



HELLENIC REPUBLIC
MINISTRY OF DEVELOPMENT AND INVESTMENT
GENERAL SECRETARIAT FOR RESEARCH AND INNOVATION
HELLENIC FOUNDATION FOR RESEARCH AND INNOVATION



The research project is implemented in the framework of H.F.R.I call "3rd Call for H.F.R.I.'s Research Projects to Support Faculty Members & Researchers" (H.F.R.I. Project Number: 26465)

3rd Call for H.F.R.I. Research Projects to support Faculty Members and Researchers Sub-action II



Project Title

Compassionate, Adaptive, Robust and Explainable Robots

Project Duration

**03 November 2025 – 02 November 2029
48 Months**

Project Acronym

RoboCARE

Project No

26465

Deliverable No

D1.1

Deliverable Title

Quality Plan

Deliverable Completion Date

02 February 2026

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Document Revision History

Version	Date	Notes
V1.0	02/02/2026	First version document describing the Quality Plan set for facilitating the success of RoboCARE

List of Acronyms

Acronym	Meaning
DUTH	Democritus University of Thrace
RoboCARE	Compassionate, Adaptive, Robust and Explainable Robots
PI	Principal Investigator
PMBOK	Project Management Body of Knowledge
WP	Work Package

Introduction

This report serves as a cornerstone in our research project, outlining a strategic approach to quality management that is both rigorous and adaptable. This comprehensive plan is designed to ensure that every aspect of our project —from initial research and development phases to final deliverables— meets the appropriate standards. It sets the foundation for our commitment to a strategy of achieving the goals set in the Funding Agreement, setting forth policies, systems, and practices that will guide our team's efforts in maintaining quality.

Quality Mechanisms

Quality Assurance Overview

The PMBOK [1] describes Quality Assurance as auditing the quality requirements and outcomes from quality control assessments to confirm the use of proper quality standards and definitions. It's a core aspect of project execution, requiring active participation from all project members during its total duration. The approach to quality assurance is structured around the Plan-Do-Check-Act cycle [2] (Figure 1), a concept by W. Edwards Deming, serving as the foundation for our quality assurance strategy.

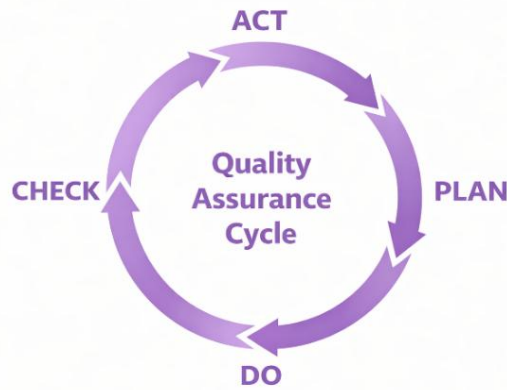


Figure 1. Quality assurance principles

In the above, “Plan” refers to the process of identifying a goal and defining the processes, tools, and resources needed to achieve it based on the given work plan and the specific requirements of the project. “Do” is the process that follows the planning stage and includes the steps that need to be taken in order to follow the defined plan. During the “Check” phase, the data and results gathered from the “Do” process are evaluated with the aim of monitoring and evaluating the project outcomes and services. Finally, the “Act” phase is placed to adjust and improve the outcomes’ quality and performance whenever necessary.

Roles and Responsibilities

To ensure the overall project development, the project’s members are divided into four individual teams based on their responsibilities and fields of expertise. Table 1 presents this segmentation, together with their involvement in the activities of each individual WP.

Table 1. Individual Teams’ Roles

Teams	Members Categories	WP involvement
Project Management Team	Faculty Members	WP4, WP5
Technical Management Team	Faculty Members Postdoctoral Researchers	WP1, WP2, WP3, WP4
Implementation Team	Postdoctoral Researchers Postgraduate PhD students	WP2, WP3
Communication and Dissemination	All members	WP5

Together with the above, the PI will hold the overall project coordination, and thus, he will be involved in all project activities.

Quality Criteria

Every output from RoboCARE must adhere to high-quality standards, encompassing both technical elements (like algorithms, datasets, and models) and written materials (reports, deliverables, publications), guided by completeness, correctness, and punctuality [3]. Completeness involves thorough coverage of topics without overlooking crucial details or adding unnecessary information. Correctness entails accurately stating results, backing them with sufficient evidence, and minimizing errors and ambiguities, ensuring materials align with the project's visual identity and HFRI standards. Punctuality focuses on meeting set deadlines for deliverables.

Deliverable Quality Assurance Processes

Throughout the project's duration, 15 deliverables are planned for submission. All of them will adhere to a specific template (Annex A), which outlines their structure. The evaluation of each deliverable will concentrate on its consistency, clarity, topical relevance and comprehensiveness, and linguistic quality. The PI is designated as the primary reviewer for each of these deliverables, ensuring a thorough and consistent review process.

For ease of communication and consistency, all deliverables will follow the following naming convention:

RoboCARE_[Deliverable Number]_Title_of_the_Deliverable_vX.Z,

where “v” refers to the version, Z is used for the different version during the preparation phase, and X for the major releases of the documents. Below the reader can find representative examples for deliverable naming.

- Document/draft version example:
RoboCARE_D1.1_Quality_Plan_v0.1
- Final document example:
RoboCARE_D1.1_Quality_Plan_v1.0

The deliverable number and the title are defined in the Technical Document. The prepared template developed for these deliverables encompasses vital project details and the content of each deliverable. This includes a minimum of Call Identifier, Project Number, Project Title and Acronym, Duration, Deliverable Number and Title, Deliverable Completion Date, Document Revision History, Table of Content, Lists of Figures and Tables (if applicable), as well as a list of acronyms.

Milestones and Quality Control

To ensure the project's quality, seven Milestones have been established throughout its timeline. These Milestones also serve as critical points for quality control, offering opportunities to assess the project's ongoing progress (Table 2).

Table 2. Milestone-based Quality Control

Milestone Number	Milestone Name	Related WP	Due Date in months	Quality Control
MS1	User requirements and technical specifications have been defined	2	6	The level of definition allows for the rest of the activities and WPs to

				continue without ambiguities
MS2	Conceptual architecture is designed	2	12	The architecture is defined to support all the required functionalities and allow for rapid change and evaluation of approaches
MS3	Standalone perception modules are evaluated	3	18	Continuous emotion estimation and place recognition can operate and provide sufficient performance results as standalone modules
MS4	Standalone adaptation modules are evaluated	4	30	Social-aware adaptation and task execution configuration can operate and provide sufficient performance results as standalone modules
MS5	Standalone adaptation modules are evaluated	4	30	Behavior modeling and conveyance can operate and provide sufficient performance results as standalone modules
MS6	System is ready for validation	5	38	ROS stack is integrated and installed on a robotic platform
MS7	System demonstration is completed	5	42	The results obtained by the demonstration on the use-case scenario are sufficient to evaluate the overall system's performance
MS8	Website, social media page, and repository are open to the public	6	6	Website, social media page, and repository are functional, can support all the project's aspects, and they are publicly accessible

Internal communication

The strategy for internal communication within the team is designed to foster transparency, cooperation, and the efficient handling of project information, including its creation, collection, and storage. This strategy encompasses three primary communication methods: email correspondences, in-person or online meetings, and the sharing of documents through an accessible platform.

Emails

For daily communication, email will be the primary mode of contact. To streamline email communication and ensure that all relevant team members are included in discussions pertaining to specific tasks, various email groups have been established and presented in Table 3.

Table 3. E-mail Groups

Shor name	Scope	Teams (see Table 1)
All	Communication channel for general purpose issues	All project members
Management	Communication channel for Management related issues	Project Management Team
Technical	Communication channel for Technical issues	Technical Management Team
Implementation	Communication channel for Technical issues	Implementation Team
C&D	Communication channel for activities related to Communication and Dissemination	Communication and Dissemination Team + possible stakeholders outside of the Host Institution (DUTH)

The PI is responsible for setting up and managing the email groups, with the flexibility to create additional groups as needed for WPs or specific deliverables throughout the remainder of the project's timeline.

In order to facilitate the organization of project-related emails, each mailing group will be configured to automatically prefix the subject line with the project's acronym and the specific group's name. This is followed by a detailed subject description for clarity. To avoid exceeding email storage limits for participants, it's advised to minimize file attachments. Instead, files should be uploaded to a designated online storage space, with a direct link shared in the email for easy access.

Meetings

Throughout the project, numerous virtual, in-person, and web-based meetings will be held to track progress, plan upcoming activities, and implement any necessary corrective actions. A summary of all project meetings is outlined in Table 4.

Table 4. Meetings Plan

Meeting Type	Meetings Frequency	Scope	Participating Teams (see Table 1)
Weekly Meeting	Every week	Monitor the implemented work on a weekly basis	Implementation Team + PI
Technical Meeting	Every 3 weeks	Brainstorm and address possible technical issues	Technical Management Team
Project Management Meeting	Every month	Monitor and plan the overall project's development	Project Management Team

The overall structure, the frequency, and the participants for each type of meeting can be adjusted accordingly during the project's duration to facilitate its uninterrupted and proper development.

Project platform

For internal collaboration and document sharing, a project workspace has been established, choosing "Microsoft SharePoint Online" after evaluating its security, user-friendliness, flexibility, and cost-effectiveness. Offered by the Host Institution (DUTH) to all its members, this workspace provides direct access to all internal documents, contact details, the project's GitHub repository, and a chat application link for direct communication among project members.

References

- [1] PMI, "PMBOK® Guide." 2021, URL: <https://www.pmi.org/pmbok-guide-standards/foundational/pmbok>.
- [2] N. R. Tague, *The Quality Toolbox*. ASQ Quality Press, 2005.
- [3] Bots, J.M., Heck E. van, Swede, V. van, "Management information," CAP Gemini Publishing BV, Rijswijk, 1990, pp. 550-555.

Annex A:

In what follows, the reader can find the Deliverable Template produced within the scope of this document.



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Document Revision History

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List of Acronyms

Acronym	Meaning
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1. Section

1.1. Subsection 1



Figure 1. Figure example

1.2. Subsection 2

Table 1. Table example

References

Annex A
