



ERASMUS+ PROJECT TURKISH NATIONAL AGENCY

PURE-H2O

2014-1-TR01-KA202-013113

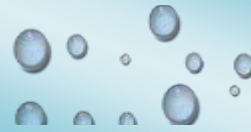
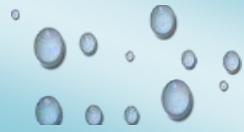
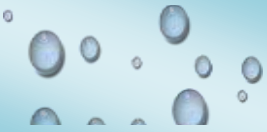
Implementation of ECVET
for Qualification Design in Drinking
Water Treatment Plants and
Sanitation for Pure Drinkable Water

QUALITY MANAGEMENT PLAN

PREPARED BY:

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ANNIE DOWNEY EU EXPERT



2015



ORKON INTERNATIONAL ENGINEERING
TRAINING CONSULTING CO. INC.

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Note to the Partners

This plan defines what quality means for the project, how the project will achieve quality and how the project will follow to organisational procedures pertaining to quality.

This Quality Management Plan is the property of the strategic partnership of the PURE-H2O Project and issuance to other parties is subject to approval by the applicant organisation and the partnership.

The strategic partnership reserves the right to amend the Quality Management Plan, and any related documentation, if and when it is necessary to accommodate changes in the quality system. All such changes will be properly authorised and approved by the applicant organisation, ORKON INTERNATIONAL ENGINEERING TRAINING CONSULTING CO. INC. (ORKON) Bukres Sokak No: 7/5, 06680, Ankara, Turkey.

1. Introduction

In project management, there must be mechanisms in place to plan and implement quality throughout the project and not just as a mere afterthought. Project quality management is all about the project Promoter, the partnership, and the target group working together to ensure that the project carries out as the project plan calls for so that the project intellectual outputs are in alignment with the aims of the project. Quality in the PURE-H2O project is essentially about creating outputs that satisfy the project requirements and is functional. It's about getting the project completed and creating the outputs that can in reality be used by the project target groups. This document will describe the actual process, procedures and controls applied, to all activities concerned with the attainment of a quality assured contracting service. It will define the quality standards to be used, explain how quality requirements will be met, guide the implementation of the quality system and serve as a firm description of our quality system.

This Quality Management Plan briefly describes the project managerial approach mainly reflected in the administrative procedures. It describes the organisational structure of the project, defines the responsibilities of the participants, and outlines the procedures with regard to monitoring, evaluation (external and internal) and reporting of the technical and financial progress of the project. It is based on the agreement drawn up between ORKON and the Turkish Agency, as well as on the partnership contracts between the partner organisations and ORKON.

2. Partnership

This project is a collaborative initiative between the organisations listed below:

- P1:** Orkon International Engineering Training Consulting Co. Inc. (ORKON): Turkey
- P2:** Nigde University: Turkey
- P3:** Gazi University: Turkey
- P4:** Planart: Turkey
- P5:** R & D Center "Biointech" Ltd.: Bulgaria
- P6:** Open University of the Netherlands: The Netherlands

ORKON represents the partnership as the signatory to the contract between the project partners and the Turkish Agency. This contract is referred to as 2014-1-TR01-KA202-013113 using the acronym “PURE-H2O”. The responsibilities of the various parts of the management structure are described below; further details can be found in the partnership contracts.

2.1. Promoter Organisation

ORKON International Engineering Training Consulting Co. Inc. (ORKON), Turkey is the promoter-applicant organisation.

ORKON is an international engineering, training, consulting and project design organisation based in Turkey. It works in infrastructure, water, environmental and transportation projects and design the environmental & water projects to Ministry of Hydraulics and roads projects to General Directorate of Highways, both in Turkey and abroad. In the scope of water and environmental projects, it is experienced in the design of water and waste water networks, water distribution lines, sewage collectors, drinking water and waste water treatment plants, storm and drainage projects. In the scope of transportation projects, it is experienced in the design of roads, highway designs, bridge, viaducts, culverts, tunnels & intersection projects. It uses its experience in this field in European Union projects. ORKON knows that taking part in ERASMUS + is a great investment for the future educational developments, therefore ORKON puts forth a great effort in providing a high quality service throughout partnership & Erasmus+ projects. It will use its experience also in this PURE-H2O project by using its knowhow in the environmental, water, drinking water treatment plants, irrigation and drainage fields.

ORKON will play an active role in the methodology development, overall design of integrated module and training materials, evaluation and the valorisation of the project activities and results. The other and specific tasks of ORKON within this project are to be responsible to provide the national contact database, to provide the country report and evaluation, provide the coordination for external and internal evaluation of the project results, and to prepare the in-service training guide for target groups with the common perspective of the modular programme and national exceptions.

2.2. Contact Person

One contact person has been appointed from each partner organisation, acting as the project's manager at the local level. All communications between the project Promoter and the organisations involved will be established through the contact persons, who will represent the partner organisations at the partnership meetings.

The contact person is responsible for planning, directing and monitoring the work programme carried out at that organisation. For the PURE-H2O strategic partnership the contact persons are as follows:

P#	Partners	Contact Persons
P1	ORKON	Civil Engineer Altan Dizdar
P2	Nigde University	Prof. Fehiman Çiner
P3	Gazi University	Prof. Seniha Alev Söylemez
P4	Planart	Assoc. Prof. Gamze Yücel Isıldar
P5	R&D Center "Biointech"	Prof. Anna Kujumdzieva
P6	Open University of the Netherlands	Dr. Christian M.Stracke

The main responsibilities of the contact persons are stated as follows:

- Ensuring that the required outputs are realized as per the approved timetable,
- Ensuring that information necessary for the project implementation is available to the other contact persons in the partnership,
- Producing regular reports and sending it to the project Promoter and an internal evaluation upon requested,
- Reporting immediately to the project Promoter any instances of objectives or targets not achievable or unable to be reached within the given timetable,

3. Management Structure

The promoter and the strategic partnership will do their best to fulfil the requirements and complete the aims of the project, as promised in the project proposal to deliver, document, measure and complete the project goals. The outputs of the project will be created during the execution process.

The Promoter and the partnership will work together to orchestrate the timing and integration of all the project's aspects. A flaw in one area in execution can have side effects and that may lead to budgetary issues and can also create additional risk, thus resulting in additional errors in other areas of the project.

As the project partners work to carry out the project aims, the Promoter will refer to the project plan to ensure that the work load will meet the documented expectations, requirements, quality demands, target dates, etc. The completed work will be measured and then compared against the cost, schedule and scope baselines as documented in the project plan.

The project implementation may include many activities such as:

- Working in order to attain the project objectives and to achieve the desired results,
- Spending the project budget in order to reach the project objectives and to achieve the outcomes,
- Getting quotes, bids and proposals before any expenditure is made,
- Purchasing, managing and using the resources, materials, equipment and other facilities in line with the project needs in order to reach project objectives as well as to achieve the project outputs and results,
- Managing, coordinating and verifying the project outputs,
- Completing risk evaluation, monitoring, and feedback reports,
- Adapting the project to approved changes and innovations,
- Communicating with the project's target groups and sector representatives,
- Gathering project data: costs, schedule, quality, and status,

Coordination and management of the project will require that the partnership provide feedback regarding the conditions of the project. In the case of an unexpected urgent risk that may possibly arise would demand an immediate response; a new condition warrants that the project management team will plan and then directly deal with the problem.

These are some additional activities that may need to be implemented as part of the project:

- Taking corrective actions to bring future project performance back into an alignment with the project plan,
- Taking preventive actions in order to avoid and to eliminate possible risks within the project,
- Applying effective repairs to fix the defects and problems identified through the quality control phase,
- Project management and coordination relies on general business skills, organisational skills and general communication with an aim to make all the aspects of the project working harmoniously,
- Developing the Intellectual Outputs (IOs): The project is defined by the IOs. It names the project Promoter and allows the project to commence. While the IO defines the project, it also describes the requirements for the project purpose, the project idea and its constraints,
- With regard to the management structure of the project, the total work programme is divided into seven different IOs. Herein follows listing of each one of them:

IO1: Survey & Analysis Report on Drinking Water Supply Sector VET Requirements

IO2: Pure-H2O e-Learning Portal

IO3: Learning Outcomes-Based Blended Learning Curriculum

IO4: Pure-H2O Skills Passport

IO5: Analysis Report of Testing & Evaluation

IO6: Analysis Report on Dissemination and Use

IO7: Booklet "Pure-H2O Project: Challenges & Limitations"

Each intellectual output has a leader and co-leader. Each intellectual output leader is in charge of performing the tasks of the intellectual output he/she has assumed the responsibility for, producing the activity plan and fulfilling the aims of the intellectual output content.

The Promoter of the project shall provide the necessary tools for the management of the project and will be supervising the overall performance and progress of the coordinator appointed for each intellectual output.

- **Developing the Project Plan:** Development of the project plan is an on-going process that requires input from the project Promoter, the project team, and the key target groups. It details how the project work will accomplish the project's goals and targets.
- **Coordinating and Managing the Project Implementation:** Once the project management plan has been created, the project Promoter and the partners will follow the plan. Coordinating and managing the project plan will support the completion of the project outputs. Preventive and corrective actions as well as applying any required fixes occur throughout this phase.
- **Monitoring and Control:** This process group starts with the project's conception and ends with the project completion. Its goal is to ensure that the project stays on track and is completed in line with the project plan. Measurements for project performance, time, cost and quality are implemented. If there are variances, responses to these will be done via preventive, corrective or reparative actions.
- **Managing Integrated Change Control:** All change and amendment requests must be documented. This process occurs across the entire project life-cycle. Amendment requests will be evaluated and considered for impacts on risk, cost, schedule and scope.
- **Closure of the Project:** Administrative closure confirms that all of the needed actions for each process group have been completed. Administrative closure also gathers and keeps all the project records for archival purposes, including documentation of the project's success or failure. Contracts must also be closed after inspection of the contract outputs. They are always closed and kept according to the agreed-upon terms.

4. Scope Management

Scope management of the project is the ability to complete all of the project's required work. The project scope is the focus of the project; it is the work necessary to complete the project goals. Scope management is a management tool that the project Promoter uses to determine what work is required for the project and what work is extraneous. The project scope management plan will help the project management team determine how the scope will be controlled throughout the remainder of the project, and how the scope will be verified by the project target groups, both at the end of the project and at the end of each intellectual output. The project scope management plan will promote the project team consider all of the knowledge areas and how they may be affected by changes to the project scope. The project Promoter and the project team must have a clear vision of the project, the requirements, and the target group's expectations from the project. The final result of the scope planning is the project's scope statement.

5. Transnational Meetings

The transnational strategic partnership meetings shall be presented by at least one representative from each partner organisation and each having equal representation. The representatives are primarily the contact persons appointed by each of the partner organisations. The partnership will organise four meetings during the PURE-H2O project life cycle and the proposed meetings are:

1st Project Meeting: Ankara

2nd Project Meeting: Bulgaria

3rd Project Meeting: The Netherlands

4th Project Meeting: Ankara

The main objectives of the strategic partnership meetings are categorised as follows:

- Monitoring the IO objectives, activity schedules, time scales, project outputs and finance
- Defining any necessary actions to keep the project on course
- Defining the information to be disseminated
- Reach solutions for any current issues or problems that may arise

The project Promoter shall chair the partnership meetings. It is desirable that the contact person attends the meetings, since the representative must be in a position to make both technical and managerial decisions.

All meeting results shall include as a minimum:

- Meeting minutes: Summary of the discussions
- Summary of actions with associated personnel and timetables for each intellectual output
- List of attendees and apologies for potential absence
- Review of minutes of previous meeting and associated actions
- Date and venue of next meeting

6. Reporting

Reports covering technical progress and the financial status of the project are required by the project promoter and the national agency. They are described below.

6.1. Financial Report of Each Partner

Each contact person is required to complete detailed financial statements in accordance with the progress made for the project. These should be submitted to the project Promoter within two weeks prior to the end of the first and second half of the project lifespan. This financial report summarises the activities (manpower and expenditures) at that are cited for that reporting period. These annual statements should be signed by the legal representative of the organisation. They will be used by the project Promoter for the interim and final reports.

6.2. Partner Time Sheet

Financial reports shall be accompanied by a technical progress report. Every twelve months, each contact person is required to complete short statements of the progress made for each intellectual output in the form of time sheets. Within this period, the same timesheet shall be used for all staffing categories (manager, researcher, technician, administrative). These 12-month time sheets should be signed by the staff declaring that

they have worked on the project as well as by the legal representative of the partner organisation.

6.3. *Interim and Final Reports*

There are formal progress reports required by the national agencies and the European Commission (EC).

The technical implementation reports and financial statements and other documents referred as interim and final reports must be submitted to the Turkish National Agency in the name of the strategic partnership. They should be produced at the 12th and the 24th month of the project by the promoter and the partnership.

Interim reports should be submitted by 12th month of the project. Final report covering the entire project period should be submitted within two months after the closure of the project.

The project period is between 01.09.2014–31.08.2016.

6.4. *Outputs*

In addition to the above mentioned reports, the partners are committed to produce the final outputs, stated in the application form approved by the Turkish National Agency.

6.5. *Publications/Presentations/Outputs*

All papers and outputs produced during the project that are intended for publication in the public domain must be approved by the project Promoter prior to release, in order to avoid intellectual property rights issues. This does not apply to routine dissemination activity namely press releases, interviews or related dissemination materials.

Unless stipulated otherwise in this agreement, ownership of the project results, including industrial and intellectual property rights, and of the reports and other documents relating to it shall be vested to PURE-H2O partnership.

Unless the national agency (NA) requests otherwise, any communication or publication by the beneficiary about an action, including at a conference or seminar, shall indicate that the action has received funding from the EU.

The following acknowledgement and disclaimer should appear in all publications:

"This project has been funded with support from the European Commission. This publication reflects the views only of the author, and the Commission cannot be held responsible for any use which may be made of the information contained therein."

All the outputs and publications related to the project, including dissemination materials, must include the compulsory identification element (logos and names of the European Union, of the Erasmus Plus Programme as well as of the project itself).

The beneficiary authorises the NA and the Commission to publish the following information in any form and medium, including via the Internet:

- the beneficiary's name and the address
- the subject and purpose of the grant
- the amount granted and the proportion of the action's total cost covered by the funding

Upon a reasoned and duly substantiated request by the beneficiary, the NA and the Commission may agree to forgo such publicity if disclosure of the information indicated above would risk compromising the beneficiary's security or prejudicing its commercial interests.

7. Communications

Managing project communications is all about the creation, collection, distribution, storage, and handy retrieval of project information. It's what the project Promoter will do on a daily basis. The project Promoter is at the hub of communications and will work with the project team, the project target groups to send and to receive communications about the project. The key, of course, is to plan how to communicate and then share that plan and expectations at the launch of the project.

The communication management plan organises and documents the communication processes, acceptable modalities for types of communication, and the target group expectations for communication. The plan should detail how information is gathered, organized, accessed, and dispersed. The plan should also provide a schedule of expected communication based on a calendar schedule, such as project meetings. Some

communications are prompted by conditions within the project, such as cost variances, schedule variances or other project performance-related issues.

7.1. Strategic Partnership Communication

An established private web area of the project will act as a communication tool between the strategic partnership. They shall use the communication folder and the general e-mail account for exchanging information of general interest.

The contact persons must avoid sending personal messages to the group in order not to disorientate and consume attention of the other strategic partnership partners.

Electronic mail should be used wherever possible for brief written communications.

Contact persons shall also use Skype as a means of telephone communication for virtual meetings.

7.2. Communication of Documents

Files and working documents should be uploaded by all partners to the project's web private area (www.PURE-H2O.eu, login to the private area).

For uploading big files, project partners may use a file transfer web site, such as wetransfer.com. The project partners are able to use the file/site manager by typing the project's web site and login in.

7.3. Naming of Files and e-mail Communication

E-mail Communication:

The subject zone of all your e-mails concerning PURE-H2O project should start with **PURE-H2O**

Examples:

- 1) PURE-H2O Web Page Comments
- 2) PURE-H2O Dissemination News
- 3) PURE-H2O Technical Report Suggestions

File naming:

PURE-H2O_Partner acronym_File Name_YYYYMMDD.docx

Examples:

- 1) PURE-H2O_ORKON_Financial Budget_20150630.docx

2) PURE-H2O_ORKON_Quality and Management Plan_20152704_rev1.docx

Reports should be formatted using the following convention for the footer:

Title of document: naming documents

Name of file: PURE-H2O_OUNL_Questionnaire for the Kick-off Meeting_20150430.docx

All reports should contain the following:

- Cover sheet giving project title, contract number, document title, author, internal project reference, copyright statement
- Table of contents
- Main body
- Acknowledgement (if required)
- Bibliographic references (if required)
- Glossary (if required)

8. Cost Management — Payment Arrangements

Once the project moves from planning into execution, it also moves into monitoring and control. The project Promoter and the project team work together to control the project costs and monitor the performance of the project work. The best method to monitor the project cost is through earned value management. Earned value management demonstrates the performance of the project and allows the project manager to forecast where the project is expected to go financially.

The NA will make an advance payment to the promoter organisation, according to the main contract. The promoter organisation is responsible for subsequently making the appropriate payments to the other partners, according to the partnership contracts and the preceding instalment from the NA. The NA will make further payments upon the approval of the interim report and the final report.

Every request for payment of a further pre-financing instalment must be accompanied by the documents regarding the interim and financial report and the technical implementation of the project.

Accordingly, interim report should be submitted at the latest by 31.08.2015.

Final report covering the entire period (01.09.2014–31.08.2016) of action: should be submitted within two months following the closing date of the action—that is to say on 31.10.2016 at the latest.

All sums in the final report shall be declared in euro. For that purpose, the beneficiary shall convert any actual costs into euro at the conversion rate applied by the bank at the date of the contract between the Turkish National Agency and the promoter organisation ORKON.

All expenditures must be eligible and all financial documents are audited by the Turkish National Agency. Full details of EC requirements and recommendations can be found in the “ERASMUS + PROGRAMME Project Handbook Guidelines for Administrative and Financial Management and Reporting (Annex IX of the Grant Agreement – Project Handbook)”, Selection 2014.

Eligible costs of the project shall generally meet the following criteria:

- They are incurred during the duration of the project (01.09.2014–31.08.2016),
- They must be connected with the subject of the overall budget heading of the project,
- They must be necessary for the implementation of the project,
- They must be identifiable and verifiable, in particular being recorded in the accounting records of the partner organisation and determined according to the applicable accounting standards of the country of the partner,
- They must comply with the requirements of applicable tax and social legislation,
- They must be reasonable, in particular regarding economy and efficiency.

The following costs shall not be considered eligible:

- Return on capital,
- Debt and debt service charges,
- Provisions for losses or potential future liabilities,

- Interest owed,
- Doubtful debts,
- Exchange losses,
- VAT, unless the beneficiary can show that s/he is unable to recover it according to the national applicable legislation,
- Costs declared by the beneficiary and covered by another action or work programme receiving an EU grant,
- Excessive or reckless expenditure.

If the currency in the invoice is not in euro (EUR), the partner should convert the amount into EUR based on the exchange rate on the day of signature of the contract signed between the Turkish National Agency and ORKON (the promoter) from the below European Central Bank website.

<http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html>

9. Quality Assurance

Quality assurance of project outputs is the primary the responsibility of each related partner's contact person. It is assumed that all partners will ensure that any safety or quality guidelines issued during the course of the project are adhered to. Sufficient user information must be provided with all outputs.

10. Risk Management

All projects have some level of risks. The first stop is all about risk identification. The project team, the project Promoter, target groups, and even end users can participate in risk identification as necessary. Any project-relevant risks need to be addressed. It's good to have a variety of participants, as their point of view can help to identify risks that may have been otherwise overlooked. As risks are identified, the project Promoter can build a consensus on which risks have the greatest impact on the project. This anonymous approach allows partners to speak freely about the risks, unhindered by the opinions of other parties. The comments on the identified risks are distributed to all of the participants, allowing participants to comment, concur or dismiss opinions on the

identified risks. Through rounds of discussion, a consensus on the risks should be reached.

11. Monitoring and Evaluation

Once the project commences, the project management, monitoring and control processes also begin. These processes monitor all the other processes within the project to ensure that things are being done according to plan, according to the performing organization's practices, and to ensure that a limited amount of risks affect the project. The monitoring process group has several key activities:

- Collecting project statistics,
- Measuring project performance,
- Distributing project information,
- Analyzing project trends and measurements to improve the project.

Monitoring and controlling the project is not a one-time or random event. It's important for the project management team to continuously monitor the project and not assume that everything is fine simply because the project work is being completed. A consistent monitoring of the project confirms that the related project work is being done properly and if there is any problem then a solution can be created. Monitoring and controlling is also focused on the end results. For example, a follow up review follows every solution application to ensure that it is accurate and that the project work may continue.

Monitoring and controlling the project work has seven activities:

- Comparing actual performance to what was promised in the project management plan,
- Determining if corrective and preventive actions should be applied to the project,
- Performing ongoing risk assessment, risk tracking, and analyzing the risk responses and their effectiveness on the identified risks,
- Maintaining a project data base on the project's product throughout the project's life cycle,

- Providing information for status updates, progress measurement and project forecasting,
- Forecasting cost and schedule information,
- Monitoring the approved change requests as they are implemented into the project and tracking the rejected change requests and their related documentation.

11.1. *Monitoring and Internal Evaluation*

Monitoring and internal evaluation of the project process will be exercised throughout the project period. It will be carried out according to the initially agreed programme in the approved application form of the project and the activity plan presented at the beginning of the project implementation period.

More specifically the internal evaluation seeks to:

- To monitor project development and evaluate training modules and the tools,
- Supervision of the progress of individual intellectual outputs,
- Setting-up evaluation methods,
- Setting up specific guidelines for the examination of the project,
- Preparation of evaluation reports,
- Evaluation report on the intermediate results (interim evaluation report),
- Evaluation report on the final results (final evaluation report),
- Internal evaluation will take place by Open University of the Netherlands.

Project developments are monitored and tools are evaluated continuously throughout the project life cycle; setting up specific guidelines and instructions for the smooth implementation of the project.

11.2. *External Evaluation*

The quality of the project outputs mentioned above might be evaluated by an external evaluator who possesses specialised knowledge in the subject matter of the project. The

external evaluator assesses the project outputs according to a set of criteria proposed by the internal evaluator and according to the requirements approved by the Turkish National Agency in the application form and agreed by the partnership. On the basis of the assessment, s/he presents reports to the partnership that will help them raise the outputs' quality. (Note : This decision will be upto partnership's decision whether to have an external evaluator or not.)