



Strategies for implementing International Qualifications in VET Systems

RAINBOW December 2018

RAINBOW FINAL CONFERENCE | VALIDATION REPORT

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1. FOREWORD

This report summarises the results of project RAINBOW'S Final Conference entitled "Strategies for implementing International Qualifications in VET Systems" and the results of thematic workshops, which took place on October 31st, 2018, both under the framework of RAINBOW (<http://project-rainbow.eu/>).

The Conference was in line with the "European Conference on International Qualifications", which occurred in 2017, gathering 80 participants, including EWF members (welding institutes and societies from 30 European countries), 8 national qualification agencies from the Member States, as well manufacturing industry, VET providers, and higher education institutions, with the aim of assuring consistency when relating international qualifications (IQ) with the National (NQF) and European Qualifications Frameworks (EQF). One of the main findings of the IQ conference, highlighted in the [European Conference Validation report](#), was that the referencing process of IQ to the NQF, thus to the EQF, requires a continuous approach of openness and dialogue between a chain of stakeholders.

In this context, the Final Conference held in October 2018 sought for strengthening the collaboration with national qualification agencies, as well as to encourage further discussion on the integration of IQ in the national VET systems, thus focusing on revisiting the criteria and procedures already validated in 2017 for implementing the recognition of EWF qualifications at national level. In addition, the event intended to capacitate participants regarding the EWF methodology for designing international qualifications.

The event gathered specialists, researchers, vocational education and training providers and industry representatives, giving them the opportunity for sharing best practices, networking and gathering information about the creative process leading to the design of international recognized qualifications in the manufacturing sector. During the conference all stages of the development process were addressed, from the conception to the delivery of training courses, and tackling of challenges resulting from their national implementation.

The report is written for a wider audience than those who attended the event in order to share information with a range of organisations (e.g. regulatory bodies, accreditation centres, training providers, industrial companies/employers, among others) that might be involved in the implementation of International Qualifications at national level, meaning involved in referencing International Qualifications with qualification levels of the National Qualifications Framework (NQF) and European Qualifications Framework (EQF).

This report aims to describe the results achieved regarding the validation of the EWF methodology for developing qualifications/modules and quality assurance system for awarding International Qualifications, showcasing its potential use and transfer to other sectors.

The report is structured according to RAINBOW Final Conference objectives and programme. It includes a summary of the event presentations and the main results achieved during the Conference (plenary session and thematic



workshops). This document also includes some results from the validation and transfer of the methodology to other sectors.

2. “STRATEGIES FOR IMPLEMENTING INTERNATIONAL QUALIFICATIONS IN VET SYSTEMS – Final Conference

The European Federation for Welding, Joining and Cutting (EWF) organised in Porto-Salvo (Oeiras), on October 31st, 2018, RAINBOW project’s final conference entitled “Strategies for Implementing International Qualifications in VET Systems”, addressing the EWF international qualification system and its link to the National and European Qualifications Frameworks.

RAINBOW intends to assure consistency when relating international qualifications to the NQF, thus to the EQF, in the Welding sector, by proposing an approach for implementing a single language in the training guidelines that is understood across Europe. However, despite the focus on the Welding sector, the idea is to develop an approach suitable to other sectors and international qualifications.

In this context, the Final Conference focused on the process of creating international recognised qualifications in the Manufacturing sector, bringing together EWF members from 30 European Countries, National Regulatory Bodies, representatives from VET and Higher Education Institutions and representatives from the industrial manufacturing sector.

The objectives of the Final Conference were to:

- Address all stages of the creation process, starting with the conception of training courses to its delivery;
- Tackle the challenges faced by the national implementation;
- Showcase EWF’s actions to keep its qualification and training system improved and updated with the requirements of industry, education and learner;
- Showcase the impact of integrating European Tools (e.g. EQF, ECVET, ESCO) on developing innovative methodologies, both for curriculum designing and training delivering.

The event aimed to capacitate participants to use the methodologies developed under RAINBOW, towards supporting lifelong learning and the recognition of skills at national and European levels.

For that, this Final Conference (a half-day event) included a **plenary session**, followed by **thematic workshops**, as seen in the Agenda below:



AGENDA

2nd European Conference on Sectoral International Qualifications

“Strategies for implementing international qualifications in vet systems – Final Conference”

OEIRAS (PORTUGAL)
EWf
Workshop room – floor -1
Avenida Dr. Mario Soares, 35, TAGUS PARK, Porto-Salvo

	PLENARY		
8:30	Registration		
9:00	Welcome and Opening <i>Chris Eady* (President EWF)</i>		
9:10	Implementation of International Qualifications in Europe <i>*RAINBOW & MAKE IT projects outputs</i> <i>Eurico Assunção (Deputy Director EWF)</i>		
9:30	Development of New International Qualifications in Manufacturing, putting concepts into practice <i>*RAINBOW, Additive Manufacturing & FSW TECH project insights</i> <i>Rita Bola (Project Manager EWF)</i>		
9:50	Tools supporting skills development and recognition at European level <i>* HSE JOINING, RMWF & MAKE IT projects results</i> <i>Adelaide Almeida (Project Manager EWF)</i>		
10:10	Coffee break		
10:30	THEMATIC WORKSHOPS		
	<i>Each participant will take part in all workshops - 3 rounds for each group -</i>		
	Design of new international qualifications and strategies for their implementation by VET Systems	Tools to support training and qualifications in Manufacturing	Recognition and validation of prior learning in the Welding Sector
	<i>Facilitators</i> Adelaide Almeida (EWF, BE) Raquel Almeida (ISQ, PT)	<i>Facilitators</i> Alexandra Saldanha/Leonel Mourão (IEFP, PT) Arild Finnesand (KIWA, NO) Elvira Silva (EWF, BE)	<i>Facilitators</i> Teresa Duarte/Rute Batista (ANQEP, PT) Benus Ferenc J. (MATRAI, HU)
13:00	Workshops wrap-up and closing <i>Rapporteurs</i>		
13:15	Networking Lunch		

Figure 1 – Agenda of the Final Conference



2.1 COMMUNICATION

The dissemination of the final conference was a continuous process made via personalized invitation to the relevant stakeholders, social media and through the project website (figure 2). Specific resources were used for this purpose, such as the final conference agenda (figure 1) and the conference banner (figure 3), in order to reach the identified stakeholders.

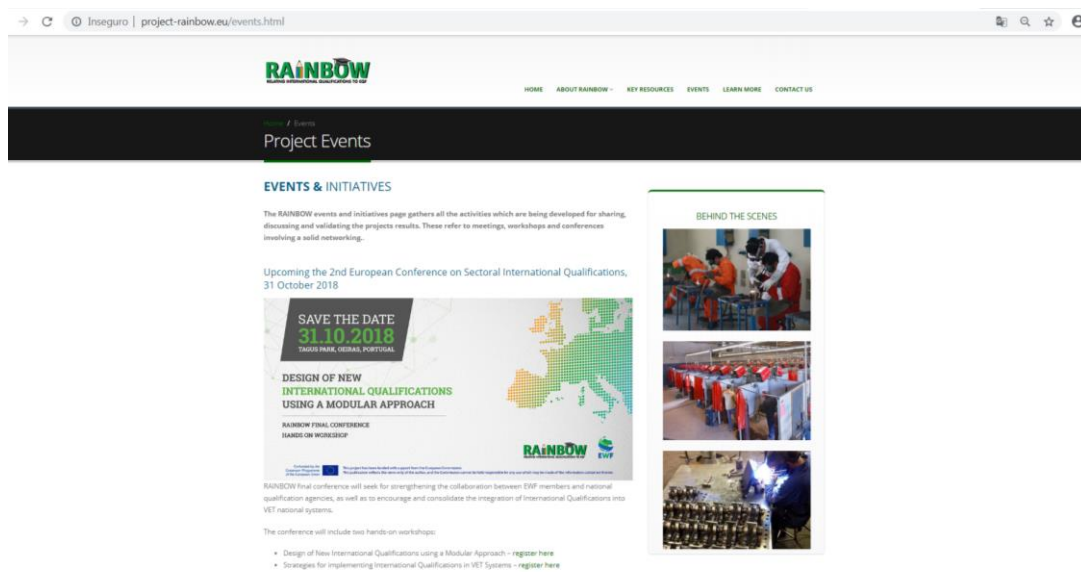


Figure 2 – RAINBOW project website



Figure 3 – Conference banner

2.2. PLENARY SESSION AND THEMATIC WORKSHOP

The Conference development meant to highlight the role of the RAINBOW project for the EU recognition and Implementation of International Qualifications, focusing on the European policy tools/strategies and specific methodologies which guarantee the national and European uptake of these qualifications.

After the **welcome and opening session**, presented by EWF's Director Luísa Coutinho, **three main topics** were addressed during the plenary session by a panel of **3 speakers** from EWF:

- **Implementation of International Qualifications in Europe**: In this presentation, Eurico Assunção (EWF Deputy Director) addressed the role of sectoral international qualifications in supplying qualified personnel to leverage industry skills needs in Europe. RAINBOW was showcased, among other projects, due to its strategic influence in defining common criteria and procedures for referencing IQ to the NQF and EQF, thus based on EWF transparent and solid quality assurance system.
- **Development of New International Qualifications in Manufacturing, putting concepts into practice**: Rita Bola (Project Manager in EWF) addressed the methodology used within the EWF training and qualification system for the development of new international qualifications in which small units can be taught, assessed and validated individually. It's important to mention that this approach is aligned with EU principles and tools (e.g. learning outcomes, and EQF), which was developed and matured during the RAINBOW project life cycle.
- **Tools supporting skills development and recognition at European level**: Finally, Adelaide Almeida (Project Manager in EWF) presentation focused on the innovative tools used for the implementation of training in the Welding sector in a harmonised way in Europe.

Presentations are available in the RAINBOW project website, through the following link: <http://project-rainbow.eu/documents.html>.

After the round of presentations, a moderated debate followed, where participants had the opportunity to discuss and raise questions about the addressed topics.



Figure 4 – Presentation during the plenary session

Thematic Workshops were carried out during the event focused on three main themes, each with a specific background and a set of questions to help to engage the stakeholders (directly involved in the field of training and education) in the activities dynamized by Facilitators/Rapporteurs.

The workshop addressing RAINBOW project is described below:

Design of new international qualifications and strategies for their implementation by VET Systems	
BACKGROUND	<p>The need for highly qualified personnel to leverage with the emergent technologies and the industry requirements is leading to the design of new qualifications. EWF is applying a modular methodology for the development of new international qualifications in which small units can be taught, assessed and validated individually.</p> <p>Transparency and quality assurance are key pillars to support the implementation of International Qualifications (IQ) across Europe. A common understanding of the role of IQ in the European context is required, as well consistent procedures to approach IQ in the national context, from policy regulation to the implementation in different Educational Systems, including VET and HE.</p> <p>The workshop will present the modular approach, as well as the strategies and tools used to develop Additive Manufacturing international qualifications. In addition, it will validate criteria and procedures for referencing EWF qualifications at a national level.</p>
QUESTIONS TO BE ANSWERED	<ul style="list-style-type: none"> • What is the modular approach about and what are the necessary steps to build up qualification from scratch? • What is the EWF sectoral international qualifications framework and how can it be used? • Which strategies and actors should be involved in the alignment of IQ with NQF and EQF? • How can alignment methodology and quality assurance system be benchmarked to other qualifications and sectors?

Figure 5 – Theme 1 of the Workshop: background and set of questions

The workshop started with participants' presentation, followed by a short introduction to each activity provided by the **Facilitator/Rapporteur**. While performing the activities, participants had the opportunity to interact and discuss the above-mentioned questions. At the end of the workshop, the Facilitator/Rapporteur made a summary of the main conclusions reached by participants on the discussed theme.

The participants were divided into 3 groups and three rounds for the different groups of participants were foreseen in each workshop, as represented in the figure 5.



Figure 5 –Workshops' development

2.3. ACTIVE PARTICIPATION AND EXPLOITATION OF RESULTS

As previously mentioned, the workshop activities were carried out to promote participants' discussion and exchange of experiences and ideas, with the help of a Facilitator/Rapporteur.

The activity **“Puzzle game with stages of design and implementation”** was addressed in the workshop **Design of new international qualifications and strategies for the implementation by VET Systems**, dynamized by EWF and ISQ.

The main purpose of this activity was to present the modular approach, as well as the strategies and tools used to develop new international qualifications. In addition, the activity validated the criteria and procedures for referencing EWF qualifications at national level in the participants' countries systems. Thus, for this activity, the used materials were cards representing the **“stages of design”** (Fig. 6), **“criteria/requirements for referencing”** EWF qualifications at national level (Fig. 7) and **“actions and actors involved”** (Fig. 8 and Fig. 9), EWF proficiency level and examples of qualifications (e.g. AM), as seen below:

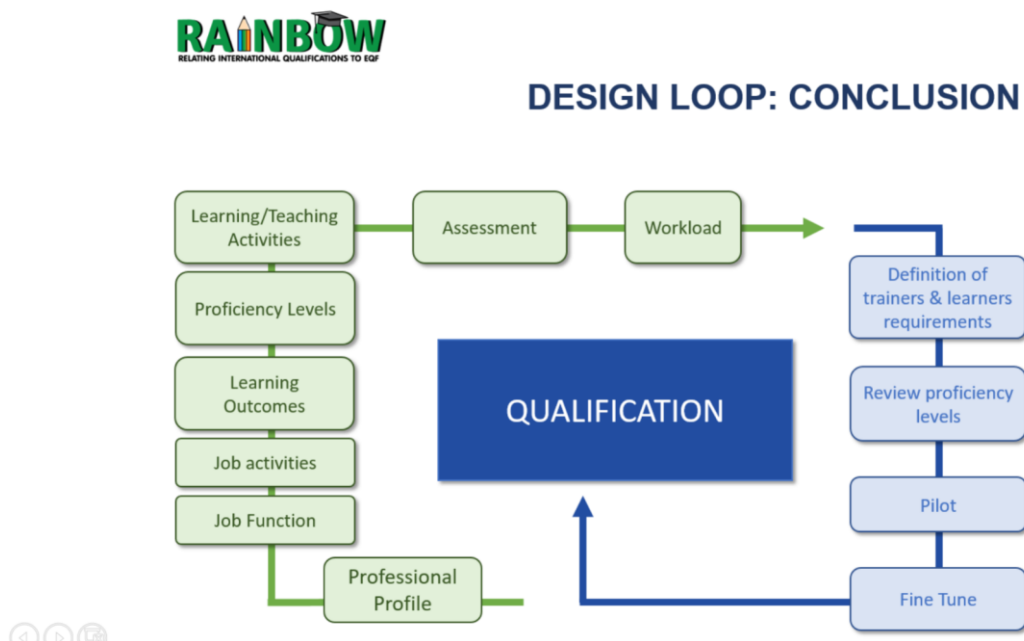


Figure 6 – Stages of Design

Alignment of IQ with NQF /EQF (11) Quality Assurance Criteria

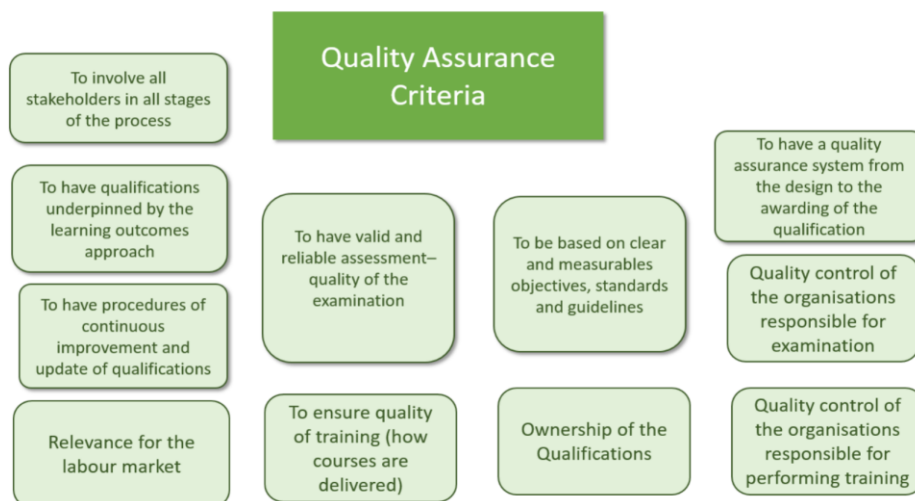


Figure 7 – Criteria/requirements for referencing EWF qualifications at national level

Alignment of IQ with NQF /EQF (6) Required Actions



Figure 8 –Actions Required

Alignment of IQ with NQF /EQF (9) Actors Involved



Figure 9 – Actors involved

The activity consisted of two puzzles with cards, representing two moments: **Design** (participants were asked to reorder the cards regarding the stages to build a Qualification) and **Implementation** (once the Qualification was built, participants had to select the requirements, criteria and actors to guarantee the implementation).



Figures 10 & 11 – Participants during “Puzzle game with stages of design and implementation” activity

Besides this puzzle activity, participants were engaged in another activity to discuss the transferability of EWF methodology to their countries’ qualification systems.



Figure 12– Dart board for benchmarking feedback

Participants were asked to use a dart board for benchmarking feedback, using post-it's to place in the centre of the board (representing YES), in the middle (representing MAYBE) or in the external edge of the board (representing NO), writing down the reason/explanation for their choice.



Figure 13– Explanation of the “benchmarking feedback” activity

The results of this activity show that the majority of participants found that the transferability of the methodology is feasible (YES), some stating that it is “flexible” and “adaptable” to other areas and sectors, and that the methodology “allows for an increase in quality and harmony of criteria”.

Nevertheless, there were some participants who were not sure about this transferability (MAYBE) due to its implementation costs and long administration process, and some added that there is a need to convince users to apply it.



To summarize the activities carried out during this workshop, the Rapporteur considered the following aspects:

- Feedback about EWF methodology to design qualifications, including steps, principles and LOS approach;
- Feedback of participants regarding strategies for implementation of IQ at international level;
- Feedback about benchmarking to other sectors and international qualification systems;
- Results of the overall activity.

As previously mentioned, each workshop had three rounds to allow all participants to take part in all workshops. These were participants' feedbacks *on the stages of Design of EWF methodology in each round of workshop Design of new international qualifications and strategies for the implementation by VET Systems*:

Round 1	<ul style="list-style-type: none"> • Logic and coherent but requires a lot of guidance in the beginning, • The review of proficiency levels should come after the pilot stage.
Round 2	<ul style="list-style-type: none"> • Proficiency level comes together with the LO, it's not a sequence.
Round 3	<ul style="list-style-type: none"> • Very complete and rich, • Associated costs linked to modularization for VET providers, • Mismatch between EWF methodology and national methodologies, which requires adjustments, • Benefits for the sector and for the trainees.

Overall, all participants were able to recognize the main stages of EWF methodology, highlighting the logic and coherence of the design approach for international qualifications (IQ). Nevertheless, once most participants were not experts in pedagogical methodologies, they mentioned the need, in a first moment, for guidance on how to implement EWF methodology.

For this reason, some participants felt difficulties in ordering the cards corresponding to the levels of proficiency, workloads, assessment and piloting stages. Which was an opportunity to generate further discussion among participants and to allow them to learn about the methodology.

The development stages are not rigid, there are some that can be developed together (e.g. Learning Outcomes & Assessment). This is also an interactive process, i.e. as we define and test the qualification, there can be advances and retreats in the creation and development processes in order to readjust the proficiency level and the assessment. Hence feedback loop.

3. ASSESSMENT OF PARTICIPANTS' SATISFACTION

In order to gather an overall feedback regarding the plenary session and the structure of the thematic workshops, as well as the effectiveness of the methods and materials used, lecturers and facilities, besides the precepted impact of the activity, a **satisfaction questionnaire** (Annex 1) was presented to the 39 participants of the Final Conference.

The analysis of the satisfaction questionnaires revealed that attendants' profile was very diverse, mostly composed by representatives from Welding Institutes, VET Providers and Trainers/teachers.

Participants were asked to rate each item of the questionnaire from 1 ("Highly dissatisfied") to 4 ("Highly satisfied") in terms of:

a. Organization of the Event

Regarding the **Organization of the Event**, participants were "Highly Satisfied" with the *Overall conference* (32 participants). The items *Support provided by the staff* (e.g. *speakers and facilitators*) and *Themes and formats of the working sessions* were also rated 4 by the majority of participants (above 30).

Some improvement areas were suggested for future events, namely to reconsider the provision of *Supporting documentation/documentation available* and *Practical arrangements* (e.g. *venue, facilities and logistics*).



Figure 14 Results of the Participants' assessment of the organization of the event



b. Contents Addressed in the Conference

Regarding the **Contents Addressed in the Conference**, there were 4 items assessed, divided between plenary session and the workshop *Design of new international qualifications and strategies for their implementation by VET Systems*. The item where more participants rated 4 was *Coverage of Themes and Relevance of activities and examples provided*, both in the plenary session and thematic workshop. This result shows that participants were highly satisfied with the event in terms of themes and activities developed. Most participants also felt highly satisfied with the *Opportunities for learning and generating new insights*, being that more than 20 participants rated it with 4, both in the plenary session and thematic workshop:

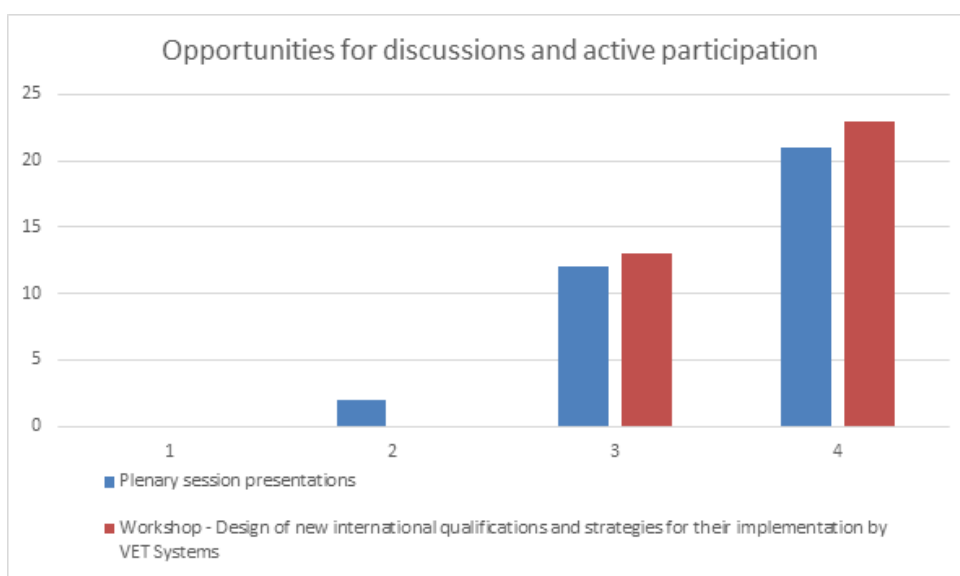


Figure 15 – Results of the Participants' assessment in the event

Some participants left their comments on the satisfaction questionnaire. Below, is the list of comments that allow to conclude that, even though some improvements can be made in future events, the final conference was very successful:

- “Very well organised.”
- “Great activities, should have lasted longer.”
- “More time during the workshop's activities for discussions and exploitation of tool structure and purpose.”
- “All is positive.”
- “Very well-organized event.”
- “To extend the workshop duration in order to allow more discussion and participation. The attendees were very interested in the proposed subjects.”
- “All the events were perfect and very well organized.”
- “More space.”
- “Good organisation, good presentations, everything was pertinent.”
- “Muito Bom.” (Very Good)



4. LEARNING ACTIVITY - VALIDATION SESSION IN THE CONTEXT OF A SHORT STAFF TRAINING EVENT

Regarding the EWF methodology transfer, there was a short-term staff training event, from October 22nd to 24th 2018, where EWF methodology for designing International Qualifications was addressed with experts in VET and Adult Education from Wien (BWF Wien), Finland (TAAK), Denmark (VUC Storstrøm) and Germany (Oskar-von-Miller-Schule Kassel).

The EWF approach, and in particular RAINBOW project, was presented in a session entitled "EWF's sectoral learning outcomes approach: behind the scenes", dynamized by Adelaide Almeida and Elvira Raquel Silva, from EWF.

In this session, the following themes were addressed in the presentation made to participants:

- The proficiency levels of EWF qualifications / sectoral matrix aligned with the EQF;
- Glossary of terminologies, which includes the concepts *professional profile*, *functional* and *transversal competence units*;
- Structure of functional and cross-functional units of competence;
- Example of International qualifications
- Reference to RAINBOW project, among others.

After the presentation, participants were separated in two groups and invited to carry out the above mentioned "Puzzle game with stages of design and implementation" activity, ordering the different cards and associating the different stages with concrete examples.

The benchmarking feedback activity, using the dart board (Fig. 14), was also developed, following the same instructions as in the previous workshop.

The results of these activities were the same as the ones achieved in the previous workshop, meaning that there were some difficulties in ordering the stages of designing a qualification (e.g. LOs and proficiency levels), and that the majority of participants found that the transferability of EWF methodology is feasible (YES), indicating that Learning Outcomes (LOs) can be used in the training context. A participant stated "The EWF methodology can be applied to different professional contexts", based on its "well-structured and applicable" validation system. Another participant pointed out "The fact of EWF system being competence-based, and linked to LOS -which is similar with the national Danish educational system (also competence and LOS based)- enables the transfer".

However, there were other participants (in less significative number) who showed some reservations, basically due to their countries' education system ("too rigid", "with specific goals"). For that reason, the transferability of the methodology would have to be discussed with experts of some countries.



Nevertheless, it is safe to say that overall EWF methodology is well accepted among participants, who see it as an advantage not only for the welding sector, but also to other sectors and countries where it can be applied, even though there are cases where this applicability may be more challenging.

5. IMPACT

The globally positive results achieved in the Final Conference are a good indicator regarding the sustainability of RAINBOW project for the Welding sector in which the effective dissemination strategy based on several channels (e.g website, newsletters, leaflets and promotional videos) has played an important role in reinforcing communication with stakeholders outside the project.

In terms of exploitation, RAINBOW results can be used to support the work of the European Commission, EQF Advisory Group members and participants of the International Qualifications Conference in promoting the results and activities in the Member States.

The work done regarding the validation of EWF methodology, developed during this event and also during the short-term staff training event (here given as an example of the importance that the transferability of the methodology to other realities has to experts connected to VET sector), was crucial for the elaboration of RAINBOW Recommendation for the use of EWF system and terminology to other systems and sectors: “Benchmarking Strategy for the Implementation in other Sectors”. This Recommendation was developed to establish a linkage between IQ and NQFs and EQF, based on the achieved results from RAINBOW in the Welding sector.



APPENDIX

ANNEX 1 – Satisfaction Questionnaire

SATISFACTION

*This questionnaire aims at gathering participants feedback about the event. Your opinion is important for us to improve future activities. Please collaborate with us by filling in the form and return it before leaving.
Thank you!*

1-Select with a cross (x) the option(s) that apply to you best:

	x	Participants background
You are / belong to a:	<input type="checkbox"/>	Trainer / Teacher
	<input type="checkbox"/>	Vocational Education and Training organisation
	<input type="checkbox"/>	Higher Education organisation
	<input type="checkbox"/>	Welding Institute or Association
	<input type="checkbox"/>	National Regulatory body / Qualification Agency
	<input type="checkbox"/>	Industry (large company / SME)
	<input type="checkbox"/>	Other _____
What are the reasons for you to attend this event?	<input type="checkbox"/>	Share ideas and learn about development/design of International Qualifications
	<input type="checkbox"/>	Share ideas and learn about tools and strategies for delivering EWF training courses
	<input type="checkbox"/>	Share ideas and learn about Recognition of Prior Experience at European level
	<input type="checkbox"/>	Share ideas and learn about training on Health, Safety and Environment risks associated to Joining
	<input type="checkbox"/>	Share ideas and learn about Risk Management applied to Welding Fabrication
	<input type="checkbox"/>	Make new contacts (networking purpose)
	<input type="checkbox"/>	Professional interest
How did you first hear about the conference / workshops?	<input type="checkbox"/>	Invitation
	<input type="checkbox"/>	Project website
	<input type="checkbox"/>	Social media (Facebook, Yammer, Twitter, LinkedIn, Eventbrite)
	<input type="checkbox"/>	Other _____

2- Please, rate the given items in relation to your level of satisfaction from 1 to 4, where (1 = highly dissatisfied), (2= dissatisfied), (3= satisfied), 4= highly satisfied):

Concerning the organisation of the event		1	2	3	4
Practical arrangements (e.g. venue, facilities and logistics)					
Agenda and duration					
Themes and formats of the working sessions					
Supporting documentation / documentation available					
Support provided by the staff (e.g. speakers and facilitators)					
Overall conference					

Concerning the contents addressed in the conference		1	2	3	4
Coverage of themes	Plenary session presentations				
	Workshop - Design of new international qualifications and strategies for their implementation by VET Systems				
	Workshop - Tools to support training and qualifications in Manufacturing				
	Workshop - Recognition and validation of prior learning in the Welding Sector				
	Plenary session presentations				



Concerning the contents addressed in the conference		1	2	3	4
Relevance of activities and examples provided	Workshop - Design of new international qualifications and strategies for their implementation by VET Systems				
	Workshop - Tools to support training and qualifications in Manufacturing				
	Workshop - Recognition and validation of prior learning in the Welding Sector				
Opportunities for discussions and active participation	Plenary session presentations				
	Workshop - Design of new international qualifications and strategies for their implementation by VET Systems				
	Workshop - Tools to support training and qualifications in Manufacturing				
	Workshop - Recognition and validation of prior learning in the Welding Sector				
Opportunities for learning and generating new insights	Plenary session presentations				
	Workshop - Design of new international qualifications and strategies for their implementation by VET Systems				
	Workshop - Tools to support training and qualifications in Manufacturing				
	Workshop - Recognition and validation of prior learning in the Welding Sector				

3-Please rate the given items in relation to the probability of implementing the project outcomes within your professional activity and/or organisation from 1 to 4, where (1= Impossible), (2= Unlikely), (3= Likely) to (4= Certain):

Concerning the probability of use in the future		1	2	3	4
Guidelines for training	European Health and Safety training guideline				
	European Risk Management in Welding fabrication guideline				
	European Friction and Stir Welding training guideline				
	European Welding Practitioner Learning Outcomes Standards				
Methodology	European Scheme for the Recognition of Prior learning				
Tools	RPL tools (e.g. forms, technical interview guide, check-list, welding demonstrations)				
	Training materials (e.g. e-learning platform in RMWF, game/simulator in HSE, case studies, exercises)				
	Database with questions for examination				

4- Please, highlight positive and/or negative aspects of the event:

Suggestions and/or comments