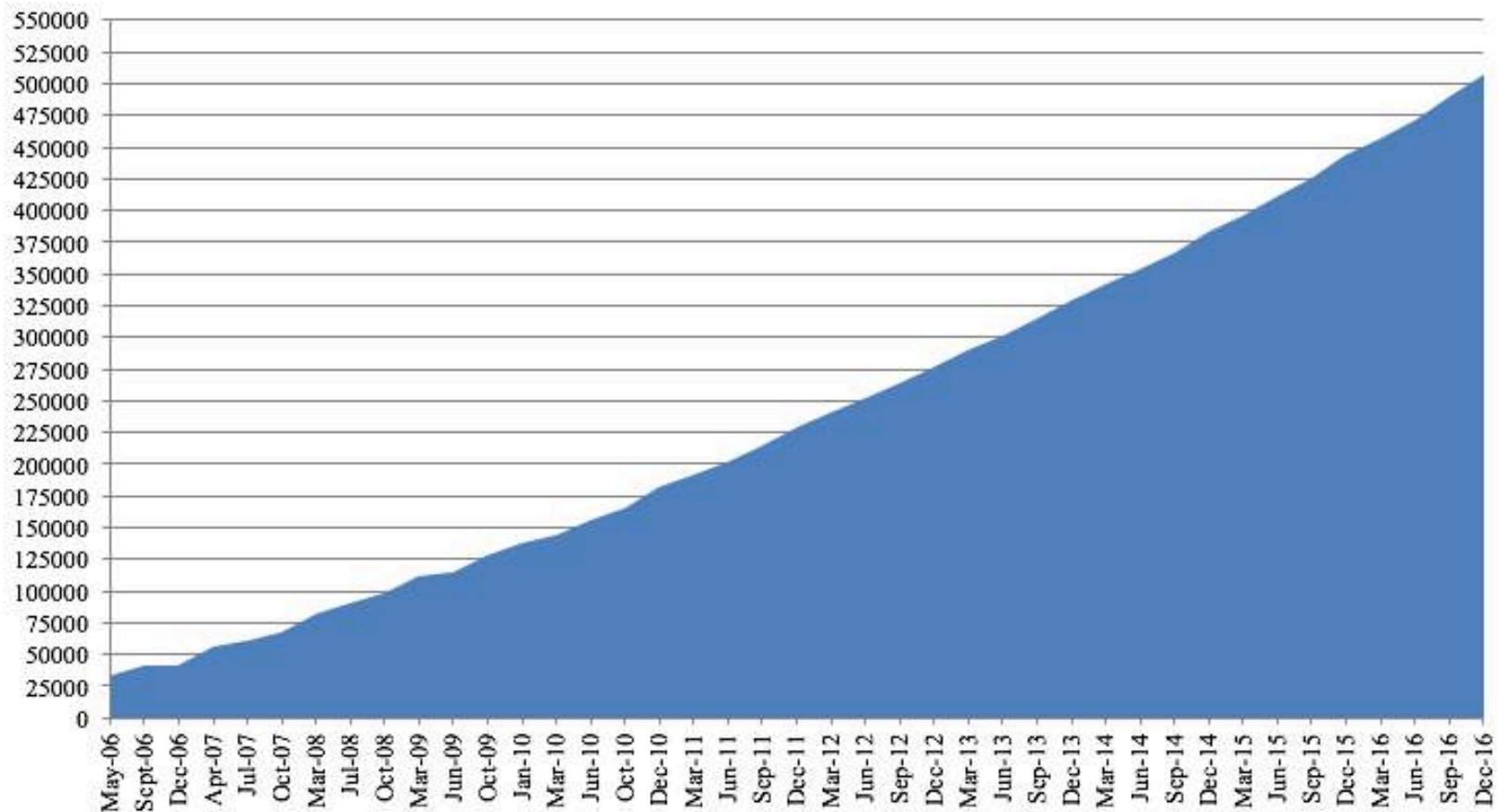
FOOTPRINT – NUMBER OF CERTIFICATIONS AS OF JUNE 2016

- ISTQB® has performed more than 700,000 exams and issued more than 500,000 certifications with about 20,000 new certifications being issued per quarter as of the December 2016
- ISTQB® is the largest testing certification scheme in the World and has become an International de-facto reference on recommended testing practices
- Among the technology-independent certifications schemes, ISTQB® is the third largest in the IT industry in terms of number of people certified (exceeded only by PMI and ITIL)



ISTQB® CUMULATIVE CERTIFICATES ISSUED

ISTQB® Certifications Growth Trend



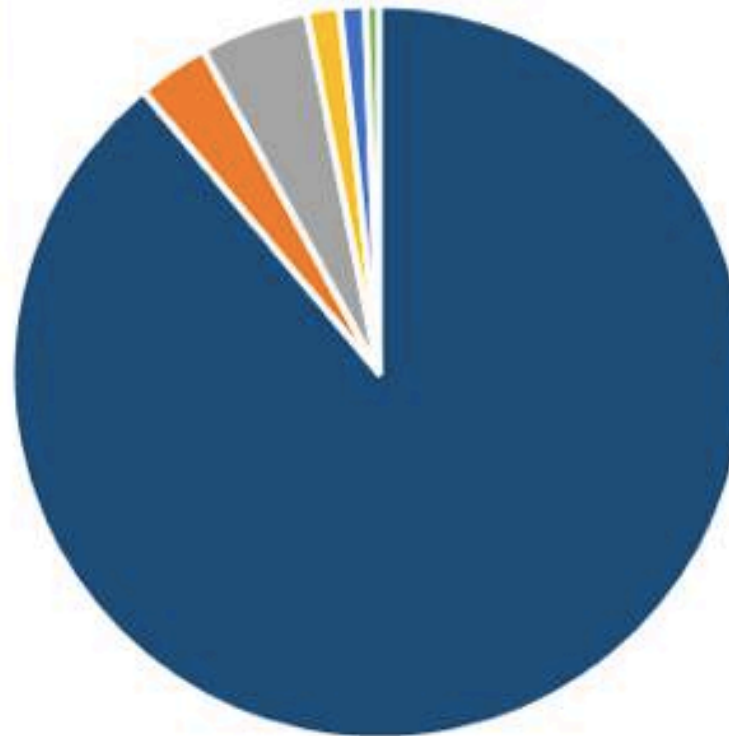
FOOTPRINT *SPLIT OF CERTIFICATIONS* *ISSUED AS OF JUNE 2016*

LEVEL	CERTIFICATES
Foundation Level	419.619
Agile Tester Level	5.321
Advanced Level – Test Manager	22.587
Advanced Level – Test Analyst	14.689
Advanced Level – Technical Test Analyst	6.840
Full Advanced	2.702
Expert Levels	114
TOTAL	471.872

ISTQB® CERTIFICATES DISTRIBUTION BY LEVEL

% of ISTQB® Certificates

Foundation	88.52%
ALTA	3.19%
ALTM	4.81%
ALTTA	1.45%
Agile	1.49%
Full Advanced	0.57%



■ Foundation ■ ALTA ■ ALTM ■ ALTTA ■ Agile ■ Full Advanced

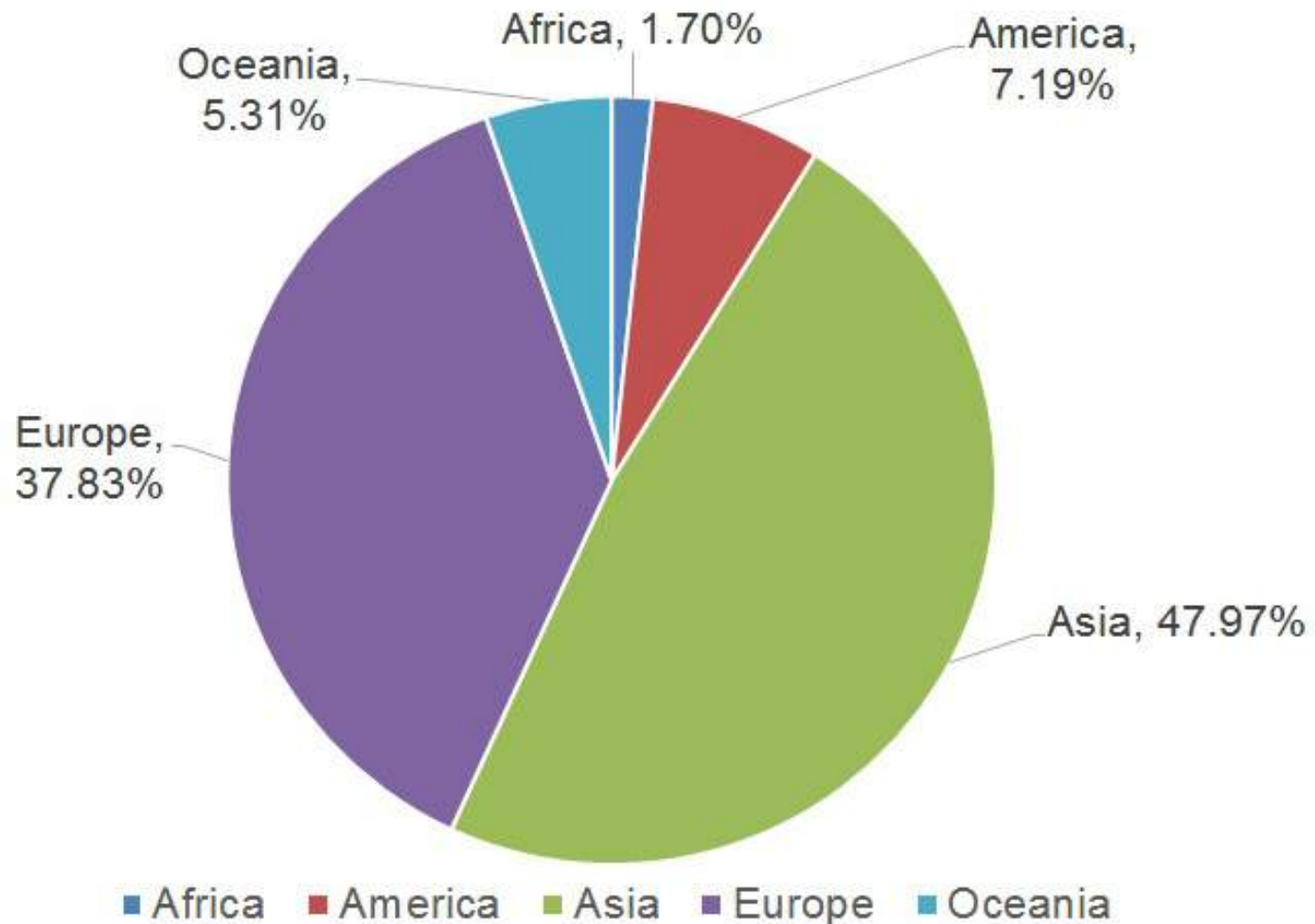
WORLD-WIDE COVERAGE



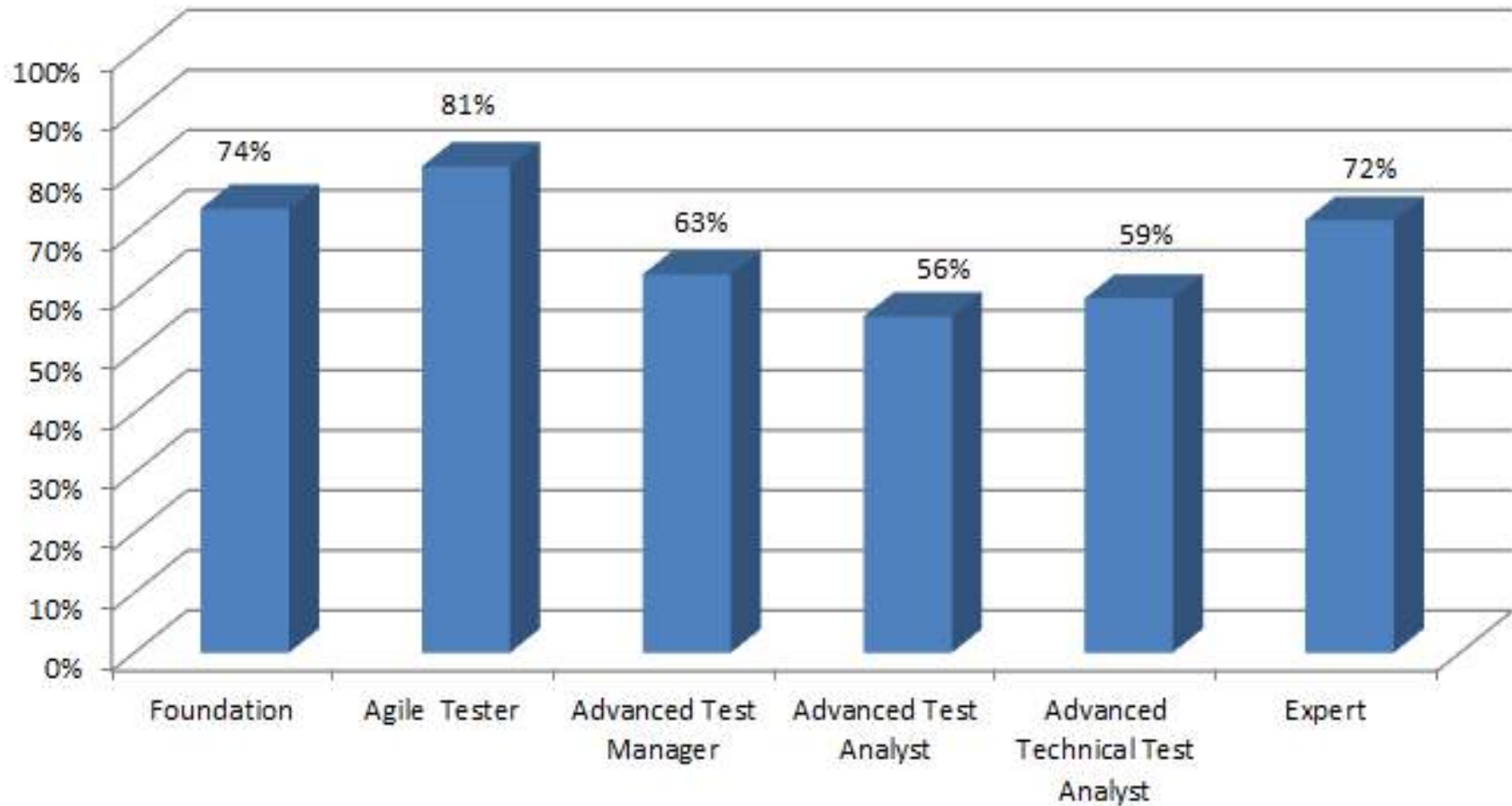
- Countries covered by Member Boards (57 Member Boards covering 81 countries, representing over 90% of the world-wide GDP) and Global Exam Providers
- Countries covered by Global Exam Providers

The current list of Member Boards and Global Exam Providers is available on the [ISTQB® Web Site](http://www.istqb.org)

ISTQB® CERTIFICATES DISTRIBUTION AS OF December 2016



ISTQB® EXAM AVERAGE PASS RATES



ACCREDITED TRAINING PROVIDERS

- ISTQB® has a large number of Accredited Training Providers (ATPs) worldwide
- As of December 2016 there are 290+ Accredited Training Providers worldwide
- The list of Accredited Training Providers is available on the [ISTQB® Web Site](#)





Provides recognition to
Companies
that are investing in the
ISTQB® scheme



*As of December 2016 ISTQB® has
150+ Partners in 48 countries*



The main benefits of the ISTQB® Partner Program are:

- International visibility of the partnership status through exposure on the ISTQB® Website
- Access to the early versions of new syllabi, with the opportunity to contribute to their review
- Discounts in participation in the Conference Network events recognized by ISTQB®
- Local benefits provided by Member Boards and Exam Providers



ELIGIBILITY POINTS AND THRESHOLDS

- Companies can become ISTQB® Partners if they have a significant number of employees or external consultants working for them who have passed ISTQB® certification exams.
- The Program comprises four levels of partnership, each with a different eligibility threshold:
 - **Silver:** 5 Points
 - **Gold:** 14 Points
 - **Platinum:** 30 Points
 - **Global:** a minimum of 1 Platinum Partnership and 2 Gold Partnerships in at least 2 different countries.



ELIGIBILITY POINTS AND THRESHOLDS

- The partnership level of an organization is determined by the number of certification points it has accumulated:
 - Foundation certification = 1 point
 - Agile Tester = + 1 point
 - Model Based Tester = + 1 point
 - Advanced certification = +3 points
(for each advanced level certification module achieved)
 - Expert certification = + 5 points
(for each expert level certification module achieved)
- Other criteria are the following:
 - GOLD partnership needs at least 1 ADVANCED Level certification
 - PLATINUM partnership needs at least 3 ADVANCED Level certifications



- ISTQB® promotes the “ISTQB® International Software Testing Excellence Award”, an annual prize given to somebody who has made an outstanding contribution to the field of software quality, through professional practice, innovation, or research
- Anyone can nominate a potential winner of the "ISTQB® International Software Testing Excellence Award" by filling in the Nomination Form available on the [ISTQB® website](https://www.istqb.org/awards)



- The winner of the Award is selected for having contributed to:
 - Increasing public awareness for the importance of software quality and testing
 - Publishing research findings in the field of software quality and testing
 - Promoting further education in software quality and testing
 - Supporting the creation of standards and recommended practices in the area of software quality and testing
 - Giving new energy to the improvement of software development and testing processes



ISTQB® AWARD WINNERS

2016 Winner

Robert Binder



Robert Binder is the winner of the ISTQB® International Software Testing Excellence Award 2016. The Award Committee selected Mr. Binder in recognition of his commitment to software quality and the testing profession over the past 24 years

Past winners

- 2015 ISTQB® Award Winner: **Eric van Veenendaal**
- 2014 ISTQB® Award Winner: **Capers Jones**
- 2013 ISTQB® Award Winner: **Harry Sneed**
- 2012 ISTQB® Award Winner: **Dorothy Graham**
- ISTQB® Special Award for Lifelong Contribution to Software Testing: **Boris Beizer** (issued in 2012)

- ISTQB® has created the “[ISTQB® Conference Network](#)” to promote the annual events around the world related to ISTQB®
- These events have to:
 - Be focused on Testing and Quality
 - Be organized or recognized by an ISTQB® Member Board or by the ISTQB® Marketing Working Group
- Recognition is based on the following criteria:
 - The event must have an open and public call for papers;
 - The selection of speeches must be performed by an independent program committee composed by several people;
 - The conference should offer a discount on fees to ISTQB® Certificate Holders;
 - The program has to include at least one official ISTQB® Speech, which is the presentation of the ISTQB® status, perspectives and product portfolio made by an ISTQB® representative or a representative of the National Board of that region;
 - Companies that have subscribed to the Partner Program will receive discounts for the participation of their employees; the discounts will grow depending on the Partnership Level (Silver, Gold, Platinum, Global)
 - Discounts on Local Conference prices, based on the Partnership level (as part of the ISTQB® Conference Network program)



- ISTQB® has created the “[ISTQB® Conference Network - Academia](#)” to promote the Academia annual events around the world related to ISTQB®
- These events have to:
 - Be focused on Testing and Quality
 - Be organized or recognized by an ISTQB® Member Board or by the ISTQB® Marketing Working Group
- Recognition is based on the following criteria:
 - The event must have an open and public call for papers;
 - The selection of speeches must be performed by an independent program committee composed by several people;
 - The conference home page must contain a reference, logo and a link to show it is a part of the ISTQB® Academia Network in the footer of every page;
 - The above mentioned collateral must be arranged no later than in one week after receiving recognition from ISTQB®



- ISTQB® has created the “[ISTQB® Web and Mobile Apps](#)” program in order to promote those applications that are based on ISTQB® referenced information.
- Any person or entity can apply to have an ISTQB® recognized Web & App and, before receiving the “ISTQB® Web and Mobile Apps” logo, the Web/ App will be reviewed by the ISTQB® that will check the following criteria (all of them are mandatory):
 - The Web / App shall have a reference to the ISTQB® website as well as all to the ISTQB® social media
 - If the Web / App makes usage of ISTQB® publicly available info (e.g.: glossary, syllabi) the provider shall keep them aligned with the latest official version issued by ISTQB® (for the English version) or by the ISTQB® Member Boards (in case of local translations)
 - The Web /App shall not reference to any scheme competitive to ISTQB®
 - The App must be available for download free of charge
 - The Web / App shall have at least one English version
- The Web / App can use the specific “ISTQB® Web and Mobile Apps” logo that will be provided after successful validation; it cannot use any other ISTQB® logos, unless specifically agreed and approved by ISTQB®





New Syllabi & Exams

Agile Advanced

Automotive

Usability

Performance

Gambling

Maintenance & Evolution

Glossary

Foundation Core

Advanced Core

Agile Tester

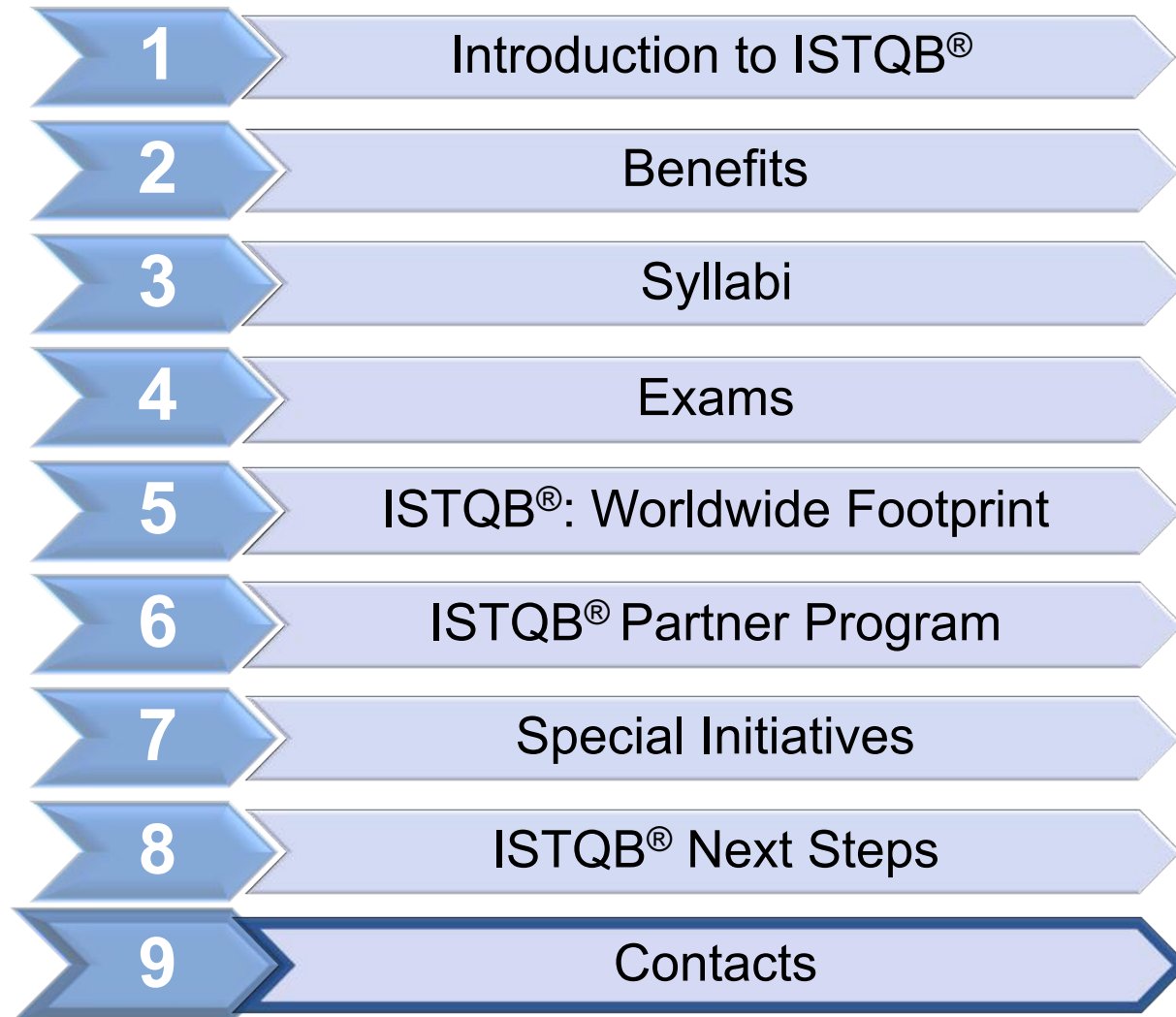
New Initiatives

New Boards

New Surveys

Global Successful
Candidate Registry

Academia Program





ISTQB® CONTACTS AND CHANNELS

YouTube : <http://www.youtube.com/user/ISTQBORG>

Web Site : <http://www.istqb.org>

Facebook : <http://www.facebook.com/istqborg>

LinkedIn : <http://www.linkedin.com/groups/ISTQB-International-Software-Testing-Qualifications-99444>

Twitter : <http://twitter.com/ISTQBORG>

XING : <https://www.xing.com/net/istqb>





ISTQB® CONTACTS AND CHANNELS

**International Software Testing
Qualifications Board® A.I.S.B.L.**

**1150 Brussels
Belgium**

info@istqb.org

www.istqb.org