



Friction Stir Welding European Qualifications

European Recommendations

APPRENTICESHIP IN THE **EFW SYSTEM** & THE **FSW EUROPEAN QUALIFICATIONS**

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FSW Professional Profiles



Operator

EFW Independent | EQF level 4



Specialist

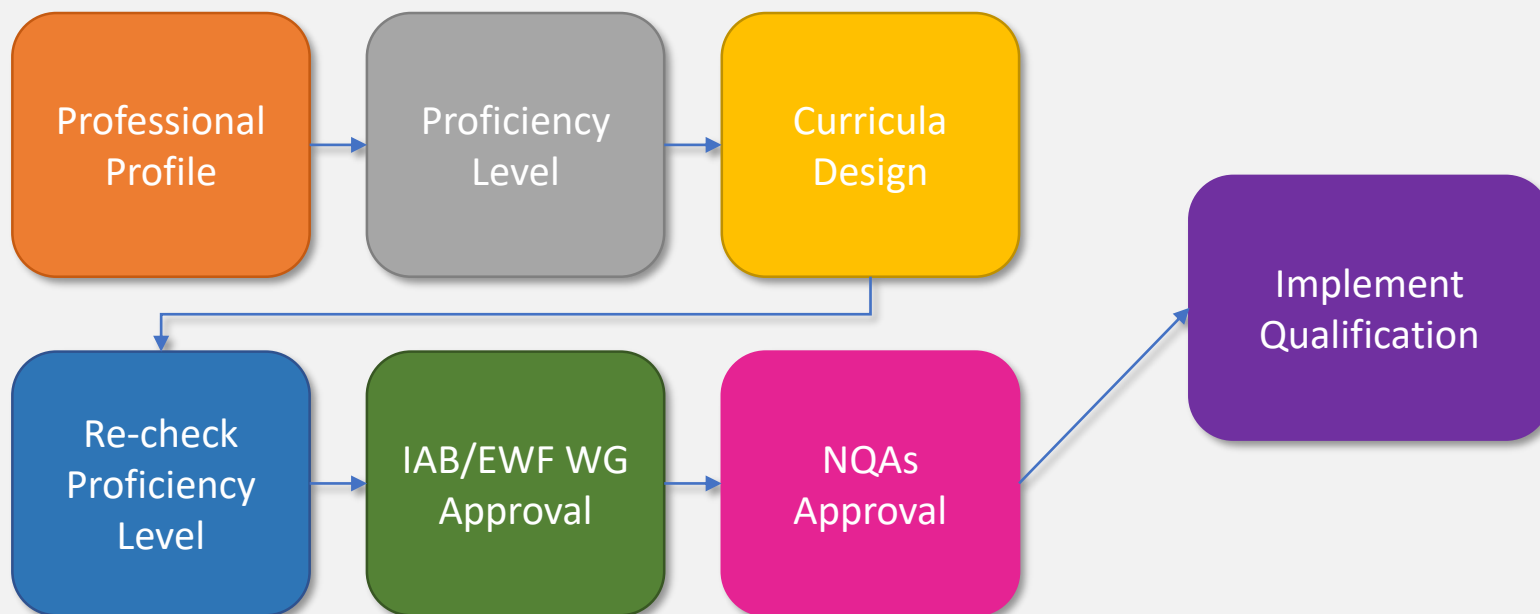
EFW Specialised | EQF level 5



Engineer

EFW Expert | EQF level 7

Methodology for Qualifications Development



Access Conditions & Procedures

Operator



Mandatory Education

- ✓ An Application Form
- ✓ Copy of diploma proving educational level

Specialist



Primary degree in an Engineering discipline – Diploma of a technical school in Mechanical Shipbuilding, Electrical, Metallurgical or Civil Engineering (four years schooling). Applicants shall submit:

- An Application Form;
- A copy of a Diploma showing their graduation, complying with the Access Conditions.

Engineer



Primary degree in an Engineering discipline or its equivalent recognised by the national government as assessed by the ANB. Therefore, it would be expected as a general access condition that participants should have at least a bachelor's degree at university level with a minimum study of 3 years – Diploma of the University degree in Mechanical, Shipbuilding, Metallurgical, Electrical or Civil Engineering (minimum four years' studies), Diploma of University in engineering branches as above (three years' studies). Applicants shall submit:

- An Application Form;
- A copy of a Diploma showing graduation as Technologist, complying with the Access Conditions.

Do you want to implement the course?

*Now we will present you with the **conditions** ...*

VET providers need to have a comprehensive capacity to deliver

Friction Stir Welding training courses

1. Adequate facilities and equipment
2. Trainees must follow minimum conditions*
3. Experienced trainers
4. Sufficient number of trainees
5. Train the trainers' courses



Compliance with EWF rules and guidelines

The **ANB** will audit and verify if the FSW training courses are delivered according to EFSW-O, EFSW-S and EFSW-E guidelines, thus ensuring harmonised procedures and quality in training.



Harmonised training: Theoretical & Practical Training

Duration and aims of each level consist of:

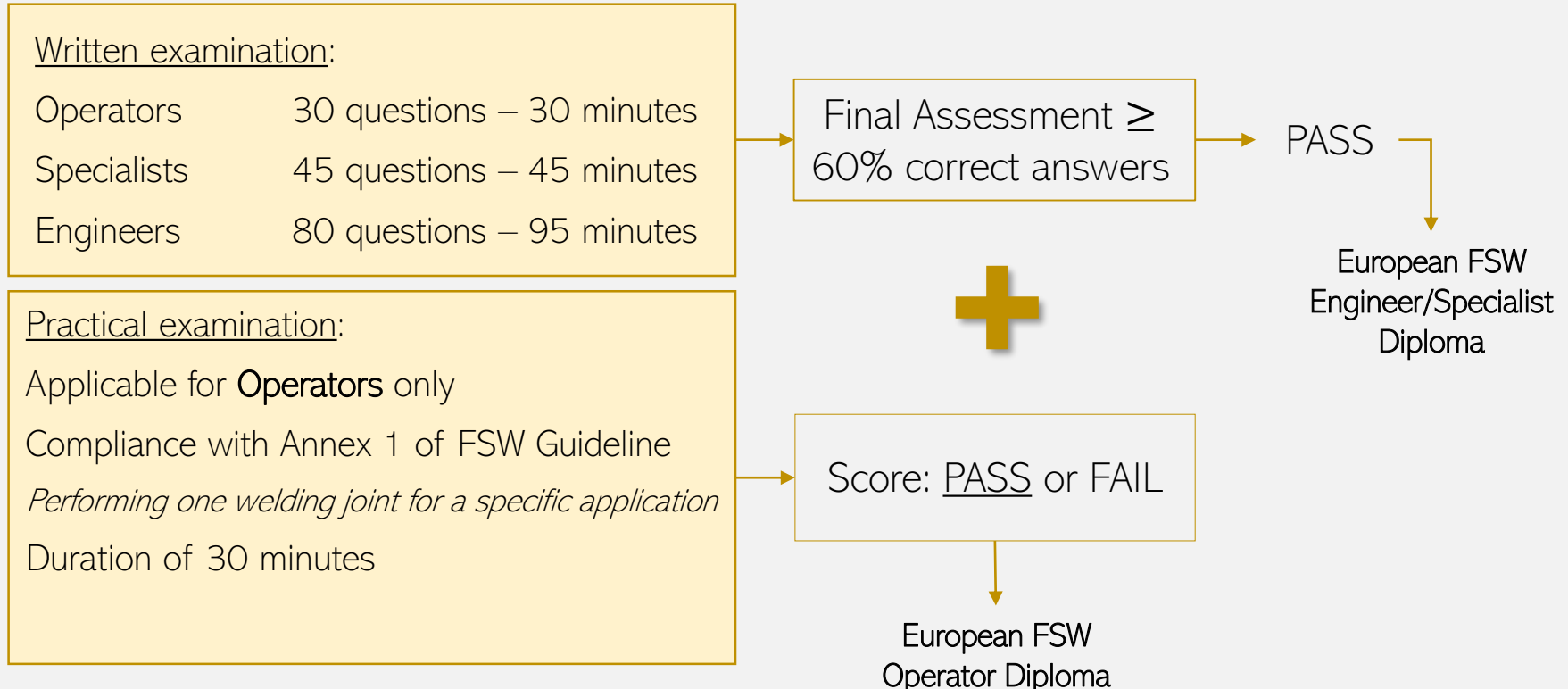
✓ EFSW-O: 15h30min ~ 3 days full time *(inc. exam)*

✓ EFSW-S: 24h30min ~ 4 days full time *(inc. exam)*

✓ EFSW-E: 40h00min ~ 6 days full time *(inc. exam)*

Examination Procedures Requirements

Trainees should: comply with the **minimum access conditions requirements** and **attend the course**



Examination Procedures Requirements

- ✓ Multiple-choice questions
- ✓ Covering the whole content of the Competence Unit
- ✓ A computer exam system can be used for choosing the questions, the answers and to evaluate the results
- ✓ Final Examination for each Competence Unit will be carried out by an ANB.
- ✓ No help from computers, mobile phones or booklets is allowed.

Teaching Methods

- ✓ Classroom delivery methods
- ✓ Laboratory and practical work
- ✓ Distance Learning methods
- ✓ Project



Monitoring Trainees' Progress

- ✓ Trainees are expected to achieve an acceptable standard on each examination of the relevant Competence Unit. These assessments are under the responsibility of the ATB.
- ✓ Training organisations shall provide support to trainees who are not making satisfactory progress and will endeavour to identify the cause when a trainee's work is not reaching acceptable standards.

ANBs and ATBs' Responsibilities

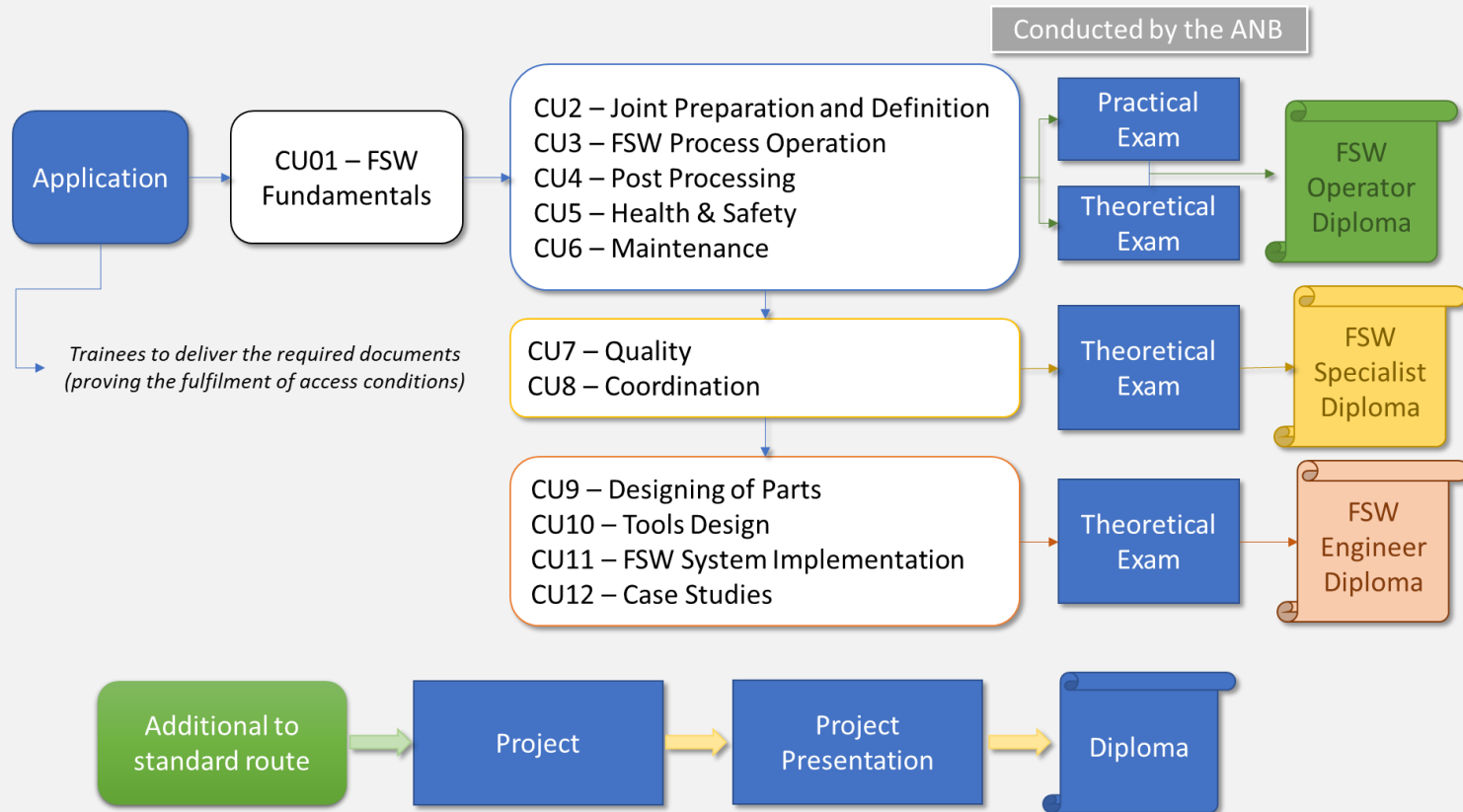
ANB

- Approval of ATBs for the conduct of the courses in accordance with the Guidelines
- Conduct of final examinations
- Qualification of personnel and the recording of relevant information
- Application review
- Assessment process
- Maintaining all records related to the qualification process

ATB

- Candidates' application
- Appoint an administrative team for its staff to collect all necessary documents
- Communication with applicants
- Providing the training

Implementation Diagram



Note: The details on the levels of each CU can be found in the FSW Guideline

Correct use of FSW Qualification Diploma

1. Education of FSW staff is carried out according to the rules and Guidelines of the training courses.
2. Use of FSW Qualification Diplomas is regulated by International or European standards to ensure the quality of FSW works.
3. Holders of International and European FSW Qualification Diplomas are responsible for the proper use thereof.
4. In the event of misuse or any change in the content, the ANB has the right to cancel the issued FSW Qualification Diploma.



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