WOW

WORK BASED LEARNING OPPORTUNITIES IN WELDING

Recommendations on

WBL

**Developed by ISQ**

Contents

1. Aim

1.1 The aim of the Recommendations on Work-Based Learning (WBL) is to support the implementation of WBL and quality assurance, regarding WOW methodology, in other umbrella organisations that deliver international qualifications and that face similar challenges of skills needs and shortages in technical areas, namely to operate in the industrial sector, and to enhance the transferability of the project results.

Based on the project results feedback the following recommendations were made:

– Recommendation 1 - Define mutual learning outcomes for WBL;

– Recommendation 2 - Define the roles, rights and obligations;

– Recommendation 3 - Define the conditions and requirements for WBL;

– Recommendation 4 - Establish a WBL Quality model.

All the points presented on this guide were validated during the project and can be considered as recommendations for future organizations aiming at adopting WBL methodology.
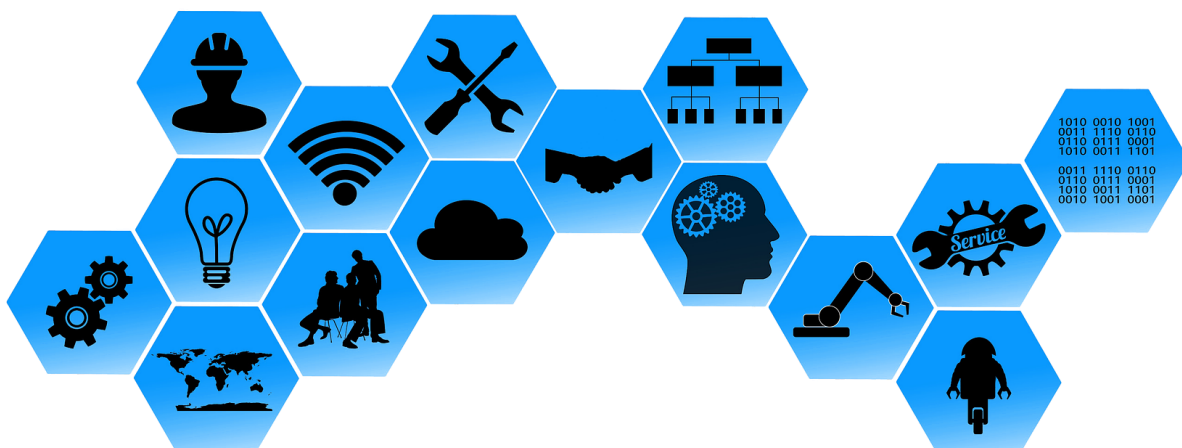
2. Background

This is a introductory chapter that sets the background of the WOW project and need of establishing quality WBL paths.

2.1 Work based-learning (WBL) is claimed to be needed by all stakeholders, as companies and learners, and has been referenced in the EC priorities.

2.2 One of the biggest challenges in implementing WBL in a harmonised qualification system, like the one from EWF, is to ensure that the LOs obtained in WBL are recognised and in line with the requirements of the qualification the trainee is trying to obtain. This was one of the key challenges that the WOW project tried to achieve.

2.3 A lack of workplace experience and related skills and competences is one of the main factors contributing to the "skills gap" in the EU.

2.4 Work-based learning is an educational strategy that provides students with real-life work experiences where they can apply academic and technical skills and develop their employability.

2.5 The WOW state of art report, which was based in desk research regarding the provision of WBL in Romania, Hungary, Italy, Portugal, Spain, United Kingdom, Germany and Netherlands, has reached to the following main conclusions:

2.5.1 There is verified need for increasing the efforts in harmonising and implementing the WBL system for the manufacturing sector, with the support of local and European cooperative structure involving the European Federation for Welding, Joining and Cutting (EWF), Authorized Nominated Bodies (ANBs) for Qualification, VET providers (ATBs, Approved Training Bodies), companies and learners, to set the requirements for apprenticeships and in-company training to be recognized at European, national and regional levels.

2.5.2 Developing a guideline containing in details and clearly stated the quality requirements/responsibilities/ assessment criteria that would allow companies implement them integrating a clear and harmonized WBL system for qualifications would surely assure a faster and smother development of the European regulations in the National VET system.

2.5.3 Defining and implementing clear criteria will help in harmonising and also in a faster implementation of the existing WBL system at apprenticeship and system level. The defined criteria need to take into consideration all main aspects starting from the contract, regulatory framework, health and safety aspects, career guidance, etc.

3. Principles for European Recognition of WBL

The WOW WBL system is aligned with the EU principles and tools, as well as with the industrial requirements addressed by the EWF Training, Qualification and Certification System, thus creating the conditions for successfully deploying it across Europe.

3.1 Implementation and recognition of qualifications and work based learning at European level is based on EU policies and tools which, by principle, are key factors for enhancing transparency, comparability and portability of people's qualifications.

3.2 The Recommendation of the European Parliament and the Council of 23 April 2008 has established the European Qualifications Framework (EQF) for lifelong learning, which is a common reference framework of eight levels of qualifications, expressed as learning outcomes with increasing levels of proficiency. The EQF serves as a translation grid between different qualifications systems and their levels.

3.3 The new Council Recommendation on the EQF for lifelong learning (2017) has been approved, built on the achievements of the 2008 Recommendation, ensuring the continuity in the processes launched by individual countries to reference their qualifications frameworks and levels to the EQF.

3.4 The ECVET Recommendation (2009) has established the European Credit System for Vocational Education and Training (ECVET) at all levels of the EQF with reference to VET qualifications in order to facilitate transfer, recognition and accumulation of individuals' achievements in formal, and where appropriate, non-formal and informal learning contexts.

3.5 A Qualification is a formal outcome (certificate, diploma or title) of an assessment process which is obtained when an individual has achieved the required learning outcomes. It includes the job requirements: knowledge, skills, autonomy and responsibility required to perform specific tasks attached to a particular work position.

3.6 Learning Outcomes are 'statements regarding what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and responsibility and autonomy' (Council Recommendation EQF, 2017).

3.7 A credit system makes it possible to divide a qualification into units or to cover partial objectives of a programme of vocational and educational training. Each unit is defined in terms of knowledge, skills and competences and can be characterised by the relative level of the learning outcomes involved, which may be defined by a reference of professional standards/proficiency levels and by its volume which can be expressed in points, which is the EWF case.

4. Recommendation 1 Define Mutual Learning Outcomes for WBL

This chapter addresses EWF's approach for the definition of mutual learning outcomes for WBL in welding which shall be used as a reference guide to define Mutual LOs in other qualifications and sectors.

4.1 Mutual recognition of professional qualifications means that the qualifications gained in one country (the home country) are fully recognised in another country (the host country). Mutual recognition agreements are quite developed at the sectoral level.

4.2 The basis of the individual learning plan used to guide the WBL, namely the period of apprenticeship in host-company, is described in terms of learning outcomes and concrete tasks to be performed. The first steps of the development of this plan, consists in analysing the existing curricula and its elements (i.e. job functions, activities and learning units described in Knowledge and skills). Then, an assessment and selection of the Learning Outcomes for the qualifications needs to be carried out.

4.3 The LOs selected should reflect the minimum requirements for the qualifications to be awarded both through:

4.3.1 Company-based training periods;

4.3.2 Apprenticeship/dual system

and match these possibilities according to the country's reality and the company's needs when implemented.

4.4 In WOW project the approach taken and validated as future approach to uptake was:

4.4.1 Recognise directly learning outcomes inside each competence unit, analysing all the topics/knowledge and skills.

4.4.2 For the assignment of credit points to the qualifications, having into consideration the 120 ECVET points as a reference to typically complete a qualification, for the EWP and EWS it was estimated that the workload is two times the contact hours presented in the guideline, having as reference that typically 1 ECVET point represents 30 hours of workload and rounding up the EWF workload, the accordingly ECVET points were assigned.

5. Recommendation 2 Define roles, rights and obligations

For the WBL experience to be successful, all actors shall have a clear understanding of what WBL is and what are their roles in this process. The EWF Quality Assurance System is used as an example to illustrate how rights and actions can be defined.

5.1 Roles in the WBL qualification path

Authorised Nominated Body (ANB)

Approved Training Body (ATB)

Company

5.2 Upon authorization from the ANB, ATB has to put in place a procedure to manage and assess WBL . ATB should select and supervise the companies where trainees can attend the WBL path and monitors the progress of trainee.

5.3 Tutors will be assigned by ATBs to trainees to assist them during the WBL process. Within the company, a Mentor shall be identified, who is responsible of the training performed in the company; based on the specific needs, in-company-trainers may be used to train the participant on specific subjects.
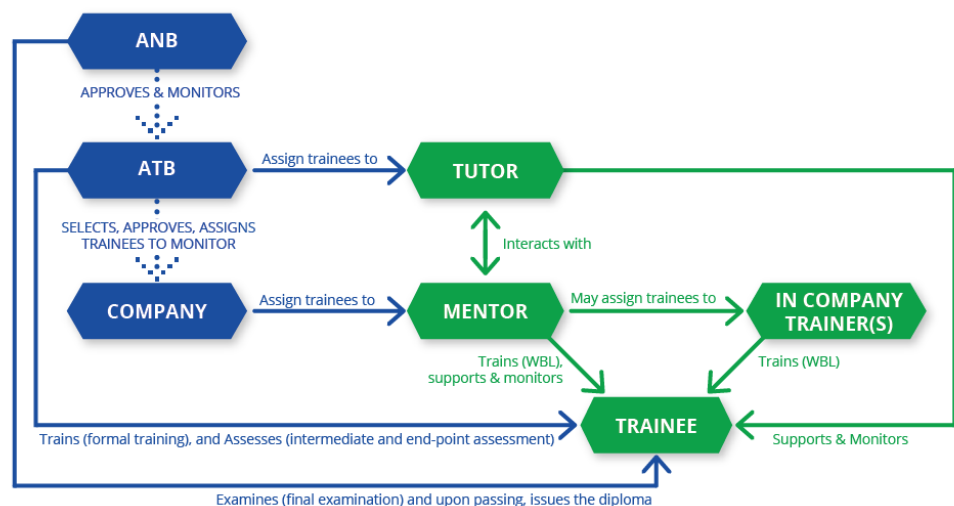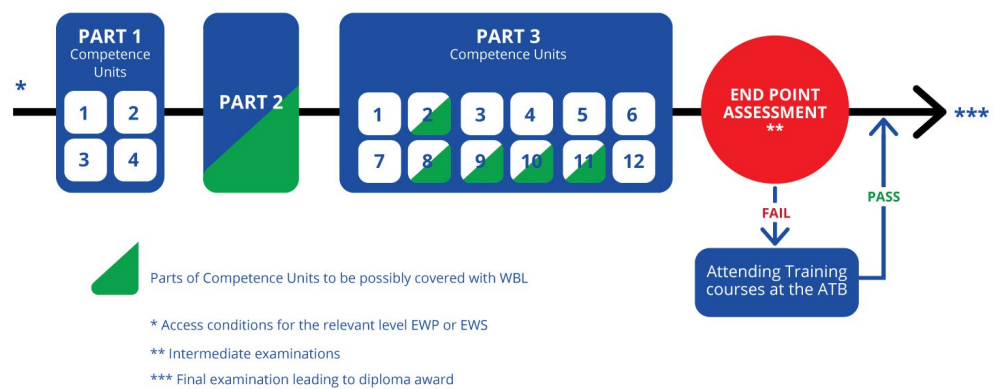
6. Recommendation 3 Define the conditions And requirement for WBL

To access the qualification path several conditions and requirements should be stablished in a guideline and it must state which competence units can be approached in WBL.

6.1 The WBL training path is composed of the following:

- Formal training performed according to the applicable revision of the EWF Guideline doc. EWF-IAB 252;

- Work-based learning performed at the host-company according to Quality Assurance Guideline for the recognition of work-based learning;

- End-point assessment to evaluate the WBL process.

Parts of Competence Units to be possibly covered with WBL

* Access conditions for the relevant level EWP or EWS

** Intermediate examinations

*** Final examination leading to diploma award

6.2 Not all the competence units may be considered in Work Based Learning approach. It is up to the ATB to evaluate and define which areas may be covered.

6.3 Training duration in WBL has to be estimated by the training body, based on different factors, including (but not limited to):

– the structure of the company;

– the type of production and/or work performed;

– accessibility of equipment, resources and materials.

6.4 WBL assessment criteria should check that a programme:

– is explicitly aligned with student learning;

– is clear and equitable;

– enables trainees to demonstrate the achievement of the learning outcomes.

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6. Recommendation 3 Define the conditions and requirement for WBL

6.5 The following points were validated during the project and can be considered as recommendations for future organizations aiming at adopting WBL methodology.

6.5.1 Company

- fulfil the requirements imposed by the sector (certification or other…).
- agree on the training programme, in line with its operations and with the learning outcomes expected.
- Grant access to tasks and associated equipment to participants for WBL.
- assign the trainee to a mentor, responsible for training and supporting the candidates in the company. The qualification of the trainer should be at the minimum the level of qualification foreseen for the participant or higher, and properly experience in coordination tasks.

6.5.2 ATB

- Approved by the ANB for the specific scope of this guideline, based on a written procedure.
- Responsible for approving the companies and the qualification programme against the requirements
  Responsible for assigning specific items to be dealt with in WBL.
  Training duration in WBL has to be estimated by the ATB, based on different factors.
- A tutor shall be assigned to each trainee, will be responsible to provide support to the trainee. Also, responsible for the periodical assessment of the training activities.
- Provide necessary templates and instructions to company and trainees.

# 6. Recommendation 3 Define the conditions and re-quirement for WBL

6.5.3 WBL training path

♦ To access the qualification path, access conditions according sectorial needs shall be considered as applicable.

♦ The training programme shall be designed balancing time spent in formal training at the ATB and in the company. Time devoted to practical learning in the company should be enlarged to maximize benefits for trainees and companies. 35 hours is the recommended minimum duration for both EWP and EWS; how-ever, national requirements may apply.

♦ All actors must know, and/or evaluate and approve the training programme.

♦ Training programme shall include introduction to the company, items to be covered, information on professionals involved, time and place of delivery, and information on WBL monitoring.

♦ Is responsibility of the ATB to continuously and periodically moni-tor the success of the WBL training performed in the company.

6.5.4 End Point Assessment

♦ The assessment shall ensure the participant accessed proper knowledge against the Learning Outcomes.

♦ Shall be addressed only at items dealt with Work Based Learning.

♦ It may performed with essay questions, multiple choice ques-tions, projects or products produced, professional interview.

♦ Based on the approved procedure of the ATB failure of the end-point assessment may lead to the requirement for the trainee to attend one or more items in formal training at the ATB.

♦ Trainee successfully passing the end-point assessment will be granted the right to seat in the final examination for each module as having the training considered as formally attend-ed.

END POINT ASSESSMENT
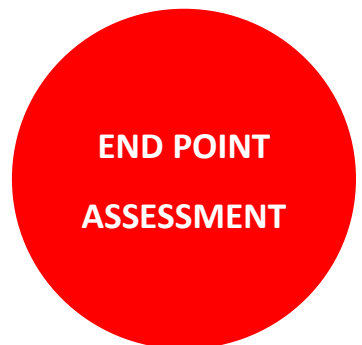
7. Recommendation 4
Establish a WBL Quality Model

To measure quality of the Work Based Learning system, a methodology should be developed to evaluate the WBL experience in the context of the Welding Sector. The methodology should be based on the selection of criteria that are applicable and relevant for WBL in the specific sector. As a result of the project the model stablished should be implemented on future WBL partnerships.

7.1 Guideline on partnership's quality document aims to present the criteria to assess the quality, engagement and sustainability of the partnership established to implement work-based learning schemes in each country (UK, ES, HU, IT, PT, RO) at local and regional levels.

7.2 Including the minimum requirements to get the process recognized within the specific qualification system. All the steps of the WBL training path, specifying all the requirements for the formal training, for the work-based learning performed at the company and the way to evaluate the WBL process.

7.3 The criteria presented as baseline to perform this assessment is stemming from two documents: 1) the Quality Assurance Guideline which establish some principles for the work-based learning being recognised by the EWF's quality assurance system and EWF's membership; and 2) the Council Recommendation on a European Framework for Quality Effective Apprenticeships (2018).

7. Recommendation 4 Establish a WBL Quality Model

Relevant criteria applicable for WBL in the Welding Sector	
Facilities	The compliance of the company with health and safety requirements of the guideline in the company and with ISO standards.
Contract	A three-folded-party contract with rules, duties and rights for all stakeholders involved, including for the companies offering apprenticeships positions to be recognised/ "accredited".
Health and Safety	The compliance with health and safety requirements and availability of the equipment necessary to undertake in-company training.
WBL	Principles of WBL, rights and duties, duration of WBL, learning experience properly carried out in the workplace
Supporting tools	The platform, within this one the tutorials developed to explain the quality assurance rules, requirements, rights and obligations of each major stakeholder involved in this route.
Pedagogical support	Provided to the trainees, with continuous monitoring and assessment of the learning process in a company setting by the mentor, tutor and in-company trainer that will be engaged, in order to ensure feedback.
Learning Experience	Definition of learning outcomes, continuous monitoring and end-point assessment, learning experience properly carried out in the workplace, evaluation of the tutor and the mentor .
Industry needs	Organisations have close relationship with industry representatives, aligning the apprenticeship schemes with industry views and requirements.
General appreciation	Its's required to perform this assessment to capture what needs improvement at local and regional level .

8. Recommendation 5 Development of supporting resources and practical arrangements

8.1 Tutorials

In order to instruct and raise awareness on the WBL training path a set of tutorials shall be developed as practical tools explaining the several phases of the WBL to each actor. Also tutorial for the platform shall be developed to be more easy to participants enrol and complete the tasks.
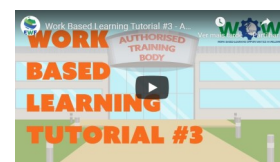
8.2 Platform

A user-friendly and accessible platform should be used for continuous communication and monitoring of the WBL experience.

It is an application for the triangle to interact, to manage the apprenticeship, to monitor the trainee learning progress and to assess the quality of the partnership. Besides being a quality tool measuring the partnership "power/strength" (assess the overall expectations of the players involved) it works as a learning tool allowing personalised learning plans to be created as well as the formative assessment of the apprentice.

8.3 Practical arrangements

Supporting documents towards the practical arrangements in apprenticeships shall be developed to facilitate implementation:

♦ Apprenticeship Contract Agreement
♦ Training Programme
♦ WBL Declaration

9. Conclusion

In this guide "Recommendations on WBL", five main recommendations were outlined to support the quality assurance and implementation of WBL in other umbrella organisations that deliver international qualifications and face the same challenges of skills shortages/needs.

These general recommendations were gathered according the feedback of pilots, multiplier events and focus groups.

9.1 The WBL should be in line with Industry state of art and needs for education and training, in terms of objectives, scope, Learning Outcomes and the contact (teaching) hours to be devoted to achieving them.
This alignment should be revised periodically by experts in technology, experts an education, policy makers and relevant stakeholders to take into account changes to reflect the "state of the art".

9.2 Suitable arrangements and tools to implementation Apprenticeships must be applied.

9.3 Guarantee that the rights and obligations of trainees, training centre/ATB and companies are understood and well communicated.

9.4 Guarantee the use of an effective platform for continuous communication and monitoring.

9.5 Guarantee an early identification of regional training companies and its condition, willing to continue this cooperation with other trainees.

9.6 Adequate coaching of the trainees, tutors and mentors to enrol in the WBL.

9.7 Smooth introduction of the trainees to the company is crucial for their integration.

9.8 Involvement of stakeholders from the education/training system and the industrial fields is of major importance to guarantee the successful implementation of work based learning at national and European levels.

The WBL Quality Model should be implemented on future work using the criteria as a reference for the assessment of the sustainability of VET business cooperation.

In order to improve the overall impact of WOW project, this Recommendations document can be considered a basis for the implementation of a WBL system according sectorial needs.