Innovative Skills for an Old Vocation

Quality Assurance Manual

WP 03 | A1

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Content

1 Introduction

The ISOV project addresses 3 major megatrends: **digital transformation**, **green economy**, and **globalisation**. While these trends impact every sector, there is limited evidence on the specific ways in which they do so. Even when predictions exist regarding a sector's future influence, the consequences for skilled work across different **Spheres of Activity (SoA)** may vary significantly. As a result, **Vocational Education and Training (VET)** requirements for these SoA can differ substantially.

In our previous projects, ICSAS (http://icsas-project.eu/de/) and DIA-CVET (https://dia-cvet.eu/de/), we identified **18 SoA** that define skilled work in industrial shoe production in Germany, Romania, and Portugal. The **innovative approach of ISOV** is to **analyse how skilled work in each SoA will evolve in response to these megatrends**. Based on this analysis, the project will **develop, pilot, and evaluate training courses** that equip workers with the necessary new skills.

ISOV is the first attempt (both at the national and European levels) to prepare Initial Vocational Education and Training (IVET), Continuous Vocational Education and Training (CVET), and Higher Education (HE) in industrial shoe production for emerging work processes due to trends.

As part of this initiative, **12 quality-assured training manuals** will be created to address the concrete impact of these changes on the 12 most affected SoA. Additionally, **15 curricula** (5 in each country) will be developed, following the guidelines outlined in the manuals.

Quality Assurance (QA) is integral to the project, ensuring that all activities meet the highest standards and achieve the desired outcomes. This manual outlines the principles, functions, and measures that will be applied, with a focus on formative and summative QA, to achieve courses of the utmost quality and ensure that beneficiaries recommend the courses to their colleagues.

For the ISOV project, QA measures must consider the specific requirements of developing and implementing further training courses for industrial shoe production in 3 European countries, namely Germany, Portugal, and Romania. The project includes **15 blended learning sessions** based on the developed curricula - **5 per country** - that integrate training periods at dedicated training centres, specifically the shoe competence centres of the project consortium, with hands-on projects in relevant departments, spheres, or labs. These sessions, developed within *WP4 Training manuals, curriculum development, and piloting*, will be tested and evaluated with selected beneficiaries, including **apprentices, skilled workers, and higher education students**. Participants will be those currently working, expected to work, or seeking employment in the respective SoA.

2 Functions

The ISOV project's QA measures primarily document the quality of the developed concepts, specifically the results of WP4 Training manuals, curriculum development, and piloting, ensuring transparency and making their implementation and evaluation verifiable. By promoting transparency and accountability, the system fosters trust among stakeholders and facilitates their involvement in validating and enhancing the developed concepts. The QA framework supports the evaluation of developed concepts through both formative and summative methods during the project's piloting phase, ensuring that the project evolves effectively to meet its objectives.

3 Quality Assurance principles

For the reasons mentioned above, the QA principles underpinning the ISOV project are building on the framework concept developed by EQAVET, which is based on the Quality Assurance cycle. The QA cycle represents, easily recognisable, an adaptation of the Deming cycle to the specifics of vocational education and training. The QA cycle also defines four work steps, namely planning, implementation, evaluation and review (see Figure 1). The EQAVET concept foresees going through all steps to generate a high level of quality and improve it continuously, as well as applying appropriate measures in each step of the process, such as stakeholder involvement, establishment of quality circles, or similar.

This model is applicable for QA on different levels, e.g. on the system level (of VET) and for training providers (of IVET and CVET courses). The ISOV project is comparable to the latter in that its core task is to develop and implement a continuing education curriculum for apprentices, skilled workers or HE-students who work or are foreseen/or want to work in a specific SoA.

This document outlines the fundamental orientation of QA in the **development phase**, as well as the measures and instruments used **in the piloting and evaluation phase**.

During the development phase, partner organisations' internal evaluations and expert reviews, including advisory board members, ensure that project outputs align with educational needs and quality standards.

During the piloting and evaluation phase, **formative and summative QA** procedures will be applied.

The **formative approach** engages stakeholders, including trainers and trainees, to assess the training course after each session.

The **summative approach** evaluates the overall effectiveness of the training course at the end of the piloting phase. At this stage, all stakeholders, including trainers and trainees, will be invited to participate in workshops (one per country), which will include a SWOT analysis to gather structured feedback. The insights collected will be used to refine the courses and provide recommendations for further sectoral VET initiatives.

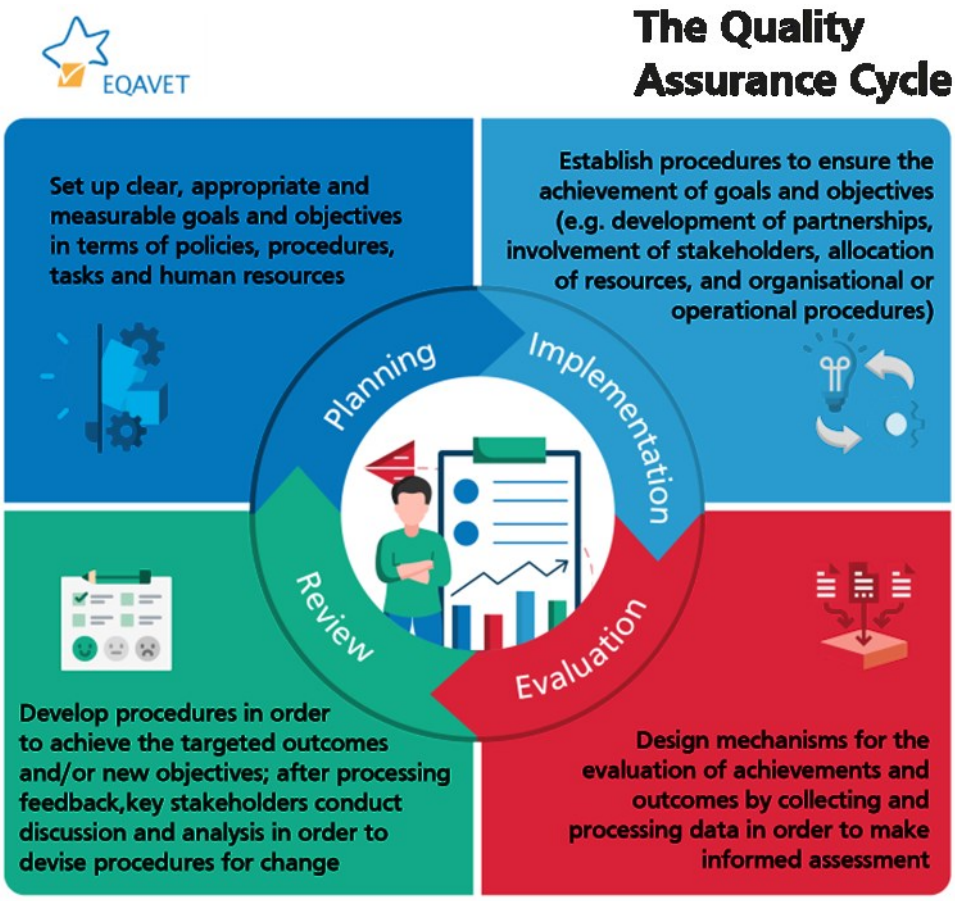

Figure 1. The Quality Assurance cycle according to EQAVET; Source: https://employment-social-affairs.ec.europa.eu/policies-and-activities/skills-and-qualifications/working-together/eqavet-european-quality-assurance-vocational-education-and-training/eqavet-quality-assurance-cycle_en

Different instruments to implement this are explained in detail in the following section on measures and instruments.

4 Measures and instruments in detail

The basic QA principles translate into a bundle of different measures. As mentioned in the previous sections, the overall quality of the essential outcome of the project, which will be **12 manuals** and **15 implemented curricula-based training courses for apprentices, skilled workers or HE students** of the footwear industry, strongly depends on the quality of preceding project steps as they are prerequisites for achieving and assuring the quality of the outcome.

In this sense, the development and exemplary implementation of training courses for the competence development of skilled workers in the footwear industry on EQF levels 4-7 builds on a critical path consisting of different planning, information-collecting, and development steps. In the following sub-chapter, the steps concerning the respective measures and instruments for quality assurance are described.

QA measures and instruments for competence assessment are presented below. These measures are crucial for the project's success, as the evaluation of the competence development of the shoe workers during the piloted VET training measures can assess the validity of the training units and the project's overall success.

4.1 Measures and instruments in the development phase

QA instruments and measures are applied throughout the process, covering preparation, planning, implementation, and evaluation. Before developing the content, a structured methodology is followed to assess how the megatrends of **digitalisation, sustainability, and globalisation** impact **skilled work in industrial footwear production**. This process is outlined in Work Package 2 (WP2), which establishes the foundation for the subsequent work packages.

The first step involves identifying and reaching a consensus on the key dimensions within each megatrend that influence skilled work. This begins with a literature review to gather insights from existing research, including studies from other sectors, followed by expert consultations to validate the relevance of the identified dimensions. The outcome of this step is a list of approximately 20 dimensions related to digitalisation, green skills, and globalisation, each.

These results are then structured into 3 **matrices**, where the identified dimensions form the y-axis. At the same time, the x-axis consists of the **18 Spheres of Activity** (SoA), as defined in previous projects such as ICSAS (http://icsas-project.eu/) and DIA-CVET (https://dia-cvet.eu/), To ensure the reliability and accuracy of the findings, a rigorous validation process is conducted through **9 expert workshops with 10 participants each** (3 workshops in each participating country). These workshops bring together experts from the footwear industry, as well as specialists in digitalisation, sustainability, and globalisation, who assess the impact of each dimension on each SoA. The discussions allow for a critical evaluation of the findings, and refinements are made based on expert feedback.

The primary QA indicator in this phase is the assessment provided by stakeholders regarding the expected consequences and relevance of each dimension within the matrices. The final, fully developed matrices provide a validated foundation for the subsequent development of training content. By integrating these QA measures at every stage, the project ensures that the content development process is vigorous, evidence-based, and aligned with industry needs.

During the content development phase, **internal evaluations** conducted by **partner organisations, alongside expert reviews from advisory board members**, ensure that project outputs align with educational needs and meet the required quality standards. This continuous assessment ensures that the content remains relevant, practical, and effectively addresses industry challenges. The consortium developed the **template for the internal validation of manuals and curricula**. The questionnaire template is presented in **Annex 1**.

4.2 Measures and instruments in the piloting and evaluation phase

Over the piloting period of 17 months, **5 curricula-based training courses** will be covered in each country with **5-10 participants per course**. The piloted implementation of the curricula through training courses will be evaluated using a formative and summative approach.

The **formative evaluation** involves stakeholders, including trainers and trainees, assessing each training session at the end of the course. This **ongoing feedback** allows for **timely adjustments and improvements**.

Immediately after the completion of each training course, trainees, trainers, and stakeholders will take part in workshops to assess the appropriateness of the course contents and whether or not the competence level of the course participants is raised (in their self-assessment and in the assessment of the trainers). Overall, these workshops, including the instruments used for competence assessment, initiate and foster reflection on the lessons learnt through the workshops. As the workshops follow each other at longer intervals, conclusions from the previous workshops can be considered when designing subsequent courses in all participating countries. This is linked to the expectation of improving the pedagogical-didactic and content quality of the courses in the pilot phase. **15 formative evaluation workshops** will be held during the piloting phase (5 per country), concluding with **1 confirmed minute per country**.

The course participants will fill out **questionnaires (Annex 2)** on the quality of the course (didactic and content) and provide a self-assessment of the learning outcomes (lessons learned) and the achieved level of competence. Also, the following optional instruments will be used for a skills and competence assessment:

- Assessing the learning outcomes and extension of competence level by qualitative interviews.
- Assessing learning outcomes and improvement of competence level by portfolios
- Assessing learning outcomes and improvement of competence level by carrying out a practical examination in a workplace.

Trainers will use **evaluation forms** to assess the **trainees' prior knowledge** and **final evaluation** forms to measure their progress (**Annex 3**).

The **summative evaluation** takes place at the end of the piloting phase and focuses on the overall effectiveness of the training course. Three summative evaluation workshops will be held in the piloting phase (one per country), each concluding with **confirmed minutes**. At this stage, all stakeholders, including trainers and trainees, will participate in workshops (one per country), where a **SWOT analysis** will be conducted to collect the feedback regarding the appropriateness of qualification requirements at the technician level in the footwear industry, and the suitability of the measure related to a sectoral training concept for the European footwear industry.

The insights gathered will validate the quality of the outcomes and contribute to recommendations for future VET initiatives.

The inclusion of all project-relevant actors, the relatively strong structuring of the workshop through the SWOT analysis, and the clear target of proposing practical recommendations for further VET in the sector at the end of the workshop will ensure a high-quality level.

All the QA measures and instruments listed so far ultimately ensure the transparency and credibility of the proposed, developed and exemplarily implemented VET programme for the European footwear industry at the highest possible level. At the same time, the developed matrices lay the foundation for an innovative quality assurance framework for VET in the footwear industry.

A high degree of transparency of the process quality and the results will be ensured through a continuous assessment of the appropriateness of the instruments accompanying the piloting and with the validation of the findings. Table 1 provides an overview of all QA tools implemented and the actors involved.

Project phase	Implemented QA instruments	Agents
Matrices (x-SoA, y- trend dimensions)	→ Workshops	Project partners, Experts
Manuals development	→ Validation questionnaire (Annex 1)	Project partners, Stakeholders, Experts, Advisory Board
Curriculum development	→ Validation questionnaire (Annex 1)	Project partners, Stakeholders, Experts, Advisory Board
Piloting- Assessment of competence development (**formative evaluation**)	→ Questionnaire on course quality and outcomes (Annex 2) → Questionnaire on trainee's performance (Annex 3) Optional: → Qualitative interviews on learning outcomes and competence level → Portfolio on learning outcomes and competence level → Practical examination on learning outcomes and competence level	Project partners, Experts, Stakeholders, Trainers, Trainees
Piloting- Final project assessment (**summative evaluation**)	Workshop (SWOT analysis)	Project partners, Experts, Stakeholders, Trainers, Trainees

Table 1. Synopsis of the most important QA measures

List of Figures and Tables

Annex 1

Measures and instruments in the development phase

Validation Questionnaire

Deliverable Name	
Date of Review	
Reviewer's Name & Organisation	

1. Assessment of Deliverables by the Reviewer

Mark with X the appropriate column

	Yes	No	Comment:
Does the deliverable properly use the official formatting, fonts, logos (for documents, the official template)?	☐	☐	
Is the deliverable acceptable regarding other formatting characteristics, such as spelling, grammar, consistency of formatting throughout the deliverable?	☐	☐	
Does the content of the deliverable correspond to the project objectives?	☐	☐	
Are the contents of the deliverable relevant to the objectives of the task?	☐	☐	
Does the deliverable need the addition of information to reach completeness?	☐	☐	
Does the deliverable need the removal of information to reach completeness?	☐	☐	
Does the deliverable need the correction of information to reach completeness?	☐	☐	

2. Suggested improvements

Changes that should be implemented - Missing information - Further improvements

Add rows as needed

Section	**Suggested Improvement**

3. Any other observations

e.g. minor corrections that need attention

Add rows as needed

Section	**Observations**

4. Conclusion

Mark with X the appropriate line

Deliverable accepted, no changes required	☐
Deliverable accepted, changes required	☐
Deliverable not accepted, it must be reviewed after changes are implemented	☐

Annex 2 and 3

Measures and instruments in the piloting phase

Evaluation Questionnaire for Courses

1. Organisation of the course

Please give feedback on the course organisation.

You are kindly asked to indicate how strong you agree or disagree to the statements by marking the appropriate.

	strongly disagree				strongly agree
The venues and facilities were suitable.	☐	☐	☐	☐	☐
The course was well structured. Evidence of good planning.	☐	☐	☐	☐	☐
The trips/sessions had realistic timescales.	☐	☐	☐	☐	☐
The agenda covered interesting subjects.	☐	☐	☐	☐	☐
Information on travel and accommodation was appropriate.	☐	☐	☐	☐	☐

2. Content and appropriate range of sessions/ activities

In the following some statements on the content and appropriate range of sessions/ activities are given.

Please indicate whether you agree or disagree.

	strongly disagree				strongly agree
The course provided appropriate content that was clearly related to the objectives of the sphere of activity.	☐	☐	☐	☐	☐
The presentations and activities were relevant.	☐	☐	☐	☐	☐
The schedule provided enough opportunities to discuss and exchange ideas.	☐	☐	☐	☐	☐
The selection of contributors / speakers was appropriate.	☐	☐	☐	☐	☐

Please turn the page.

3. Do you mean to say:

I understood the content of the course and how I could use it to further improve my current or upcoming working tasks.

Yes	The essential elements	Only in parts	No	No answer
☐	☐	☐	☐	☐

Comments:

What did you find positive about the seminar?

What did you find negative or that could be improved in the seminar?

Do you have any other comments or suggestions?

Thank you for your cooperation!

Recognition of Prior Learning / Final Evaluation of Trainee Performance

Sphere of Activity:				
Work task:				
Objective:				
Evaluation:				
Not yet competent	Needs assistance	Needs instruction	Needs supervision	Competent
☐	☐	☐	☐	☐
Tutor name:		Place:	Date:	Signature: