



Title of Deliverable:

QUALITY CONTROL AND MONITORING PLAN (QCMP)

Project title	<i>New Professional Diploma in Plant Clinic and Phytosanitary Technologies (PRO-DPCP)</i>
Project No	<i>609550-EPP-1-2019-1-BG-EPPKA2-CBHE-JP</i>
Funding Scheme	<i>Erasmus + KA2 - Capacity Building in the field of Higher Education</i>
Work Package	<i>WP6 – Quality Control and Management Plan</i>
WP Leader	<i>SCU</i>
Status-Version	<i>Final</i>
Date	<i>29/9/2020</i>
Dissemination level	<i>Internal</i>





LIST OF ABBREVIATIONS

PRO-DPCP	<i>“New Professional Diploma in Plant Clinic and Phytosanitary Technologies” Erasmus + KA2 CBHE project 609550-EPP-1-2019-1-BG-EPPKA2-CBHE-JP</i>
CBHE	<i>Capacity Building in Higher Education</i>
EU	<i>European Union</i>
ECTS	<i>European Credit Transfer System</i>
IQCM	<i>Internal Quality Control and Monitoring Form</i>
KA	<i>Key Action</i>
LFM	<i>Logical Framework Matrix</i>
QA	<i>Quality Assurance</i>
QCM	<i>Quality Control and Monitoring</i>
QCMP	<i>Quality Control and Monitoring Plan</i>
QCMB	<i>Quality Control Monitoring Board</i>
PC	<i>Partner Country</i>
WP	<i>Work Package</i>
WPL	<i>Work Package Leader</i>



INTRODUCTION

This document presents the Quality Control and Monitoring Plan for Erasmus + KA2 CBHE project 609550-EPP-1-2019-1-BG-EPPKA2-CBHE-JP "*New Professional Diploma in Plant Clinic and Phytosanitary Technologies*" (PRO-DPCP). It is developed within the scope of the WP 6 (Quality Control and Monitoring Plan) of the Project in compliance with the Project description and all applicable rules and guidelines.

The WP leader, as defined in the project proposal, Suez Canal University, is responsible for outlining the first draft of the QCMP in cooperation with the Co-Leader Sohag University (SOU). After consultation with the Project Coordinator and other partners responsible for specific deliverables, additional procedures will be defined in the revised version of the QCMP.

The QCMP:

- Defines the quality expectations for project deliverables (outcomes and outputs).
- Defines the internal monitoring and quality management.
- Defines the content, format, review and approval process of the project deliverables.
- Defines the responsibilities of the project partners regarding those deliverables.
- Identifies all the different tools and means to be applied throughout the project duration.
- Provides guidelines for adequate implementation and thereby assure that certain quality standards in the performance of our tasks are fulfilled.
- Defines the quality requirements that must be obtained throughout the project lifecycle, those deliverables, that actions and results must conform to.

Monitoring and evaluation activities are divided into a formative evaluation (at the beginning and in progress gaining feedback by the short and long target groups) and a summative evaluation at the end of the project.

Monitoring will be carried out internally and externally:

- Qualitative and quantitative indicators to evaluate the achievements of results (not exhaustive list):
 - Expectations on the project from partners, trainers, trainees.
 - No. of people attending the meetings, training, local activities.
 - No. of people, organizations and relevant stakeholders reached through dissemination and training activities;

Monitoring outputs:

- Quality plan
- Interim reports (2)
- Final report



QUALITY CONTROL AND MONITORING BOARD (QCMB)

In order to achieve the quality objectives of the project, a Quality Control and Monitoring Board (QCMB) was established during the Kick-off Meeting, which will consist of people from consortium universities: three from European Union (AUP, UNINA, UNIDEB) and six from Egypt (SCU, MAU, ASU, ALU, SOU, and SVU). SCU will lead the QCMB as WP6 Leader (Table 1).

Table 1. QCMB members

Partner	Role	Name	Email
SCU	WP Leader	Waleed Ibrahim Shaban	awaleed219@yahoo.com
SOU	WP Co-leader	Ahmed Hassanein	ahmed.hassanein@science.sohag.edu.eg
AUP	Partner	Vili Harizanova	vili.harizanova@gmail.com
UNINA	Partner	Francesco Vinale	fervinale@unina.it
UNIDEB	Partner	Laszlo Radocz	radocz@agr.unideb.hu
MAU	Partner	Mohamed Elaidey	abdallah@mans.edu.eg
ASU	Partner	Medhat Ali	mdtkml_clinic@agr.asu.edu.eg
ALU	Partner	Nader Ashmawy	nader_pcr@yahoo.com
SVU	Partner	Youssuf Gherbawy	youssufgherbawy@yahoo.com

The duty of the QCMB is to monitor and evaluate the progress of the project and to ensure that all its activities are carried out properly according to European Standards and Guidelines for Quality Assurance and to ensure the proper execution of the project to achieve its objective. The QCMB will design a proper evaluation process and will be responsible for creating a set of indicators.

Such the QCMB will define the following milestones:

- Reports from partners on the quality of implementation of the work packages.
- Each 6 months, QCM reports will be submitted by the QCMB based on individual reports by consortium members who are responsible for the internal monitoring and quality control of the implementation status of tangible results including recommendations and corrective measures related to the strategic project achievements and overall management of the grant.
- Twice a year, QCM reports with achieved/planned outcomes, based on evaluation of each partner's QCM reports. The QCMB will also report the outcome of the evaluation, identification of deficiencies, and delays so that appropriate countermeasures can be taken.



- An impact report, as a part of the final project report, on the broader impact of the project and its relevance to the national context towards the needs of major stakeholders, adopted at the end of the project life by the consortium members.

The QCMB will monitor the project at different points using different types of evaluation practices and tools, such as report analyses, inventory, questionnaires, checklists and QCM visits, devised to assess the project relevance on an ongoing basis, efficiency and impact, to measure progress throughout its life cycle, to determine if the project responds to the needs of the main target groups, to measure the level of satisfaction of beneficiaries of project activities, and to evaluate unexpected results and control all processes. QCM activities will include monitoring panel for quality analysis of the diploma program, improvement teaching resources and lab facilities, training of teaching staff, student feedback, achievement of objectives, and impact of the project on each PC, dissemination activities and impact assessment. The monitoring and evaluation procedures will monitor the project execution through monitoring reports which will be edited every 6 months. Additional to the two-annual internal QCM reports elaborated by the QCMB, there will be two external reports delivered by sub-contracted external expert.

PROJECT QUALITY ASSURANCE

1-Quality of the project processes

The objective of this work package is to support project coordinator and WP leaders in maintaining highest quality of project deliverables, activities and results, as well as improving project achievement. It should support decision making by delivering the evidence necessary to introduce any significant changes. It will improve the project quality deliverables and measure to what extent they reach the short-term project goals and results set out in the project work plan.

The quality of the project processes estimation will be done through self-assessment of the consortium by each partner, through people assigned by the QCMB, using the Project Quality Assessment Form. The project partners must answer each question with an assessment of the performance of the consortium. The evaluation result will be sent to QCMB two weeks prior to the 6-month report. The WP6 leader will collect all answers from the different partners and merge them into a report, which will reflect the views of the consortium on its progress. Based on results processing, in case WP6 found that one or more are beneath the potential performance, he must inform the PC to set forth problem-solving measures. The evaluation will be performed twice a year during the project period.

2- Quality of Deliverable

Our project deliverable will involve certain quality standards as well as specific stakeholder requirements. Deliverable will be validated and verified before the approval.

Expected progress indicators for quality approach are:

- No. of new programs with plant clinic centres (6)
- No. of students enrolled first patch (~240)
- No. of networks between institutions and employers created (1) national



- No. of academic and administrative trained staff (~120)
- No. of external trained employers (~300)
- Participant's satisfaction and evaluation survey (1 per project year)
- Internal and external reviews (3 internal reviews and 1 external)
- Regular reports of the QCMB meetings: narrative and financial reports

The general anticipations for all achievements regarding their quality related to the results of the main and specific objectives of the project as well as the commitment with the project time framework.

3- Quality Assessment

Based on the nature of the activity achievement, for each WP and its different tasks, the estimation can be done by two types: internal or external. "Internal" means that the person who is responsible for the review of the document is one/ more than one of the members of the consortium and the associated partners, whereas "external" means that persons Others than the partners and/or associated partners of the project (the public, participants, trainees, beneficiaries etc.) assess the outputs. The estimation is made with the assist of specific documents according to the specificity of the work package. In case the achieved result is not considered acceptable, WPL should take the necessary corrective actions according to the evaluation results.

3.1. Internal Assessment

Many of PRO-DPCP outputs are addressed to the partners of the consortium. These activities of the WPs and tasks are subjected to an internal evaluation. Table (2) presents WPs and deliverables and responsible for identifying the assessment criteria of the project outputs.

Table 2. WPs and deliverables of PRO-DPCP and Target groups

WP	WP Leader	Task no.	Description	Type of expected deliverable	Target groups	Due time
WP1	AUP Co-lead MAU	1.1.	Stakeholder assessment study for plant clinic program	Report	Students, Trainees, Others	
		1.2.	Good practice visits to EU for benchmarking study	Learning material, Report	Teaching staff, Administrative staff, Others	
		1.3.	Staff needs for training in modern plant clinic techniques	Event, Report	Teaching staff, Students, Administrative staff, Others	
		1.4.	Good practice guide for plant clinic services	Report	Teaching staff, Administrative staff, Technical staff	
		1.5.	Terms of reference to establish network signed	Event, Report	Teaching staff, Administrative staff, Others	
WP2	ASU Co-lead ALU	2.1.	Need of equipment's/teaching materials approved	Report	Teaching staff, Administrative staff, Technical staff	
		2.2.	Space for network/training centers provided	Report	Teaching staff, Administrative staff, Technical staff, Librarians	
		2.3.	Public tender call for purchasing of equipment's done	Report, Service/Product	Teaching staff, Administrative staff, Technical staff	
		2.4.	Equipment and literature purchased, installment	Learning material, Report, Service/Product	Teaching staff, Students, Administrative staff, Librarians	
WP3	UNINA Co-lead UNIDEB	3.1.	Staff/students training plan developed	Report	Teaching staff, Others	
		3.2.	Training agreements signed among partners	Event, Report	Teaching staff, Administrative staff	
		3.3.	Staff from PC trained on ECTS and pedagogy	Teaching material, Training material	Teaching staff, Trainees, Administrative staff	
		3.4.	Trainers trained on Plant Clinic	Training material,	Teaching staff, Others	

			Techniques	Report		
		3.5.	Technical staff trained on new equipment.	Report	Teaching staff, Trainees, Technical staff	
		3.6.	Administrative in PC trained on ECTS system	Learning material, Training material, Report	Teaching staff, Trainees	
		3.7.	e-learning and network developers trained	Training material, Report	Teaching staff, Administrative staff, Others	
		3.8.	Students trained in field and lab practices	Report	Teaching staff, Trainees, Administrative staff, Others	
		3.9.	Internship of students applied	Learning material, Training material, Report	Students, Trainees, Others	
		3.10.	Short training program (every 3 months) conducted	Learning material, Training material, Report	Teaching staff, Students, Trainees, Others	
WP4	UNIDEB Co-lead ASU	4.1.	Review of worldwide similar programs conducted	Training material, Report	Teaching staff, Administrative staff,	
		4.2.	Teaching methodologies developed	Learning material, Report	Teaching staff, Administrative staff,	
		4.3.	Structure for new DPCP program designed	Learning material, Report	Teaching staff	
		4.4.	Teaching resource platform developed and web access	Teaching material, Training material, Report, Service/Product	Teaching staff, Technical staff,	
		4.5.	Clinic room operated and pests' cultures collected	Report	Teaching staff, Trainees, Technical staff,	
WP5	ALU Co-lead SCU	5.1.	New DPCP program accredited and catalogue printed	Report	Teaching staff, Administrative staff,	
		5.2.	Teaching commitments to staff members assigned	Learning material, Report	Teaching staff	
		5.3.	New program	Event,	Teaching staff, Students, Trainees,	

			announced/launched at each PC partner	Service/Product	Administrative staff,	
		5.4.	First group admitted at PC partners	Learning material, Report	Teaching staff, Students, Trainees, Administrative staff,	
		5.5.	2 nd students group selected/enrolled (winter- 2020)	Learning material, Event, Report	Teaching staff, Students, Trainees, Administrative staff,	
		5.6.	Internship report/Diploma graduation thesis evaluated	Learning material, Report	Teaching staff, Students, Trainees, Administrative staff,	
		5.7.	Graduation ceremony of first diploma graduates	Event, Report	Teaching staff, Students, Trainees, Administrative staff, Others	
WP6	SCU Co-lead SOU	6.1.	Seminars held on QA, Bologna process, ECTS system	Learning material, Training material Event, Report	Teaching staff, Students, Trainees, Administrative staff, Others	
		6.2.	Set up quality monitoring groups for quality ...	Report	Teaching staff, Administrative staff, Others	
		6.3.	External quality control of the DPCP program	Report	Teaching staff, Administrative staff, Others	
		6.4.	Internal quality control of teaching resources...	Report	Teaching staff, Administrative staff, Others	
		6.5.	Internal quality control of dissemination activities ...	Report	Teaching staff, Administrative staff, Others	
WP7	MAU Co-lead	7.1.	Plenary/press events at 3 sites Egyptian partners held	Event, Report	Teaching staff, Students, Administrative staff, Others	
		7.2.	Dissemination operational plan developed	Report	Teaching staff, Administrative staff,	
		7.3.	Inauguration of new DPCP program websites	Learning material, Training material, Report, Service/Product	Teaching staff, Students, Others	
		7.4.	Seminars, meetings / symposia of plant clinic conducted	Learning material, Event, Report	Teaching staff, Students, Trainees, Technical staff, Others	
		7.5.	DPCP program dissemination tools applied	Learning material, Report,	Teaching staff, Students, Trainees, Administrative staff, Technical staff,	

			Service/Product	Librarians, Others	
		7.6.	Field days implemented at each partner site	Event, Report	Teaching staff, Students, Trainees, Technical staff, Others
		7.7.	Project operational plan of exploitation developed	Event, Report	Teaching staff, Administrative staff,
		7.8.	Sustainability plan	Report	Teaching staff, Administrative staff,
		7.9.	Workshop on future cooperation among consortium	Event, Report	Teaching staff, Administrative staff, Others
		7.10.	Legal agreements/business contracts done	Event, Report	Teaching staff, Administrative staff, Others
		7.11.	Laboratory and field analysis paid services	Teaching material, Event, Report	Teaching staff, Trainees, Technical staff, Others
		7.12.	Consultation and Training Centers (CTC) set up	Teaching material, Event, Report	Teaching staff, Administrative staff, Technical staff, Others
WP8	AUP	8.1.	(Kick-off meeting)/1 st year work plan	Event, Report	Teaching staff, Administrative staff
		8.2.	Day to day management implemented in project sites	Teaching material, Report	Teaching staff, Administrative staff, Others
		8.3.	Project steering committee meetings	Report	Teaching staff, Administrative staff
		8.4.	First project report prepared	Event, Report	Teaching staff, Administrative staff,
		8.5.	Final project report prepared	Event, Report	Teaching staff, Administrative staff, Others

QCM Internal responsible team

Partner	The project's work package leaders				Responsible team
	WP No.	Type of Work Package	WP Leader Co-Leader	Title of Work Package	
AUP	WP1	Preparation	WP1 Leader	Needs Analysis and Transfer of Knowledge	Vili Harizanova Atanaska Stoeva Hristina Yancheva
	WP8	Management	WP8 Leader Co- led by 1 contact person in each partner institutions in EG	Management plan of the project	
UNINA	WP3	Development	WP3 Leader	Training activities in plant clinic units for diploma program	Francesco Vinale Sheridan L. Woo Roberta Marra David Turrà
UNIDEB	WP4	Development	WP4 Leader WP3 Co-Leader	Development of the curriculum, design of diploma program, training and Network	Laszlo Radocz Gabor Tarcali Csaba Juhasz Arnold Szilagyi
MAU	WP7	Dissemination & Exploitation	WP7 Leader WP1 Co-Leader	Dissemination & Exploitation plan	Adel Hassan Abdelsallam Amir Mohamed Shalan Safaa Hamza Ahmed Aly Mohamed Abdalla Elaidey
ASU	WP2	Development	WP2 Leader WP4 Co-Leader	Capacity building of equipment, library and new teaching materials	Medhat Ali
ALU	WP5	Development	WP5 Leader WP2 Co-Leader	Professional Diploma in Plant Clinic program (DPCP) announcement and inauguration	Ahmed Elbebany Elsayed Wagih Nader Ashmawy Nahla Mohamed
SCU	WP6	Quality Plan	WP6 Leader WP5 Co-Leader	Quality control and monitoring	Waleed I. Shaban Manal Eid Rafik Abd El Rahman Mohamed A Osman
SOU			WP6 Co-Leader		Bahig El-Deeb Islam El Shaekh
SVU					Rafat Khalaphallah Eman El-Dawy Mohamed Hussein



3.1.1. Quality responsibilities

When the WPLs have finished their tasks, they will send a draft of the achieved deed to the QCMB for evaluation. According to the nature of the outputs made primarily by using specific document (IQCM form) or others means as minutes of the meetings, questionnaires, lists of equipment, proof of purchase, contracts etc., the assessment will be done. WP6 leader will check in the received documents (the used IQCM form), and then he will send them to the WPL, and cc to QCMB. It is worth to be mentioned that each WPL should adjust his documents following the recommended amendments of WP6 leader. Certainly, WP6 leader and each WPL will agree on how much time is needed to sort these modifications. The approved deliverable is sent to QCMB for final evaluation and approval.

As a result, the WPL will upload his proved outcomes on the project website; furthermore, he should inform all consortium members of these findings. This step could take approximately fortnight. On other hand, if the WPL is not convinced by the suggested amendments, he should clarify the reasons behind his refusal in order to get an acceptance. Subsequently, if the draft of the documents does not need any modifications, WP6 leader is going to put this right draft in the list of the project documents. So that it will be ready to launch the final report of the project.

QCM team is going to manage the internal quality control and monitor the development of the operational WPs according to the work plan of the project. Noticeably, the evaluation will be based on both qualitative and quantitative indicators (formulated in objectives, and deliverables) as well as benchmarks. Methodologies (interviews, questionnaires, self-assessment reports, evaluation surveys and site inspections) will be conducted to review quality of each work package and target members of work package.

3.1.2. WP/Task Leader (editor of the deliverable task) has a great responsibility and important duties towards the following points

- Coordinating the development of the deliverable(s) according to the deliverable template.
- Assigning parts of the work to other partners involved in the activity.
- Coordinating the work of other partners involved in the activity, providing guidance when necessary.
- Aligning the contributions of the other partners involved in the activity in order to produce the deliverable.
- Submitting the draft deliverable to the WP leader (1st level), and together with WP leader prepare Technical Report to QCMB (2nd level control)



- Implementing the suggestions of the QCMB team, assigning certain amendments when necessary.
- Sending the amended draft deliverable.
- Informing the WP of about any problems that might occur during the implementation of the activity,
- Cooperating with the WP Leader and other partners in the same WP in order to ensure the activity's progress in conformity with other activities and any cross-activity inputs and outputs being delivered as foreseen by the WP description.

3.1.3. WP Leader has a great responsibility and important duties towards the following points

- Delivering of up-to-date information on the WP progress, making sure that all activities are in the time frame defined in the Action Plan,
- Coordinating the WP and ensuring that all the activities are contributing to the WP's objectives,
- Cooperating with the WP Leaders and the coordinator to ensure that all of the contributing partners are smoothly cooperating with a view to accomplish the WP's objectives and any cross-WP inputs and outputs being delivered as foreseen by the project description,
- Sending alerts on time to remind of the submission deadlines and the procedures to be followed and providing input and suggestions to the WP Leaders of the WP during the development of the relevant deliverables,
- Providing comments and suggestions on the draft deliverables (1st level) to the WP Leaders, and
- Cooperating with the task leaders on preparation of Technical report (for 2nd level), ensuring the implementation of the suggestions of the QCMB team (2nd and 3rd level),
- Verifying the satisfactory implementation of the recommendations.

3.1.4. Quality Control Monitoring Board has a great responsibility and important duties towards the following points:

- Responsibility for the Quality Assurance exercise of deliverables,
- The receiving of each draft deliverable and technical report that is enclosed its implementation from the WP Leader ; offer of the feedback by using the Quality Control Report of deliverable,
- Sending the Quality Control Report of deliverable to the WP Leader,
- Verification of the satisfactory implementation of the recommendations that included in the Quality Control Report of deliverable, in co-operation with the WP Leader,



3.2. External Assessment

PRO-DPCP project includes several outputs that are addressed to people in and out of the university society. These aims of the WPs and subtasks are subjected to an external evaluation. External subcontracted experts, familiar with EU projects and expert in this field but independent from the project team, will write the report commenting on the quality of the actions of the project team and the quality of the deliverables, and also will submit recommendations for follow-up steps. As each work package group will benefit directly from the constructive feedback of the quality management that ensures the quality of the activities. In general, the evaluation is done by the beneficiaries of the activities, by answering specific questions according to the evaluation forms developed within the project documents (*i.e.* event evaluation, website questionnaire).

4. Project Risk Management

As part of the internal quality management, a regular risk assessment will be carried out and reviewed during the Quality Control Monitoring Board meetings (Risk brainstorming) which shall lead to corrective actions and potential adaptations of the Work-Plan based on a sound process.

The risk management strategy addresses issues that could potentially endanger the achievement of the overall goal of the project and its objectives considering potential financial risks (overspending and under spending), timing (postponing of activities / deliverables), performance risks (project management), and sustainability of the project results. The main objective will be to provide a sound assessment, to anticipate challenges in a systematic way and to minimize the potentially negative overall impact.

The identification and assessment of the new risks is a joint responsibility of all project partners who have to communicate them to the Project Coordinator and the QCMB, eventually suggesting the possible interventions and solutions, as soon as they get aware of those risks.

In particular, partners may think of preventive actions (avoiding that the risk occurs) and corrective actions (decreasing the severity and impact), specifying also the resources that would be needed.

The QCMB may react in several ways, ranging from the simple acceptance of the situation in the case of negligible risks, to the enforcement of a mitigation plan including alternatives, workarounds and the proposed corrective actions that will make the risk consequences acceptable for the consortium.

Risk identification is analyzed throughout the life-cycle of the PRO-DPCP project.

The following issues shall be considered as tools and techniques for risk identification:

- Analysis of deliverable status
- Analysis of WP schedules and scopes



- Regular communication of the Management team with the WP leaders

Table 3. Responsibilities of the different partners of QCM Team

Partner		Name
P1	AUP	Vili Harizanova Atanaska Stoeva Hristina Yancheva
P2	UNINA	Francesco Vinale Sheridan L. Woo Roberta Marra David Turrà
P3	UNIDEB	Laszlo Radocz Gabor Tarcali Csaba Juhasz Arnold Szilagyi
P4	MU	Adel Hassan Abdelsallam Amir Mohamed Shalan Safaa Hamza Ahmed Aly Mohamed Abdalla Elaidey
P	ASU	Medhat Kamel Ali
P6	ALU	Ahmed Elbebany Elsayed Wagih Nader Ashmawy Nahla Mohamed
P7	SCU	Waleed I. Shaban Manal H. Eid Rafik Abd El Rahman Mohamed A Osman
P8	SOU	Ahmed Hassanein Islam El Shaekh
P9	SVU	Rafat Khalaphallah Eman El-Dawy Mohamed Hussein



Internal Quality Control and Monitoring Form (IQCMF)

Responsible:

Evaluation period:

Completion date:

Work Package	Task	Deliverable	Start date (*)	End date (*)	Team members involved	Indicator(s)	Approaches, results	Status (open-draft/ on-going / done-final)	Observations, suggestions