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Editorial

The IIW Harmonised Examination is the final step to achieve the full Harmonisation in the IIW Qualification System for Welding Personnel

The IIW Qualification System for Welding Personnel is at the present a successful system. This is due to the credibility that was ensured, not only by the implementation of rules and requirements supporting the system, that all the National Welding Societies need to fulfil with the aim of being authorised to implement the IIW Qualification System, but also because of the great effort that was undertaken to ensure that for each Qualification Guideline an harmonised set of rules and requirements were developed.

On each IIW Qualification Guideline, the harmonisation was achieved on several steps.

The first steps undertaken were the development of an harmonised syllabus for each guideline, plus the definition of the harmonised entry requirements that each applicant must fulfil to be accepted in a certain IIW qualification "training", and also the definition of the examination rules. This was finalised in 2000, when the first guidelines were issued (the Guidelines for Engineer, Technologist, and Specialist).

The second step was achieved when the guidelines were reviewed. This revision had the aim to redesign the syllabus, with the purpose of creating for each subject a new structure, with the definition of objective, scope and expected results. The main guidelines in use have this format since 2002.

But the above-mentioned work, did not answer to all the questions and concerns that were on the mind of the people involved in the guidelines development. This concern was due to the feeling that one step more was necessary, and this step was the development and implementation of harmonised examination.

To achieve this, it was necessary to develop a new set of rules (definition of type of examination, number of questions, evaluation) and to create an Examination Data Bank.

Last July, during the IIW Annual General Assembly in Osaka, Japan, the Working Group dealing with the IIW definition of the Qualification System rules approved a new Operational Procedure that will support the implementation of the Harmonised Examination. At the same time a data bank with questions and answers for the Engineer and Technologist levels, is now under final preparation and next year will be presented to the Working Group for approval.

With the approval of the Operational Procedure containing the rules for the implementation of the Harmonised Examination, plus the approval of the Question Data Bank, the final step regarding the Harmonisation of the qualification system will be achieved.

Italo Fernandes
IAB Delegate/
Chairman of WG B#4

Meet the International Authorised National Bodies

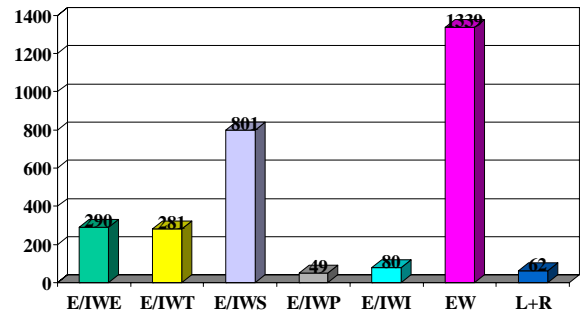


WSF The Welding Society of Finland

The Welding Society of Finland (WSF) was established in 1949 to promote welding expertise and interactions between professionals in the field of welding, allied processes and NDT. Present membership exceeds 3500 individual members and more than 120 industrial companies and training bodies. The headquarters of the Society are located in Helsinki and there are 13 local units throughout the major industrial regions of Finland.

The WSF performs the following activities in welding and associated process:

- Welding education and qualification
- Research and development
- Publishing and marketing
- Activities and services for individual and industrial members
- Activation of young people to enter welding and allied processes
- National member of EWF and IIW



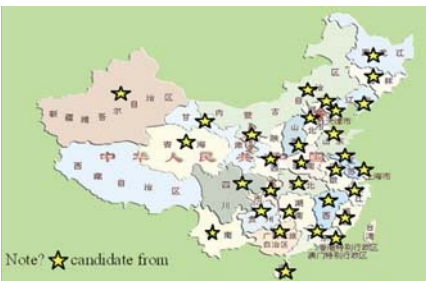
The WSF acts as the ANB of Finland for both EWF and IIW/IAB

welding education and qualification. The first EWE course was carried out during the years 1989-1990. The course was one of the first ones according to harmonized European guidelines. In March 2004 more than 2800 EWF and IIW diplomas have been awarded (picture 1). All of these diplomas have been awarded through training (full courses), none of them using transition arrangements. Present authorisation includes implementation of E/IWE, E/IWT, E/IWIP, E/IWS, E/IWP and E/IW guidelines and Laser and Robot welding special courses. After the second five year renewal audit in January 2004 the auditors recommended to renew the current scope of WSF and to grant a preliminary approval for thermal spraying courses (ETSS and ETS). These courses are planned to start in 2005. Presently there are 36 ATBs in Finland. Most of the ATBs are adult training centres but during the last two years many vocational schools for young people started to be interested in European and International welding education and four of them have got the approval for ATB.

Chinese Welding Training and Qualification Committee (CANB)

Chinese Welding Training and Qualification Committee (CANB) was founded in 1998 by Chinese Welding Society and Chinese Welding Association. It was authorized as IIW ANB in January 2000 and got the full authorization for IWE, IWT, IWS and IWP to conduct IIW harmonized welding training and qualification system in China.

Since 2000, CANB has issued the following diplomas: 1258 IWE, 250 IWS and 163 IWP. The candidates spread all over the country except Tibet and Taiwan, and they come from various sectors such as academy, institute, machine, metallurgy, steel, traffic, power, shipping, aerospace, petroleum fields, etc..



Most of the diplomas were issued through transition arrangements. When the transition period ended, CANB focused its attention to the market of students at university/college. At the same time promoted the qualification through alternative route.

On the other hand, ATB-Harbin Welding Training Institute notices the companies' demand and organized two special training courses according to the requirements of company certification, and it also offers consultation services for ISO3834/EN729 certification in cooperation with GSI SLV Duisburg.



IAB 2004

The ANB network comprises a total of 35 countries, 5 of which are applicant ANBs: Bulgaria, India, Iran and Mexico and Serbia & Montenegro. Recently Canada and Thailand became Full ANBs and India and Mexico joined the system in the middle of 2004.

The "Distance Learning Guideline for IWE" was approved in July 2004 in Osaka, Japan. At the present, IAB Group A is developing the following Guidelines: "International Welding Instructor"; "International Welding Designer" and "Distance Learning for IWT and IWS".



NEWS

EUROWELD

European Certification of Welding Personnel

Having started in December 2002, the EUROWELD project will end in November 2004. During its initial development the consortium was involved in the harmonisation of the certification system for welding personnel, by defining common guidelines for the welding professionals. Following this, and in order to assure a common evaluation system, a database of examination questions and



answers was developed and translated into the partners' languages. It will be commonly used by all the countries involved and will allow generating exams that will be available to registered users on an Internet Web page.

The last dissemination activity occurred last August in Budapest, Hungary, during the 11th International Welding Conference – 'Welding after Joining to the EU'.

PRO-KNOWLEDGE

PROMoting SME participation in the 'KNOWLEDGE- based Multifunctional Materials' activity area of FP6

The PRO-KNOWLEDGE project began in March 2004 aiming at targeting SMES, active in the field of joining processes and surface treatment technologies, in order to stimulate their participation in the Framework Programme VI. At this initial stage, the FP6 is being promoted in Industrial visits and in Technology audits done to SMEs from the sectors to which this project is addressed. As consequence, the consortium was already successful in the inclusion of SMEs into project proposals submitted to EU.

LEADOUT

Low Cost Lead-Free Soldering Technology to improve Competitiveness of European SME

The LEADOUT project is a Collective Research Project, started in September 2004, aiming at providing technical support to the SMEs in the European electronics industry chain, during the implementation of LFS technology. EWF is interested in participating in this project, both to provide the views of its members and their industrial associates on the work developed, and to acquire know-how to introduce in the design of the European harmonised courses in this field.

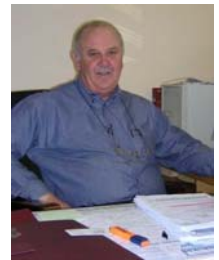
VIRCOUNS

Career Counselling in Lifelong Learning using New ICT Approach and Tools

The EWF is partner in the VIRCOUNS project - an approved Leonardo da Vinci project that is expected to start by the end of 2004. This project has the main objective of improving the access to continuing vocational training and the lifelong acquisition of skills and competences by developing very accessible, user-friendly individual interactive guidance and counselling products.

INTERVIEWing...

Jim Guild Chairman of IAB Group B



What are in your view the main aspects of the IIW-IAB system that ensure to the market the real harmonization of the IIW Training, Qualification and Examination System for Welding Personnel?

One of the main aims of the IIW system is to ensure that for a particular level of welding qualification, diploma holders will have a minimum level of knowledge irrespective of the country in which they qualified. The scheme is expanded through the authorisation of ANBs in member countries and these ANBs have the responsibility for applying the scheme in their own country. It is extremely important that market stakeholders view the training and qualification system as credible and sense that it is harmonised, fair and accessible. There are a number of elements of the system of the development of qualification guidelines and approval and monitoring of the ANBs which ensure these requirements. The guidelines are the foundation of the system and they are developed in an open forum in Group A and every member country has the opportunity to give input. The rules and working procedures used for authorisations of ANBs are then developed and applied in Group B which again is an open forum of the member countries. A very important part of the ANB application process is the submission of proposals for Transition Arrangements, for awarding IIW diplomas to candidates based on existing national programmes, and Access Conditions which permit entry to a particular level of course study. Each country submits its proposals in the open forum of the Group B meetings and all delegates have the opportunity to question and evaluate the proposals. It is at this stage that the diverse national systems for education, training and qualification are assessed and balanced. Then Group B has an audit system which requires an initial audit before full approval of an ANB, a follow-up audit after two years of operations and a full re-audit after five years so there is pro-active surveillance of ANB activities. The Lead and Peer Assessors carrying out these audits must have the necessary skills, which are detailed in the working procedures, and be independent of the country that is to be audited. The Assessors are able to verify that the rules of the system are being applied in a harmonised manner and have to report their findings to the Group B forum.

The ANBs network, mainly in the last years, has been enlarging to countries outside Europe. How does the system that supports the authorisation of ANBs ensure the necessary harmonization among such different cultures and education and training schemes?

Europeanisation and globalisation have been the driving forces for a harmonised system of education and training of welding personnel. EWF initially led the way and now IIW is leading the way in the larger environment of the global IIW membership. This expansion has further increased the diversity of member countries and this has to be recognised. At the same time, it needs to be appreciated that membership is increasing because the IIW system is well developed and credible, so it should not be weakened by too many accommodations. To ensure that the ANB system is harmonised, a set of working procedures has been developed to ensure that each ANB follows the same process for authorisation. The documentation that has to be completed includes a format for the submission of information on national education systems to simplify the work of Group B in evaluating and

approving Transition Arrangements and Access Conditions. In order to facilitate new applications, Group B has a mentoring system in which delegates from established member countries guide the applicant ANBs through the application process. This works very well and, for example, my own country, South Africa, received assistance from Australia when we made our application. It ensures there is a common understanding of requirements. The audit system which is used in initial authorisation and subsequently in pro-active surveillance further assists in ensuring the guidelines and rules of IAB are being applied in a harmonised manner.

You have been the Chairman of IIW-IAB Group B " Implementation and Authorisation" for the last year. Would you describe what aspects were most relevant to you and your experience as a person in the development of that function?

Jeff Hufsey from the USA was the first Chairman of Group B and it was during his tenure as Chairman that most of the work of establishing the operating procedures and the working practices were established. I have been fortunate to take over as Chairman of a Group which was already operating very well. I joined the IAB as the South African delegate and South Africa has recently been through the process of authorisation of our ANB so when we have new ANB applications I have reasonable understanding of the situation in which the applicant countries find themselves. Being from outside Europe also, I think brings a balance to the composition and make up of the IAB. On a personal level I find it a great and easy pleasure to work with many capable people and without singing the praises of the Secretariat too loudly the Chairman's life is made easy. It is for this reason that I think it important that the Chariman should overview the system and decide where he or she would like to try and make a difference or improvement during the period of office. In my case, after taking the first year to 'find my feet', I would like to try to improve and reinforce the credibility of the system to withstand the scrutiny of all stakeholders and public interest parties so I intend to try and generate more effort in this direction.

What are the main tasks of IIW-IAB Group B in the near future?

I would like to mention two areas where we will be directing our efforts. Firstly, as I have mentioned above, I think Group B and the IIW system, as a whole, needs to begin to expend more effort to demonstrate the credibility and equitable application of the IIW system, readily, to the interested market and the public. We can do this by adopting and complying with relevant elements of codes of good practice or standards e.g. ISO 17024 the standard for bodies certifying personnel. We are not certifying personnel in the current IIW system which produces qualified diploma holders, but the standard has a number of good principles. Some of these principles may already be in our quality assurance system and working practices but their importance may not be recognised or there are others which are currently not being used but can easily be introduced. Management review is one of the elements that need to be formally addressed and in Group B we are beginning to do this in a number of different ways, including the work of Working Group 5, which is reviewing the access conditions that have been approved across the full spectrum of ANBs.

Secondly, there is currently much interest in distance learning. We have been through a project phase in which a number of pilot programmes have been run and evaluated and now we are on the point of opening up the Distance Learning approach to all interested ANBs. I think this will present special challenges to Group B and to its Assessors to ensure that standards are consistent and maintained. Fortunately, a working group of Group A is developing a set of guidelines for each qualification level and this will facilitate the work we have to do in Group B.

INTERNATIONAL CONFERENCES

"6th European Surface Mount Conference"

November 16-18 – 2004
Brighton, U.K.

www.smartgroup.org/con2004/conference2004.pdf

"Welding and Joining 2005"

Frontiers of Material Training
Tel-Aviv – Israel
January 25-28 – 2005

www.bgu.ac.il/me/convention/welding/welding2005.html

"Achievements and Prospects of Welding Technologies"

October 18-20 - 2005
International Katowice Fair
Katowice - Poland



EUROJOIN



5th European Conference on Welding, Joining and Cutting

Under a somewhat chill weather for May, Vienna held the European Days of Welding that were both technically fulfilling and enjoyable.

The event, comprising the Eurojoin Conference (EWJ), the Welding Fair Intertool/Schweissen 2004, the Young Austrian Welding Master Competition and several workshops, gathered the participation of several thousands of people.

The Eurojoin Conference, sponsored by the European Welding Federation (EWF) has shown the latest welding joining, cutting and testing technologies in theory and practice to 200 participants from all around Europe.

The papers presented focused a diversity of interesting topics:

- Simulation
- High efficiency materials and their joining
- Automotive/Lightweight constructions
- Dissimilar welding
- Steel constructions
- Quality assurance
- Automation and Robotics
- High efficiency welding techniques, Economy

In parallel, a special workshop on stainless steel fabrication, with speakers focusing an innovative application, gathered the participation of many professionals.

Also the five workshops organised with the sponsoring of the European Commission's projects allowed the presentation and discussion of relevant issues as the methodology to establish a documented framework for on-line concurrent engineering and cooperation between large industrial auto and aeronautical companies and their suppliers and other opportunities for collaboration in EU projects as the Proknowledge workshop.

Last but not least a warm thank is due to the organisers whose tireless effort to make all the event perfect was recognised by all.

The success of this event left us with nostalgia and longing for the next Conference in three years time.