ISTQB
International Software Testing Qualifications Board

ISTQB Syllabi Updates

TAPOST conference in Riga

October 3rd 2018

Presentation by Klaus Olsen

softwaretest.dk

Klaus Olsen

ISTQB International Software Testing Qualifications Board

- Founder and owner of the company Softwaretest.dk since 2000
- Has used the past 25 years to focus on software testing, test process improvements, teaching and mentoring
- Chair of ISTQB Foundation Working Group

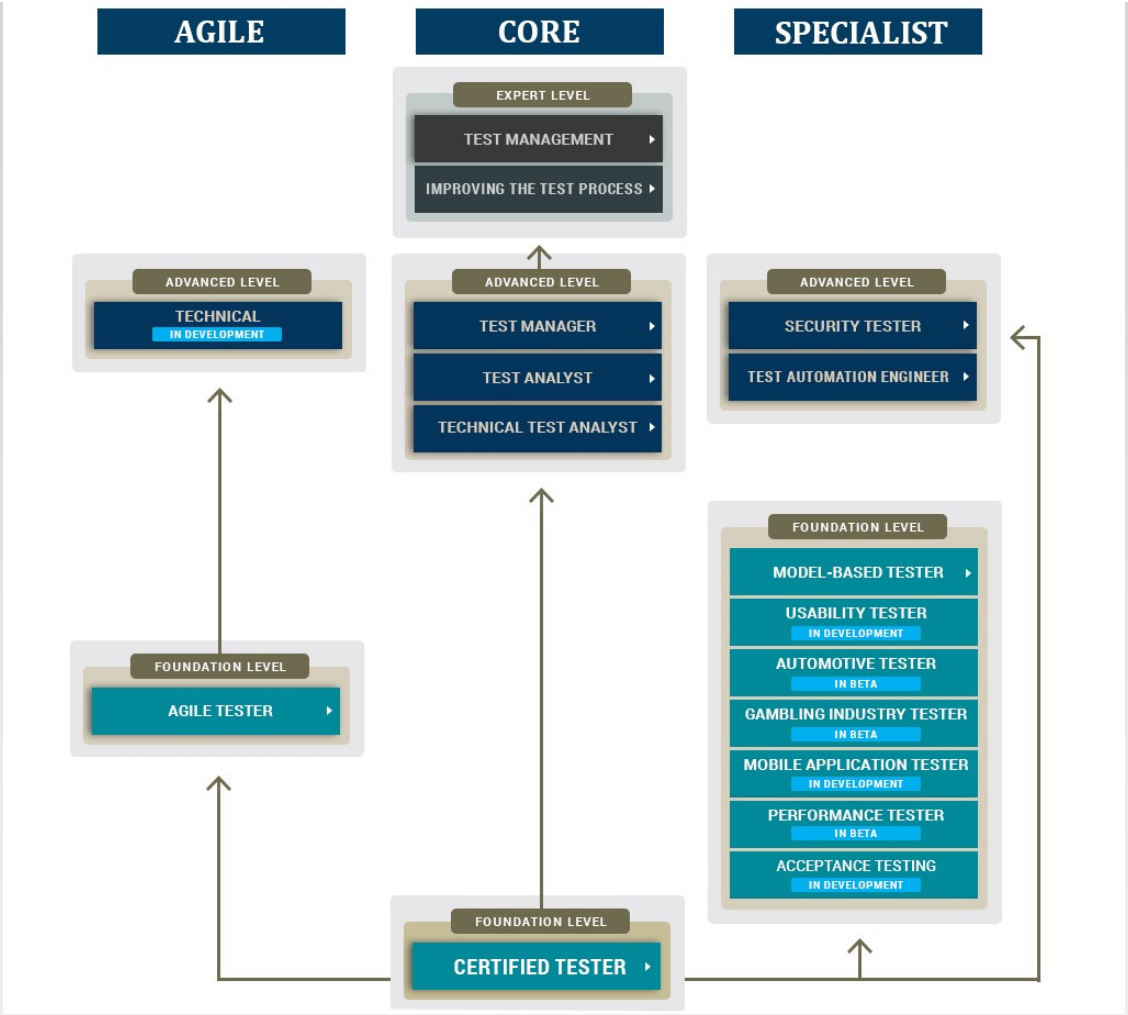
- Author of "Softwaretest – how to get started" in Danish
- Founding member of TMM*i*® Foundation
- Former CEO of the TMMi Management Executives during 5 years
- Founding member of Danish Software Testing Board, DSTB
- Former Chair of DSTB during 8 years
- Member of ISTQB, representing Denmark for 14 years
- Co-author of ISTQB Foundation and Advanced Syllabus

Certifying Software Testers Worldwide

ISTQB® International Software Testing Qualifications Board

- ISTQB® has created the world's most successful scheme for certifying software testers.
- As of January 2018, ISTQB® has:
  - administered over 785,000 exams and
  - issued more than 570,000 certifications
  - in over 120 countries world-wide
  - with 58 member boards worldwide
- The scheme relies on a Body of Knowledge (Syllabi and Glossary) and exam rules that are applied consistently all over the world, with exams and supporting material being available in many languages.

ISTQB overview of Syllabus

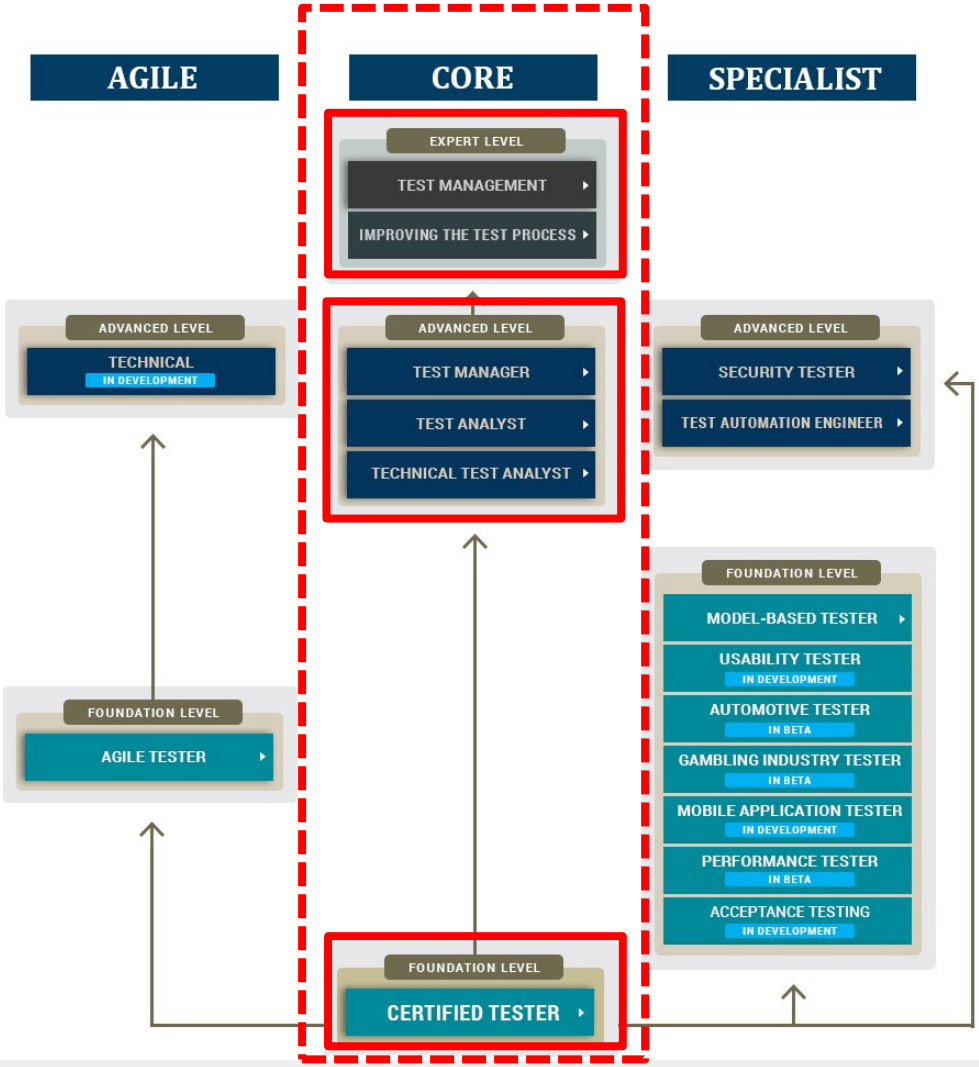


Core

Agile

Specialist

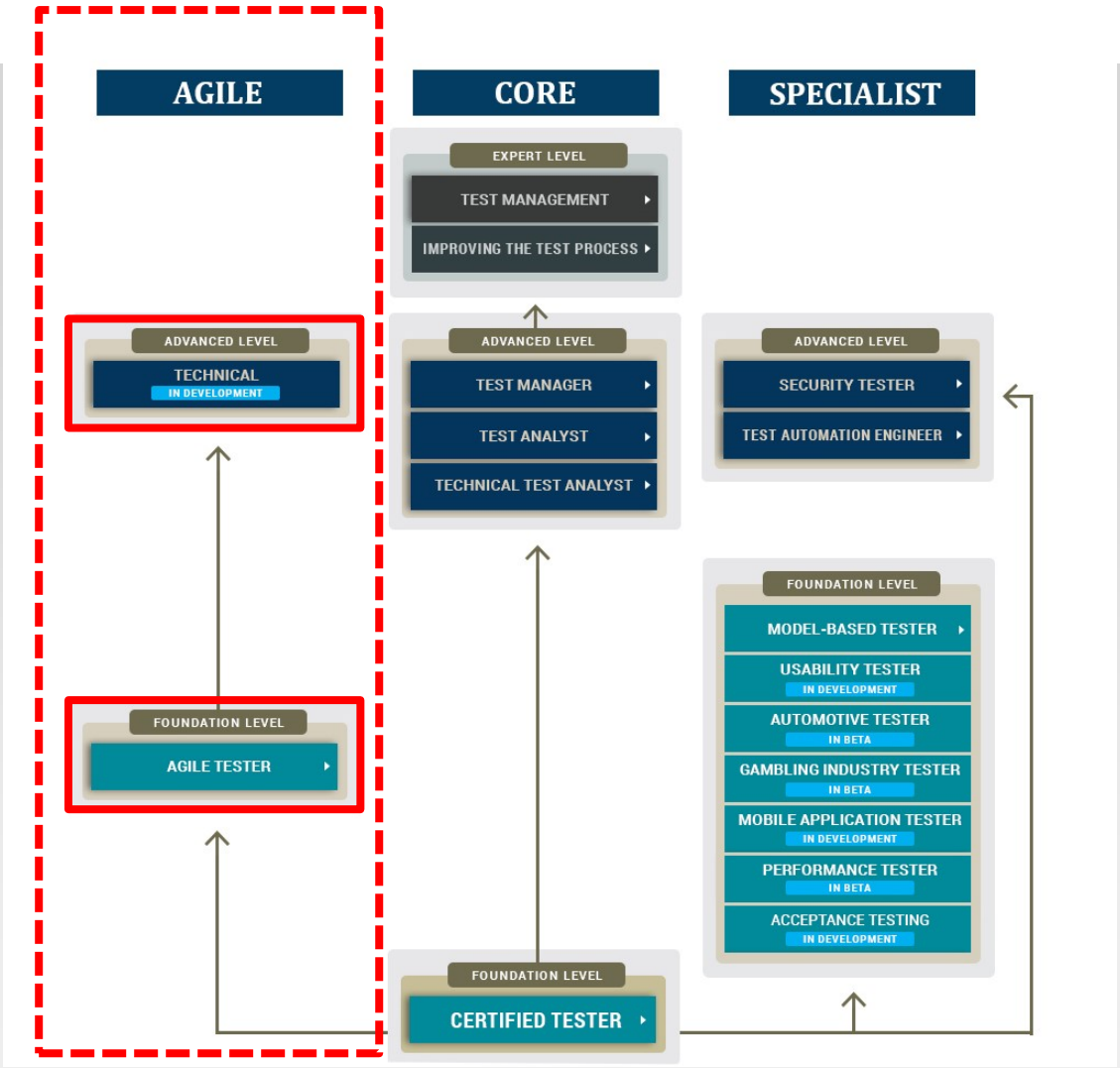
ISTQB overview of Syllabus



Core is ISTQB

- What made us build the organization
- One shared knowledge base around the world
- Communicate in one common test language

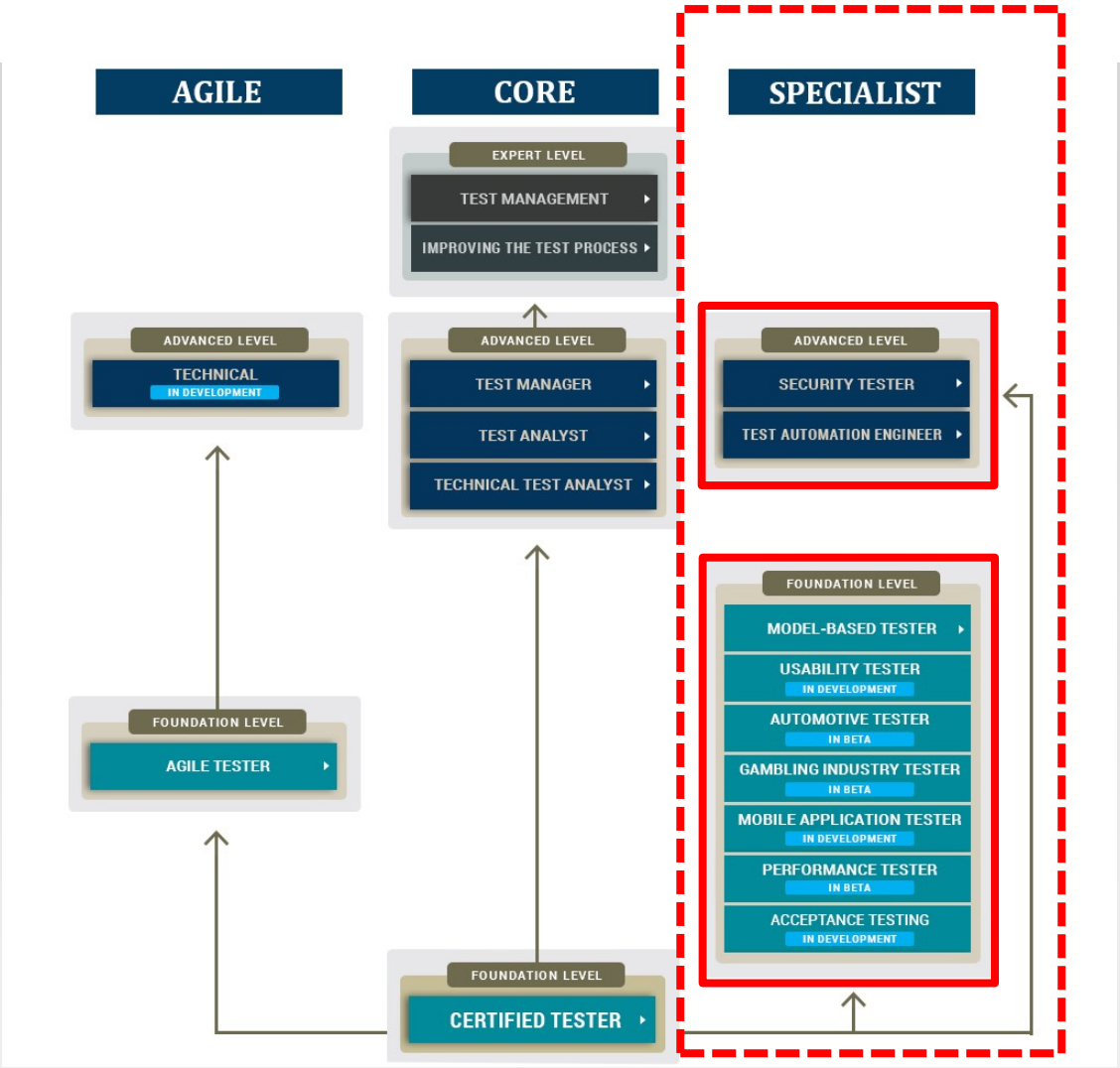
ISTQB overview of Syllabus



Agile

- What is used by many organization
- Techniques from Foundation are crucial to build on and use also in the Agile world

ISTQB overview of Syllabus



Specialist

- Relevant areas in testing
- Basic understanding of test from Foundation are crucial to build on

Four Syllabus linked with this TAPOST 2018 conference

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- TAPOST 2018 “The Ultimate Test Automation”
  - ISTQB Specialist Advanced Level – **Test Automation Engineer**
- Track 1 - Model Based Testing
  - *Model-Based Testing, MBT (workshop)*
  - ISTQB Specialist Foundation Level – **Model-Based Tester**
- Track 4 - Continuous Integration
  - *Agile Testing in mobile App development*
  - ISTQB Agile Foundation – **Agile Tester**
- Track 5 (Ideas and Specialization)
  - *Automated Security Scanning in Payment Card Industry*
  - ISTQB Specialist Advanced Level – **Security Tester**

ISTQB Specialist Advanced Level Test Automation Engineer

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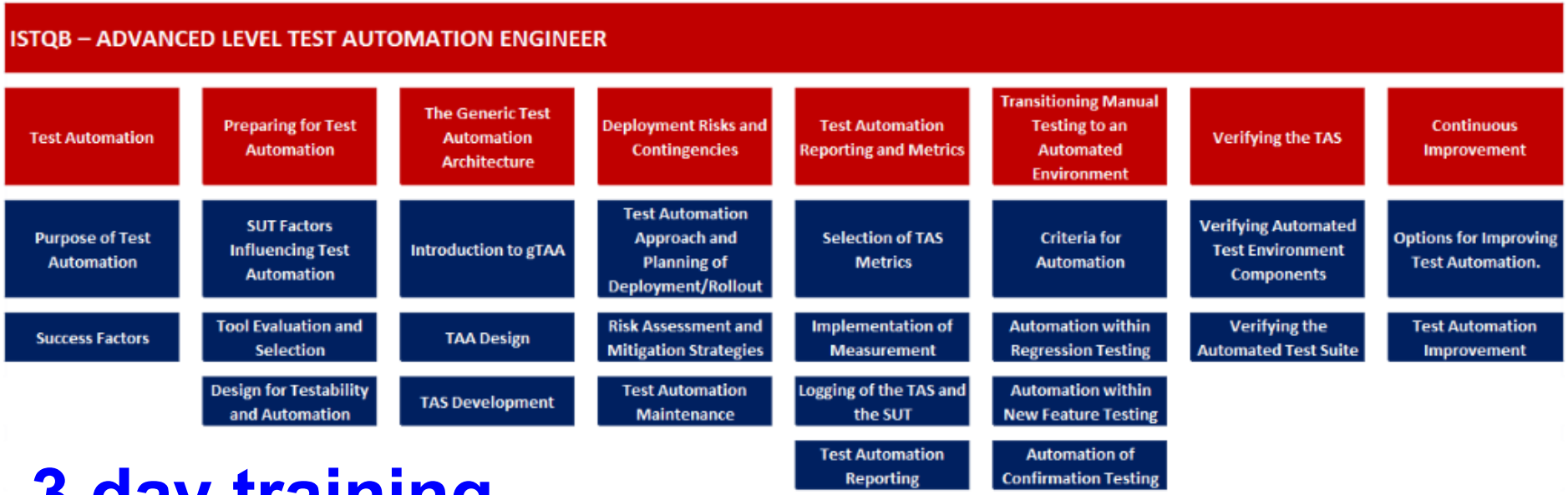
Advanced Level Test Automation Engineer Business Contents

The following image demonstrates the contents of the Advanced Level Test Automation Engineer syllabus:



3 day training

Test Automation Engineer Business Outcomes

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- 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.

ISTQB Specialist Foundation Level Model-Based Tester

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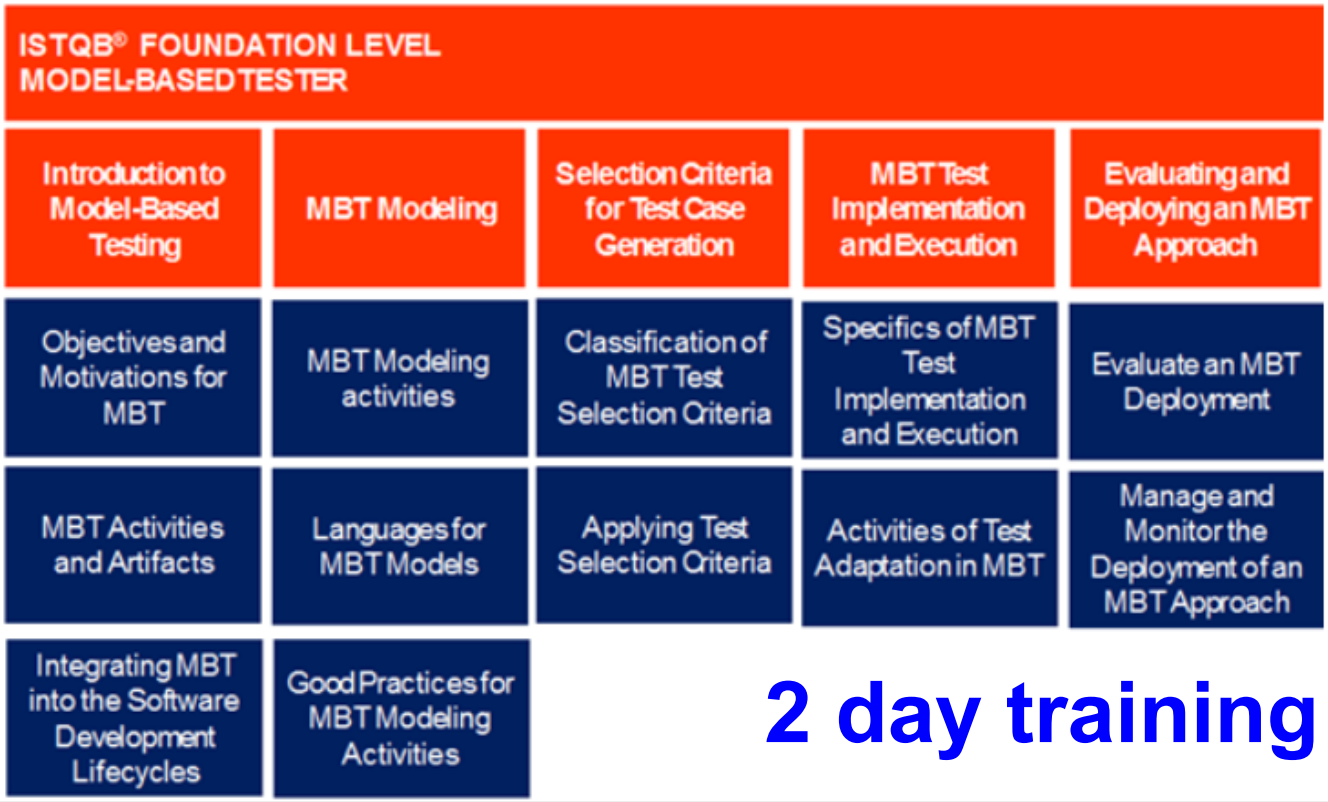
Model-Based Tester Extension Contents

The following picture summarizes the contents of the Model-Based Tester syllabus:



2 day training

Model-Based Tester Business Outcomes

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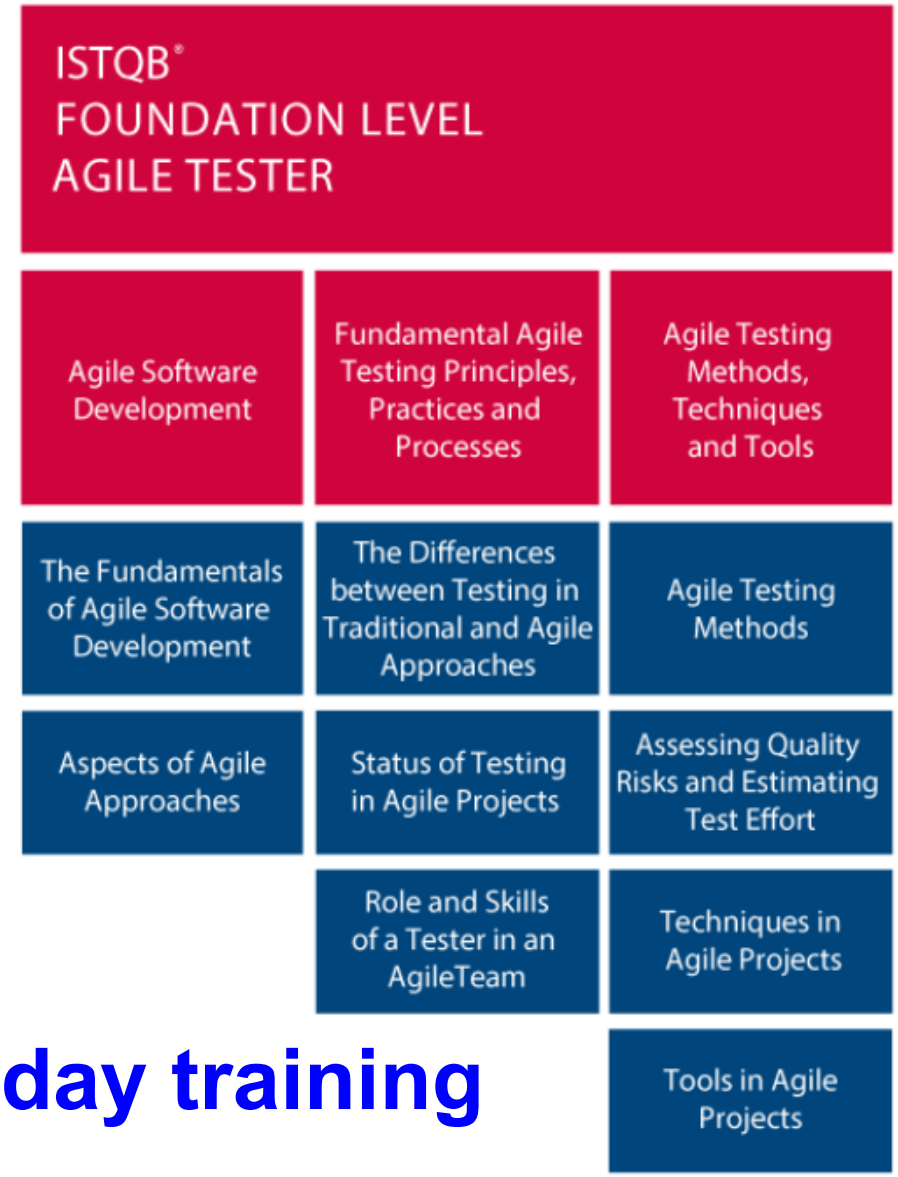
A Model-Based Tester can...

- Collaborate in a model-based testing team using standard terminology and established MBT concepts, processes and techniques.
- Apply and integrate model-based testing in a test process.
- Effectively create and maintain MBT models using established techniques and best practices of model-based testing.
- Select, create and maintain test artifacts from MBT models considering risk and value of the features tested.
- Support the organization to improve its quality assurance process to be more constructive and efficient.

In general, an ISTQB® Model-Based Tester has acquired the necessary skills to successfully contribute to MBT projects in a given context.

Agile Tester Extension Contents

The following picture summarizes the contents of the Agile Tester syllabus:



2 day training

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Agile Tester
Business Outcomes

ISTQB International Software Testing Qualifications Board

An Agile Tester can...

- Collaborate in a cross-functional Agile team being familiar with principles and basic practices of Agile software development.
- Adapt existing testing experience and knowledge to Agile values and principles.
- Support the Agile team in planning test-related activities.
- Apply relevant methods and techniques for testing in an Agile project.
- Assist the Agile team in test automation activities.
- Assist business stakeholders in defining understandable and testable user stories, scenarios, requirements and acceptance criteria as appropriate.
- Work and share information with other team members using effective communication styles and channels.

In general, a Certified Tester Foundation Level – Agile Tester is expected to have acquired the necessary skills to working effectively within an Agile team and environment.

Advanced Security Tester Contents

The following image demonstrates the contents of the Advanced Security Tester syllabus:

3 day training

Advanced Security Tester Business Outcomes

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- Plan, perform and evaluate security tests from a variety of perspectives – policy-based, risk-based, standards-based, requirements-based and vulnerability-based.
- Align security test activities with project lifecycle activities.
- Analyze the effective use of risk assessment techniques in a given situation to identify current and future security threats and assess their severity levels.
- Evaluate the existing security test suite and identify any additional security tests.
- Analyze a given set of security policies and procedures, along with security test results, to determine effectiveness.
- For a given project scenario, identify security test objectives based on functionality, technology attributes and known vulnerabilities.

Advanced Security Tester Business Outcomes continued

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- Analyze a given situation and determine which security testing approaches are most likely to succeed in that situation
- Identify areas where additional or enhanced security testing may be needed.
- Evaluate effectiveness of security mechanisms.
- Help the organization build information security awareness.
- Demonstrate the attacker mentality by discovering key information about a target, performing actions on a test application in a protected environment that a malicious person would perform, and understand how evidence of the attack could be deleted.
- Analyze a given interim security test status report to determine the level of accuracy, understandability, and stakeholder appropriateness.
- Analyze and document security test needs to be addressed by one or more tools.
- Analyze and select candidate security test tools for a given tool search based on specified needs.
- Understand the benefits of using security testing standards and where to find them.

As Foundation Chair

What's has changed in the 2018 Foundation?

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- Fewer K1 Learning Objectives (LO) in general
  - (15 LO in 2018 compared with 27 LO in 2011)
- Less focus on Chapter 5 Test Management
  - (15 LO in 2018 compared with 24 LO in 2011)
- More emphasis on review, a K3 LO has been added to Chapter 3
  - Static Analysis by Tools section has been removed, and will be covered in other syllabi
- More emphasis on Test Techniques in Chapter 4
  - Section 4.1 of 2011 moved and merged with section 1.4 of Chapter 1
- Agile is mentioned in the content of the syllabus
  - But not included in the wording of any LO
- White-box techniques are downgraded
  - K4 and K3 LO removed – these topics will be covered in other ISTQB® syllabi.

What's has changed in the 2018 Foundation?

Additional changes made to the 2018 Foundation Syllabus are:

- ISO/IEC/IEEE 29119 is now used for reference instead of IEEE Standard 829.
- ISO/IEC 25010 is now used for reference instead of ISO 9126.
- ISO/IEC 20246 is now used for reference instead of IEEE 1028
- The Code of Ethics has been moved from chapter one to ISTQB®.ORG website

CTFL 2018 – Overview of Learning Objectives

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2011 Syllabus

Chapter	K1 LO	K2 LO	K3 LO	K4 LO	Total
1	3	9	-	-	12
2	4	8	-	-	12
3	4	5	-	-	9
4	2	10	[3] 7	1	20 [16]
5	10	12	2	-	24
6	4	3	-	-	7
Total	27	47	[5] 9	1	84 [80]

2018 Syllabus

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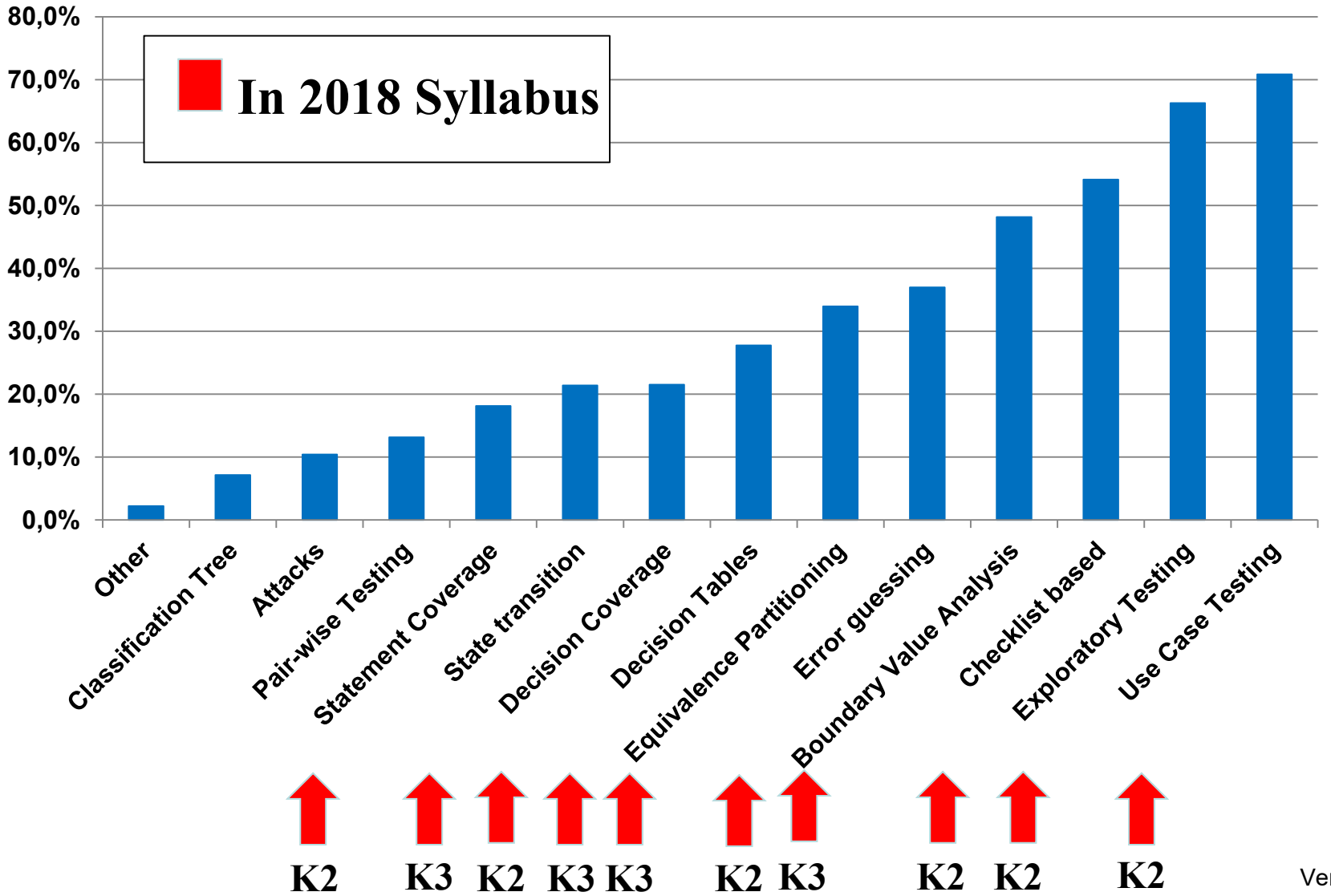
Still a 3 day Course
16,75 hours

Chapter	K1 LO	K2 LO	K3 LO	K4 LO	Total
1	2	11	-	-	13
2	2	6	-	-	8
3	2	5	1	-	8
4	0	8	4	-	12
5	4	9	2	-	15
6	5	1	-	-	6
Total	15	40	7	0	62

From ISTQB Worldwide Software Testing Report 2015 v2.0
Which test techniques are utilized by your testing team?
Foundation Syllabus 2018 covers 10 most utilized from report!



Version 1.0

Latest news from ISTQB

Syllabus under construction by ISTQB

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- ISTQB **Specialist Foundation** Level:
  - **Performance Tester**
  - **Gambling Industry Tester**
  - **Automotive Tester**
  - **Usability Tester**
  - **Mobile Application Tester**
  - **Acceptance Tester**

- Also in development in ISTQB **Agile Advanced** Level:
  - **Technical Agile Tester**

ISTQB Specialist Foundation Level Performance Tester

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- Understand the basic concepts of performance and performance testing
- Define performance risks, goals, and requirements to meet stakeholder needs and expectations
- Understand performance metrics and how to collect them
- Develop a performance test plan for achieving stated goals and requirements
- Conceptually design, implement, and execute basic performance tests
- Analyze the results of a performance test and state implications to various stakeholders
- Explain the process, rationale, results, and implications of performance tests to various stakeholders
- Understand categories and uses for performance tools and criteria for their selection
- Determine how performance testing activities align with the software lifecycle

ISTQB Specialist Foundation Level Gambling Industry Tester

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- Promote efficient and effective communication by using a common vocabulary inside the gambling industry
- Understand specific quality attributes that require testing within the gambling industry
- Understand typical test practices by describing the standard development and testing methodologies within the gambling industry
- Understand gambling hardware and software certification which is the main difference between the gambling industry and other testing industries.
- Use established techniques for designing tests aligned with gambling specific needs
- Appreciate the Importance of jurisdictions and regulatory bodies in the gambling industry

ISTQB Specialist Foundation Level Automotive Tester

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A Certified Automotive Software Tester can…

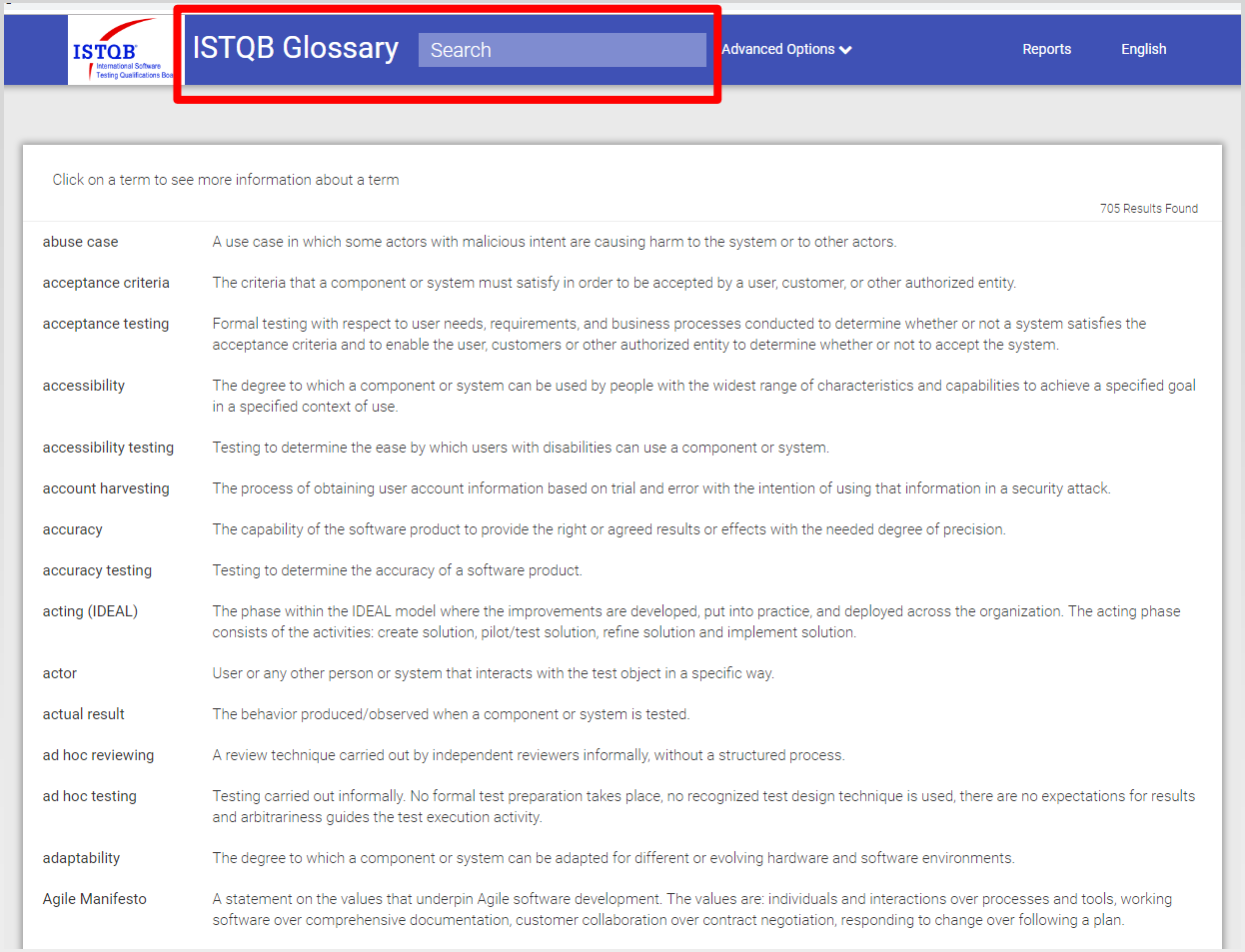
- Collaborate effectively in a test team.
- Adapt the test techniques known from the ISTQB Certified Tester Foundation Level (CTFL®) to the specific automotive project requirements.
- Consider the basic requirements of the relevant norms and automotive standards (Automotive SPICE®, ISO 26262, etc.) and select suitable test techniques.
- Support the test team in the risk oriented planning of the test activities and apply known elements of structuring and prioritization.
- Apply the virtual test methods (e.g. HiL, SiL, MiL, etc.) in test environments.

In general, a Certified Automotive Software Tester is expected to have acquired the necessary skills to working effectively within an automotive testing team and environment.

Support for all Syllabus

ISTQB Glossary

http://glossary.istqb.org/



Glossary

- Key do have common definition of testing terms in all of our Syllabus
- Major part of ISTQB to provide this

ISTQB Glossary

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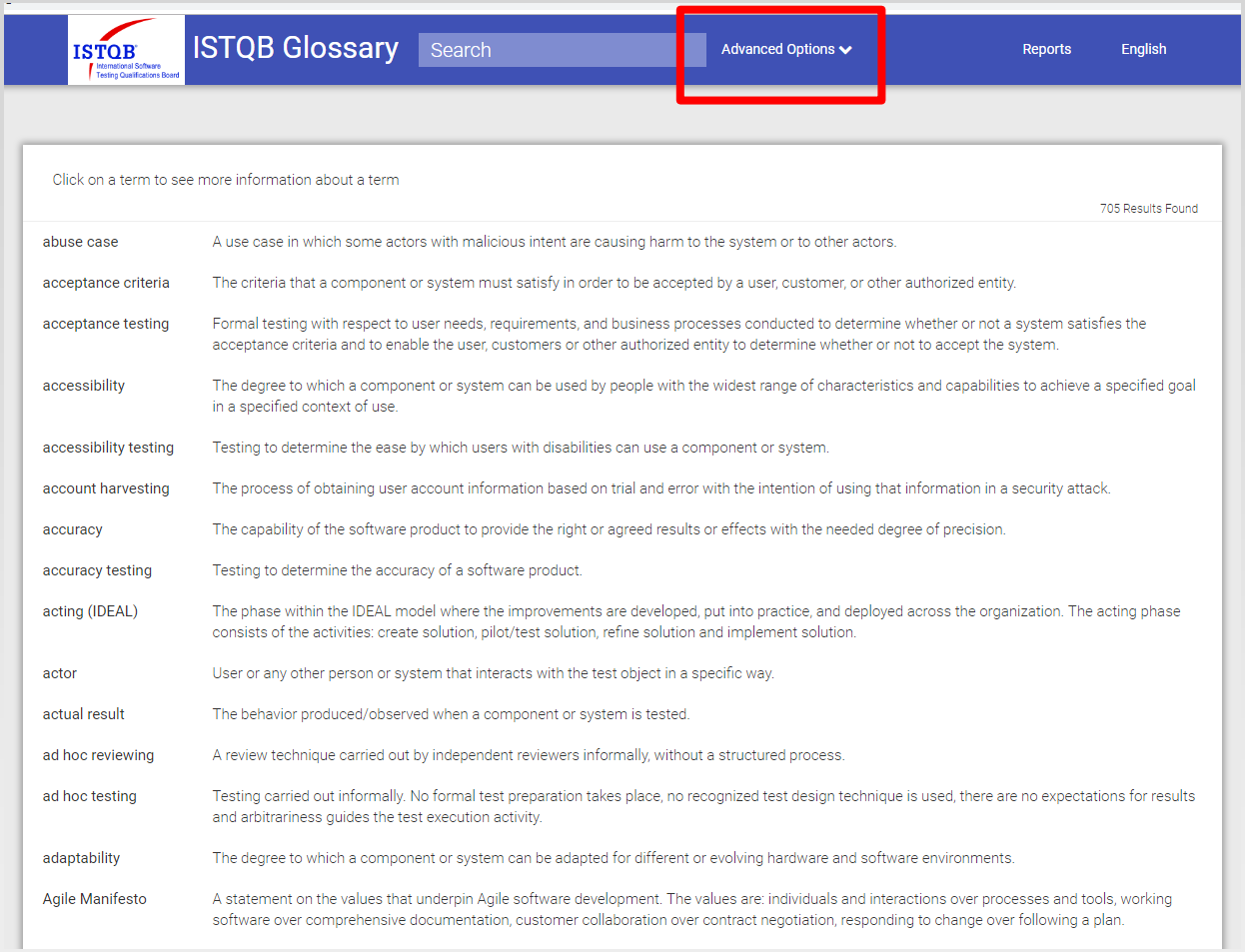

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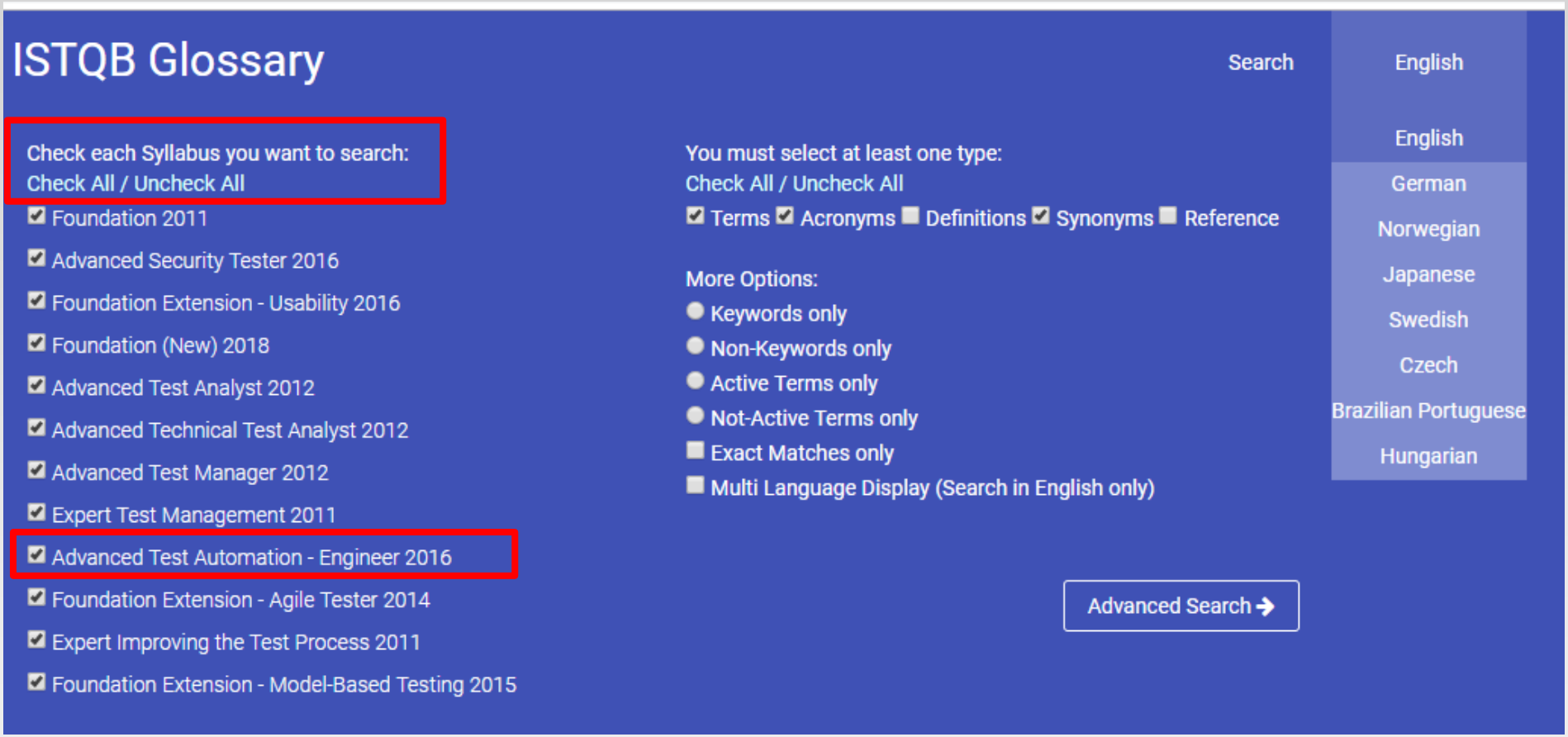

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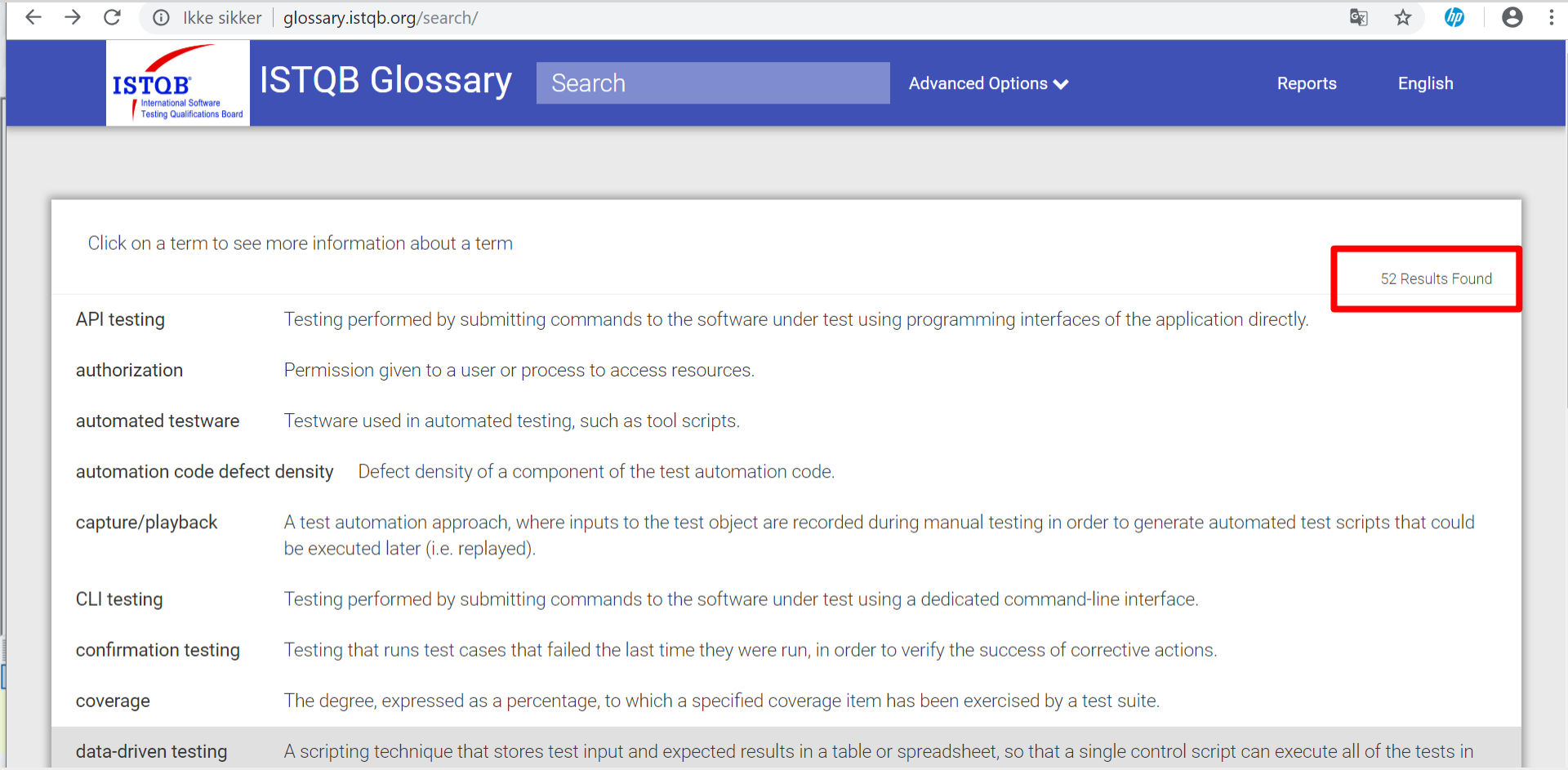
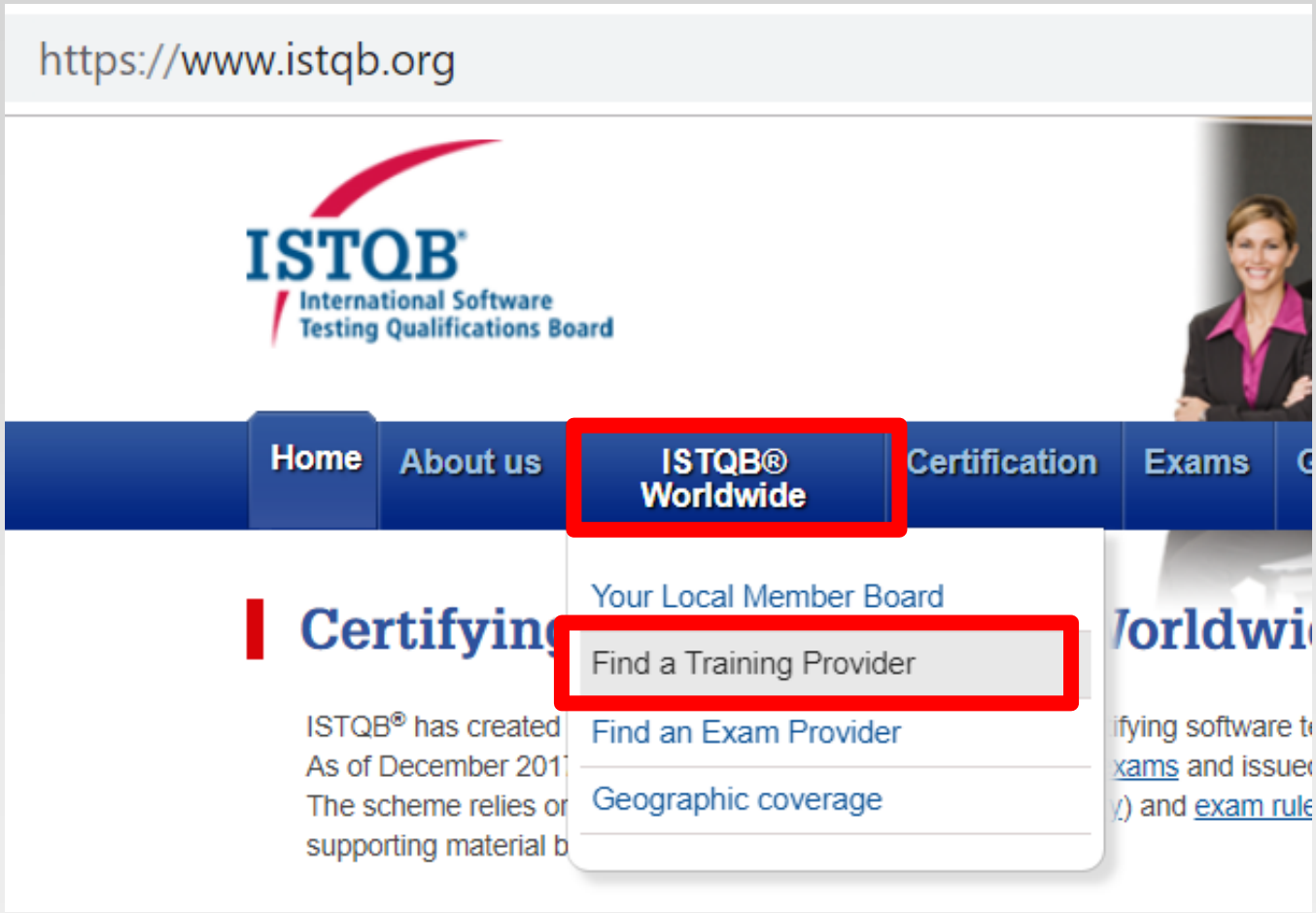


ISTQB Glossary also as App

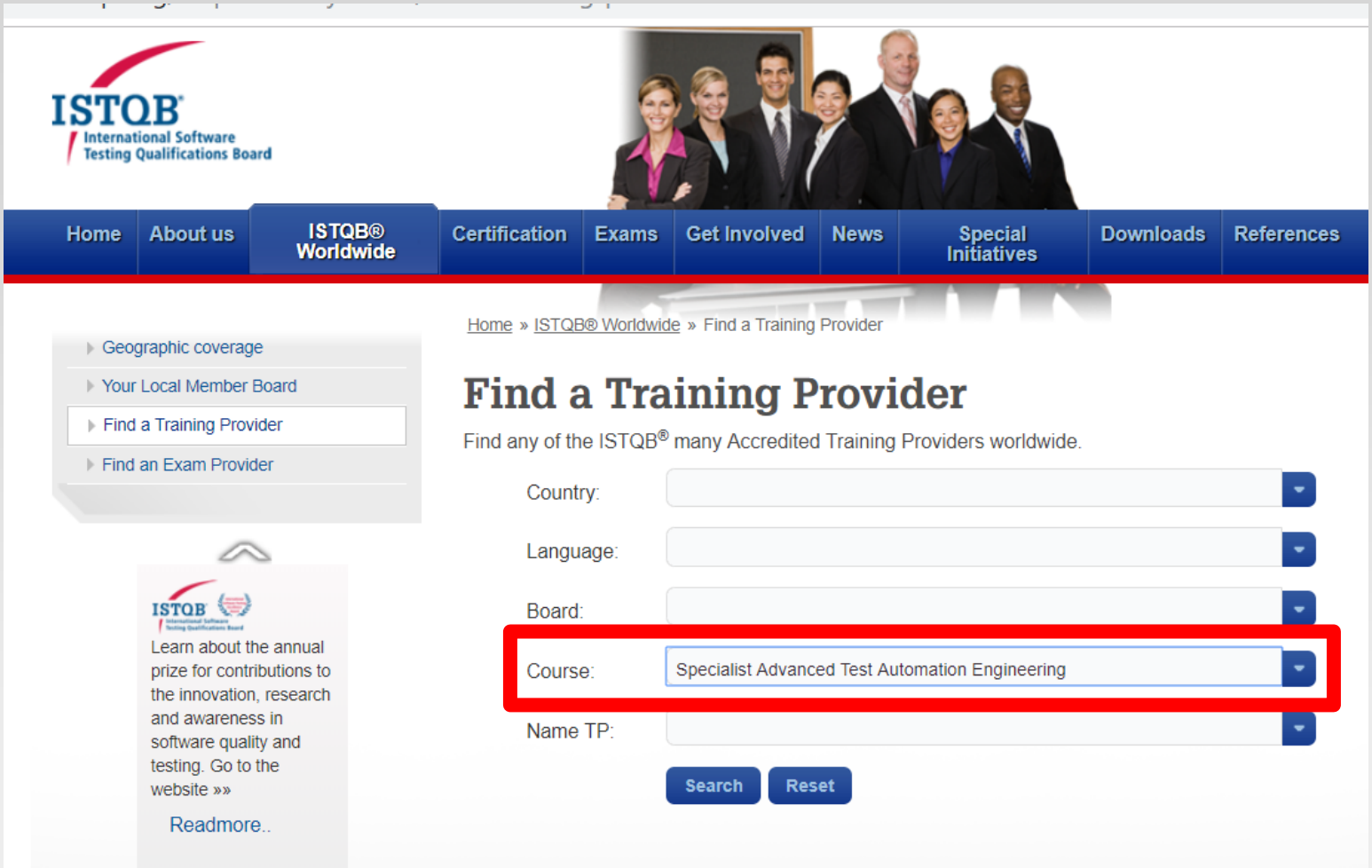
- Glossary also exist as an App
- Search for **ISTQB Glossary Official**

Find a Training Provider

Find an Accredited ISTQB Training Provider



Find an Accredited ISTQB Training Provider



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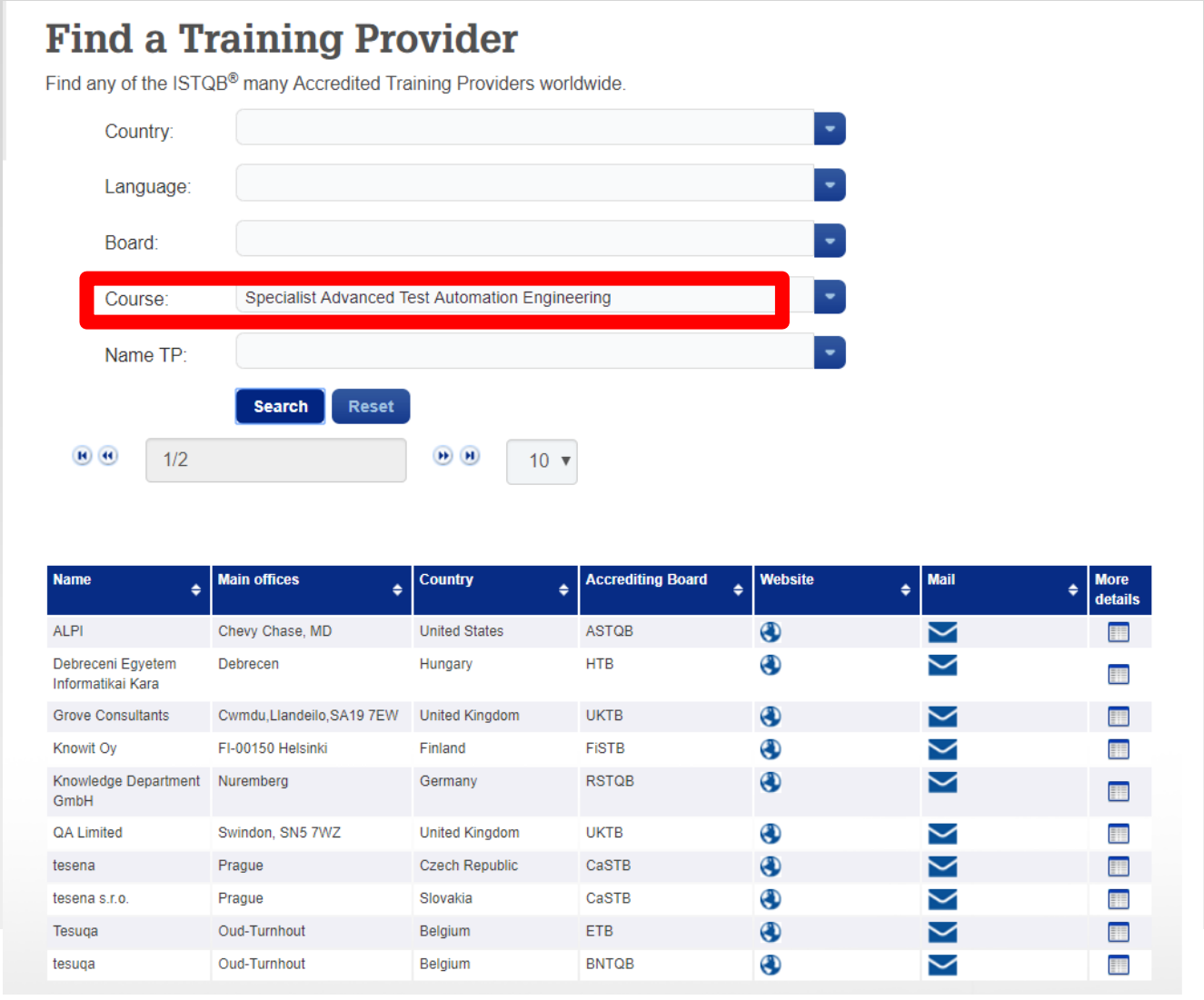

Find a Training Provider

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Course: Specialist Advanced Test Automation Engineering

Name TP:

Search Reset

1/2 10

Name	Main offices	Country	Accrediting Board	Website	Mail	More details
ALPI	Chevy Chase, MD	United States	ASTQB			
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Grove Consultants	Cwmdu,Llandeilo,SA19 7EW	United Kingdom	UKTB			
Knowit Oy	FI-00150 Helsinki	Finland	FiSTB			
Knowledge Department GmbH	Nuremberg	Germany	RSTQB			
QA Limited	Swindon, SN5 7WZ	United Kingdom	UKTB			
tesena	Prague	Czech Republic	CaSTB			
tesena s.r.o.	Prague	Slovakia	CaSTB			
Tesuqa	Oud-Turnhout	Belgium	ETB			
tesuqa	Oud-Turnhout	Belgium	BNTQB			

ISTQB do not require you to follow a training

- To learn from syllabus created by ISTQB you don´t have to sign up for a training course.
- You can do this, and an estimated 80% or more do follow a training course before a certification exam.
- But there are no requirements that requires you to do so.

As with this building we are in

The National Library of Latvia

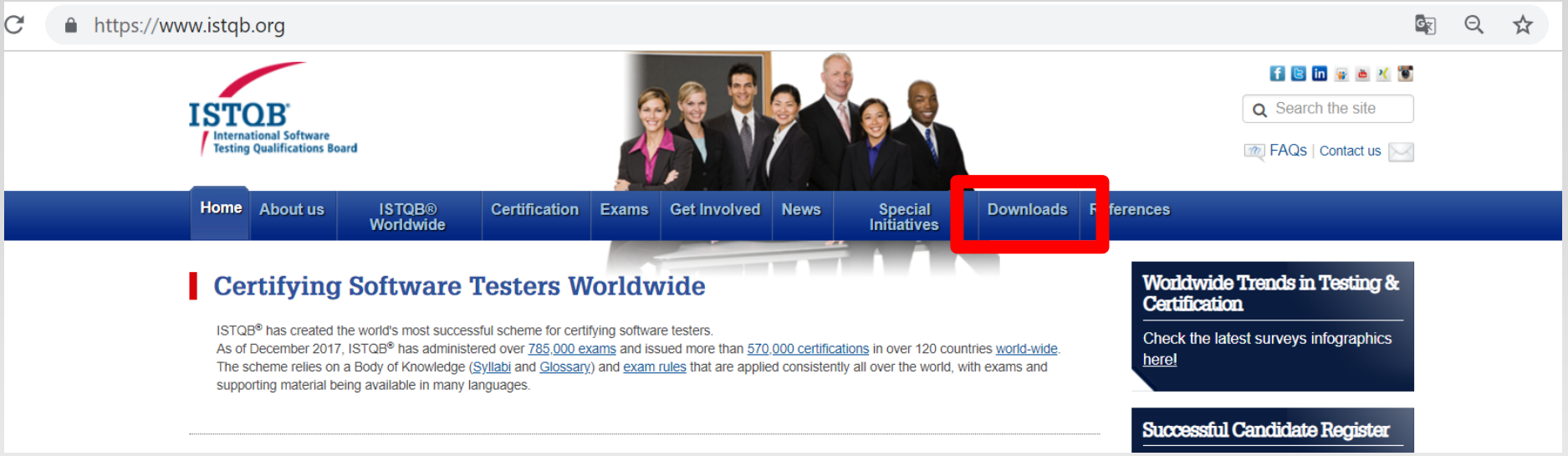
The more your read and learn,

the more you know you don´t know

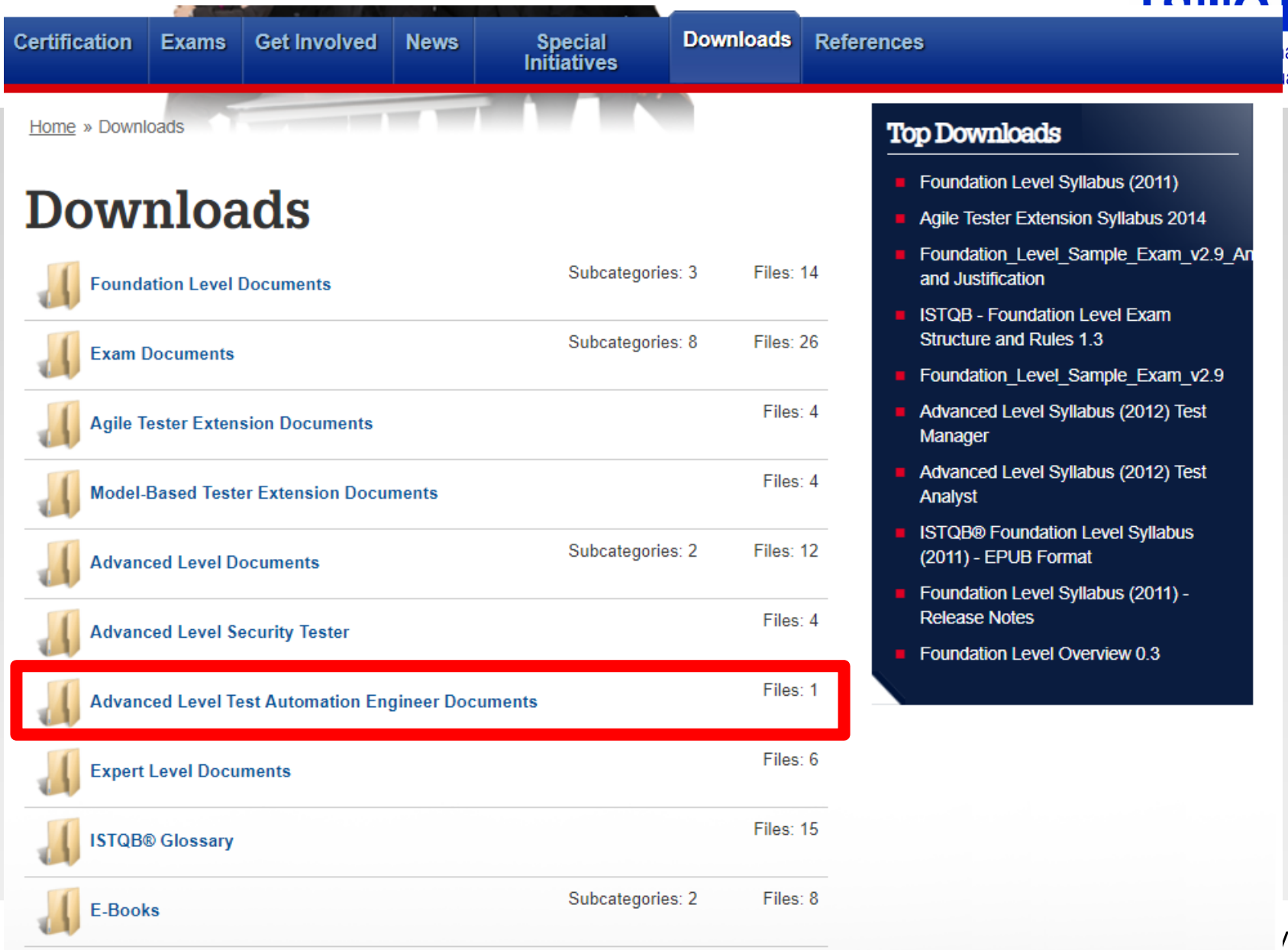
Find more Information

All ISTQB Syllabus are free
You can download all of them

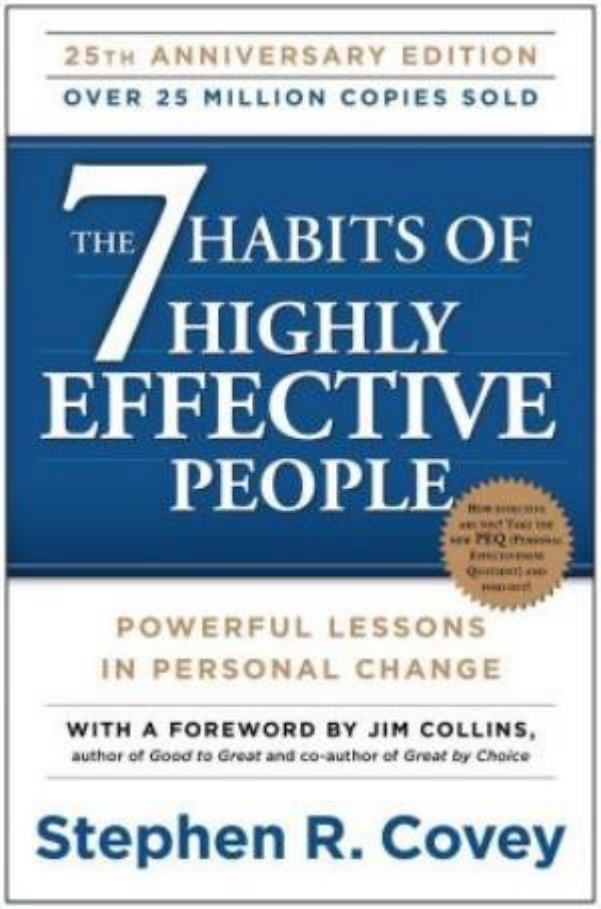
- Go to www.istqb.org and select Downloads



All ISTQB Syllabus Downloads



Stephen R. Covey



1. **Be Proactive**
2. **Begin with the End in Mind**
3. **Put First Thing First**
4. **Think Win - Win**
5. **Seek First to Understand, Then to be Understood**
6. **Synergize**
7. **Sharpen the Saw**

https://www.franklincovey.com/the-7-habits.html

Sharpen the Saw

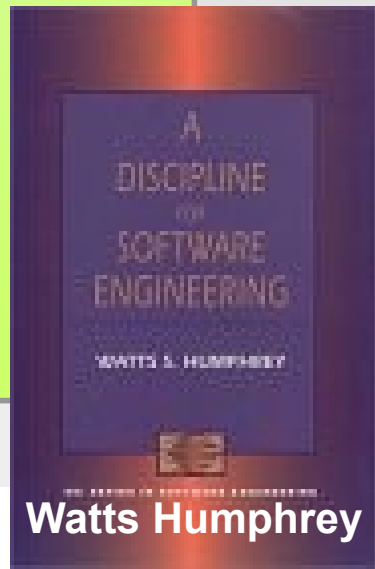
Remember to stop and sharpen the saw
Each week 7 * 0,5 hour on your own education
Each week 7 * 0,5 hour on exercise, your physique and health
In total 7 of 168 hours per week
This is only 4,2% of your time – this is a good investment

Watts Humphrey creator of CMMi Use the projects you are working on

Make practice a part of every project and measure and observe your own work.

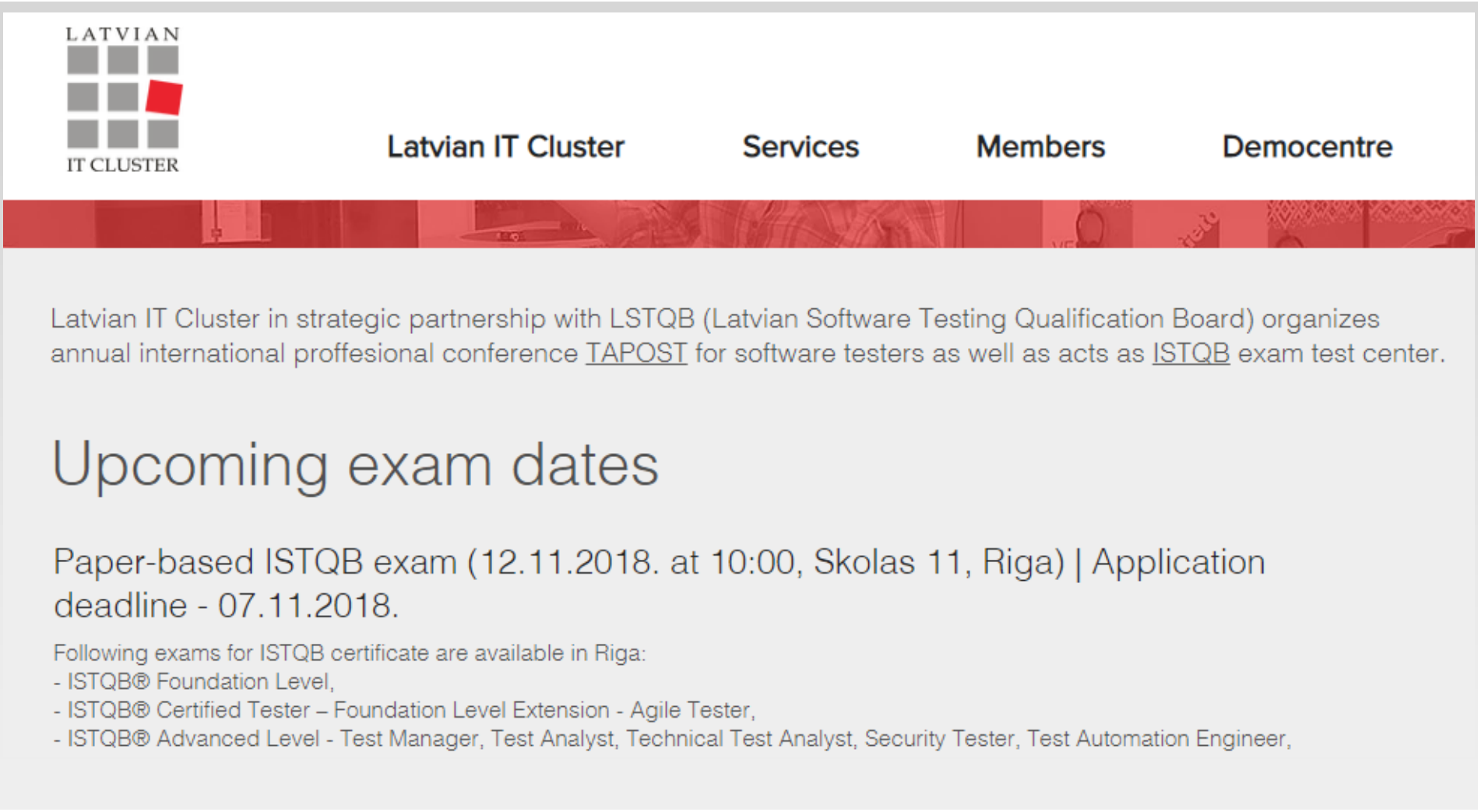
You cannot stand still, so you should treat every project as a way to build talent,

rather than merely treating your talent as a way to build projects.”



Get ISTQB certified

ISTQB International Software Testing Qualifications Board



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Get Involved

In ISTQB´s work

Join LSTQB

Contact LSTQB at email:

baltaisbrencis@istqb.org

Version 1.0

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International Software Testing Qualifications Board

Thank you

Contact Klaus at
Email: klaus@softwaretest.dk
Klaus.Olsen@istqb.org