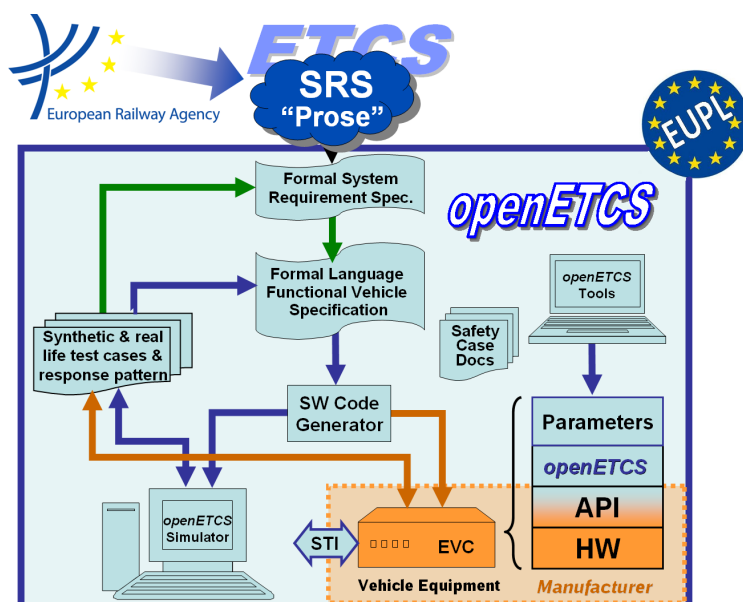


## Work-Package 1: “Management”

# Project Quality Assurance Plan - Training Process

Izaskun de la Torre

Thursday 29<sup>th</sup> August, 2013



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**OETCS/WP1/D1.3.1**  
**Thursday 29<sup>th</sup> August, 2013**

# Project Quality Assurance Plan - Training Process

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Description of work

Prepared for openETCS@ITEA2 Project

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## Document History

Table 1. Documentation History

Version	Date	Chapters modified	Reason	Name
0.1.0	22.08.2013	All	First version	Izaskun de la Torre (SQS)

# 1 Introduction

## 1.1 Purpose of the document

- 5 The main focus area of the document is the Training handling process which involves the description of the methods and schedule for implementing the training process; a training plan shall be created with the curricula and supporting materials to train key customers, members of the OpenETCS community, and committers on the latest release of the OpenETCS project. Furthermore, this document will help in the evaluation and continuous improvement of the training process as well as will ensure that stakeholders are properly trained to perform their tasks.

The roles involved in the process are clearly identified as well as their responsibilities and tasks. And finally, the mechanisms needed to achieve the proposed objectives are also included, so the process can be carried out successfully.

- 15 Among the purposes of this document are:

- To identify the training needs and ensure that entire workforce has necessary knowledge and skills to carry out their activities.
- To enable all stakeholders to reach their full potential.
- To improve efficiency and effectiveness of all openETCS activities.
- 20 • To enable new techniques and skills to be introduced in a timely manner.

## 1.2 Intended Audience

- This document applies to the whole development life-cycle of the project and it addresses all the author(s), product owners, committers and stakeholders involved. This document should be available to all of them in read access mode and it provides guidance about the Training process whenever it is needed

## 1.3 Supporting documents

Name	Path	Contents
QA Plan	governance/QA Plan	It defines the processes, methods and tools that will be used to develop the OpenETCS project

**Table 2. Supporting documents**

## 1.4 Definitions and acronyms

**Table 3. Definitions and acronyms**

Abbreviation	Meaning
TU	Training unit
QA	Quality Assurance



## 2 Tools

Tools	
LaTeX	LaTeX is a document preparation system for high-quality typesetting. It is most often used for medium-to-large technical or scientific documents but it can be used for almost any form of publishing.
Doodle	Doodle is an online scheduling tool used to find a date and time to meet with multiple people. Each participant selects the dates and times from the polling calendar where he or she is available; Doodle aggregates the responses and tells which option works best for everyone.
GoToWebinar	Citrix GoToWebinar makes it possible for anyone to host a professional webinar from their office. Whether it is used for content marketing or companywide meetings, GoToWebinar gives user the capacity to easily reach large groups online.

Table 4. Tools

## 3 Training Process overview

The stakeholders perform tasks that can cause significant environmental or compliance impacts; because of that, they shall be competent on the basis of appropriate education, training and/or experience. Such stakeholders will receive specialized training when needed to be more proficient in addressing significant environmental aspects they are involved with in their work.

This training will consist in training units that have different formal or informal courses, webinars, conferences and so on.

Training units will be consisted in three different types of trainings:

- Self-training: The Stakeholders will use the available material to do a self-formation. A Tutor will be available to help them to solve doubts and correct the exercises they do.
- Formal training: The Stakeholders will receive formal formation from a Trainer with exercises and examples
- Informal training: The Stakeholders will attend to webinars, conferences or small training units.

The Training process begins as a result of:

- Assessing skills by the QA manager to monitor and to detect the training needs. When a need is identified, QA will give the necessary instructions to the Product Owner to start the training process steps.
- Project training needs detection. Each time the Product Owner detects a need he/she will start the training process steps
- Asking by the Stakeholders for tools or task training.

### 3.1 Roles

This section describes the roles of the participants in the Training process:

Roles	
Role	Competencies
QA Manager	<ul style="list-style-type: none"> <li>Assess skills, monitor training process and detects training needs</li> <li>Ensure openETCS project-wide awareness of training requirements</li> <li>Review proposed training with the Product Owner as required</li> <li>Promote the training programs and encouraging all stakeholders, managers and supervisors to participate in training and awareness programs.</li> <li>Tracking of openETCS training, including documentation and maintenance of training records</li> </ul>
Product owner	<ul style="list-style-type: none"> <li>Work Package/Top-Project Leader and Project/Task Leader that detects training needs</li> <li>Identify stakeholders with specific, competency training needs, and ensure that stakeholders within their project (WP or task) complete the required training</li> <li>Develop and implement a training plan and budget to address openETCS training needs and requirements</li> <li>Assure adequate financial and technical resources are available for training</li> </ul>
Trainer	Prepare the training units content and teach the Training units. In the case of self-training it works as a Tutor.
Stakeholder	Receive the training courses

**Table 5. Roles**

### 3.2 Description of the Training Process

The next figure shows the different stages of the Training Process. Right after the activities to be performed in each Stage are provided.

55

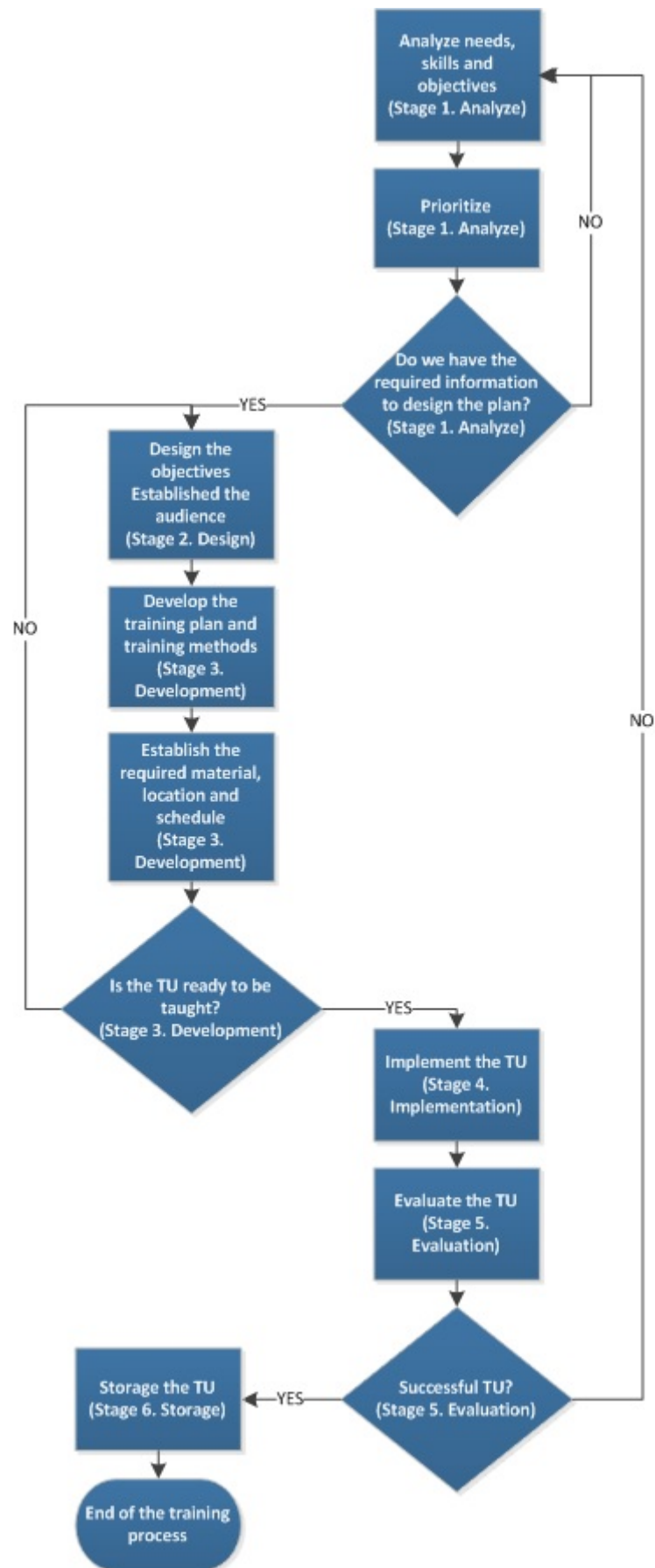


Figure 1. Training Process flow

### 3.2.1 Stage One: Analyze

- The analyze stage clarifies the instructional problem, establishes the instructional goals and objectives and identifies the learners' existing knowledge and skills. The most important skills to consider should be:

- 60 – Attitudes
- Current skills
- Skill training gap
- Skill relevancy to tasks

With these skills will be established:

- 65 – Project mission
- Project strategy
- Core competency needs

- During the analyze stage the Product Owner will carry out:

- 70 – Analysis of needs and skills: knowledge and skills required to undertake each work. The information collected is used to provide an overarching view of the necessary skills and knowledge needed for to effectively carry out the assigned tasks. In order to help with this step the Product owner must fulfill the Training Needs Matrix form (*See Appendice A*).
- 75 – Analysis of the training requirements: Training needs analysis maps the current competencies of the members against the skills and knowledge required for the roles played by them in the project. They are assessed against these requirements and rated on a scale that ranges from “needs development” to “able to train others.”
- Assessment of viability of training provision to enhance productivity
- Identification and prioritization of the knowledge, skill gaps and training requirements
- 80 • QA manager with the Product Owner, will ensure that qualifications are coherent with the responsibilities defined for the stakeholder's role as needed for openETCS conformance and for identifying training needs. Qualifications should specify level and type of education, amount and type of experience, previous training, and special skills

### 3.2.2 Stage Two: Design

- 85 • In the designing stage the Product Owner defines learning objectives, assessment instruments, and knowledge units. During this stage the Product Owner should:
  - Design the objectives for developing a quality curricula
  - Select the Trainers. They could be either from different domains within OpenETCS project keeping in view their level of competency in the field of training or also external trainers can be called in the OpenETCS project keeping in view their market reputation and cost of training
  - 90 – Define the previous required skills and qualifications to attend the courses. This step will be carried out with the help of the Trainer

- Establish the audience of the courses
- 95 – Create the Training Methods: define the way that the TU will be taught. This will be carried out with the collaboration of the Trainer.
- Develop an evaluation plan: method used to test and content inside the training units are evaluated in order to control the effectiveness, stakeholder progress and performance, apply feedback to modify or enhance the TU. With this information the QA Manager and Product Owner will create an evaluation report in which the whole formation process will be evaluated considering each developed register.
- 100 – Create a satisfaction survey form in order to have the opinion of the Stakeholders about the received TU. (See *Appendice B*)
- Create the training plan.
- 105 • During this stage the Trainer, with the supervision of the Product Owner, should:
  - Develop the Training Techniques
  - Do recommendations to solving issues and constraints
  - Establish the minimum required task to do to achieve the objective of the TU successfully.
- 110 • QA manager with the Product Owner will ensure that the design have been adequately carried out following each of the steps defined in the training process and having a design that fulfill stakeholders educational needs.

### 3.2.3 Stage Three: Development

- During the development stage the content will be created and assembled by the Trainer, following the guidelines stipulated in the Design stage.
- 115 • Training Units are completed and shall be reviewed by the Product Owner
  - Training Units material, demos and resources will be available.
- Training Units schedule and location will be confirmed. To do these steps the Trainer, Product Owner and Stakeholders will be in contact.
- 120 – Doodle tool will be used with this purpose.
- Training plan will be updated and completed with all the acquired information in order to close it.
- Product Owner will develop the evaluation system with the collaboration of the QA Manager.
- Finally, QA manager with the Product Owner will ensure that the development phase fulfill every designing criteria.
- 125

### 3.2.4 Stage Four: Implementation

- During this phase the Stakeholders for the TUs will be contacted by the Product Owner to give them the schedule and agenda. Afterwards the training units will be taught in the schedule and location established and with the available material described in the development stage.

- 130 • The Trainer will maintain the Attendance Record of each Stakeholder. *(See Appendice C)*
- The Product Owner will maintain Training Records for each stakeholder. The training records will include information on the following: stakeholder's name; Job title; Job description, Title of training unit, and Date employee completed the training. *(See Appendice D)* that contains the Training Record Form.

### 135 3.2.5 Stage Five: Evaluation

- During this stage will be evaluated the TU according to the evaluation plan included in the training plan
- The Product Owner will send the Stakeholders the satisfaction survey. With the obtained evaluation of the Stakeholders the Product Owner will evaluate the survey results.
- 140 – If the Trainer is from different domains within OpenETCS project the Trainer will review the results of the satisfaction survey and up to date it.
- For external Trainers the satisfaction survey is sent to them in order to up to date the TU the next time that the TU is taught.
- The Trainer will send the Product Owner feedback information about Stakeholders, this information is introduced in a Trainer Feedback Report as well as the results from each Stakeholders of the TU. *(See Appendice E)*. With this information the Product Owner will evaluate the fulfillment of the objectives of the training process and will create the Training Evaluation report. *(See Appendice F)*
- 145
- Finally, QA Manager review that every register has been fulfilled satisfactorily and the content of each of them is analyzed:
- 150
  - Training Needs Matrix
  - Training Records
  - Attendance Record
  - Trainer Feedback Report
  - 155 – Satisfaction Surveys
  - Training Storage Records
  - Evaluation report

With all the information the Training Evaluation report will be completed if it is needed. This may contain any weakness remained in any Stakeholder by the respective QA manager

- 160 • Furthermore, QA manager will periodically review records of competency training to ensure that all the stakeholders who need specialized training have received the required training. In the case that a Stakeholder has not received or completed the required training, communicating the non-conformance to the Product Owner.

### 3.2.6 Stage Six: Storage

- 165 • During this final stage the Product owner will maintain and save a register containing the training unit material. This material will be categorized, and it will include information like Title of training unit, contact person, recommendations among others. *(See Appendice G)* that contains the form to be fulfilled to correctly identify the saved material.

- QA Manager has to review that the Storage Register is fulfill correctly with all the created training units and every form has been fill completely and correctly

# Appendices

## A Training Needs Matrix

This template has been created as an aid in documenting training needs and delivery mechanisms. This template should be fulfilled by the Product Owner and reviewed by the QA Manager during the first stage of Training planning.

The content of the template is an example that will vary depending on the type of training, type of Stakeholders, frequency and so on. The Product Owner should have a clear idea of how its product formation should be taught to the different types of Stakeholders.

The template is available in the [\[governance\]](#) repository

## B Satisfaction Survey Form

This template has been designed in order to obtain the minimum required information about the quality of the training given to the Stakeholders. This template should be fulfilled by the Stakeholders and reviewed by the Product Owner and QA Manager during the evaluation stage.

The template is available in the [\[governance\]](#) repository

## C Attendance Record

This template has been created in order to have a control of the attendance of the Stakeholders to each Training Unit. This template should be fulfilled by the Trainer and reviewed by the Product Owner during the evaluation stage.

The content of the template is an example.

The template is available in the [\[governance\]](#) repository

## D Training Record

This template has been designed to maintain a record of every formation received by each Stakeholder. This template should be fulfilled by the Product Owner and reviewed by the QA Manager during the evaluation stage.

The content of the template is an example that will vary depending on the Stakeholder, TU and the date the TU is completed. With this template the Product Owner will have a clear idea of the training receive by each Stakeholder.

The template is available in the [\[governance\]](#) repository

## E Trainer Feedback Report

This template has been created as a way of receive the feedback of the Trainer about the Training Unit that he/she has taught. This template should be fulfilled by the Trainer and reviewed by the Product Owner and QA Manager during the evaluation stage.



205 This template has an example included; this example will vary depending on the training unit, trainer, stakeholders and so on. With this template and the Stakeholders survey the Product Owner and QA Manager will have a clear idea of how useful the training has been for the Stakeholders and what are the weak and strong points of the training.

The template is available in the [\[governance\]](#) repository

## **F Training Evaluation Report**

210 This template has been designed as a register of the TU evaluation. This template should be fulfilled by the Product Owner and reviewed by the QA Manager during the evaluation stage.

This template will content description of the complete evaluation of the Training Unit. The most important point of this template is verified that the objectives of the training process have been fulfilled satisfactorily. The weaknesses and strengths of the training unit are highlighted thanks to this template.

215 The template is available in the [\[governance\]](#) repository

## **G Training Storage Report**

This template has been created as an aid in maintaining a register of the documentation about the Training Units. This template should be fulfilled by the Product Owner and reviewed by the QA Manager during the last stage of Training planning.

220 The content of the template is an example that will vary depending on the training, list of content, length of the TU and so on. Thanks to this Storage Record the Product Owner and QA Manager will have a record of every training unit created with its content a small description and recommendations of the Training Unit as well as the training unit length.

The template is available in the [\[governance\]](#) repository