WP3 QUALITY PLAN



619034-EPP-1-2020-1-UA-EPPKA2-CBHE-JP "Cross-domain competences for healthy and safe work in the 21st century" (WORK4CE)

1/12/2020 - 1/12/2023

This document has been accepted and approved by the DMB.



P. Arras Page 1 of 32

Contents

3		INTF	RODL	JCTION	4
	3.1	1	DOC	UMENT CONTENTS	4
	3.2	2	PUR	POSE OF THE PROJECT QUALITY PLAN	4
		3.2.1	1	PURPOSE	4
		3.2.2	2	PROCEDURE DESCRIPTION	4
	3.3	3	QUA	LITY EXPECTATIONS FOR THIS PROJECT	5
		3.3.1	1	QUALITY OF PROJECT IMPLEMENTATION	5
		3.3.2	2	QUALITY OF PROJECT DELIVERABLES	7
4		PRO.	JECT	MANAGEMENT AND RELATED QUALITY PROCEDURES	9
	4.1	1	PRO.	JECT MANAGEMENT ORGANISATION, ROLES AND RESPONSIBILITIES	9
		4.1.1	1	The DMB (Daily Management Board)	9
		4.1.2	2	The PMT (Project Management Team)	10
		4.1.3	3	The LPT (Local Project Team)	11
		4.1.4	1	The IEB (Internal Evaluation Board)	11
	4.2	2	QUA	LITY MANAGEMENT AND DECISION – MAKING	11
	4.3	3	QUA	LITY MANAGEMENT AND CONFLICT RESOLUTION	12
	4.4	4	QUA	LITY MANAGEMENT AND COMMUNICATION BETWEEN THE PROJECT PARTNERS	12
		4.4.1	1	INTERNAL COMMUNICATION	13
		4.4.2	2	REPORTING	13
		4.4.3	3	VALIDATION OF PROJECT DELIVERABLES	14
5		QUA	LITY	STANDARDS	16
	5.1	1	QUA	LITY STANDARDS	16
	5.2	2	QUA	LITY ASSURANCE	16
		5.2.1	1	EXPECTED RESULTS AND OUTPUTS	17
		5.2.2	2	STANDARDS THAT APPLY TO DELIVERABLES AND PROCESSES	18
	5.3	3	APPI	ROACH	18
6		PRO.	JECT	DOCUMENTMANAGEMENT	19
	6.1	1	DOC	UMENT TEMPLATES	19
	6.2	2	STO	RAGE OF PROJECT DOCUMENTS AND ACCOUNTING RECORDS	20
7		QUA	LITY	ASSURANCE	20
	7.2	1	INTE	RNAL PROJECT EVALUTION	21
		7.1.1	1	REVIEW PROCEDURE AND SELF ASSESSMENT	21
	7.2	2	FXTF	FRNAL PROJECT EVALUATION	22

7	'.3	PROJECT CHANGES	22
7	'.4	PROJECT EVALUATION PLAN	23
8	Ann	nex 1: "Digital Media Checklist_form": a review form for individual digital media	26
9	Δnn	nex 2: "Course materials checklist form"	29

3 INTRODUCTION

3.1 DOCUMENT CONTENTS

The goal of the Work4Ce Quality Plan is to monitor that all activities necessary for the achievement of the goals of the project are realised at a high quality level, taking in consideration the operational, administrative and accounting aspects. Accordingly, the document is structured in such a way to cover and analyse all relevant aspects of quality control process. It is consisted of seven sections, as following:

- 1. Introduction gives an overview of the Work4ce project with its main and specific objectives and steps towards their achievement. It explains the main idea behind this document and objectives it should meet.
- 2. Project management defines the project's organisational structures and their roles and responsibilities, decision-making procedures and communication tools and resources to be used for promoting the collaboration among Project Partners.
- 3. Quality standards defines the policy that is to be followed by Project Partners in order to ensure the quality of achieved outputs and results, as well as standards to apply to deliverables and processes.
- 4. Project document management offers the set of document templates to be used for project reporting and monitoring, such as meeting minutes, staff timesheets; documents for financial reporting, organisation of events, travel reports etc.
- 5. Quality Assurance introduces the measures and steps that provide that project quality is met and quality expectations are achieved. It also sets the procedure to be applied in case of unsatisfactory project performance.

3.2 PURPOSE OF THE PROJECT QUALITY PLAN

3.2.1 PURPOSE

As an integral part of management planning, the Project Quality Plan should provide the solid ground for <u>successful</u>, <u>timely</u> and <u>quality</u> implementation of the project activities. It is the common standard to be applied and followed throughout the entire project life.

For that purpose, it defines the set of procedures to be followed in order to secure that:

- The Partnership and Grant Agreement requirements and conditions have been fully applied and followed by all partners,
- Rules and procedures of the Erasmus+ regulations are taken into account in operational, administrative and financial management;
- All rights and obligations defined in the Partnership Agreements are fulfilled;
- All project activities are realized in accordance with the work plan outlined in the Project Application Form (AF).

3.2.2 PROCEDURE DESCRIPTION

Ensuring compliance with all relevant rules and provisions is very complex and comprehensive task. It requires identification of all quality requirements as well as detailed and concise definition of

P. Arras Page 4 of 32

adequate measures necessary to meet these requirements. Having this in mind, the Project Quality Plan will:

- Define the quality expectations and goals;
- Assign roles and responsibilities to management structures and define their participation in the quality control process;
- Define project policy and standards, and define compliance criteria;
- Identify a set of procedures and metrics to be used to determine performance quality levels.

Once approved by the projects Consortium, all Project Partners, responsible for preparing and producing deliverables, will use the Quality Assurance Plan in daily and overall project management and quality control.

3.3 QUALITY EXPECTATIONS FOR THIS PROJECT

One of the main tasks of this Plan is to clearly define the quality expectations that are to be met within the scope of the project. These expectations are defined **at all levels** and in such a way to serve as orientation points that will channel the activities towards the successful realization of planned outcomes and results.

3.3.1 QUALITY OF PROJECT IMPLEMENTATION

The beginning of the implementation of project activities is considered to be the starting date as defined in the approved Application Form (AF) (15 November 2020). The responsibilities of partners for the realisation of these activities, is divided among them in accordance with their roles in the project. All activities are clearly planned and organised, so that management structure can be effective from the early beginning. As soon as the project starts, a project's decision- making body (DMB = daily management board) is established. The DMB is responsible for monitoring the implementation of the project overseeing the strategic planning, coordination, monitoring, evaluation and achievement of outputs/results.

3.3.1.1 Partnershipresponsibilities and decision-making structure

The Coordinator (P01 – NUZP, contact Prof G. Tabunshchik) has the following responsibilities:

- Defining its relations with the Project Partners in an agreement (Partnership Agreement)
 which includes, (not limited), provisions guaranteeing the sound financial management of the
 funds allocated to the project, arrangements for recovering amounts unduly paid;
- Ensuring that the project activities and entire project is implemented according to the programme documents and the EU regulations;
- Ensuring that the expenditure presented by the Beneficiaries participating in the project has been paid for the purpose of implementing the project and corresponds to the activities agreed between the Beneficiaries participating in the project;

In particular, in order to ensure the implementation of the entire project, the Coordinator also has responsibility to:

P. Arras Page **5** of **32**

- Set up an efficient and reliable system for the project administrative and financial management and co-ordination
- Continuously monitor project progress;
- Produce an Interim Report on the entire project and a Final Report at the end of the project;
- Inform the EACEA in right time if any change occurs and submit all necessary requests for modifications;

Table 1 Actions done for project quality this respect by coordinator:

Partnership	Signed by all partners		
Agreement	Archived on:		
	owncloud.idial.institute/apps/files/?dir=/daad_project/Erasmus/2020_WORK4CE		
Set up an efficient	Administration is done in P02 (FH Dortmund)		
and reliable system	Contacts:		
for the project	- Anna Badasian		
administrative and	- Jorge Carranza		
financial	Documents per partner on:		
management and co-	owncloud.idial.institute/apps/files/?dir=/daad_project/Erasmus/2020_WORK4CE		
ordination			
monitor project	DMB and IEB meetings		
progress			
Interim report	To be filed 13/10/2023		
Communication with	On different occasion contact with PO		
EACEA			

On the other hand, every **Project Partner (Beneficiary)**, including the **Coordinator (Lead Beneficiary)** as well, has to:

- Collaborate with all Project Partners which will guarantee the successful implementation
 of the project and its activities;
- Carry out its own share of the work as described and defined in the Application Form, to
 monitor the progress of the part of the project which it is directly responsible for and to
 make sure that the local project implementation is carried out in accordance with the programme
 documents and the pertinent EU regulations;
- · Agree on and to apply the requirements and obligations as defined in the
- Partnership Agreement;
- Maintain either a separate accounting system or an adequate accounting code for all transactions relating to the project according to national legislation;
- Participate in Internal Project Evaluations
- Keep available all its documents related to the project for at least a period of 5 years
- (see Grant Agreement)

3.3.1.2 Project Goal

The main goal of the Work4ce project is to support capacity building in Ukraine and Azerbaijan and knowledge transfer, through:

 Education towards the future workplace (Work 4.0) is delivered by developing interdisciplinary modules and curricula

P. Arras Page 6 of 32

- Graduates and trained professionals are generated: WORK4CE, the consortium members and the Master programmes guarantee a significant (~ 400 graduates p.a.) flow of qualified work force for the digital transformation.
- A pool of trained lecturers and experts is established (by the Train-the-Trainer (TtT) concept): the
 consortium members and industry experts form (open) communities of practice (OpenCoP) and a
 competence network.
- Models for industry-university-cooperation are developed and lead to more practical relevance and better employability.
- Development of (de-facto) Standards in Management, Safety, Health, Environment (SHE), (Master) education and didactics are set: the programmes, the certification and the publication as OER improve the quality of education, spread and multiply the outcomes and establish a de-facto standard.
- A pan-European Master School will be established: the involved HEIs can reform and integrate the modules into the curricula of their (~ 15) Master programmes. Other HEIs and Master programmes can join or set up their own Master Schools.

This will be achieved by implementing the following specific objectives:

- Development of 9 Master Modules + TtT module by the OpenCoPs owner + further partners.
- Publication on Online Platform as Open Educational Resources (OER)
- Digital co-production labs for the development of the learning resources
- certification programme for the modules (and graduates)
- An open community of practice (OpenCoP) for each module as a virtual industry-universitycommunity of lecturers and practitioners
- Specialization Package/Major (3-4 modules) for the 15 Master Programmes will integrate the modules
 into the curricula

For efficient achievement of planned goals, the Work4Ce project has defined a detailed plan of implementation and project management. This plan is presented in the **Application Form (AF)** and is one of the main tools to monitor and evaluate the project activities' progress:

- WP1 Preparation
- WP2 Development
- WP3 Quality Plan
- WP4 Dissemination & Exploitation
- WP5 Management

Both the work packages and tasks within each of them - have to be completed as planned and before the deadline provided in this plan.

3.3.2 QUALITY OF PROJECT DELIVERABLES

The goals set by WORK4CE project leads to a variety of the project deliverables. They can be generally categorised as documents and reports (Quality Plan, Evaluations, Communication Plan etc.), events (coordination/management meetings, local/national/international events, trainings, workshops, final conference, visibility actions), produced trainings materials, developed curricula and established OpenCops.

P. Arras Page **7** of **32**

3.3.2.1 Quality of documents and reports

All documents and reports produced within the WORK4CE project are expected to satisfy the following quality criteria:

- To respond qualitatively to objectives set in the Application Form;
- To be delivered within the time frame set in the Work Plan;
- To be approved by the relevant management structure as defined in this Project Quality Plan
- To satisfy the visual identity requirements, i.e. to be presented in corresponding templates provided in this Project Quality Plan.

3.3.2.2 Quality of meetings, conferences and other events

All events planned within the project need to be professionally organized. The organizer/host institution will be responsible for providing the smooth realization of the event, which includes all necessary arrangements and coordination, preparation of invitation packages (invitation letters, agendas, etc), details on location, available accommodation and travel arrangements, etc.

The deadline for completing necessary preparation activities depends on the event itself, but it must provide enough time for participants' registration and travel preparations.

Additionally, the Coordinator – in collaboration with the host /hosting institution – will be responsible for provision of all materials required for the event (supporting documents, agendas etc.), as well as for the elaboration of reports/minutes on the held event upon its completion.

Every event planned within the WORK4CE project must also meet the requirements regarding the structure and the number of target audience.

3.3.2.3 Quality of promotion and dissemination tools

As a promotion tool, the project set up a website (work4ce.eu) in order to attract large number of target groups and the broad general public. The website is also the project platform and will provide regularly updated information about the project, its progress, contact information, project achievements and results.

Apart from the website, a series of events – such as trainings, workshops, and field visits, will be realized throughout the project lifetime.

3.3.2.4 Quality of developed curricula

Envisaged curricula/syllabi, training materials should be adequately developed and designed to respond to the target end-users in accordance with the set action plan. They need to follow clearly defined methodology, address the foreseen target groups, and meet verifiable indicators within the planned time frame.

P. Arras Page 8 of 32

3.3.2.5 Quality of Project Management

The project management structure was planned during the preparation of the project proposal and was adopted at the kick-off meeting. The project management structures are expected to be well organized, professionally coordinated and fully committed to the efficient realization of assigned activities, financial management and reporting.

4 PROJECT MANAGEMENT AND RELATED QUALITY PROCEDURES

The Work4Ce Quality Plan (QP) documents the necessary information required to effectively manage project quality from project start to finish. It describes the quality strategy and processes for both quality assurance and quality control. Moreover, it defines a project's quality philosophy, strategy, relevant methodologies and standards to be applied to the management of the project processes, monitoring and reporting procedures, quality policies, procedures, criteria for and areas of application, and roles, responsibilities and authorities.

The QP is created during the Preparation Phase of the project. Its intended audience is the project management organizational structure, including the Coordinator, Project management team, Project local teams, Internal evaluation board, staff at partners involved in the project and leaders of the OpenCops.

This Plan in in line with the following main quality objectives:

- To meet the quality standards of the funding agency the EACEA;
- To establish the operative project schedule and the Work Plan that will assure effective collaboration among the partners, in accordance with the quality standards;
- To implement effective and efficient monitoring and evaluation system;
- To achieve smooth management and organization transition to long-term final beneficiaries;
- To deliver the project in line with the agreed budget;
- To deliver the project in line with scheduled commitments;
- To identify issues and defects as early as possible in the project lifecycle and to apply appropriate, efficient and cost-effective remediation measures;
- To assure information flow and harmonized implementation of project tasks among
- Project Partners

4.1 PROJECT MANAGEMENT ORGANISATION, ROLES AND RESPONSIBILITIES

Taking into consideration the project's international character, the project management process will be carried out by four organizational structures:

4.1.1 The **DMB** (Daily Management Board)

The **DMB** (Daily Management Board): led by the coordinator P01 – NU-ZP and supported by the work package leaders (P02, P03, P04, P06, P08).

Members:

- P01: G. Tabunchshyk
- P02: C. Wolff, A. Badasian
- P03: P. Arras, D. Jansen
- P04: J. R. Otegi
- P06: A. Sachenko
- P07: Elvin Mejidov
- P08: Leyla Naghiyeva
- P09: Isa Madurov
- The DMB's main tasks are:
 - o controlling of timely work plan follow-up
 - o monitoring of project budget
 - o monitoring of the work packages status compared to the planned milestones
 - o risk management and final and binding conflict resolution
 - o identification of potential organizational problems,
 - o implementation of contingency measurements, progress reports to IEB/PMT.

4.1.2 The **PMT** (Project Management Team)

The **PMT** (Project Management Team) is formed as a strategic decision-making body comprising one representative from each partner, who will operate as local coordinator in their HEI. PMT decides on requests by DMB and is responsible for conflict resolution, too.

- Approval of acts and key project documents, such as the Work Plan, Quality Plan, Communication and Dissemination Strategy;
- Monitoring the overall progress of the project
- Final and binding conflict resolution
- o Contribution to ensure motivation and team spirit in the project;
- Observance of formal procedures;
- Ensuring efficiency in relation to the internal communication and decision making process;
- o Ensuring uniformity of external messages and communication;
- Ensuring efficacy of the dissemination and mainstreaming actions;
- o Ensuring coherence of the planned actions in the Project Work Plan.
- The PMT will have at least 4 coordinating consortium meetings, one kick off, meetings after year 1 and 2 and a final symposium after year 3. In these meetings the reports are reviewed and the progression to the next phase is decided. Additional e-conferences are organized. Communication uses the Altassian Confluence collaboration platform with workflows and a ticket system (Jira), e-mail and Skype. Owncloud will be used for calendars and document storage.
- PMT decisions will be taken by majority and can only be vetoed by motivated arguments by the DMB. On decisions concerning the budget, P01 has the final call. PMT is also the board where conflicts between partners will be settled.

4.1.3 The **LPT** (Local Project Team)

The **LPT** (Local Project Team) in every partner (P01-P09) is responsible for:

- o work out and follow-up the Work Plan of each HEI
- organizes the pilot teaching
- o organizes and local and regional meetings

The members of the LPT's is listed in the excel:

https://owncloud.idial.institute/apps/files/?dir=/daad_project/Erasmus/2020_WORK4CE/WP5_Manageme nt&openfile=3331478

The evaluation results on these actions are sent to the DMB and QM. LPT is the owner of the project at the local HEI.

4.1.4 The **IEB** (Internal Evaluation Board)

The **IEB** (Internal Evaluation Board) is owner of the QM process and will monitor the process quality and the quality of the deliverables. Tracking the implementation of the different work packages, solving problems at intermediate level and reporting conflicts to the DMB. IEB will work in close cooperation with the external expert.

IEB-members:

- P01: G. Tabunchshyk
- P02: C. Wolff, A. Badasian
- P03: P. Arras
- P04: J. R. Otegi
- P06: P07: Elvin Mejidov
- P08: Ilqar Rzayevsa Madurov

4.2 QUALITY MANAGEMENT AND DECISION – MAKING

Firstly, the entire project management unit understands that decision making and problem solving are continuous processes of evaluating situations or problems, considering alternatives, making choices, and following them up with the necessary actions.

Throughout the project the goals and interests of all partners need to be respected and therefore a consensus in decision making between all parties is desirable. Normal decisions are taken at following levels:

- Operational decisions are dealt with by WP Leaders/owners
- Everyday management is handled by LPT- Project Staff/Task Assignees, who report to the

relevant WP Leader

Administrative issues are taken care by the Project Coordinator

In case decisions transcend single tasks or single work packages, and in case unanimous decisions cannot be made at a task or work package level, decision procedures move towards a higher level and the PMT becomes responsible for organizing the decision-making process. Then, decisions will be made by voting, where each member of the PMT can cast one vote. A decision will apply when 75% majority is found in favor of it. In case one partner cannot agree with the decisions made by voting in a normal PMT voting procedure, a conflict resolution procedure will be started.

4.3 QUALITY MANAGEMENT AND CONFLICT RESOLUTION

Conflict resolution will be addressed hierarchically. Initially, **LPTs** will try to solve internal conflicts in their WPs, meeting with the partners involved.

If the conflict cannot be solved, the **LPT** will raise the issue to the **DMB**, which will act as a forum for conflict resolution.

If the conflict persists, the **DMB**, which will celebrate an extraordinary meeting to analyze the conflict, take a decision and enforce it.

In case of conflict between partners, the Project Coordinator can raise a conflict action flag.

In this case, the **DMB** will evaluate the dispute and will a decision by 75% majority. In case a strong division exists in the consortium and 75% majority cannot be reached, the majority after three votings is set to 50% with 1 vote per member in the SC. Each voting will be separated by a maximum of 5 business days.

If necessary, the **DMB** will propose remedial actions to the EACEA. The EACEA will be enabled to monitor the project management through regular reports. The **coordinator** may seek independent advice as to the content or quality of a deliverable, if he/she considers such action necessary or desirable for the purpose of resolving any disputes among the Project Partners.

4.4 QUALITY MANAGEMENT AND COMMUNICATION BETWEEN THE PROJECT PARTNERS

Having in mind the complexity of the organizational structure, and the necessity to keep communication between partners efficient and productive, which in turn will contribute to the quality of the deliverables, managing partners have worked out a periodic internal meeting and reporting procedure. Also, internal communication is organized in a way to optimize information flow between Project Partners. That will ensure that all project activities are handled in an efficient and time-effective manner. An e-mailing list for internal communication has been established for communication purposes during the project lifetime.

Hence, as highlighted in the Project's AF (Work Plan), the following communication methods and instruments will be used in order to ensure information flow and in accordance adequate and efficient decision making:

- Communications and information flow shall be exercised through regular management meetings and mailing lists;
- Every 6 months project monitoring through Project Progress Evaluations shall be performed by each Beneficiary, so the entire management could have an insight into the process of project implementation;
- Continuous financial monitoring shall be implemented in order to keep track of and control the declared expenditures and relevant related documents.

4.4.1 INTERNAL COMMUNICATION

As stated in the AF, the management has put up a mailing list solely accessible to Project Partners for efficient communication between the geographically dispersed team members. Most of communication will happen through electronic means (e-mail, Skype-Teams-ZOOM meetings and on-line collaborative tools (ncloud), and will thereby be recorded and accessible to all Project Partners. The file storage provides all the templates that support standardization of communication and data to be reported. In this section, Project Partners can find all the mandatory templates required in specific case and also the suggested templates that can be used.

Besides the on-line collaborative tools, a project platform will established that serves as a multi-user system, and is developed specially for the needs of the project. It is a web-based tool allowing its users to access to it from wherever they are, with an Internet connection and a browser.

The first meeting of all beneficiaries on the project has been known as **kick-off meeting**. The kick-off meeting was organized and was held online (due to Covid-19 rules) on 2 Feb 2021 to ensure that all the partners share the same project vision and was ready to start the implementation of the project without delay.

In addition to the kick-off meeting, the management partners meet, within the DMB, at least once in every two months to discuss the progress of the project and work out any difficulties that may arise in the course of the project. These regular meetings are mostly held online.

The meeting reports are available to all partners in the owncloud-platform.

4.4.2 REPORTING

In order to successfully implement a project and to allow for correct reporting:

- A separate archive filled in by each Project Partner with all original documents related to project's (financial and administrative) implementation, organized according the budgetcategories;
- All partners shall keep the documents linked to the project until 5 years after the project ended; (see Partnership and Grant Agreement)
- Project specific cost-accounting analytical code/s in order to clearly trace project costs, activity and payment date/reporting period in the Beneficiary's accounting system;
- Copy of relevant documents sent to the Coordinator/Lead Beneficiary.

The file archive consists of following sub-directories

Table 2 Work4Ce file archive per partner

Name of archive	
-----------------	--

accountancy	
equipment	
staff	
subcontracting	
travel	

An Interim Project report will be prepared by the Coordinator 18 months after project start, preferably to be discussed at the management meetings. Otherwise, reports may be submitted and discussed via mailing lists by writing procedure. For the interim report a separate entry is foreseen in the Confluence for every partner to fill: Table of achieved / planned results - WORK4CE - Confluence ASC (idial.institute)

Project completion will be summed up by the final project report, which will serve as the official document against which project results will be assessed in comparison to the project objectives and expected deliverables.

4.4.3 VALIDATION OF PROJECT DELIVERABLES

The validation of leaning/teaching materials is part of the internal quality loop for improvement of course materials. (see Fig. 4-1, red loop 2). The internal loop is run in an agile methodology with a ticketing system (Jira).

In the WORK4CE project, different types of deliverables can be distinguished:

- Documents for the project management
- · Course/learning/teaching materials
- Digital media/Technological output
- Services and products (e.g. train-the-training sessions, pilot teaching, trainingsessions...)

Document deliverable refers to any type of original textual report that is produced in the context of the WORK4CE project and that related to deliverables defined in the project description. For example, "Dissemination Plan" constitutes a document deliverable.

Technological output refers to virtual platform/services developed and provided to target beneficiaries in the context of the WORK4CE project. For example, all integral virtual resources of the WORK4CE collaborative platform.

Since they are quite different in nature, a different validation procedure will be implemented for each of these deliverable types.

Each document deliverable produced by the project staff will be submitted to the person responsible for supervising the work package (WPO = Work Package Owner); the WPO will self validate the document deliverable based on the quality indicator as defined in the LFM and AF; the WPO will then advice the validation results to the module OpenCop. After acceptation the EIB and DMB will be informed.

Product/service as well as technological/digital media/course deliverables will be reviewed based on the check-list document drafted to describe the features of the technological output. Based on that document, acceptance criteria will be defined and will serve as a point of reference for evaluating the

technological output deliverables. Technology developer will be the first to assess whether the deliverable meets the acceptance criteria. Consequently, the OpenCop will get access to the technology checking it against the acceptance criteria again. After the testing phase and remediation of all issues, the WPO will notify that the digital media is ready to be used.

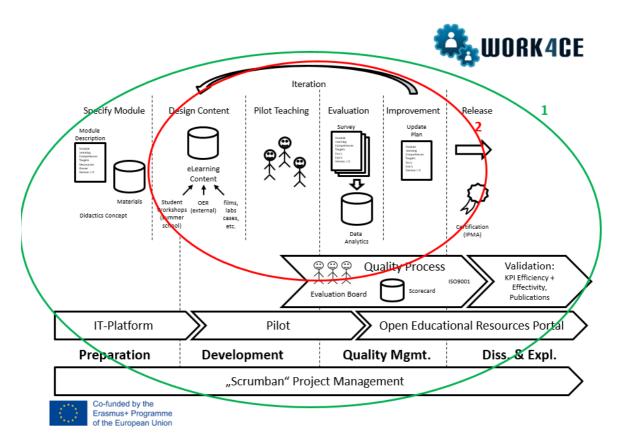


Fig. 4-1 Quality loops/methodology in Work4Ce

For the validation of course materials 2 checklists have been developed (see Annex 1, Annex 2).

These checklist are available for the reviewers in the OpenCops to evaluate and check developed materials.

In the methodology of the project for each module a number of courses is developed. Each course will consist of several digital media (knowledge clips, video's, e_learning parts, info-graphs, slideshows....) which in total make out the learning/teaching materials for a course. The checklist are made to be used in the quality loop no 2.

- A first checklist in on the individual media to check/review if they are up to standard, complete and representative for the learning outcomes which should be delivered. (Annex 1: "Digital Media Checklist form": a review form for individual digital media.).
- A second checklist is on a complete course and as such in essence the compilation of all individual media reviews. It many checks if all learning outcomes are covered in the media. (Annex 2: "Course_materials_checklist_form")

In the context of the WORK4CE project, quality management is fairly dependent on the efficient methods and tools of internal communication, allowing feedbacks among geographically dispersed Project Partners, timely effective and quality decision making, internal process of checks and balances, as well as quality validation of project deliverables. Consequently, minimal corrective measures will be

necessary, implementation will follow the initial working program, and most importantly, project general and specific objectives will be realized.

5 QUALITY STANDARDS

5.1 QUALITY STANDARDS

They define the policy that is to be followed by Project Partners in order to ensure the quality of achieved outputs and results, as well as standards to apply to deliverables and processes.

The quality standards are described in the quality manual of the project.

Policy for quality assurance of project's outputs and results

The assurance of quality is fundamental for all work undertaken by WORK4CE project and should be implemented by all partners in their work. To that effect, WORK4CE shall:

- Maintain consistency in work method throughout in accordance with set policies, procedures, regulations and codes of practice and without significant deviation.
- Ensure that all policies, procedures, relevant regulations and codes of practice are implemented and systematically reviewed to reflect WORK4CE's values.
- Regularly monitor and measure the quality of its work methods, outputs and outcomes
 with a view to ensuring high quality standards, best value and continuous improvement.

5.2 QUALITY ASSURANCE

The focus of quality assurance is on the processes used in the project. Quality assurance ensures that project processes are used effectively to produce quality project outputs and results. It involves following and meeting standards, continuously improving project work, and correcting project defects.

Some of the issues to be in consideration are as follows:

- The project processes subject to quality assurance.
- The quality standards and stakeholder expectations for that process.
- The quality assurance activity e.g., quality audit or reviews that will be executed to monitor that project processes are properly followed.
- How often or when the quality assurance activity will be performed.
- The name of the person responsible for carrying out and reporting on the quality assurance activity.

There is established 2 quality loops: (see Fig. 4-1)

- **Green loop no 1**: overall quality of the project. Monitored by the IEB (Internal Evaluation Board) and the DMB (Daily Management Board). This loop aims in general on a smooth project running.
- Red loop no 2: quality loop for the development and use of course materials. This loop is organized
 in an agile methodology, where the OpenCop of the module has the task to define, review and
 improve the deliverables.

5.2.1 EXPECTED RESULTS AND OUTPUTS

In line with the description provided in the project background and with the general and specific objectives, the following main results and outputs of the WORK4CE project have been elaborated.

Detailed results and outputs are indicated for each WP, the following are the most significant ones at project level.

Results:

- Development of a collaborative platform characterised by virtual learning and teaching materials, encouraging the knowledge transfer between programme countries and partner countries. The platform used is the Atlassian Confluence tool.
- Improvement of existing study programmes and the development of new curricula in the field of project management and organization of safe work in the partner countries
- Capacity building and enhancement of the cooperation culture of partners and Main outputs (see also AF):
- WORK4CE study programme analysis: requirements set in the OpenCOps
- WORK4CE syllabi for module description
- WORK4CE teaching/learning/training material
- WORK4CE platform: online platform to support the relationships between the consortium partners
- WORK4CE trainings and workshops: field visits to support knowledge transfer in the area of safe work in digital era in HE

The **expected results** are direct and immediate advantages resulting from the WORK4CE's activities and from the production of the outputs, they are the effects to which the outputs lead to and tell us about the benefit of funding the outputs. Compared to outputs, results imply a qualitative value, even if they should also be measured in concrete units (see Indicators).

The WORK4CE defines also outputs, which, practically, tell us what has actually been produced with the money given to the project. The project **outputs** are tangible deliverables and visible products of the project directly resulting from the tasks carried out in the project (curriculum development, training material development, workshops etc.). They are typically measured in concrete units.

The realisation of the defined indicators will be taken into consideration to monitor the project performance.

INDICATORS

The indicator targets set by WORK4CE in the Application Form under the Logical Framework Matrix (LFM) define its level of ambition, help to monitor progress throughout implementation and allow evaluation whether the objectives have been achieved.

All indicators under WORK4CE will be expressed in quantity (such as 'the number of') in order to be able to measure results and outputs objectively, but they need to be completed by qualitative aspects.

The definition of the WORK4CE project indicator system is very important and will be cleared and estimated by the partners, which shall agree in what exactly needs to be achieved by the project since the beginning.

5.2.2 STANDARDS THAT APPLY TO DELIVERABLES AND PROCESSES

During the WORK4CE project execution, there are a number of project activities and tasks to be delivered. All these deliverables should adhere to certain quality standards as well as specific client requirements.

Therefore, each of these deliverables should be validated and verified before implemented. For that, there should be a quality assurance function which runs from start to the end of the project. As a principle, if the processes and activities that produce the deliverables do not adhere to their own quality standards (process quality standards), then there is a high probability that deliverables not meeting the delivery quality standards.

To address all the quality requirements, standards, and quality assurance mechanisms in our project, this QM-document is developed by the project team. This plan acts as the quality reference framework for the project and all the stakeholders of the project should adhere to the project quality plan.

5.3 APPROACH

As the procedures are put in place and implemented, improvements will be identified and introduced under the control of the EIB and PMT.

The standards and procedures are based on the following principles.

- 1. Standards and procedures will be agreed-upon in advance for all project activities.
- 2. The team will be involved in their development or adoption to make sure that the standards are owned by the team.
- 3. Every effort will be made to ensure that the quality of the standards and procedures is evident and to not impose unnecessary standards or overly elaborate procedures.
- 4. Once adopted, the standards will be formally documented, easily accessible and easily understandable.
- 5. We will be flexible in evolving the standard if someone has an improvement.

Based on the objectives, challenges and goals set by WORK4CE project leads to many project deliverables. They can be summarised as:

- Documents and reports (including Work Plan, quality plan, modules and syllabi, national reports, study programme reports, curricula)
- Events (kick off meeting, local/national/international events, workshops, trainings etc.)
- Product/Service (WORK4CE collaborative working space)
- Teaching/Training/Learning Material (supporting documents for study programmes/courses)

All of the deliverables will be developed based on the standards and procedures defined in the beginning of the Project.

All documents and reports produced within the WORK4CE project are expected to fulfil standards and quality criteria as follow:

 To be produced based on visual identity requirements, (to be presented in corresponding templates provided in this Project Quality Plan).

- To respond qualitatively to objectives set in the Application Form;
- To be delivered within the time frame set in the Reports
- To be approved by the relevant management structure as defined in this Project Quality Plan

The work package and deliverable evaluation forms should have a uniformed appearance, structure and referencing scheme. It is therefore necessary to use document referencing and template provided in the Annex of this Project Quality Plan.

All events planned within the project need to be organized on the in compliance with their standards and procedures including all necessary arrangements and coordination, preparation of invitation packages (invitation letters, agendas, etc.), details on location, available accommodation and travel arrangements, etc.

Products and services (WORK4CE collaborative platform) should be adequately developed and designed to respond to the target end-users in accordance with the set action plan. They need to follow clearly defined methodology, address the foreseen target groups, and meet verifiable indicators within the planned time frame.

In additional, the WORK4CE Project has a website <u>work4ce.eu</u> in order to attract large number of target groups and the broad general public. This quality and standard tool, will serve to inform and promote WORK4CE project deliverables and at the same time the beneficiaries will be able to find regularly updated information about the project, its progress, contact information, project achievements and results.

6 PROJECT DOCUMENT MANAGEMENT

Project document management – offers the set of document templates to be used for project reporting and monitoring, such as working meetings proceedings and registration forms, personnel timesheet; check lists for financial reporting, organisation of public events, etc.

All documents and reports produced within the WORK4CE project are expected to satisfy the visual identity requirements, i.e. to be presented in corresponding templates provided in this Project Quality Plan.

6.1 DOCUMENT TEMPLATES

Deliverable documents to the EACEA, as well as all other reports, minutes, or presentations will be based on the document templates applicable for all documents to be created within the scope of this Project. The templates for format are mandatory. Several different types of documents are in use with the following respective purposes (e.g. time sheet, travel report).

WORK4CE Project Partners (including the Coordinator) will use all the mandatory templates (provided by the EACEA) required in specific case and the suggested templates that can be used.

For the reporting process at project level, WORK4CE Project Partners will use the templates provided by the Coordinator, where compulsory templates are provided by the EACEA.

WORK4CE Project Partners will use different templates for reporting, monitoring as well as for organising

and respecting the procedures for events (conferences, workshops, trainings, etc.) which will be at their disposal in the project common repository.

The following evaluation forms will be made available:

- Project Progress Evaluation Form
- Meeting Evaluation Form
- Training Evaluation Form
- Communication Tools Evaluation Form

The templates of the Project Progress Evaluation form relates to the work performed and results achieved by the Project Partners in the considered period of reporting, highlighting the state of project implementation, the description of activities carried out, and the outputs and results achieved according to the project Work Plan.

Project Partners will also use the Meeting and Training Evaluation Forms as well as Communication Tools Evaluation Forms for internal evaluation purposes, as well as students taking the particular Work4ce courses will be asked to use the Student Evaluation Forms.

6.2 STORAGE OF PROJECT DOCUMENTS AND ACCOUNTING RECORDS

All accounting and supporting documents (e.g. Project Application Form, public procurement documentation, important communication between the Project Partners and with the Programme bodies as well as documents required to ensure an adequate audit trail, documents related to expenditures as e.g. original invoices and controls and audits) must be available and accessible until 5 years after the Programme closure, unless stricter national rules/state aid regulation do not state a later date.

A common platform is available for storage of a back-up: the owncloud.

Official documents related directly to the communication with the EACEA shall be archived by the Coordinator, whilst the reporting and supporting documents related to the Beneficiaries must be kept at the Beneficiaries' premises for an equal period of time. The documents can be kept either in the form of original copies or in a version in conformity with the original, as commonly accepted data carriers.

The procedure for the certification of the conformity of these documents held on data carriers with the original documents must be in line with the provisions set by the national authorities and shall ensure that the versions held comply with the national legal requirements and can be relied on for audit and control purposes. In case of retaining the documents electronically, internationally accepted security standards must be met.

7 QUALITY ASSURANCE

The quality assurance improvement plan identifies the specific measures to be carried out in order to ensure that the project and its deliverables conform to the project quality requirements. Those responsible for quality of realized activities are identified and their role has been described in the corresponding sections of this document. The quality assurance plan presented here includes explanation showing how quality requirements for activities are to be met.

The improvement plan will implement a scrumban-methodology with a ticketing system implemented in the JIRA-tool (under construction).

7.1 INTERNAL PROJECT EVALUTION

The **Coordinator** (**CO**) is responsible to ensure the successful implementation of the project and its activities by monitoring and reporting on the project's progress. In order to ensure efficient administrative and financial management, the CO will establish a procedure for monitoring the achievements of milestones and outputs as well as the project spending (see evaluation forms for internal evaluation process in confluence as well as forms and checklists provided in the Erasmus Beneficiaries' Space).

The **Coordinator** and Lead Beneficiary are supported by the **DMB** (daily management board) and **PMT** (Project Management Team). It is responsible for monitoring the project in order to achieve the targets/objectives set in the project application. If necessary, the PMT handles with the changes of the project implementation (see Grant Agreement / The ERASMUS+ Programme Guide and the Guidelines for the Use of the Grant).

The PMT is composed of representatives of all Project Partners.

The main instruments for the project monitoring are the Project Progress Evaluations. Based on these evaluations the Coordinator and the PMT monitor the project implementation in order to help the project to achieve the best possible output. At the same time, they are a tool for the Coordinator to follow the activities occurred among the Project Partners.

The project monitoring also includes the tracking of the project's expenditures.

7.1.1 REVIEW PROCEDURE AND SELF ASSESSMENT

The quality of the work will be reviewed at the Project regular **monthly** meetings. All deliverables will be discussed during the project meetings and will be screened by the **OpenCops Leader** (OL) and **Project Coordinator** (CO) prior to their releases to the EACEA to ensure they meet the objectives of the project as a whole. The quality of the deliverables will be internally assessed by the following internal approval procedure after revision within the consortium.

Quality review of deliverables within the WORK4CE project will therefore be realised at different levels:

Deliverable author level: The first level of quality control for the development of deliverable will be responsibility of its author. (The **Local Partner Management Teams** will ensure that the relevant deliverable is produced in accordance with the set goals and defined in the AF.)

Work Package Leader/OpenCop level: The deliverable draft is to be distributed to the Work Package

After revision of the deliverable during self-assessment or during the project meeting, the **DMB/PMT** and **CO** can call for improvements or changes in case of the work, reported in the deliverables, does not achieve the technical objectives stated for a given task in the Work Plan. In this case, the **OL** and the author (task assignee) will discuss the technical work in order to identify the unsatisfactory parts and to take corrective action. The author (task assignee) will propose the corrective action to the **PMT** if a significant

Work Plan modification is required. The changes will be approved by the **PMT** and then implemented by the original author (task assignee).

The final rating of the deliverable draft can be marked as:

- **Fully accepted** In case the deliverable is fully accepted by all reviewers, it can be considered the final version, and/or sent to the respective level of revision (if necessary).
- Revisions required The deliverable author includes or disregard those comments and finalises
 the deliverable.
- Rejected —In case the quality of the deliverable is not satisfactory and / or it fails to conform to
 the quality criteria the reviewer reports to the PMT.

In case profound disagreements between reviewer and author, the deliverable will have to go through the WORK4CE level of control.

The **PMT** level is the third level of deliverables quality control. The **PMT** is responsible for approval of products, services and key documents of the project, such as Project Reports, Monitoring and Evaluations, Communication and Dissemination strategy, etc. Besides, it will be responsible to resolve any disagreement that may appear at the lower control levels. The approval of all deliverables must respect the time schedule defined in the Project Work Plan (see AF)

7.2 EXTERNAL PROJECT EVALUATION

- External Project Evaluator The EPE will be appointed after the QAP has been established and its task will be to certify that the internal QAP is correctly implemented. The EP will participate in two coordination meetings, and will produce one interim report and one final report, regarding the overall process and the internal self-evaluation that may include recommending changes in the QP.
 - As external project evaluator was chosen after a tender. The VMD Expertise-expertise company is appointed as external expert and subcontracted as foreseen by P03. For VMD expertise, ing D. Van Merode did an external evaluation survey of the project and delivered his report in September 2022. The report can be found in the Confluence as attachment to section WP3 Quality Plan.
- **NEO Monitoring:** NEOs in the partner countries (Ukraine and Azerbaijan) will monitor the progress of the project, holding regular visits to certify its satisfactory implementation.
- External Approved Auditor (EAU): The SC will appoint an EAU. The EAU will produce one external audit work, verifying that all costs are properly declared in the Final Financial Report.

7.3 PROJECT CHANGES

The project should correspond as much as it is possible to the Application Form (AF). However, the planned project activities are based on assumptions made at the time of the AF submission and conditions may be change during the time. During implementation, sometimes it is allowed to make some project changes in order to adapt to real situation that the Project Partners have to deal with. Those changes can be:

Changes, which DO NOT have a relevant impact on the main results, outputs and objectives of
 P. Arras

Page 22 of 32

- the project; they require a detailed written request to the Project Coordinator justifying the changes, and the CO may approve it or not.
- **Substantial changes**, which HAVE a relevant impact on the main results, outputs and objectives of the project; they require a detailed written request produced by the Project Coordinator, sent to the EACEA justifying the changes as well.

Specific obligations about project changes are established in the Grant Agreement and shall be respected as well.

For the submission of any project change, the **CO**, after having collected the requirements of changes by each Project Partner, files a written request ("amendment") signed by the legal representative to the EACEA.

Within the DMB and PMT was decided to request for a prolongation/extension of the project with 1 year. The arguments for this decision is:

- The Corona/COVID-19 pandemic which slowed down and made planned activities with mobility difficult/impossible
- The war in Ukraine which started in Feb 2022.
 - o Making mobility from Ukrainian partners impossible.
 - Stopping all financial transactions from the grantholder out as it is not allowed to transfer money from UA to other partner countries.
 - Making the procurement of equipped problematic (especially in UA)

7.4 PROJECT EVALUATION PLAN

The project evaluation plan indicates what items should be taken care of for the quality indicators.

Element	Quality indicators	Evaluation level	Items to be evaluated
Comparative analysis of relevant curricula in programme and partner countries	Identification of existing (current) Project management/engineering curricula on digital transformation Interpretation of the current and future needs	Internal	Number of national reports produced by European partners Comparative reports compiled for UA and AZ
Modules/Labs/Curric ulum development	Prepared modules and syllabi according to EU partner expertise Organisation of teacher trainings at EU partner institutions Organisation of local teacher training Organisation of intern. student contest? Developed multidisciplinary courses Prepared teaching material	Internal	Published teaching/learning/training material Training Evaluation Form Minutes of coordination meetings Student Evaluation Form Contest report? Pilot teaching report
			22 -f 22

P. Arras Page 23 of 32

Quality control	Quality monitoring and assessment Internal/External Satisfaction survey (=evaluations) Developed and approved quality plan Evaluation by Quality Assurance Group	Evaluation forms Quality plan Quality control and management reports Internal evaluation/quality assurance reports External evaluation/quality
	External project evaluation (performed by independent expert)	assurance reports and recommendations
Dissemination and exploitation	Development & dissemination of Internal / External project materials, including a	,
·	Springer Book	Project Communication Tools Form
	Development of Project Website	Published Springer Book
	Dissemination events organized, including the final conference	Project marketing package published
		Number of publications in the press and social media
		Number of visitors to the project events
		Number of visitors on the project website
Project management	Project management plan developed Internal / External	Project Progress Evaluation Form
	Work Plan with clear division of	Meeting Evaluation Form
	tasks and responsibilities produced	Information collected from Project Partners
	Approved decision- making procedures	Updated Work Plan
	Approved methods and tools of communication between partners	
	Financial management	
	Project events	
	Project management reports	
Coordination and	Quality of information and Internal / External	l Meeting Evaluation Form

project meetings	communication prior to and at the event
	Participation and contribution at the event
	Respecting the agenda & meeting the goals of the meeting
	Working environment
	Participants have a clear plan of upcoming activities

8 Annex 1: "Digital Media Checklist_form": a review form for individual digital media.





Digital Media Checklist

V0.4 from 12.09.2022 G. Tabunshchyk, P. Arras

Remarks:

- Author of the resource needs to fill in the header table so the reviewer knows what she/he needs to review.
- Reviewer fill the other fields in the form.

Header table

To be filled by author of the	
resource	
Name of the resource	
Type of the resource	Poster/info graphic
	Video
	Course book
	E learning
	Presentation
	Other
License type	Not Applicable
	No: open source
	Yes: (see license box)
Addressed learning	
outcomes (in case of	
course materials) in this	
resource. What should	
students learn/acquire	
through the use of this	
resource?	
Fill in accordance with the	
syllabus of the course.	
Foreseen study time (in	hours
case of course materials)	
for this item	
Methodology of use (in	
case of course materials)	
Link to the resource:	







Review.

Meta information: in case of course materials

	yes	no	n/a
Is the learning outcomes described?			
Is the methodology of use explained?			

Accuracy

	yes	no	n/a
Is the information accurate/correct?			
Are there major content errors or omissions?			
Are there spelling errors or typos?			

Relevance

	yes	no	n/a
Information directly address one or more of			
the learning outcomes of the course			
Is content up-to-date?			

Product quality

	yes	no	n/a
Is the information clear and understandable?			
Is the layout and interface easy to navigate?			
Do the design features enhance learning?			
For audio or video resources, is the sound quality high?			
Is content consistent in terms of terminology and framework?			

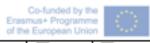
Accessibility

	yes	no	n/a
Is the resource available in alternative formats?			
(e.g. text document, downloadable version)			



Page 3/4





AB WOUNTOE		of the European I	Union
For audio or video resources, is there a transcript or subtitles?			
Interactivity			
	yes	no	n/a
Does the resource include interaction to get practical skills?			
Are there opportunities for students to test their			
understanding of the material? E.g. quizzes,			
questions to answer to proceed to the next			
level)			
Licensing			
	yes	no	n/a
Does the license allow for educational reuse of the materials?			
Does the license allow modifications or adaptations of the materials?			
Compliance with visual identity rules			
	yes	no	n/a
Does material contain visual identity of the			
program (logo of EU-program)?			
Does material contain visual identity of the			
project (logo of the project)?			
Conclusion and recommendations:			



9 Annex 2: "Course_materials_checklist_form"





Course material Checklist

V0.1 from 13.09.2022 P. Arras

Remarks:

- Author of the course material needs to fill in the header table so the reviewer knows what she/he needs to review.
- Reviewer fills the other fields in the form.
- All reviews of the separate resources need to be added for the course review.

→ Header table

ricader table	
To be filled by author of the	
resource	
Module number and name	
Name of the course	
Type of the course material	☐ Course book
	☐ E_learning course
	☐ E_learning course ☐ (Powerpoint) Presentation
	☐ Assignment ☐ Reading materials
	☐ Reading materials
	☐ Other
Addressed learning	Knowledge:
outcomes (in case of	Skills:
course materials) in this	SKIIIS:
resource. What should	General competences:
students learn/acquire	
through the use of this	
course?	
Fill in accordance with the	
syllabus of the course.	
Foreseen study time (in	hours
case of course materials)	
for this item	
Methodology of use (in	
case of course materials)	
Link to the course	
materials on the Moodle:	
Additional compulsory	
reading materials	

Page 1/3





Review.

Meta information: in case of course materials

	yes	no	n/a
Is the learning outcomes described in the course materials?			
Is the methodology of use explained (e.g. project assignment, use of e_learning)?			
Are all learning outcomes covered in the course materials			
Are all learning outcomes covered in the evaluation			
Is the methodology of the learning activities in accordance to the syllabus			
Accuracy			
	yes	no	n/a
Is the information accurate/correct?			
Are there major content errors or omissions?			
Are there spelling errors or typos?			
Relevance			
	yes	no	n/a
Is content up-to-date?			
Is the content supportive for the subject			
Product quality			
	yes	no	n/a
Is the information clear and understandable?			
Is the layout and interface easy to navigate?			
Do the design features enhance learning?			
For audio or video resources, is the sound quality high?			
Is content consistent in terms of terminology and framework?			





Interactivity

	yes	no	n/a
Does the course include interaction to get practical skills?			
Are there opportunities for students to test their understanding of the material? E.g. quizzes, questions to answer to proceed to the next level)			
Compliance with visual identity rules		_	
	yes	no	n/a
Does material contain visual identity of the program (logo of EU-program)?			
Does material contain visual identity of the project (logo of the project)?			
Conclusion and recommendations:			