CONTENTS

1. Introduction to ISTQB®
2. Syllabi and Add-on
3. Exams
4. Benefits
5. ISTQB®: Worldwide Footprint
6. ISTQB® Partner Program
7. Special Initiatives
8. Contacts
WHAT IS THE ISTQB®?

• ISTQB®: International Software Testing Qualifications Board (www.istqb.org)
  – Non-profit association
  – Founded in 2002 - Headquarters in Belgium
  – With own constitution, rules and regulations
  – Composed of volunteer international Testing Experts
  – Responsible for “ISTQB® Certified Tester” scheme worldwide

• ISTQB® is the world’s leading organization for Software Testing Certification

Advancing the software testing profession
“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.”
ISTQB® MISSION

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.
ISTQB® VALUES

- International Presence
- Professionalism
- Continuous Learning
- Openness
- Knowledge Sharing
- Consistency
- Active Member Boards
- Integrity
- Non-profit Indipendence
ISTQB® VALUE CHAIN
ISTQB® ECO-SYSTEM

ISTQB®
- Creation of new syllabi
- Definition of worldwide rules
- Working Group activities

Exam Provider
- Exam Administration
- Issue of certificates

(Optional: these tasks can be performed by the Member Board)

Member Board
- Translation/ Release of new syllabi
- Accreditation of training providers
- Creation and release of exam questions
- Adoption of ISTQB® rules
- Contribution to ISTQB® Working Groups
- Exam Administration
- Issue of certificates

Certified Tester

Accredited Training Provider
- Creation of course materials
- Delivery of courses
ISTQB® WORKING GROUPS

- Training Providers
- Exam Providers
- Member Boards
- ISTQB® GENERAL ASSEMBLY

- Glossary wg
- Foundation wg
- Advanced wg
- Expert wg
- Executive Committee
  - Governance
  - Product Development Steering Committee
- Release Management wg
- Marketing wg
- Audit wg
- Processes wg
- TBOK wg
- Exam wg
ISTQB® has defined three levels of syllabi

- Foundation
- Advanced (Test Manager, Test Analyst, Technical Test Analyst)

- Syllabi are publicly available for download from the ISTQB® Website (http://www.istqb.org/downloads.html)
- Syllabi are written by industry experts and continuously reviewed and improved
- Terms used in the ISTQB® syllabi are described in the ISTQB® Glossary (http://www.istqb.org/downloads/viewcategory/20.html)
ISTQB® LEVEL AND SYLLABI
ISTQB® FOUNDATION LEVEL

- Fundamentals of Testing
  - Why is Testing Necessary
  - What is Testing?
  - Seven Testing Principles
  - Fundamental Test Process
  - The Psychology of Testing
  - Code of Ethics

- Testing throughout the software life cycle
  - Software Development Models
  - Test levels
  - Test Types
  - Maintenance Testing

- Static techniques
  - Static Techniques and the Test Process
  - Review Process
  - Static Analysis by Tools

- Testing design techniques
  - The Test Development Process
  - Categories of Test Design Techniques
  - Specification-based Techniques (black-box)
  - Structure-based Techniques (white-box)
  - Experience-based Techniques

- Test management
  - Test Organization
  - Test Planning and Estimation
  - Test Progress Monitoring and Control
  - Configuration Management
  - Risk and Testing
  - Incident Management

- Tool support for Testing
  - Types of Test Tools
  - Effective use of Tools: Potential Benefits and Risks
  - Introducing a Tool into an Organization

ISTQB® 2013
### ISTQB® ADVANCED LEVEL

**TEST ANALYST**

<table>
<thead>
<tr>
<th>Testing Process</th>
<th>Test Management</th>
<th>Test Techniques</th>
<th>Testing Software Quality Characteristics</th>
<th>Reviews</th>
<th>Defect Management</th>
<th>Test Tools</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test Planning, Monitoring and Control</td>
<td>Distributed, Outsourced and Insourced Testing</td>
<td>Defect-Based Techniques</td>
<td>Suitability Testing</td>
<td></td>
<td>Defect Classification</td>
<td>Test Data Preparation Tools</td>
</tr>
<tr>
<td>Test Analysis and Design</td>
<td>Risk Based Testing</td>
<td>Experience-Based Techniques</td>
<td>Interoperability Testing</td>
<td></td>
<td>Root Cause Analysis</td>
<td>Automated Test Execution Tools</td>
</tr>
<tr>
<td>Test Implementation and Execution</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Evaluation Exit Criteria and Reporting</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Test Closure Activities</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
ISTQB® ADVANCED LEVEL
TECHNICAL TEST ANALYST

Risk Based Testing
  - Condition Testing
  - Modified Condition/Decision Coverage (MC/DC) Testing
  - Path Testing
  - API Testing
  - Selecting a Structured-based Technique

Structured-Based Testing
  - Static Analysis
  - Dynamic Analysis
  - Performance Testing
  - Resource Utilization
  - Maintainability Testing
  - Portability Testing

Analytical Techniques
  - General Planning Issues
  - Security & Reliability Testing

Quality Characteristics for Technical testing
  - Using Checklist in Reviews

Reviews
  - Integration and Information Interchange
  - Defining the Test Automation Project

Test Tools and Automation
  - Specific Test Tools
The Expert Module «Improving the Test Process» is composed of two parts:
- Assessing Test Process
- Implementing Test Process Improvement
ISTQB® EXPERT LEVEL
ASSESSING TEST PROCESS

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

<table>
<thead>
<tr>
<th>Process for Improvement</th>
<th>Selecting the Approach</th>
<th>Analytical based improvement</th>
<th>Model based improvement</th>
<th>Context of Improvement</th>
</tr>
</thead>
<tbody>
<tr>
<td>Selection of test process improv.</td>
<td>Causal Analysis</td>
<td>Introduction</td>
<td>SW models (CMMI, ISO 15504)</td>
<td>Why?</td>
</tr>
<tr>
<td>Initiating &amp; Diagnosis of the Situation</td>
<td>GQM model</td>
<td>Test models (TPI, TMMI)</td>
<td>Views of Quality</td>
<td>What can be improved?</td>
</tr>
<tr>
<td>Measures, Metrics &amp; Indicators</td>
<td>Context based models (CTP, STEP)</td>
<td>Generic improv cycle (Deming, IDEAL)</td>
<td>Overview of improv approaches</td>
<td></td>
</tr>
</tbody>
</table>
ISTQB® EXPERT LEVEL
IMPLEMENTING TEST PROCESS IMPROVEMENT

- Process for Improvement
  - Establishing a Test Impc Plan
  - Acting to implement Improvements
  - Learning from Impc Program
- Organizational Aspects
  - Organization
  - Roles
  - Skills
- Managing Change
  - Change Manag. Process
  - Human factors
- Critical Success Factors
  - Key Success Factors
- Adapting to different Life Cycle Models
  - Setting a culture
The Expert Module «Test Management» is composed of three parts:

- Strategic Management
- Operational Test Management
- Managing the Test Team
ISTQB® EXPERT LEVEL
OPERATIONAL TEST MANAGEMENT

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

Managing External Relationships
- Types of External Relationships
- Contractual Issues
- Communication Strategies
- Integrating from External Sources

Project Management Essentials
- Estimating Effort
- Balancing Quality Schedule, Budget and Features Implemented
- Performing Risk Assessment
- Monitoring and controlling a Test Project

Test Project Evaluation & Reporting
- Tracking Information
- Internal Reporting
- External Reporting
- Test Results Reporting and Interpretation
- Statistical Quality Control technique

Domain and Project Factors
- Release Considerations

Evaluating Effectiveness & Efficiency
- Project Retrospectives
ISTQB® EXPERT LEVEL
MANAGING THE TEST TEAM

ISTQB®
EXPERT LEVEL
TEST MANAGEMENT – PART 3 – MANAGING THE TEST TEAM

Managing the Test Team
Building the Test Team
Developing the Test Team
Leading the Test Team

Managing across the Organization
Advocating the Test Team
Placing the Test Team in the Organization
Creating and Building Stakeholder Relationships
Handling Ethical issues
In order to satisfy the more and more important need of vertical testing competences, ISTQB® has introduced the concept of «Add-on»

An «add-on» is a module for training and certification vertically focused on a specific topic, as for instance:
- Domain
- Testing Techniques
- Testing Methods

The ISTQB® Foundation Level Certification will be a prerequisite for achieving these add-ons

The first add-on to be launched will be focused on Agile Testing, whose public availability is foreseen in 14Q1
The exam is structured on multiple-choice questions for Foundation and Advanced Level.
Exams can be held without attending the course.
For Expert Level, an essay is also required.
Number of questions and length of exams are:
- Foundation exams: 40 questions, length = 1h (75 minutes for candidates taking exams not in their native language)
- Advanced exams: different time and questions, according to the module (+25% for candidates taking exams not in their native language)

<table>
<thead>
<tr>
<th>MODULE</th>
<th>NUMBER OF QUESTIONS</th>
<th>EXAM LENGTH (IN MINUTES)</th>
<th>EXAM LENGTH + 25% (IN MINUTES)</th>
</tr>
</thead>
<tbody>
<tr>
<td>ADVANCED TEST MANAGER</td>
<td>65</td>
<td>180</td>
<td>225</td>
</tr>
<tr>
<td>ADVANCED TEST ANALYST</td>
<td>60</td>
<td>180</td>
<td>225</td>
</tr>
<tr>
<td>ADVANCED TECHNICAL TEST ANALYST</td>
<td>45</td>
<td>120</td>
<td>150</td>
</tr>
</tbody>
</table>
Questions are defined in a very strict way

Questions are selected according to defined set of rules:
  – Proportional distribution of questions on the basis of Syllabus chapters topics.
  – Distribution of questions on the basis of different types:
    • K1 = Remember (mnemonic contents),
    • K2 = Understand (conceptual contents),
    • K3 = Apply (exercise that requires the use of testing notions or techniques)
    • K4 = Analyze (exercise that requires also a contextual analysis)

Expert level exams include five different K-levels (K2 to K6), with two additional higher K-levels:
  • K5 = Evaluate (make judgments based on criteria and standards)
  • K6 = Create (reorganize elements into a new pattern or structure; devise a procedure for accomplishing some task, invent a product)

For more details, see the FAQ section in the ISTQB® Website
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 independent 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)
BENEFITS FOR PROFESSIONALS

- International recognition of acquired competences and skills
- Possibility to use the logo “Certified Tester” (with identification of the specific level of certification)
- Supports to the career path from foundation level to expert level
BENEFITS FOR COMPANIES

• The certification can be a competitive advantage for companies thanks to the increased level of reliability of the applications developed and the cost optimization of test activities, derived from the ISTQB® competencies

• The certification in consulting companies can offer high-level services to customers, increasing revenues and brand value

• ISTQB® has defined a “Partner Program” for the companies that have a large number of certified testers
For educational institutes and consulting companies it is possible to become an Accredited Trainer Provider; the processes and rules for accreditation are defined at international level.

Accredited Training Providers can ensure a high standing in training services thanks to:
- certified trainers
- training material whose content, quality and syllabi coverage is checked by ISTQB® Boards
- early information and consultation on the evolution of ISTQB® Glossary and Syllabi

Accredited Training Providers can benefit of specific logos and are listed in the ISTQB® Website.
<table>
<thead>
<tr>
<th>Year</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>1998</td>
<td>ISEB (Information Systems Examinations Board, part of the British Computer Society) develops the Certified Tester Syllabus. The first Software Testers are certified in 1998</td>
</tr>
<tr>
<td>2002</td>
<td>The ISTQB® (International Software Testing Qualifications Board) is founded by 8 member boards: Austria, Denmark, Finland, Germany, Sweden, Switzerland, the Netherlands and UK.</td>
</tr>
<tr>
<td>2003</td>
<td>The syllabus for the “Advanced Level” is completed</td>
</tr>
<tr>
<td>2004</td>
<td>First exams for “ISTQB® Certified Tester Advanced Level“</td>
</tr>
<tr>
<td>2006</td>
<td>The number of member boards grows steadily</td>
</tr>
<tr>
<td>2007</td>
<td>The Foundation and Advanced Syllabi are improved</td>
</tr>
<tr>
<td>2009</td>
<td>The number of Member Boards climbs further</td>
</tr>
<tr>
<td>2009</td>
<td>The number of certifications reaches 100,000</td>
</tr>
<tr>
<td>2010</td>
<td>BCS withdraws ISEB Test Practitioner scheme in favor of ISTQB Certified Tester Advanced Level. The first “Expert Level” syllabus is released</td>
</tr>
<tr>
<td>2011</td>
<td>More than 200,000 certifications issued across the world</td>
</tr>
<tr>
<td>2011</td>
<td>Issue of additional Expert Level Syllabi</td>
</tr>
<tr>
<td>2012</td>
<td>New version of the Advanced Level syllabus and Glossary Testing of Terms; Activation of the “ISTQB® Partner Program”; Activation of the “ISTQB® Conference Network” &amp; Activation of the “ISTQB® Recognized Mobile app”; First issue of the “ISTQB® international Software Testing Excellence Award”</td>
</tr>
</tbody>
</table>
The countries in which ISTQB® operates contribute to over 90% of the worldwide GDP
FOOTPRINT – NUMBER OF CERTIFICATIONS

- As of December 2012 the number of certifications issued has passed 280,000, with a trend of more than 12,000 new certifications per quarter
- Among the technology-independent certifications schemes, ISTQB® is the third one in the IT industry in number of certified persons (below only PMI and ITIL) and clearly the first in the Testing subject
- ISTQB® constitutes an international de-facto reference
ISTQB® CUMULATIVE CERTIFICATES ISSUED

ISTQB® Certifications Growth Trend

ISTQB® 2013
The distribution of Certificates issued by ISTQB® as of December 2012 is as follows:

<table>
<thead>
<tr>
<th>LEVEL</th>
<th>CERTIFICATES</th>
</tr>
</thead>
<tbody>
<tr>
<td>Foundation Level</td>
<td>249,589</td>
</tr>
<tr>
<td>Advanced Level – Test Manager</td>
<td>15,139</td>
</tr>
<tr>
<td>Advanced Level – Test Analyst</td>
<td>10,222</td>
</tr>
<tr>
<td>Advanced Level – Technical Test Analyst</td>
<td>6,209</td>
</tr>
<tr>
<td>Full Advanced</td>
<td>2,538</td>
</tr>
<tr>
<td><strong>TOTAL</strong></td>
<td><strong>283,697</strong></td>
</tr>
</tbody>
</table>
RESULTS ANALYSIS

PASS-RATE

PASS-RATE

73.25%

54.41%

Foundation

Advanced
Considering the pass-rate of ISTQB® exams we note that:

- Foundation Level has an average pass-rate around 75%;
- Advanced Level has an average pass-rate close to 55%. The pass-rate across the different Advanced level modules is not significant.

NOTE:

Please note that these pass-rate is calculated for the all ISTQB® exams made world wide. Therefore the pass-rate of a single exam can vary significantly comparing to this statistical data.
RESULTS ANALYSIS
NUMBER OF ACCREDITED TRAINING PROVIDERS

- ISTQB® can rely on a considerable number of accredited training providers worldwide
- As of June 2012 we can count on:
  - 180+ Accredited Training Providers for Foundation Level
  - 80+ Accredited Training Providers for Advanced Level
- The list of accredited training providers is available on the ISTQB® Web Site
ISTQB® PARTNER PROGRAM

Provides recognition to companies that are investing in ISTQB® scheme
The main benefits of the ISTQB® Partner Program are:

- World wide recognition of the partnership status through direct exposure in the ISTQB® Web Site
- Access to ISTQB® Conference Network events at special conditions
- Receipt of new syllabi in Alpha version with the opportunity to contribute to their review
- Participation to the “ISTQB® Partner Forum” that will provide Partners with highlights on the ISTQB® Roadmap and news.
- Additional Local Benefits provided by the Member Boards/ Exam Providers
Companies can become an ISTQB® Partner if they have a significant number of employees or external consultants working for them that have passed certification exams by ISTQB®.

The Program comprises four levels of partnerships that have different eligibility thresholds:

- 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 through the number of certification points it has accumulated:
  – Foundation certification = 1 point,
  – Advanced certification = + 3 points (for each advance level certification module achieved)
  – Expert certification = + 5 points (for each expert level certification module achieved)

• Other criteria to follow in order to be eligible are:
  – GOLD partnership requires to have at least 1 ADVANCED Level certification;
  – PLATINUM partnership requires to have at least 3 ADVANCED Level certifications
CONTENTS

1 Introduction to ISTQB®
2 Syllabi and Add-on
3 Exams
4 Benefits
5 ISTQB® : Worldwide Footprint
6 ISTQB® Partner Program
7 Special Initiatives
8 Contacts
• ISTQB® has launched the ISTQB® International Software Testing Excellence Award, an annual prize that is given for outstanding contribution to the preservation, innovation or research in the field of software quality.

• Anyone can fill a proposal for a potential winner of the "ISTQB® International Software Testing Excellence Award”, filling in the Submission Form on the ISTQB® website.
The potential winner of the Award is selected for having contributed to:

- Increase public awareness for the importance of software quality and testing
- Advance the publication of research findings in the field of software quality and testing
- Push further education on the subject of software quality and testing
- Support the creation of standards and norms in the area of software quality and testing
- Give new impulses to the improvement of software development and testing processes
ISTQB® has created the ISTQB® Conference Network which gathers all the events around the world related to ISTQB®

All these events, held on a yearly basis, 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 at least 20% 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 and perspectives made by an ISTQB® representative or a representative of the National Board of that region (representative to be agreed with the ISTQB®); This speech should be done in conference prime time (keynote speaker);
- During the conference, there must be the possibility to run ISTQB® Surveys.
ISTQB® created the “ISTQB® Recognized APP” in order to promote those applications that are based on ISTQB® referenced information.

Any person or entity can apply to have an ISTQB® recognized App and, before receiving the “ISTQB® recognized App” logo, the App will be reviewed by the ISTQB® that will check the following criteria (all of them are mandatory):

- The App shall have a reference to the ISTQB® website as well as all to the ISTQB® social media;
- If the 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) of by the ISTQB® Member Boards (in case of local translations);
- The App shall not have reference to any scheme competitive to ISTQB®;
- The App can use the specific ISTQB® recognized App logo that will be provided after successful validation; it cannot use any other ISTQB® logos, unless specifically agreed and approved by ISTQB®;
- The App must be available for download free of charge;
- The App shall have at least one English version.
ISTQB® CONTACTS
International Software Testing Qualifications Board® A.I.S.B.L.

Secretariat:
287 avenue Louise, 4th floor
1050 Brussels
Belgium

Phone 0032 2643 2047
Telefax 0032 2645 2671
E-Mail info@istqb.org

www.istqb.org
ISTQB® CHANNELS

You Tube presence : http://www.youtube.com/user/ISTQBORG
Slide Share presence : http://www.slideshare.net/ISTQBORG
LinkedIn Community : http://www.linkedin.com/
groups?about=&gid=4064826&trk=anet_ug_grppro
Twitter channel : http://twitter.com/#!/ISTQBORG
XING community : https://www.xing.com/net/istqb
Facebook Page : http://www.facebook.com/istqborg