

E3 ENTRANCE

First Quality Assurance Plan and Risk Management Plan

Version 1.0



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Executive Summary

This document shows the Project Quality Assurance Plan and Risk Management Plan for the ENTRANCE project. Therefore, the document shows how quality aspects and risks are considered in a variety of processes and activities within the ENTRANCE project. The quality process consisting of planning, assurance, and control has impact on the project work. This Project Quality Assurance Plan and Risk Management Plan is intended to serve as guidance for the ENTRANCE partners towards implementing their activities effectively and producing and submitting their deliverables, results, and publications timely and with high quality.

The Project Quality Plan is designed to provide a common framework for effective communication, documentation, deviation identification, and correction through the project. To assure adequate internal communication among Consortium members, several measures including regular meetings, progress reporting, review of the deliverables, and review process for scientific papers, are established and explained in this document.

The Quality Assurance Plan involves the establishment of Internal Project Progress Reports, clear responsibilities, and regular meetings. A well-defined internal review process further supports the Quality Assurance Plan for deliverables.

The Quality Assurance Plan is effective throughout the lifetime of the ENTRANCE project and its core is planned to be incorporated into the Data Management Plan (D1.6 – D1.8), which will undergo three updates according to the schedule of deliverables (M6, M36, M48). Responsibilities for quality planning, assurance, and control are shared among all the partners to allow optimal outcome.

This Risk Management Plan shows how risk aspects are considered in a variety of processes and activities within the ENTRANCE project. Please note that this was an important part of the proposal. The Risk Management Plan is understood as the process of continuous monitoring, identifying, assessing, reporting, and responding to risks. The Risk Management Plan sets out a framework to define how risks associated with ENTRANCE activities will be identified, analyzed, and managed. The management process will identify and monitor technical and management risks as well as any other issues that might affect the project progress towards its objectives. Therefore, the goal is to carry out mitigation actions as early as possible. The Risk Management Plan is effective throughout the lifetime of the project and will be revised throughout the project in the deliverables (D1.2 – D1.5) during the project in M3, M15, M27, and M39. Responsibilities for risk planning, assurance, and control are shared among all the partners.

The present version of the Project Quality Assurance Plan and Risk Management Plan represents the base for the future analysis about quality and risks related to the project and their monitoring.



1. Introduction

The Quality Assurance Plan and Risk Management Plan is a document that is an essential part for the ENTRANCE project quality. Its purpose is to describe how quality and risks will be managed and ensured throughout the project duration. This plan acts as the quality manual for the project and all partners will adhere to this document.

In the deliverable D1.1, Project Management Plan, project management strategy with clear guidelines and templates for decision-making, meetings, financial and technical reporting, and communication is described.

In this document the Quality Assurance Plan and Risk Management Plan are explained separately in Section 2 and 3, respectively.

The Quality Assurance Plan is divided into three key activities:

Quality Planning comprises of quality procedures relevant to the project, covering both project deliverables and project processes. To enable quality planning, regular meetings, progress reporting, review of the deliverables, and review process for scientific papers, are established within the project. The project visual identity represents the project internally and externally. It ensures consistency and familiarity in internal and external communications. To communicate effectively, several tools are established. Clearly defined project policies in terms of rules for naming of deliverables, meetings, scientific publications, or the procedures for reviewing internal deliverables, etc. provide useful guidance to the project partners.

Quality Assurance monitors project processes to be performed effectively to reach the targeted outcome. This involves the establishment of Internal Project Progress Reports and governance bodies with clear responsibilities, and regular, clearly guided project meeting. These activities are summarized in Section 2.2.

Quality Control will be actively performed by all the partners, by acting as an internal reviewer of deliverables and publications. A clear internal review process is defined before each deliverable submission deadline to provide feedback to the authors. A proactive risk management is also described in this document in Section 3. The Risk Management Plan has been established to guarantee the project quality and avoid delays or failures. The Quality Control process is described in Section 2.3.

The goal of the following chapters is to give an overall explanation of how quality and risks will be managed and assured in the ENTRANCE project. Updates in the Quality Assurance Plan and Risk Management Plan will be incorporated in the Data Management Plan updates.



2. Quality Management Plan

Project Quality is a measure how the project results reach the project objectives. To reach and exceed the project objectives, a Quality Management Strategy has been defined within the ENTRANCE project through three key processes, namely:

- Quality Planning;
- Quality Assurance;
- Quality Control.

These three processes are interdependent and guarantee efficient and high-quality output of the ENTRANCE project.

2.1. Quality Plan

Quality management planning determines quality procedures relevant to the project for both project deliverables and project processes. It defines who is responsible for what, and documents compliance with guidelines.

Within the ENTRANCE project, the Work Package Leaders had been identified during the application writing. For better project quality planning, at the kick-off meeting, March 27th to 28th, 2025 in Trondheim, Norway, each Work Package Leader led the section on the respective Work Package. During the presentations, after the short Work Package presentation, overview of the tasks, deliverables, and milestones was given. For both tasks, deliverables, and milestones involved partners and responsible persons were identified. Means for following up the milestones were noted. The entire process has been noted under the progress reporting for each Work Package. This will be followed up under the reporting process as explained in Project Management Plan, D1.1.

2.1.1. Visual Identity

The project visual identity has been established as a part of the work in Work Package 8. At the same time, the project templates are also designed. A short presentation of the project name is as shown in Figure 1. You can find the project logo as shown in Figure 2 and templates on the project teams under WP8. For the project title and the project logo the following figures are chosen:

E3 ENTRANCE

Figure 1. Project name



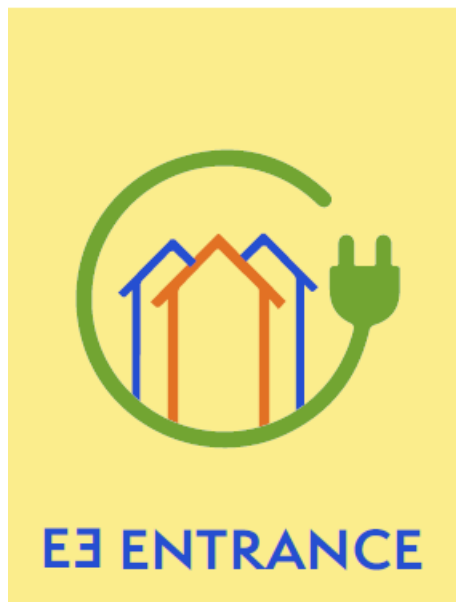


Figure 2. Project logo

It is recommended to always use the project templates for presentation and reports as available under the project teams in WP8.

2.2. Quality Assurance

The focus of quality assurance is on the creation and monitoring of processes. Quality assurance creates and monitors project activities, which need to be performed effectively to reach the targeted outputs and outcomes. This involves the establishment of the Internal Project Progress Report and Continuous Reporting.

2.2.1. Internal Project Progress Reports

The purpose of the Internal Project Progress Reports is to implement a framework that requires Work Package Leaders to provide information regarding ongoing and planned work as well as overall assessment on completed tasks. Since the entire project is organized in eight Work Packages, the Work Package Leaders are responsible to coordinate and collect relevant results and achievements within the relevant Work Package. As explained in the Project Management Plan, the Work Package Leaders report every three months on the progress of the work and related aspects in the form of a PowerPoint presentation, and every six months in the form of a written report. This Internal Project Progress Reports will support the quality assurance within the ENTRANCE project and will help monitor the project process along and towards its objectives.



The Internal Project Progress Reports is planned as a concise report, which gives the coordinator a good understanding of the status and progress of the work and allows them to detect any possible delays or deviations well in advance. Finally, this cumulative Internal Project Progress Report serves as a helpful basis for the creation of the technical periodic reports.

Internal Project Progress Reports are expected to be put in practice from M7 (July 2025), and updated internally at each WP every three months, and externally at each Consortium meeting. The Internal Project Progress Reports are uploaded on the ENTRANCE Microsoft teams repository by Work Package Leader according to the agreed schedule.

2.2.2. Continuous Reporting

Dissemination and communication activities performed by partners must be continuously submitted in the project teams folder. For that purpose, several folders have been established such as "Publications" under General in the project teams and "Deliverables" under each Work Package.

Each Work Package Leader will collect and summarize all relevant information on a regular basis within Internal Project Progress Report. Responsibilities and Internal Review have been decided by each Work Package Leader. For both tasks, deliverables, and milestones involved partners and responsible persons were identified at the kick-off meeting. These are noted at the Progress Reports in the PowerPoint format.

A "Continuous Reporting" tool was developed by NTNU and includes following up of the deliverables and milestones.

2.3. Quality Control

The focus of quality control is on feedback and deviation management in the project. Quality control ensures that feedback from internal as well as from external advisors is considered and therefore positively influences the work towards project objectives.

Risk Management is an integral element of quality control as the proactive notice of deviations from the DoA allows the consortium to control the consequences and prepare contingency measures, or even transform those consequences into opportunities. Key Risk Management actions are discussed in Section 3.

To ensure the quality of Deliverables, an internal review process has been defined. The main goal of this process is to establish internal feedback by partners who did not directly participate as authors or editors to the Deliverable before submitting it to the European Commission. We expect to effect an "Upload, Review, Update, Finalize and Submit Process" in 30 days for each delivery.

Work Package Leaders are responsible for the timely reporting of their Work Package deliverables. The quality of the deliverables is the responsibility of the Work Package Leaders.



To guarantee the highest standard of excellence, a quality review process precedes the submission of the deliverable, as given in Table 1.

Table 1. Steps in quality review of deliverables

Deadline	Action
GA meeting (> 31 days before submission date)	One reviewer is asked for deliverables due in the upcoming six months. The lead beneficiary (author) can discuss beforehand with the Work Package Leader which internal expert they would like to ask to review the first draft of the deliverable.
31 days before submission date	The author sends the first draft version of the deliverable to the Work Package Leader (first reader), the internal expert (reviewer, second reader), the Scientific coordinator, and the Project Coordinator for revision.
14 days before submission date	The Work Package Leader and the internal expert review the deliverable separately and send their comments to the author. The author adjusts the deliverable where necessary.
9 days before submission date	The author sends the second draft version of the deliverable to the Scientific coordinator and the Project Coordinator.
7 days before submission date	The Scientific coordinator does a final check.
Submission date (at the latest)	The Project Coordinator uploads the final document to the F&T Portal and the project teams site.

For the reporting of the milestones, an internal report needs to be submitted to the Scientific coordinator and the Project Coordinator, by the due date set out in Annex 1 of the GA. Milestone reports can be short (email) but should provide evidence that the milestone has been completed. The Project Coordinator will then mark the milestone as achieved in the F&T Portal.

In summary, the quality control of the ENTRANCE project can be explained as the following:

- A reminder from the project manager (PM) via E-mail / Teams to the Work Package Leaders will be given 60 days before the deadline for delivery.
- Partners in charge of a specific deliverable (Task Coordinator) upload a close to final draft on the specific folder of the Delivery ("Work Package and Deliveries") in teams 30 days before the delivery. This should be followed by an e-mail notification to the Work Package Leader, Main Coordinator, and relevant partners.
- An Internal review will be done. Organizing this review is a task of the Work Package Leader. The reviewer(s) reads the draft and compares the content against its objective as defined in the work plan. The review result is a new reviewed draft uploaded in the same folder, with a new name. Review is expected to be performed in one week after the delivery.
- After the review, the Work Package Leader will inform the involved authors (if applicable), and the group will make the necessary changes and updates. After applying



the updates, the editor will upload the updated version and notify the coordination team (NTNU). This final delivery must be done seven days before the deadline.

- A final quality check is done by the Project Manager and the document is submitted to the EU.
- All deliverables to the EU website are done ONLY by the coordinator entity (NTNU).



3. Risk Management Plan

This Risk Management Plan shows how risk aspects are considered in a variety of processes and activities within the ENTRANCE project. Note that this was an important part of the proposal.

Risk Management is here understood as the process of continuous monitoring identifying, reporting, assessing, and responding to risks. The Risk Management Plan sets out a framework to define how risks associated with ENTRANCE activities will be identified, analyzed, and managed. The management process will identify and monitor technical and management risks as well as any other issues that might affect the project progress towards its objectives. Therefore, the goal is to carry out mitigation actions as early as possible. The Risk Management Plan is effective throughout the lifetime of the project and will be revised throughout the project in the deliverables (D1.2 – D1.5) during the project in M3, M15, M27, and M39. Responsibilities for risk planning, assurance, and control are shared among all the partners to reach the optimal outcome. A continuous reporting tool was developed to follow-up deliverables and milestones.

The present version of the Risk Management Plan represents the base for the future analysis about risks related to the project and their monitoring and responses. The plan is effective throughout the lifetime of the ENTRANCE project and its core is planned to be incorporated into the Data Management Plan † (D1.6 – D1.8), which will undergo three updates according to the schedule of deliverables (M6, M36, M48).

Critical risks for the ENTRANCE project are listed in Table 2. In Table 2, L stands for likelihood, and S for severity of the risk.

Table 2. Critical risks for implementation

#	Description of Risk	W	L	S	Mitigation measures
Administrative and Management Risks					
R1	Delays of key deliverables	All	Med	High	In the event the deadline cannot be met, a provisional draft will be realized allowing any interdependency actions to be carried out. Milestones are placed to proactively control the higher risk technical parts of the work program where interdependencies may become critical.
R2	IPR conflict risk	WP	Low	Hig	Deliberate task on IPR management under leadership of ReMoni. Guidelines will be developed within the project, see WP7.
R3	Financial Risk – bankruptcy of any of the partners	WP5	Low	Med	All partners are financially sound and highly interested in this project, but in case of bankruptcy of any partner, the rest of the Consortium will assume the tasks of the partner leaving the project, or a new partner would be invited to join the Consortium.
Technological Risks					
R4	Technology Integration and Adoption Risks	WP3/4/5	Med	Med	Strong commitment of all partners in the development of easy to integrate technologies will lead to their realization following the general specifications in WP2 and WP5. Clear and agreed technical specifications and operative requirements will be defined before the actual constructions in relevant WPs. No deviation from requirements previously agreed within D5.1 will be accepted, nevertheless further technologies adaptation activities could be arranged.
R5	Tools provided are not based on the cloud nor web-APIs	WP3/	Low	High	EURIX can and will undergo the effort of developing such web-APIs of specific tools to successfully integrate them within ENTRANCE.



#	Description of Risk	W	L	S	Mitigation measures
R6	Not enough time to integrate the tools and technologies	WP2/3/4	Low	Med	24 months are planned for technological integration in WP5. The process will be closely monitored; intermediate phases will provide check points to ensure schedule respect and any anticipated delays will be discussed during the General Assembly meetings.
R7	Operational and Implementation Risks	WP5	Low	Low	ReMoni, Norconsult, EURIX, and PORT PC will deploy the necessary ICT infrastructure to meet the demands of the developments. In this sense, the risk will be detected early in the project and the validation plan will seek to operate ICT solution on a smaller scale focusing on a specific part of a facility.
Market Risks					
R8	Regulatory and Policy Risks	WP7	Med	Med	Digitalization in all sectors in Europe is expected, it is still yet to be seen how this will be translated into national standard and policies for buildings. Many of the partners are active REHVA members. REHVA is the umbrella organization for building energy services and will help translation of the results into standards and policies.
R9	Market Acceptance Risks	All	Low	Med	Mitigation strategies will focus on refining solutions based on market feedback and establishing strong partnerships with industry players to facilitate acceptance and adoption. Additionally, contingency plans will be developed to pivot strategies if market acceptance is not achieved within
R10	Lack in harmonization in economic and legal aspects and incentives across regions	WP6/7	Med	Low	ENTRANCE will assess and evaluate national and international regulations and incentives in detail (see WP2) and develop flexible and modular models that can address variability. Monitoring activities will foresee any change in the incentives and legal aspects which will be translated to the consortium for adaptation.
Pilot specific risks					
R11	Key enabling technologies installation having problems in term of space and safety compatibility		W5	Low Low	Specific tasks for the analysis of technical requirements have been included in the project (WP2-5).
R12	Human Resource and Stakeholder Risks	WP2/6	Med	Med	Use of different techniques, tools, and channels and support engagement will encourage interest in the actions. REHVA will specifically develop dissemination, communication, exploitation, and training programs, see WP8. Extensive experience from recent European projects results and publications as own experience guarantee the use of efficient resources to encourage and attain high levels of engagement, participation, and collaboration.
R13	Pilot leaving	WP5	Low Med		Pilots are integral to the project from the outset, providing invaluable data and expertise. It is highly unlikely for pilots, in collaboration with project partners, to withdraw from the ENTRANCE initiative. However, in the rare event of a pilot's unavailability, contingency plans are in place. Industry partners, including ReMoni, Norconsult, EURIX, and PORT PC, have extensive project portfolios. These portfolios will be reviewed to identify alternative projects with similar features. Moreover, the project is structured around small national ecosystems centered around pilots. This approach not only mitigates the risk of pilot withdrawal but also ensures continuity and resilience in the face of unforeseen circumstances.
R14	Insufficient data for modelling and optimization	WP2/4	Low	Low	The number of pilots together with historical data within the partners' network minimizes this risk. Reliable simulation models for the pilots and synthetic studies will be developed to support the training (see T2.3 and T4.3). Virtual data and literature data will be gathered from the model to compensate lack of data if necessary.
R15	Data privacy issues to be ensure and conserved	WP3/4/5	Low	Low	ENTRANCE project we will pay attention to follow the latest approaches for depersonalization of personal data and data-protection mechanisms due to higher requirement for data collection, storing, and application of personal data due to the personal data privacy and security related law and ethical approach for the personal data utilization.





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