ISTQB Certification
Setting the Standard for Tester Professionalism

Mitko Mitev

President, SEETB (South East European Testing Board)
Managing Director, www.qualityhouse.biz
mitev@qualityhouse.biz

ISTQB Certified Tester

- **What is tester certification?**
- **What are the SEETB and ISTQB?**
- **What are the levels of certification?**
- **What is the impact of certification**
  - On the tester
  - On the organization
  - On the testing profession
- **ISTQB Partner Program**
- **Other Certifications**

Software Tester Certification

- **Tester certification confirms, through objective, carefully-designed exams, the professional capabilities of software testers**
- **ISTQB's approach**
    - Practical, real-world focused
    - Supports a career path with levels of certification
    - Promotes the software testing profession
    - Represents the distilled wisdom of many experts including practitioners, consultants, trainers, and academics
    - Training is *not required* to take exams
- **Last two points in particular distinguish ISTQB's approach from other testing certifications**

- ❑ **Composed of 46 Regional and National Boards in 70 countries with a plan to continuously grow**
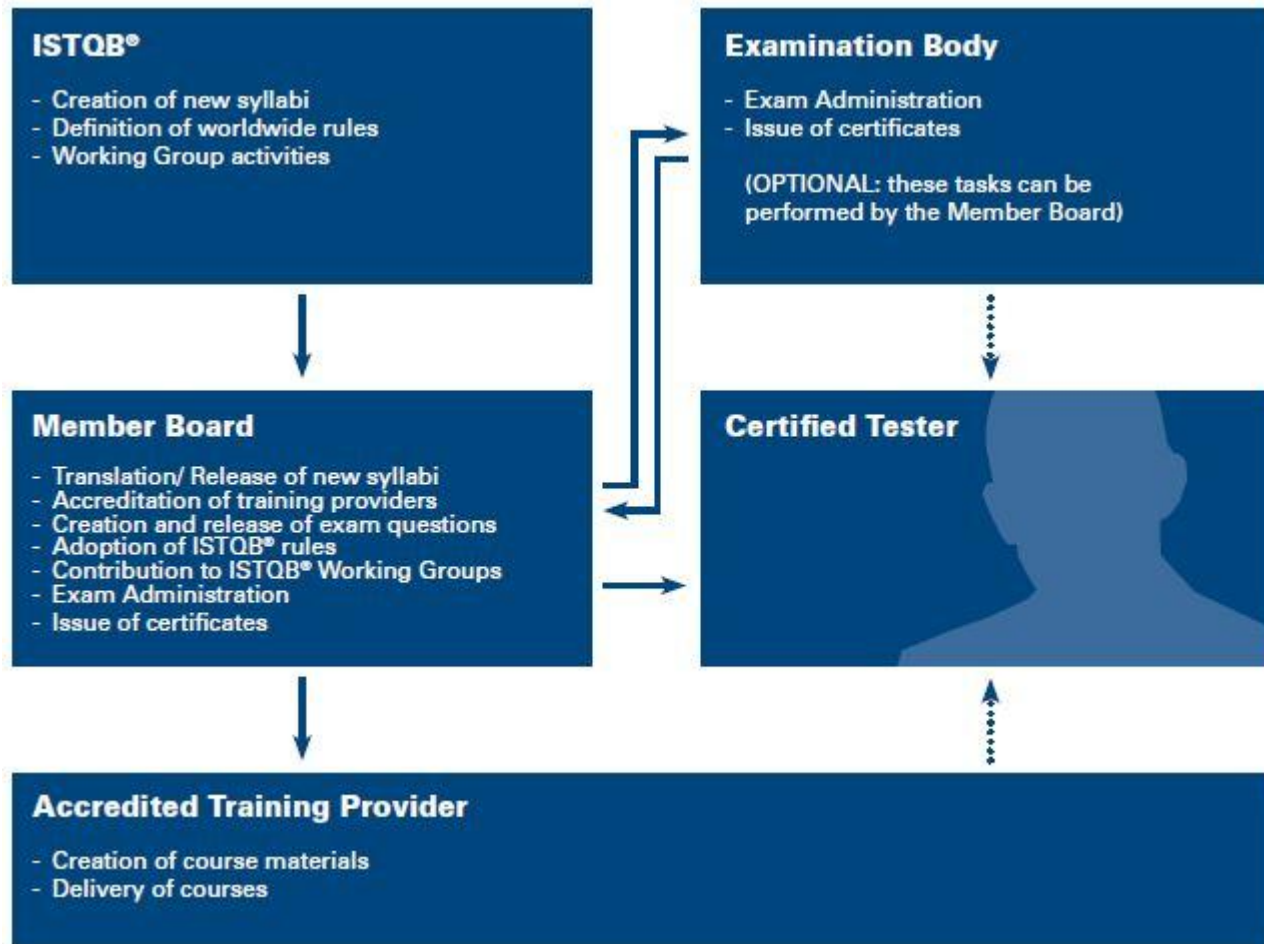
- **Non – profit association founded in 2002 with a headquarter in Brussels, Belgium**
- **With own constitution, rules and regulation**
- **Composed of volunteer international Testing experts**
- **Responsible for "ISTQB Certified Tester" scheme worldwide**
- **Executive committee**
    - President: Chris Carter, Australia
    - Vice President: Yaron Tsubery, Israel
    - Treasurer: Mitko Mitev, Bulgaria
    - Secretary: Eric Riou du Cosquer, France
- **ISTQB is the world's leading organization for Software Testing Certification**

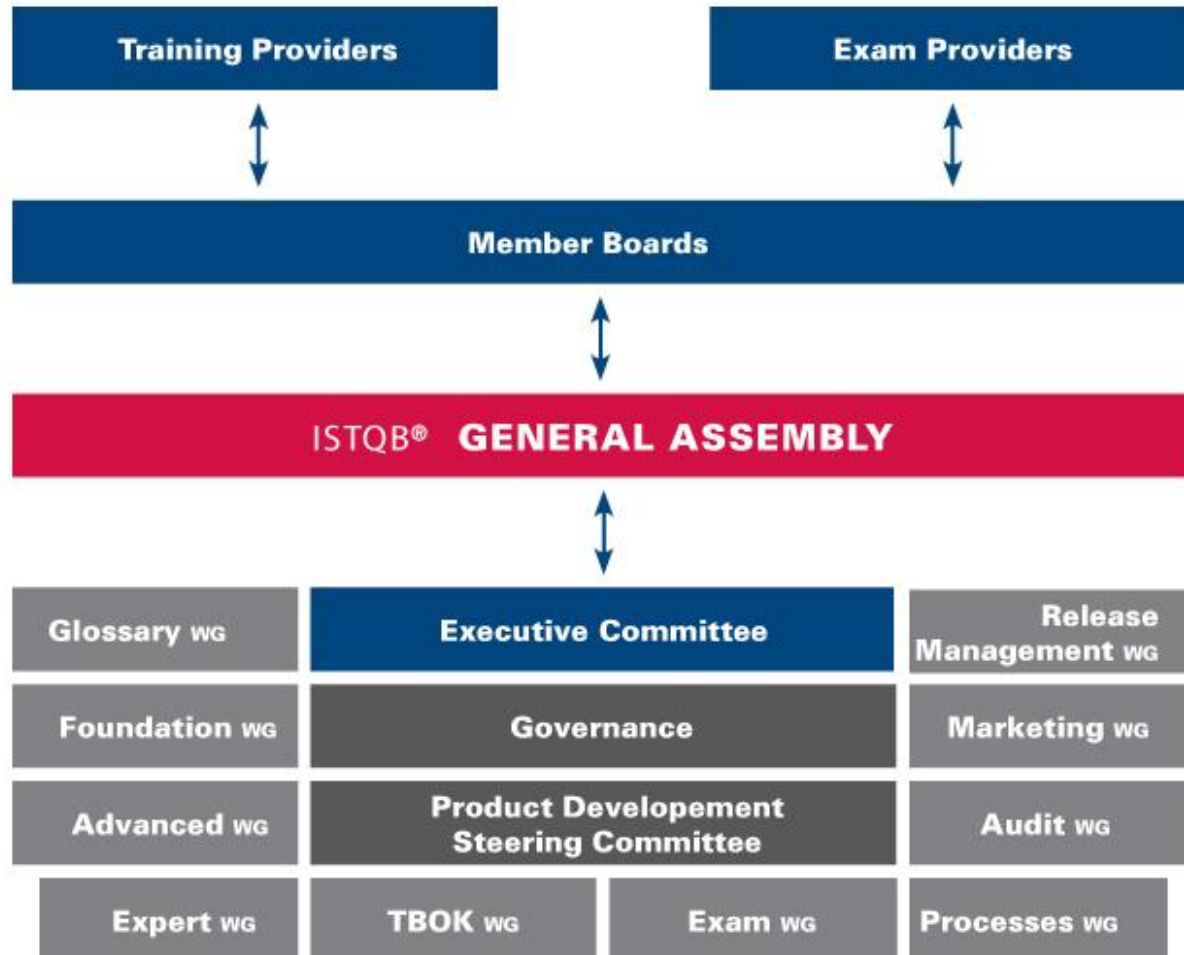"**To continually improve and advance the software testing profession by:**

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."
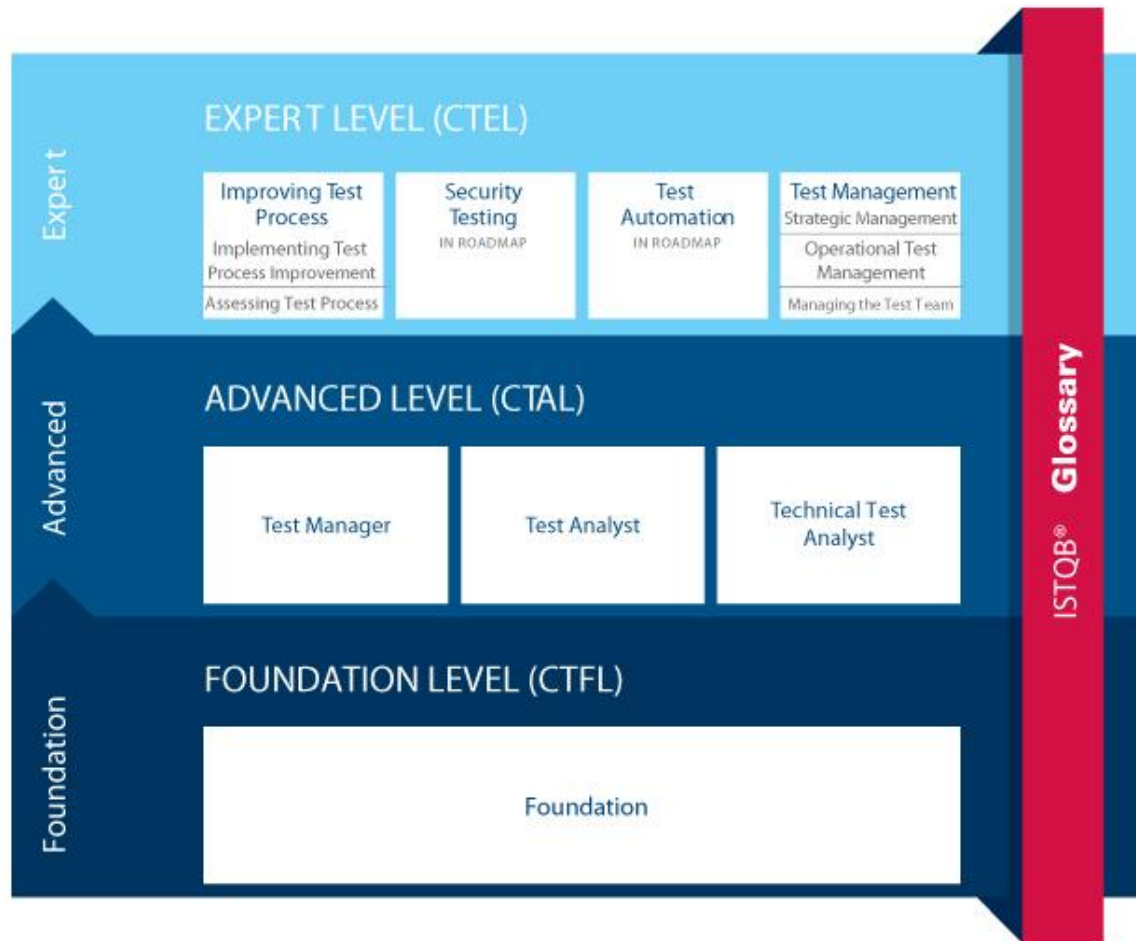
ISTQB®

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

Examination Body

- 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 - Levels of Certification

EXPERT LEVEL (CTEL)

Improving Test Process	Security Testing	Test Automation	Test Management
Implementing Test Process Improvement	IN ROADMAP	IN ROADMAP	Strategic Management
			Operational Test Management
Assessing Test Process			Managing the Test Team

Expert

ADVANCED LEVEL (CTAL)

Advanced

Test Manager	Test Analyst	Technical Test Analyst

FOUNDATION LEVEL (CTFL)

Foundation

Foundation

ISTQB® Glossary

Foundation Certification

- **Entry-level certification: 0+ years of experience**
- **Goals**
  - Ensure a broad understanding of the fundamental best practices and key concepts in software testing
  - Provide a foundation for professional growth
- **Syllabus covers**
  - Fundamentals of testing, testing in the software lifecycle, static techniques, white-box and black-box test design, test management, and testing tools
  - Syllabus-based training courses are typically 3 days
- **Status:**
  - All materials are in compliance with the Foundation Syllabus released in 2011.
  - Syllabus is publicly available for download from the ISTQB website

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	

Advanced Certification

- **Mid-level certification: 18+ months experience**
- **Goals**
    - Ensure an understanding of advanced best practices and key concepts in software testing by committed test professionals
    - Support on-going professional growth
- **Syllabus covers**
    - Advanced behavioral (black-box) testing for independent testers, test automation, advanced structural (white-box) testing for testers and programmers, and sophisticated test management concepts
    - Syllabus-based training courses are typically 3 - 5 days
- **Status:**
    - All materials are in compliance with the released in October 2012 Advanced Syllabi.
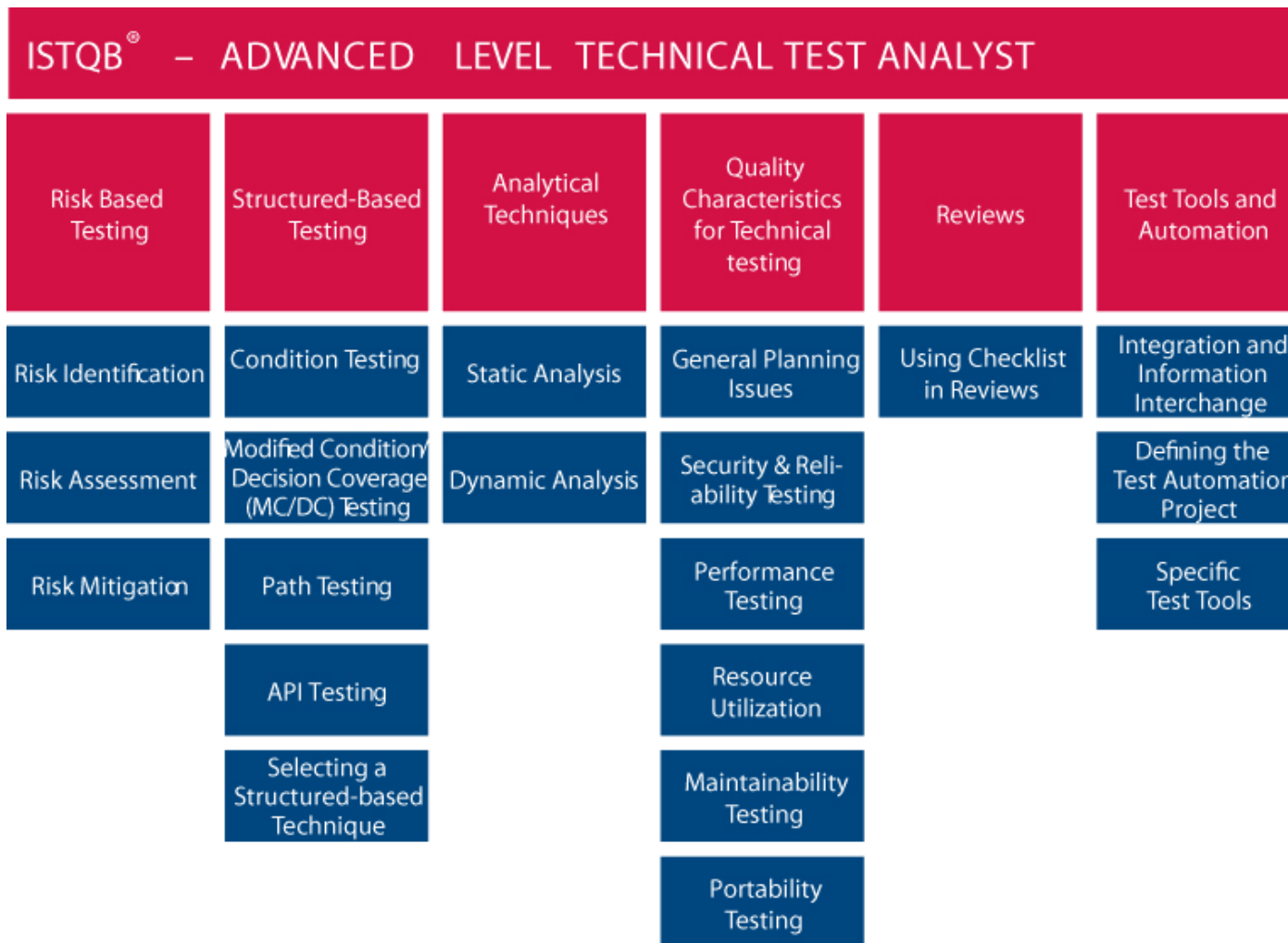   - Syllabi publicly available at the ISTQB web site

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 and STEP	Tool Lifecycle	Test Team Dynamics
Test Implementation and Execution	Test Estimation and Test Metrics	Metrics for reviews	Assessing Proc. Capability with Defect Report Info		Tool Metrics	Fitting testing within an organization
Evaluation 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

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 Contrd	Specification-Based Techniques	Accuracy Testing	Using Checklist in Reviews	Defect Report Fields	Test Design Tools
Test Planning, Monitoring and Contrd	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			
Evaluation Exit Criteria and Reporting			Accessibility Testing			
Test Closure Activities						

ISTQB® – ADVANCED LEVEL TECHNICAL TEST ANALYST

Risk Based Testing	Structured-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 & Reli-ability Testing		Defining the Test Automation Project
Risk Mitigation	Path Testing		Performance Testing		Specific Test Tools
	API Testing		Resource Utilization		
	Selecting a Structured-based Technique		Maintainability Testing		
			Portability Testing		

- **Guru-level certification: 7+ years experience – at least 5 years of practical testing experience and at least 2 years of industry experience in the specific Expert Level topic**
- **Goals**
  - Ensure consistent understanding and execution of proven cutting-edge techniques by seasoned test professionals
  - Lead the software testing profession
- **Syllabi cover**
  - Improving the Test Process, Test Management, Test Automation (in progress) and Security Testing (in progress) and more.
  - Syllabus-based training courses will be offered
- **Status:**
  - Improving the Test Process Syllabus was released in November 2011;
  - Test Management Syllabus was released in November 2011.
  - More modules to come

IMPROVING THE TEST PROCESS

ASSESSING TEST PROCESS

IMPLEMENTING TEST PROCESS IMPROVEMENT

TEST MANAGEMENT

STRATEGIC MANAGEMENT	OPERATIONAL TEST MANAGEMENT	MANAGING THE TEST TEAM

ISTQB ADD–ON – Agile Testing

- **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)

MODULE	NUMBER OF QUESTIONS	EXAM LENGHTS (in minutes)	EXAM LENGTH + 25%
Advanced Test Manager	65	180	225
Advanced Test Analyst	60	180	225
Advanced Technical Test Analyst	45	120	150

- **To the tester**
  - Demonstrate mastery of the best practices and key concepts in the field
  - Advance career and opportunities in competitive market
- **To the organization**
  - Ensure better testing for better software and lower costs of poor quality
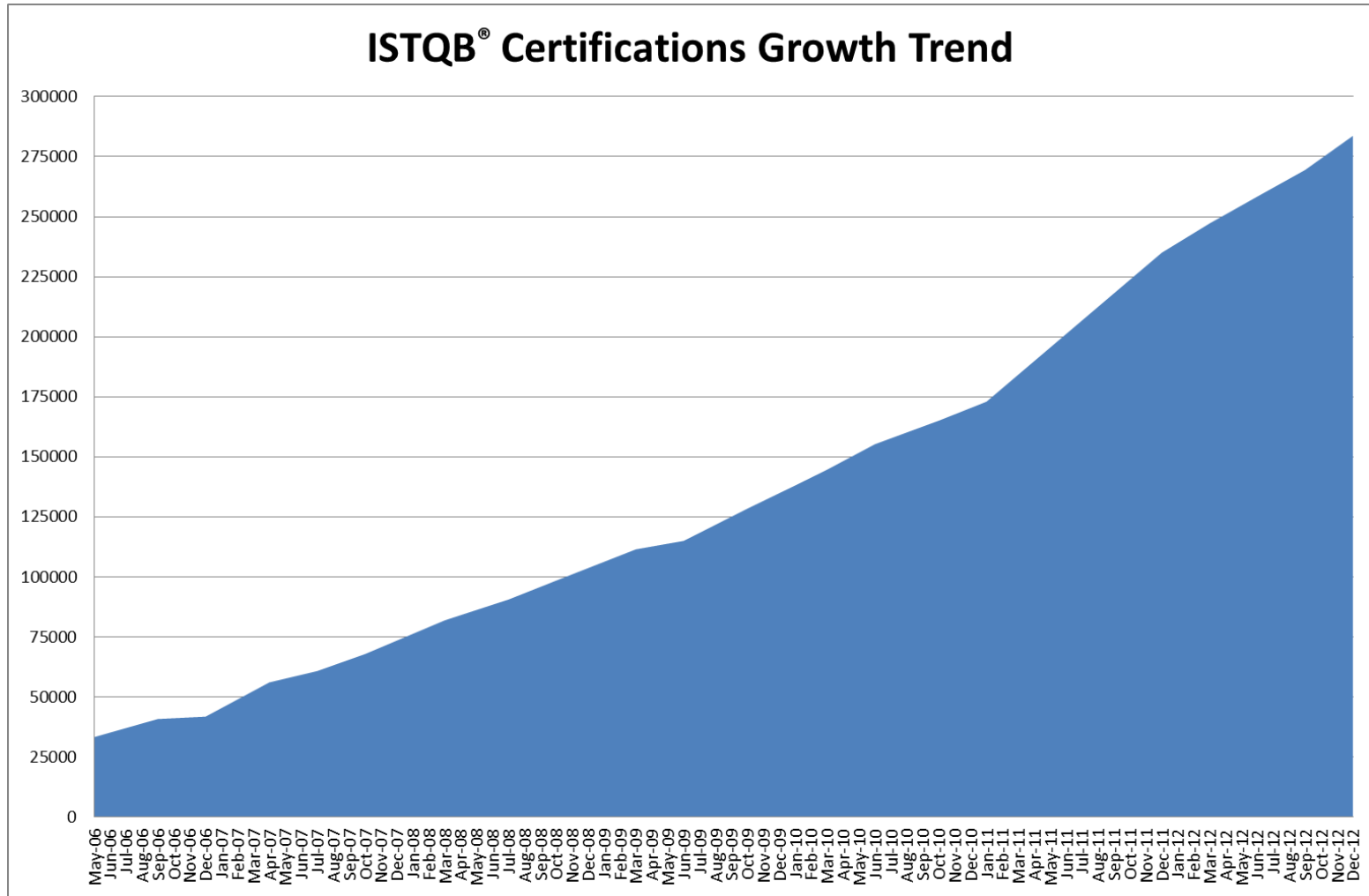 - Achieve consistency and re-usability of testing
- **To the profession**
  - Build on our best work and stop going in circles
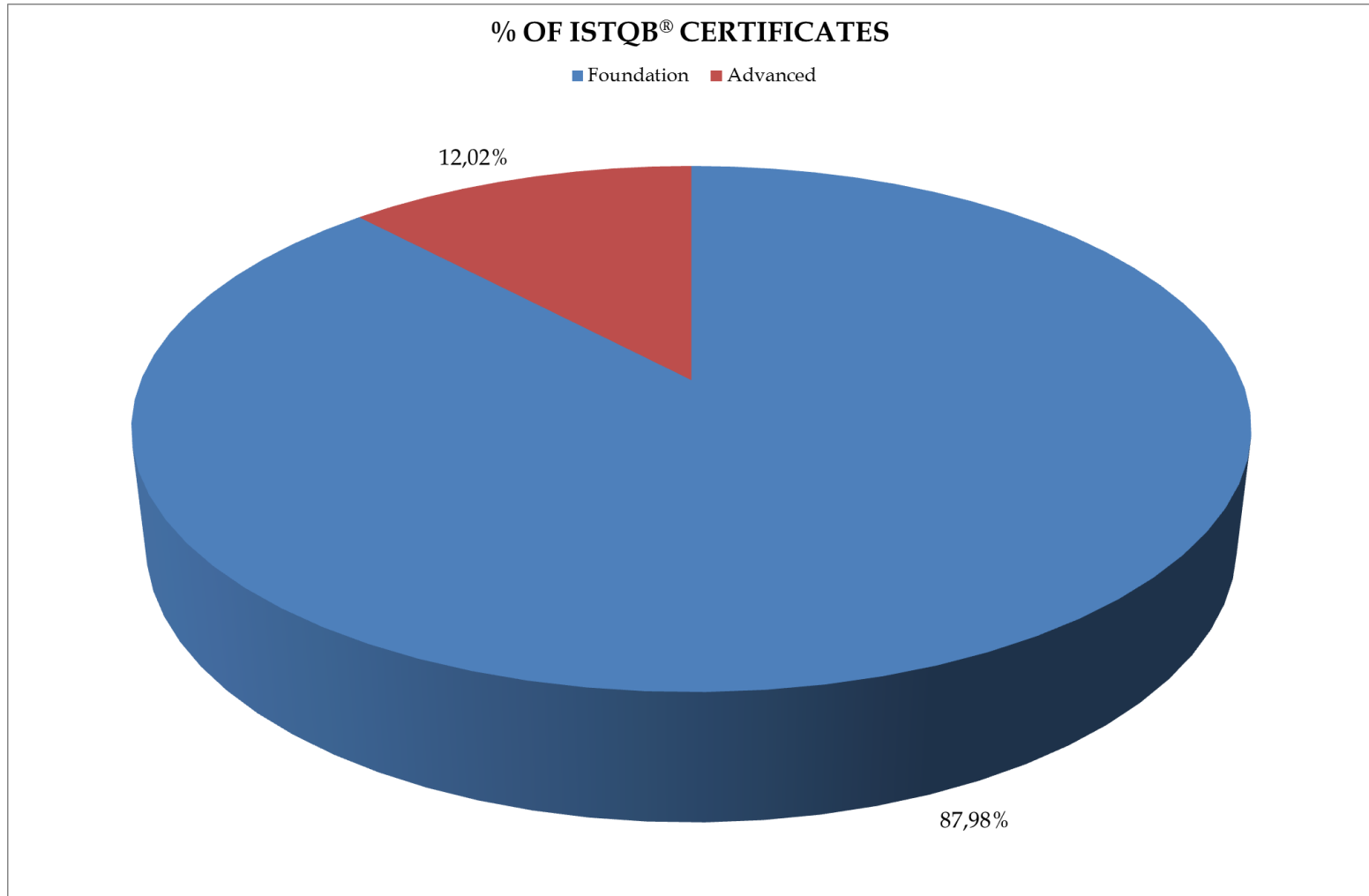 - Define the profession and what professional testers know

- **As of December 2012:**
    - the number of certifications issued is **283.000+**,
    - 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 Standard & Reference**

ISTQB Cumulative Certifications Issued
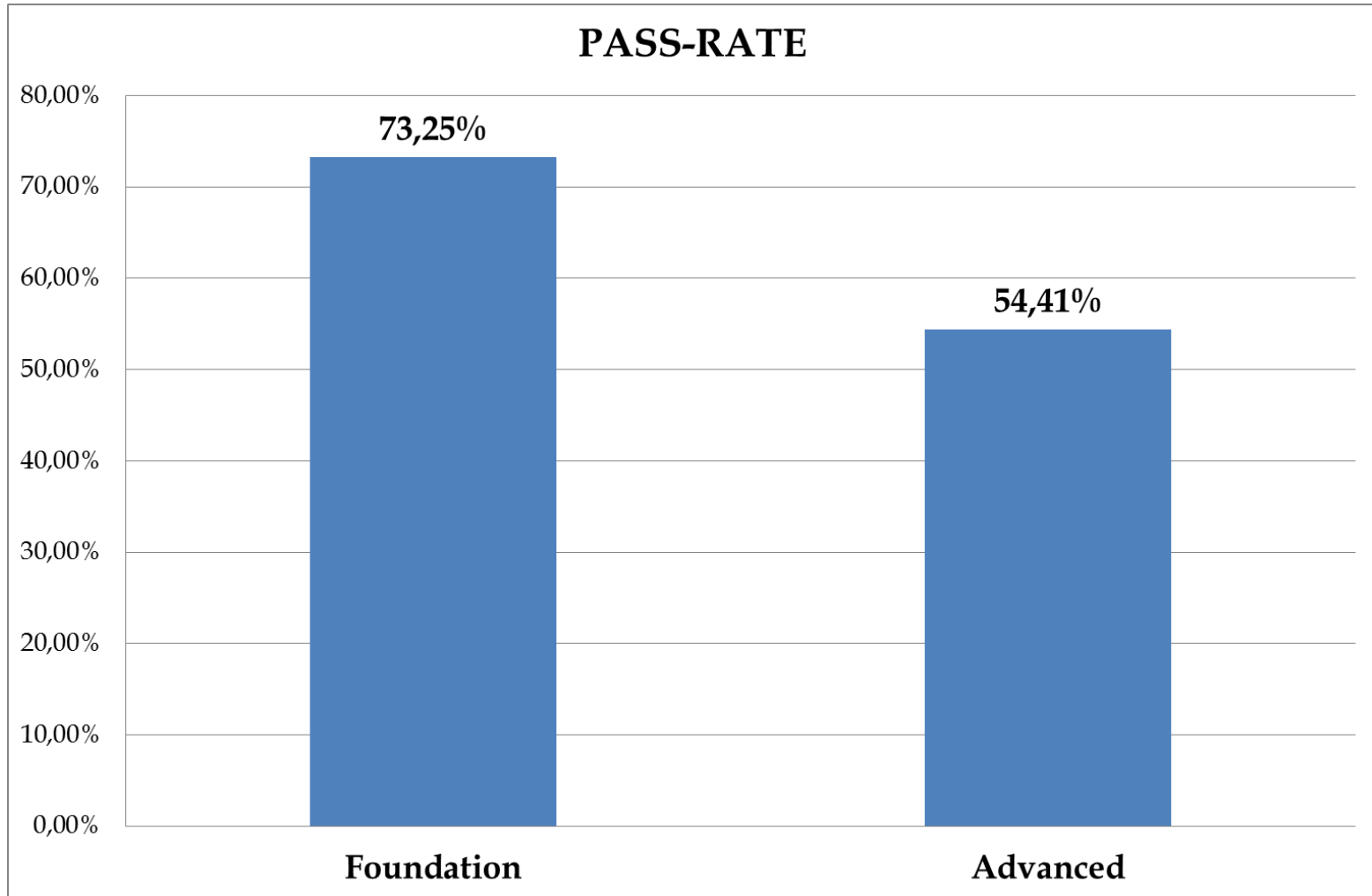
ISTQB Distribution of Certificates

% OF ISTQB® CERTIFICATES

■ Foundation   ■ Advanced

12,02%

87,98%

ISTQB – Number of Certifications

❑ **The distribution of Certificates issued by ISTQB as of December 2012 is as follows:**

LEVEL	CERTIFICATES
Foundation Level	249.589
Advanced Level – Test Manager	15.139
Advanced Level – Test Analyst	10.222
Advanced Level – Technical Test Analyst	6.209
Full Advanced	2.538
TOTAL	**283.697**

Results Analysis – Pass Rate

PASS-RATE

- Foundation: 73,25%
- Advanced: 54,41%

❑ **Total so far: 3195**

- ❑ Foundation Level: 2917
- ❑ Advanced Level – Test Manager – 158;
- ❑ Advanced Level – Test Analyst Certificates – 113;
- ❑ Advanced Level – Technical Test Analyst Certificates – 7;

❑ **Bulgaria: 911**

- ❑ Foundation Level: 730
- ❑ Test Analyst: 30
- ❑ Test Manager: 48
- ❑ Technical Test Analyst: 3

❑ **Pass Rate: higher than ISTQB average**

ISTQB – Accredited Training Providers

❑ **As of June 2012 ISTQB 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**

❑ **Provides recognition to**
companies
that are investing in ISTQB
scheme

ISTQB Partner Program Benefits

❏ **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*

❏ **More information on the ISTQB and SEETB web sites.**

❑ **CAT – Certified Agile Tester**

  ❑ Agile is flexible and adaptive with frequent feedback loops, far different from the traditional regimented methodologies.

  ❑ The course is four days

  ❑ The exam comprises of three components – practical and theoretical part and soft skills assessment.

❑ **Requirements Engineering**

  ❑ Course according to IREB and REQB syllabi – Foundation level

Need more information:

Exams:

Mitko Mitev, SEETB

info@seetb.org

Courses:

Vasilena Liskova, Quality House

training@qualityhouse.biz

Questions?