International relations

President of the International Software Testing Qualifications Board Tilo Linz, Head of ISEB's Professional Products Business Unit Pete Bingham, and Chair of the ISEB Software Testing Group International Panel Andy Redwood answer our questions about the future of their testing qualifications in Europe and worldwide

PT: Please describe ISTQB's mission and history, and its relationship to ASQF.

Tilo Linz: The International Software Testing Qualifications Board was officially founded in Edinburgh in November 2002. The members of the ISTQB are the national testing boards of Austria, Denmark, Finland, Germany, Poland, Sweden, Switzerland, The Netherlands & Belgium, the UK and the USA. Other countries considering joining include Spain, Australia and New Zealand. ISTQB's mission is to co-ordinate the national 'certified tester' initiatives and provide uniformity and comparability of the teaching and exam contents in all countries involved. The national testing boards are still responsible for translation, issuing and maintaining the ISTQB curriculums in their country language and for organizing and executing examinations in their countries. They assess the training offered in their countries according to defined criteria and accredit training providers. ISTQB and its national testing board members thus guarantee a high quality, internationally recognized standard for software testing qualifications.

Andy Redwood: ISTQB is a not-for-profit organisation set up to allow the existing national software testing examination bodies to come together as a single entity and allow every member nation to examine software testing against the same standards. In this way certificates at different levels of expertise will be equally valid in every member country.

What are the relationships between ISTQB, ISEB and ASQF?

TL: ISTQB and its national testing board members are responsible for the syllabuses contents and for defining and maintaining certification procedures and criteria. But the business of accreditation and certification is normally delegated by a board to professional local certification and accreditation bodies. Like ISEB in the UK *(www.bcs.org/iseb)*, ASQF in Germany *(www.asqf.de)* is an accreditation and certification body offering certified tester exams in German. ASQF also provides administrative services to the German Testing Board and to ISTQB.

How long have ISTQB qualifications for software testers been available, how many people have gained them, and how do you view their acceptance by employers etc?

AR: Currently all certificates are issued by individual national examination centres. This will remain the case until the international syllabuses are complete. This is scheduled for spring 2004. At this time the individual syllabuses will be replaced with a single set and all member countries will set examinations with questions based on the international syllabuses at each examination level. Member countries are allowed slight variations to syllabuses to cater for translation issues. This will create a great opportunity for employers and software testing professionals. Software testers for example will be able to take Foundation level in any member country and have the flexibility to take an Advanced level in any other member country. Training providers can supply their services in any member country. Candidate certificates will be dual-branded, bearing logos of both ISTQB certification and the national examination body.

This opens up the resource market internationally for employers who wish to take advantage of well trained and highly qualified Testing professionals.

It was announced in early December that an agreement to cooperate has been reached between ASQF and ISEB. What is this agreement and what will happen now?

AR: Historically the examinations have been slightly different. This agreement was designed to move to common practices and procedures to ensure that all members within ISTQB can move forward together. ISEB and ASQF have both offered sources of material to the ISTQB working parties to allow international syllabuses to be delivered. Agreements were reached on sales and marketing arrangements.

Pete Bingham: The existing Examination Bodies are ASQF in Germany and ISEB in the UK. They have the largest number of Software certificates issued. In the UK for example, the British Computer Society (which runs ISEB) has issued over 15,000 Foundation Certificates.

Some people in the industry, including certain employers and educators who perceive shortcomings in the ISEB Foundation Certificate syllabus, were hoping that ISTQB would offer an alternative basic qualification with a different syllabus. Will this now happen, or has ISEB's monopoly simply been perpetuated?

AR: The working parties set up to deliver the international Foundation syllabus are representatives for all member countries. We hope to deliver Foundation and Advanced level syllabuses that will allow testing theory and practical work that reflects business practices across many sectors and disciplines to be examined. ISEB are a major player in certification, not just software testing but many other disciplines. I'm not sure they have ever been a monopoly in Europe where testing is concerned.

TL: Yes, there are some shortcomings in the current Foundation and Advanced syllabus. Nevertheless the existing ISEB and ASQF syllabuses are a very solid basis to build upon. So ISTQB will not invent completely new syllabuses but improve and extend these materials. We invite all interested parties to submit their suggestions and change requests to the ISTQB working parties.

PB: The BCS, with its ISEB qualifications, is very keen to ensure that the testing industry adopts the most appropriate practices, and that people who work in the software testing field can demonstrate their competence through certification. ISEB runs examinations across a broad spectrum of qualifications internationally. A good example where a standard has been adopted internationally is in IT service management (ITIL®). ITIL is the acronym for the "IT Infrastructure Library" guidelines developed for the British government. Today, ITIL is the de-facto global standard in the area of service management. I see the global best practices being created for software testing following similar lines, ie the adoption of a single standard embodied in the ISTQB single syllabus.

What is ISTQB's opinion, and/or your personal opinion, of the ISEB Foundation and Practitioner Certificate syllabuses?

AR: Many volunteers worked very hard to get the ISEB syllabuses and the examination process to where it is today. There is no doubt that software testing in the UK as a profession is the better for it. We now have an opportunity to build on what has been done, not only within ISEB but within Europe, the USA, Australia and New Zealand to refine and improve the testing knowledge on which the examinations are set.

PB: For some time at the BCS we felt that the ISEB syllabus needed to be more international and we were working on syllabus development that would fix this. However, we feel strongly there is no merit in perpetuating competing syllabuses as this would confuse the market. We are very keen to see a single standard (like ITIL in service management) and the BCS/ISEB supports the ISTQB effort one hundred percent. It really is better that the ISTQB builds on the considerable work and expertise that built ISEB, rather than work from 'ground up', so that the lessons learnt over the last five years are not lost.

Do you envisage that testers in the UK will gain either an ISEB or ISTQB qualification, or both? Should holders of the ISEB Foundation Certificate consider studying for an ISTQB qualification?

AR: All examination centres from ISTQB member countries will offer those who pass the examinations ISTQB certificates. For example those issued by ISEB will also have the ISEB and ISTQB logos. Those issued by ASQF will have the ISTQB and ASQF logos and so on. The standard of the examinations will not be degraded in any way by changing to an international offering, so those in member countries that already have Foundation or Practitioner (Advanced) level certificates will be equivalent to International certificates.

TL: The same holds for training providers. Each training provider accredited by an ISTQB member board or the boards national accreditation body will be recognized by ISTQB. Also in the future this accreditation will be done by the current national bodies. But criteria and procedures will be set by ISTQB.

PB: I think it is very likely that there will be a strong correlation between ISEB and ISTQB syllabuses, so that candidates who already have the ISEB Foundation certificate might automatically be entitled to the ISTQB certificate. It is also possible that there will be a divergence between the two so that existing ISEB certificate holders would need to take an ISTQB exam if they want the international certificate. ISEB will review the situation when the ISTQB syllabus is completed. There will be a transition phase when training providers will need to get their training courses 'ISTQB compliant' and ISEB will run ISTQB examinations. When this happens, UK candidates will receive 'co-branded' ISEB/ISTQB certificates.

Who is responsible for setting the syllabuses for ISTQB qualifications and how will they be examined?

AR: The International syllabuses are being compiled by an ISTQB working party. Within the working party, Thomas Muller (chair of Swiss Testing Board) is responsible for the Foundation level and I'm responsible for the Advanced (what ISEB up to now has called 'Practitioner'). Some members of the working party have responsibility to compile different

sections and others are reviewers. The final draft must be approved by the ISTQB Board.

What documentation is currently available (sample exam papers, syllabuses, guidance for training providers etc)? If not yet, when will it be available? How can readers find out more?

AR: Progress is being made on the testing body of knowledge. This is a database that is being used to ensure that subject matter gets into the right syllabus. This is being worked on now. A structure has been suggested for the Foundation and Advanced level syllabus and a new working party is being formed, headed by Erik Van Veenendaal (Holland & Belgium) to look into the format of the Expert level syllabus. We are just inviting training providers input into the working parties to ensure that appropriate training programs can be accredited. Information is available from *www.istqb.org* or from *Robert.Treffny@asqf.de*. ISEB also provides information for training providers at *www.bcs.org/iseb,* in the 'Training Provider Regulations' section.

Does ISTQB intend to have a mechanism for training providers, employers, learners etc to influence syllabuses and examination methods? Under what circumstances will the syllabus change and how will training providers be expected to react to that change?

AR: All ISTQB member countries are expected to have their own mechanism in place to allow people to contribute to the Body of Knowledge and allow the working parties to alter and release updated syllabuses within and change and release process. In the UK the Testing community will sit within the ISEB Software Testing Group. The ISEB Group has 3 panels – International, Examination and Accreditation. Anyone can be nominated to be a member of a panel by an existing panel member and a panel vote. In this way ISEB maintain an information stream through to ISTQB and back to the panel members.

Changes to the syllabuses will be controlled by the ISTQB board. The change control process is already established. We are not expecting the syllabus to undergo a high frequency of change, so training providers will be given adequate time to adjust training courses. The whole process must of course work for everybody in the loop.

It has been announced that ISTQB will be developing further, higher level qualifications for testers. Please describe these. How will they relate to ISEB's Practitioner Certificate and Diploma?

AR: ISEB has not begun work on the Diploma level and as an ISTQB member country can adopt the Expert level instead. ISTQB has only just instigated the Expert level working party and it would be premature to speculate on this.

ISEB publishes very prescriptive instructions for training providers and issues official accreditation to those whose course follows

those instructions. Will ISTQB use a similar model? If not, how will its relationship with training providers be managed? Will ISTQB offer training for candidates or training providers itself?

AR: As far as I'm aware the model is the same within ISTQB as it was for ISEB. All training must conform to the syllabus. Accreditation will be performed against training provider's material to check it conforms to the syllabus at each examination level. Trainers will be accredited as capable training specialists.

TL: ISTQB will not run any accreditation itself, but will only verify whether an accreditation process (eg ISEB's or ASQF's accreditation procedure) conforms to ISTQB's set of requirements on such a process. If it does, ISTQB will recognize those accreditations.

PB: Although the current accreditation processes are quite prescriptive, they work very well to uphold the high quality standards that are necessary for an examinations institute like ISEB. It has taken many years to refine the processes to where they are today. But, that is not to say they cannot be improved further and the BCS is keen to simplify the current accreditation processes if it benefits the industry without diluting the quality standards. ISEB, under the auspices of the BCS, works hard to maintain fairness and independence, which is why we monitor the examination statistics of all our training providers. I would expect ISTQB to follow the same principles with the other national Boards.

ISTQB's published syllabuses appear similarly prescriptive, even to the extent of instructing trainers how many minutes to spend on each topic area. What is your opinion on the argument put forward by some that this is a combination of textbook and lesson plan, not a syllabus, and inhibits the ability of trainers to improve their courses by using innovative teaching methods, discussing alternative opinions etc?

AR: There are many differing opinions on the pros and cons of the existing ISEB syllabuses. Before the ISEB syllabuses there wasn't anything to bring all subject matter together and now there are documents that describe what should be trained and some guidelines on appropriate time to apportion. That was a significant step forward.

TL, AR & PB: We now have an opportunity to move forward, incorporate new ideas from practitioners, academics, trainers and those in the business community throughout the world, to help formulate a set of syllabus guidelines, flexible enough to meet the needs of a testing industry, which must align to global business practice. This is the challenge ahead.

Interview by Edward Bishop PT