



QUALITY MANAGEMENT REPORT

SHANIME PROJECT

Leonardo da Vinci

Transfer of Innovation Project

Preventing Accidents in Construction – Health and Safety Multimedia Animated Learning

2011-1-TR1-LEO05-27941

Project Coordinator:

Anadolu University

Partners:

Polish Association of Building Managers

Warsaw University of Technology

University of Minho

TAV Airports Holding

Erbil Project Consulting Engineering Co.,Ltd

The Chartered Institute of Building

The Turkish Employers Association of Construction Industries

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Note to the Partners

Quality is expected in every project. This report defines what quality means for the project, how the project achieved quality, and how the project mapped to organisational procedures pertaining to quality.

This Quality Management Report is the property of the consortium of partners involved in the SHANIME Project and issue to other parties is subject to approval by the Promoter Organisation.

The consortium reserves the right to amend the Quality Management Report, 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 promoter Anadolu University, Yunusemre Campus, Eskişehir 26470 Turkey.

1. Introduction

In project management, there must be mechanisms in place to plan and implement quality throughout the project and not just as an afterthought. Project quality management is all about the project coordinator, the partnership, and the target group(s) working together to ensure that the project performs as the project plan calls for so that the project deliverable is in alignment with the project scope statement. Quality in this SHANIME project is really all about creating a deliverable that satisfies the project requirements and is usable. It's about getting the project done and creating a deliverable that can actually be used by the project customers. 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 are met, guide the implementation of the quality system and serve as a stable definition of our quality system.

This Quality Management Report 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 the promoter and the EC, as well as on the partnership contracts between the partners and the promoter.

2. Partnership

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

- P0:** Anadolu University, Turkey (Promoter-Applicant Partner)
- P1:** Polish Association of Building Managers, Poland (Core-Partner)
- P2:** Department of Construction Engineering and Management Civil Engineering Faculty, Warsaw University of Technology (WUT), Poland (Core-Partner)
- P3:** University of Minho, Portugal (Core-Partner)
- P4:** TAV AIRPORTS HOLDING, Turkey (Core-Partner)
- P5:** ERBIL Project Consulting Engineering Co. Ltd., Turkey (Core-Partner)
- P6:** The Chartered Institute of Building, United Kingdom (Core-Partner)
- P7:** The Turkish Employers Association of Construction Industries (INTES), Turkey (Silent Partner)

Anadolu University, Turkey represents the partnership as the signatory to the contract between the partners and the EC. This contract is referred to as **2011-1-TR1-LEO05-27941** having the acronym "SHANIME." 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/Coordinator Organisation

Anadolu University, Turkey constitutes the Promoter-Co-Applicant Organisation.

The Eskişehir Academy of Economic and Commercial Sciences, founded in 1958, constituted the cornerstone of Anadolu University. The academy was replaced by Anadolu University in 1982, which has gained a well-deserved place as a modern, dynamic and innovative institution among the largest universities not only in Turkey but in the world. Some of the faculties and schools as well as the majority of administrative units and social facilities are at Yunusemre Campus, which is located at the centre of Eskişehir, renowned as a centre of science and culture and a city of youth. İki Eylül Campus, which houses the School of Physical Education and Sports, the Faculty of Aeronautics and Astronautics and the Faculty of Engineering, is five kilometres from the city centre. The Porsuk Vocational School offers education in its own separate building in the city centre.

Anadolu University is an institution, promoting universal higher education values and blazing trails in the Turkish higher education with its 16 faculties (3 of which offer distant education), 4 applied schools, 4 vocational schools, 9 graduate schools, 25 research centres, and 15 research, development and application units. The successful launch of the distance education system ranks at the top of innovative initiatives of Anadolu University. Today the total number of students in three faculties offering distance education is over one million. This system has been taken as a model by many countries.

Anadolu University strives to prepare its students to be the best in their field of study in creative, dynamic and interactive settings owing to academic staff, each exerting to be the best in their field and devoting all their time to students in the academic units equipped with the latest technology. Students have access to all sorts of facilities in safe and modern campuses of the University.

The coordinator organisation of the project, Anadolu University was responsible for the fulfilment of the below mentioned tasks:

- To manage the project, both the administrative and technical aspects,
- To organise, in collaboration with the host partner, the meetings of the partnership in the locations unanimously agreed,
- To plan every-day tasks and specific activities in line with the operational plan,
- To coordinate the transnational partner meetings and the agendas,
- To coordinate all the decision-making process,
- To implement the decisions taken at the meetings,
- To prepare the financial and technical content of the Interim and Final Reports and to send the reports to the Turkish Agency,
- Interim Report (12 months)

- Final Report (24 months)
- To assure by all usual means the fulfilment of the project's tasks, responsibilities, activities and outcomes and to operatively resolve the issues and disputes inside the partnership.
- To guide, coordinate and control progress and quality of all programme activities.
- To settle any disputes, in consultation with the EC that cannot be solved by the partnership meetings.

Furthermore, in line with the proposal the other partners helped and supported Anadolu University. Thus, it is ensured that all partners of the project worked together.

2.2. Contact Person

One or more contact persons have been appointed from each organisation, acting as project's manager at the local level. All communications between the project coordinator and the organisations involved are established through the contact persons who represented the partner organisations at the partnership meetings.

The contact person was responsible for planning, directing and monitoring the Work Programme carried out at that organisation. For the SHANIME consortium the contact persons are as follows:

<u>P#</u>	<u>Partners</u>	<u>Contact persons</u>
P0	Anadolu University	Assoc. Prof. Gokhan Arslan
P1	Polish Association of Building Managers	Phd. Eng. Paul Nowak
P2	Department of Construction Engineering and Management Civil Engineering Faculty, Warsaw University of Technology (WUT)	Phd. DSc. Eng. Andrzej Minasowicz
P3	University of Minho	Assoc. Prof. Jose Manuel Cardoso
P4	TAV Airports Holding	Mr. Hakki Yigit
P5	Erbil Project Consulting Engineering Co. Ltd.	Civil Engineer Altan Dizdar
P6	The Chartered Institute of Building	Mr. Piotr Nowak
P7	The Turkish Employers Association of Construction Industries	Ms. Asli Karatekin

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

- Ensuring that the required deliverables are achieved to the agreed timetable,

- Ensuring that information necessary for the project implementation is available to the other contact persons in the partnership,
- Producing regular reports and forwarding to the project coordinator and internal evaluation as requested,
- Reporting immediately to the project coordinator any cases of objectives or targets not being achieved or adequately covered according to the timetable.

3. Management Structure

The coordinator and the team did their best for fulfilling the requirements and completing the results, promised in the project proposal to deliver, document, measure and complete the project work. The products of the project are created during these execution processes.

The coordinator and the team worked together to orchestrate the timing and integration of all the project's elements. A flaw in one area in the execution of the project can result in negative side effects, impact costs and can also directly bring about additional problems.

Throughout the project's lifecycle, the coordinator referred to the project plan to ensure that the project's execution has met the documented expectations, requirements, quality demands, target dates, and more. The completion of the project was measured by comparing against the cost, schedule, and scope baselines as documented in the project plan.

The project implementation included many activities such as:

- Doing the work in order to reach the project objectives and to achieve desired results,
- Using the project budget in order to reach the project objectives and to achieve project outcomes,
- Receiving quotes, bids and proposals before each expenditure,
- 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 products and results,
- Managing, coordinating and verifying the project outputs,
- Completing risk evaluation, monitoring, and response,
- Adapting the approved changes and innovations to the project,
- Communicating with the project's target groups and sector representatives,
- Gathering project data in relation to cost, schedule, quality and status.

Coordination and management of the project place requirements on the partnership in order to respond to conditions of the project. If a new immediate risk arose that demands a response; the new

condition warrants that the project management team planned and then directly confronted the problem.

There are some other activities in order to implement the project plan:

- Taking corrective actions to bring future project performance back into an alignment with the original project plan,
- Taking preventive actions in order to avoid and to eliminate possible risks within the project,
- Applying effect repairs to fix the flaws and problems identified through the quality control phase.

Project management and coordination relies on general business skills, organisational skills and general communication throughout the projects activities with an aim to make all the parts of the project working harmoniously:

- Developing the Work Packages (WPs): The project WPs are the mechanisms of the project. It defines the project coordinator and realizes project to commence and make a progress. While the WPs empower the project, it also defines the requirements of the project purpose, the project assumptions and its constraints.

With regard to the management structure of the project, the total work programme is divided into eight different work packages. Herein follows an explicit and detailed analysis of each one of them:

- WP1: Project Coordination & Management
- WP2: Data Collection on Health & Safety in Construction & Comparison of Statistics
- WP3: Creation of Booklet with Didactic Material and Scenarios
- WP4: Designing Movies
- WP5: Evaluation of the Project and Testing of Created Materials
- WP6: Preparation of the Final Version of the Didactic Materials and e-learning
- WP7: Valorisation (Dissemination & Exploitation)

Most work packages is led by a unique partner or partner grouping. Each work package leader was in charge of performing the tasks of the work package he/she has assumed responsibility for, producing the activity plan and fulfilling the completion of the work package content.

The coordinator of the project provided every tool for the management of the project and supervised overall performance and progress of the coordinator appointed for each work package.

- Developing the Project Plan: Development of project plan is a repetitive process that requires input from the project coordinator, the project team, and other 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 was created, the project coordinator and the project team have followed the plan.

Coordinating and managing the project plan created the project outputs. Preventive and corrective actions as well as needed repairs happened throughout this phase.

- **Monitoring and Control:** This process started with the project's conception and ended with the project's completion. Its goal was 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 were problems, responses to these are done via preventive, corrective or as needed repair actions.
- **Managing Integrated Change Control:** All change and amendment requests are documented. This process occurred across the entire project lifecycle. Amendment requests are evaluated and considered for impacts on risk, cost, schedule and scope.
- **Closure of the Project:** Administrative closure confirms that all of the needed processes 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 necessary work to complete the project goals. Scope management is a management tool that the project coordinator uses to determine what work is required for the project and what work is extraneous. The project scope management plan helped 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 work package. The project scope management plan prompted the project team consider all of the knowledge areas and how they may be affected by changes to the project scope. The project coordinator and the project team had 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 Consortium Meetings

These meetings are hosted by at least one representative from each partner organisation and each having equal representation. The representatives are mostly the contact persons appointed by each of the partner organisation. The partnership organised a number of 6 meetings during the life cycle of SHANIME project:

1st Project Meeting: Eskisehir (TURKEY), (15-16 December 2011)

2nd Project Meeting: Eskisehir (TURKEY), (21-25 May 2012)

3th Project Meeting: Warsaw (POLAND), (19-20 July 2012)

4th Project Meeting: London (UNITED KINGDOM), (10-11 December 2012)

5th Project Meeting: Guimaraes (PORTUGAL), (25-26 March 2013)

6th Project Meeting: Eskisehir (TURKEY), (21-22 October 2013)

The main duties that are taken into consideration at the consortium meetings are categorised as follows:

- Monitoring the WPs 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 issues arising.

The project coordinator was the chair at the partnership meetings. It was desirable that the contact person attends the meetings, since the representative must be in a position to take on both technical and managerial decisions.

All meeting results included as a minimum:

- Meeting minutes: Summary of discussion
- Summary of actions with associated personnel and timetables for each work package
- List of attendees and apologies for potential absence
- Review of minutes from previous meeting and associated actions
- Establish date and venue of next meeting

6. Reporting

Reports covering technical progress and the financial status of the project are required by the project coordinator and promoter (Anadolu University). These are described below.

6.1. Financial report of each partner

Each contact person was required to complete detailed financial statements in accordance with the progress made in each work package. These were submitted to the project coordinator within 2 weeks prior to the end of the 1st and 2nd periods. This financial report summarises the activities (manpower and expenditures) at that site for that reporting period. These annual statements are signed by the legal representative of the organisation. They are used by the project coordinator for the Interim and Final Reports.

6.2. Partner time sheet

Financial reports are accompanied by a technical progress report. Every twelve months, each contact person was required to complete short statements of the progress made in each work package in the form of time sheets. Within this period the same timesheet are used for all staff categories (manager, researcher, technician, administrative). These 12-month time sheets are signed by the staff declared to have worked for the project as well as by the legal representative of the partner organisation.

6.3. Interim and final reports

There were formal progress reports required by the National Agencies (NA) and the EC.

The technical implementation reports and financial statements and other documents referred to as the Interim and Final Reports are submitted to the NA of the promoter country in the name of the consortium. They are produced in three copies in one of the official languages of the EU. They are produced at the end of the 12th and the 24th month of the project by the promoter/coordinator.

Interim reports are submitted at 12th month of the project. The final report covering the entire project period is submitted within the 2 months of the end of the project.

The working dates of this project run between 01.11.2011 and 31.10.2013 .

6.4. Outputs

In addition to the above mentioned reports, the partners were committed to produce the final products, stated in the application form approved by the EC.

6.5. Publications/presentations/products

All papers and products produced during the project which are intended for publication in the public domain are approved by the project coordinator prior to release, in order to avoid intellectual property rights problems. This does not apply to routine dissemination activity namely press releases, interviews or related dissemination material.

Unless stipulated otherwise in this agreement, ownership of the results of the action, including industrial and intellectual property rights, and of the reports and other documents relating to it are vested to the beneficiary.

Unless the NA requested otherwise, any communication or publication by the beneficiary about the action, including at a conference or seminar, indicated that the action will receive budget from the project.

The following acknowledgement and disclaimer appears in all publications:

“This project has been funded with support from the European Commission. This publication [communication] 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 products and publications related to the project, including dissemination materials, include the compulsory identification elements (logos and names of the European Union, of the Leonardo da Vinci 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 practical retrieval of project information. It's the day-to-day job of the project coordinator. The project coordinator was at the hub of communication and worked with the project team, the project target groups to send and to receive communication regarding the project. The key, of course, was to plan how to communicate and then share that plan and expectations at the launch of the project.

The communication management plan organised and documented the communication processes, acceptable mediums of communication, and the target group's expectations regarding communication. The plan detailed how information is gathered, organized, accessed and dispersed. The plan also provided 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 performance-related issues.

7.1. Consortium Communication

The project's Web site's private sign-in area acts as a communication tool for the consortium partners. They used the communication folder and the general e-mail account for exchanging information.

The contact persons avoided sending personal messages to the group in order not to disorientate and distract the other consortium partners.

Electronic mail are used wherever possible for brief written communications.

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

7.2. Communication of documents

Files and working documents are uploaded by all partners to the project's Web private sign-in area (<http://www.css.anadolu.edu.tr/shanime>, login to private area).

For uploading big files, project partners used an FTP server, named Filezilla. The specific software is available for free on the Internet. After downloading the specific software, project partners are able to use the File/Site Manager by typing in the name of the project's web site and login.

7.3. Naming of files and e-mail communication

E-mail Communication:

The subject zone of all your e-mails concerning SHANIME project started with:

SHANIME_

Examples:

SHANIME_Web Page_Comments

SHANIME_Dissemination_News

SHANIME_Technical Report_Suggestions

File naming

SHANIME_Partner acronym_ File Name_YYMMDD.doc

Examples:

SHANIME_ERBIL_Financial Budget_20130330.doc

SHANIME_ERBIL_Quality and Management Plan_20130107_rev1.doc

Reports are formatted using the following convention for the footer:

Title of document: naming documents

Name of file: SHANIME_ERBIL_ Questionnaire for the Kick-off Meeting_20120130.doc

All reports contained the following:

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

8. Cost Management – Payment Arrangements

Once the project goes from planning stage to the execution stage, it also shifts into a monitoring and control phase. The project coordinator and the project team worked together to control the project costs and monitor the carrying out of the project's tasks. The easiest method to monitor the project cost was through earned value management. Earned value management demonstrates the performance of the project and allows the project manager to forecast related projected costs.

The National Agency made an advance payment to the promoter organisation, based on the main contract. The promoter organisation was responsible for subsequently making the appropriate payments to the other participants, according to the partnership contracts and the prior instalment from the NA. The NA made further payments upon the approval of the interim report and the final report.

Every request for payment of an additional pre-financing instalment was accompanied by the documents regarding the interim and financial report and the technical implementation of the action.

Accordingly, the interim report was submitted by 30.11.2012.

The final report covering the entire period (01.11.2011 - 31.10.2013) of action: was submitted within 2 months following the closing date of the action. (that is on 31.12.2013).

All amounts in the final report are declared in euro. For that purpose the beneficiary converted any actual cost into euro at the conversion rate applied by the bank at the date of the transfer of the related pre-financing payment from the NA to the promoter organisation. This rate was applied for all costs incurred in the period from the date of transfer of the related pre-financing payment until the date of transfer of the next pre-financing payment.

All costs are supported according to the Leonardo da Vinci Financial and Administrative Handbook, version 2011. All expenditures are eligible, since the EC has the right to financially audit the project. Full details of EC requirements and recommendations can be found in the Administrative and Financial Handbook for Promoters and Contractors, version 2010.

Eligible costs of the action meet the following criteria:

- They are incurred during the duration of the project period; (01.11.2011 - 31.10.2013)
- They are connected with the subject of the overall budget heading of the project;
- They are necessary for the implementation of the project;
- They are identifiable and verifiable, in particular being recorded in the accounting records of the promoter organisation and determined according to the applicable accounting standards of the country of the promoter;
- They comply with the requirements of applicable tax and social legislation;
- They are reasonable, in particular regarding economy and efficiency.

The following costs are not 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 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 EUR (*for non-EU partners*) the partner converted the amount into EUR according to the exchange rate on that day from European Central Bank Web site. (<http://www.ecb.int/stats/exchange/eurofxref/html/index.en.html>)

9. Quality Assurance

Quality assurance of project products and outputs is the primary the responsibility of the partner's contact person responsible for its own output. It is assumed that all partners ensured that any safety or quality guidelines issued during the course of the project are adhered to. Adequate user information are provided with all deliverables.

10. Risk Management

All projects have some level of risks. The first stop is all about risk identification. The project team, the project coordinator, target groups, and even end users participated in assessment risk if it was necessary. Any project-relevant risks are accepted. It was beneficial to have a variety of participants, as their point of view helped identify risks that may have been overlooked otherwise. As risks are identified, the project coordinator built a consensus on which risks have the highest potential impact on the project. This anonymous approach allowed 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 is reached.

11. Monitoring and Evaluation

As soon as the project began, the project management, monitoring and controlling processes also began. These processes monitored all the other processes within the project to ensure that they are being done according to plan, according to the associated organization's practices, and to ensure that a limited amount of defects occurred in the project. The monitoring and controlling 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 was important for the project management team to continue to monitor the project and not assume that all's well simply because the project work is being completed. A constant monitoring of the project confirmed that the project work is being done properly and if the work was flawed that a response can be created. Monitoring and controlling is also concerned with its results. For example, a solution review ensures 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 projected 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 information base on the project's product throughout the project's lifecycle;
- Providing information for status updates, progress measurement, and project forecasting;
- Forecasting costs and schedule;
- Monitoring the approved change requests as they are implemented into the project and tracking the rejected change requests and their associated documentation.

11.1. Monitoring and Internal Evaluation

Monitoring and internal evaluation of the project process are exercised throughout the period of project implementation. It is carried out according to the initially agreed activities in the approved application form of the project and the activity plan presented in 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 work packages,
- 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 is completed by the WP coordinators.

Project developments are monitored and tools are evaluated continuously all during the project lifecycle; setting up specific guidelines and instructions for the smooth implementation of the project.

11.2. External Evaluation

The quality of the project products are evaluated by an external evaluator who possesses specialised knowledge in the subject matter of the project. The external evaluator assessed the project products according to a set of criteria proposed by the internal evaluator and according to the requirements approved by EC in the application form and agreed by the partnership. On the basis of the assessment s/he presented reports to the partnership that helped them raise the quality of the products.