

DigiCanTrain

Digital Skills Training for Health Care Professionals in
Oncology

Project Number: 101101253

WP5: Quality Control and Evaluation

Deliverable 5.1: Quality Management Plan

		not all deliverables are scientific reports, restricting citation on Vancouver style removed and added logical citation style as the style does no impact on quality but logical use of same citation style does.	
3	04.12.2023	Wording and scales are improved in the following tools: Participants' Satisfaction with Training Modules, Module Assessment, Need assessment report evaluation tool, DigiCanTrain Deliverable Review Template. Final editing of the layout.	Virpi Sulosaari, Irma Nool, Anita Narbro
4	6.2.2024	List of annexes added, Annex referencing and wording fixed	Anita Narbro

Executive Summary

This deliverable describes the quality management procedures of the DigiCanTrain project. In the first chapter, the project and the methodology for quality management are introduced. Chapter two follows with the objectives of quality management. Quality management is divided into two main areas, 1) the quality management of the project and 2) the quality management of the project results. Chapter three describes the process of quality management covering steps of defining the projects' quality characteristics, performing the quality control of the project implementation, performing the deliverable acceptance, and reporting the quality management results. Chapter four describes the tools and techniques of quality management including the quality assessment of meeting the projects' aims, and satisfaction. A particular area of quality will focus on the quality assessment of the training modules and learning platforms. The tools also aid the literature review, and a separate questionnaire focuses on assessing the gender aspects of the research topic. Finally, the deliverable is completed with three Annexes on deliverable review. Annex 1 is the Deliverable Review Template, Annex 2 is the deliverable review plan and Annex 3 is the Project Implementation Activities survey.

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1. Introduction

The project “Digital Skills Training for Health Care Professionals in Oncology” (DigiCanTrain) is focusing on up-skilling and re-skilling the health care workforce in the cancer care setting which then in return supports the development of effective and person-centered health care and digital health care services and use of contemporary eHealth technology by the health care professionals.

The aim of the DigiCanTrain project is to develop a programme with the micro-credential recommendation, training for trainers, and an education and training package (DigiCanTrain programme) adaptable for European cancer centres, different types of education providers, and other settings across Europe.

The DigiCanTrain programme is based on literature reviews, mapping of existing continuous training and professional development training possibilities on digital skills in EU Member States and cooperation between universities and higher education institutes and health authorities.

To ensure the reaching of the goals set out in the project plan, the Quality Management Plan is developed.

The objectives of the Quality Management Plan are:

- To outline the quality strategy, approach, and process to be used for the project.
- To identify the roles and responsibilities related to project quality management.
- To identify the major project management artifacts and deliverables.
- To define the quality assurance and control activities and to plan them throughout the project.
- To support the agreement on project quality requirements and metrics, and the method to evaluate them.
- To specify the methodology, standards, tools, and techniques used to support quality management.

2. Quality Management Objectives

Project quality management aims to ensure that the project will meet the expected results in the most efficient way and that the project deliverables are accepted by the granting authority and are relevant to stakeholders. It involves overseeing all activities needed to maintain a desired level of excellence. This includes creating and implementing quality management and assurance.

DigiCanTrain project quality management process follows the PM2 methodology and will focus on two main aspects 1) the quality of the project implementation and 2) the quality assurance of the deliverables.

2.1 Quality Management of the project progress

The aim of quality assurance is to provide confidence that quality requirements, high-quality work, and success of the project activities, will be fulfilled. Success is assessed against the goals set in strategies and action plans. We understand quality as achieving the aims from which we have measurable evidence. Careful documentation of the work ensures this process. Quality assessment of the project evaluates both project inputs and outputs with the impacts of the project. The outcomes of every work package in the DigiCanTrain project should be seen in light of the aims set for every work package.

Also, the project process is one evaluation target (e.g. time schedules and budget). The total evaluation uses continual internal (self- and peer evaluation) and external evaluation approaches. The general task of quality assurance endeavours is to ensure that the whole project is manageable and implemented as planned and to control that all the necessary corrections to warrant aimed project outcomes are made.

This quality assurance plan describes how internal and external evaluations are implemented during the project's lifetime. The quality assurance plan includes 1) quality control of the project implementation, 2) internal evaluation of the deliverables, and 3) external evaluation (Advisory Board).

2.2 Quality Management of the Deliverables

The quality management of the deliverables will insure the expected standard of the deliverables. The deliverable quality is assessed internally in the project, follows the deliverable assessment template (see Annex 1) and follows the deliverable assessment task list assigned to project partners (see Annex 2).

3. Quality Management Process

The project quality management process comprises all activities (related both to processes and deliverables) that will increase the ability to meet the project's expected results identified in the Project Charter.

The quality management process for this project is comprised of four key steps:

- Define (Project) quality characteristics;
- Perform quality control of the project implementation;
- Perform deliverables acceptance; and
- Report quality management results

Step 1: Define Quality Characteristics

The purpose of this step is to identify the objectives, approach, requirements, activities, and responsibilities of the project's quality management process and how it will be implemented throughout the project. These are documented in this plan based on the project objectives, approach, deliverables, expected benefits, and resources available.

Any quality activities related to project management artifacts are documented in the *Quality Management Plan*, while quality assurance and control activities related to project deliverables can be found in Annexes.

Step 2: Perform Quality control of the project implementation.

The purpose of this step is to verify the quality of the project implementation activities with the defined quality requirements.

To perform quality control of the project implementation, the online survey will be sent to project participants via Microsoft Forms platform. The questions of the planned survey are in Annex 3. All individual members of partner project teams will answer these questions. The questions comprise satisfaction about participating in the project and feedback and suggestions for improvement. The quantitative data will be analysed using the method of descriptive statistics and the qualitative data will be analysed using the method of content analysis. The survey will be sent out twice a year - in spring and autumn.

The results of the quality assurance activities will be documented in the relevant quality and status reports. The results are presented at WP leader meetings and all partners will be informed. Recommendations for improvements may result from quality assurance and are processed by quality control in the form of change requests that will be further introduced to the WP leaders' team and the Steering Group.

Actions may result in change requests, identification of new risks and issues, re-scheduling activities, or adding new activities to the Project Work Plan. It can also identify training and resources needs, and additional quality assurance activities, among others.

Step 3: Perform Deliverables Acceptance

The purpose of this step is to obtain formal approval from the project partners for each project deliverable. It comprises the verification that deliverables meet the predefined objectives and set of criteria defined in the Deliverable Review template so that the Lead Partner can formally accept them and submit to the granting authority.

The *Deliverables Acceptance Checklist* supports the monitoring of the status of all activities that are pre-condition to the delivery of project outputs to the Project Steering Committee (PSC) and the formal acceptance from them. Project deliverables are accepted if the acceptance activities (as described in *the Deliverables Acceptance Plan*) are successfully performed and within the pre-specified tolerances. The Project deliverables may be conditionally accepted even with a set of known issues, provided that these are documented and that there is a plan for addressing them.

Step 4: Report quality management results

The purpose of this step is to manage the final acceptance of the project, including the accepted deliverables, and to perform the administrative closure of the project. The final acceptance is obtained from the Project Steering Committee (PSC), through a formal Project Acceptance Note. The role of the Project Steering Committee (PSC) and Advisory Board regarding the project decision process is described in D1.1.

The quality management results will be reported to the committee at WP leader meetings twice every year.

4. Quality Management Tools and Techniques

The quality of the project implementation will be assessed internally. Satisfaction surveys with project implementation and modules will be created.

1. Evaluation of fulfilling the aims of the project
2. Satisfaction of the participants in the Train the Trainers module
3. Satisfaction of the participants with training modules (nurses, physicians, others)
4. Assessment of the quality of learning platforms - feedback from participants
5. Quality of learning materials (accessibility, reader friendliness, evidence-based of materials, language, and subtitles, recording quality)

4.1 Evaluation of fulfilling the aim of the project

Indicators	Measurement
Perceived improvement on digital skills	Survey upon completion of training; 80 % of participants completed the DigiCanTrain programme demonstrates improvement in their digital skills.
Perceived improvement of communication with people affected by cancer	Survey upon completion of training; 60 %of participants perceive themselves more comfortable with communication in digital environment
Perception of training impact on improved outcomes of clinical practice in the future	Survey upon completion of training; 60 % of participants perceives potential improvement on clinical practice
Perception of training impact on improved quality of care of people with cancer	Survey upon completion of training; 60% of participants reports intention to change practice
Perception of increased ability to use of digital tools in clinical work	Survey upon completion of training; 60% of participants intents / have taken in use digital tools and expand the use of digital tools in their clinical work
Perception on improved multidisciplinary work models and collaboration in cancer care	Survey upon completion of training; 60% of participants has intention to improve multidisciplinary work in their unit

Perception on increased ability to develop and use of remote monitoring and eConsultation in oncology nursing practice	Survey upon completion of training; 60% of nurses have increased ability and motivation to use remote monitoring and eConsultation according to their organization readiness and protocols [for example privacy protection, electronic patient record systems] and resources
Perception on increased ability to use digital tools and technology in diagnostics, clinical decision making and patient surveillance	Survey upon completion of training; 60 % of participants in modules for oncology specialist and general medicine report intention to use or take into use digital tools
Perceived ability to increase the use of digital tools in administrative work	Survey upon completion of training; 60 % of participants in administrative role report intention to use or take into use digital tools/ expand the use of digital tools for administrative tasks
Perceived increase on crisis-preparedness	Survey upon completion of training; 60 % of participants in module for non-clinical HCPs perceive better crises-preparedness to take in use new solutions to increase preparedness to crises in oncology
Perceived skills for implementing multidisciplinary training in clinical practice and academia	Survey upon completion of training; 80 % of participants completed the Trainers programme perceive increased skills to plan and deliver multidisciplinary training in the cancer care setting

4.2 Creating satisfaction surveys (see Annex 3)

Timing	The questionnaires will be sent out to the participants after completion of last module.
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Questions	Both closed and open-ended questions are used in the survey.
Results	Questionnaires will be created in Microsoft Forms or Webropol software and sent out via e-mail.
Report	The results will be presented as a report of quality assessment of the project.

4.3 Participants' Satisfaction with Training Modules

I Satisfaction	Scale or open-ended question
Overall, how satisfied are you with the module?	Likert scale 1-5. 1- not at all, 5 - very satisfied.
How satisfied are you with the diversity of module?	Likert scale 1-5. 1- not at all, 5 - very satisfied.
How would you rate the quality of the module?	Likert scale 1-5. 1- poor quality, 5 - excellent quality.
How would you rate the training and help you've received from our team so far?	Likert scale 1-5. 1- not helpful, 5 - very helpful.
Have you used similar modules before?	Open-ended question.
What could be changed to make module more user-friendly?	Open-ended question.
II Learning outcomes	
Does this module help you achieve your goals?	YES <input type="checkbox"/> NO <input type="checkbox"/> I don't know <input type="checkbox"/>
How do you evaluate the improvement of your communication skills in a digital	Likert scale 1-5. 1- no improvement, 5 – a major improvement

environment?	
How do you evaluate the improvement of your digital skills after completion of the modules?	Likert scale 1-5. 1- no improvement, 5 – a major improvement.
After completion of training, how do you evaluate your ability and motivation to use remote monitoring and eConsultation according to their organization protocols [for example privacy protection, electronic patient record systems] and resources?	The question only for nurses Likert scale 1-5. 1- poor ability and motivation, 5 - excellent ability and motivation.
III Impact on practice	
What is the primary benefit that you received from the module?	Open-ended question.
What did you learn by completing the module?	Open-ended question.
How do you evaluate improvement in clinical practice after completion of the module?	Likert scale 1-5. 1- no improvement, 5 - a major improvement.
How do you evaluate your intention to change practice?	Likert scale 1-5. 1- no intention, 5 – strong intention.
During or after completion of training, have you taken in use digital tools and expanded the use of digital tools in your clinical work?	YES <input type="checkbox"/> NO <input type="checkbox"/> I don't know <input type="checkbox"/>
After completion of training, do you have the intention to develop multidisciplinary work in your unit?	Likert scale 1-5. 1- no intention, 5 – strong intention.

After completion of training, do you have the intention to use or take into use new digital tools?	Question only for oncology specialists and general medicine specialists
After completion of training, do you intend to use or take into use digital tools/or expand the use of digital tools for administration/management?	The question only for participants in an administrative role Likert scale 1-5. 1- no intention, 5 – strong intention.
After completion of training, do you perceive that you are better prepared in crisis management and have increased abilities in using digital interventions to increase organisation preparedness for crises in oncology?	Question only for for non-clinical HCPs YES <input type="checkbox"/> NO <input type="checkbox"/> I don't know <input type="checkbox"/>
After completion of training, how do you evaluate your skills to plan and deliver multidisciplinary training in the cancer care setting?	Question for them who completed the Trainers programme Likert scale 1-5. 1- poor skills, 5 - excellent skills.

4.4 Module Assessment

	YES	NO	N/A
1. The module title is explicit.			
2. The module title links logically to other submodules.			
3. Objectives are clearly defined.			

4. Objectives identify competencies that will be covered in the module.			
5. Objectives list the specific skills or knowledge the learner will gain by taking the module.			
6. Objectives match the module description.			
7. The module description tells the reader what it is about.			
8. Content supports programme objectives.			
9. Content includes relevant topics.			
10. Content or supplemental materials reflect the digital competence framework			
11. Learning outcomes respond to core competencies.			
12. Module and supplemental materials are culturally appropriate, use culturally sensitive language, and acknowledge cultural norms.			
13. Materials are accessible in an individual's preferred language.			
14. The module accommodates different learning styles			

15. The module accommodates a variety of relevant illustrations/examples/ visual aids.			
16. Online training meets the online training good practices.			
17. The module is accessible to all potential participants.			
18. Learning outcomes are clearly described.			
19. Learning outcomes are measurable.			
20. The instructional approach helps the learner to learn, assimilate, and apply the content.			
21. Interactivity is used throughout the module to involve and engage the learner in active learning.			

4.5 Quality Assessment of the Learning Platforms and Website

DIMENSIONS	INDICATORS	SCALE	DESCRIPTION AND COMMENTS
Technical quality	Efficacy/Style/Development	Likert scale 1-5. 1- poor, 5 - excellent.	
Content quality	Resources/Effectiveness/Methods	Likert scale 1-5. 1- poor, 5 - excellent.	
Service quality	Help/Functional tools/Guidance	Likert scale 1-5. 1- poor, 5 - excellent.	

4.6 Literature Review Checklist

1. Is the area of interest explained? YES NO
2. Is the purpose of the review made evident to the reader? YES NO
3. Is the method for the selection of reviewed materials described? YES NO
4. Are the inclusion and exclusion criteria for the review specified? YES NO
5. Are the methods to tabulate or visually display results of individual studies and syntheses described? YES NO
6. How studies were grouped for the syntheses?
7. What scientific fields are the included articles related to?.....
8. Which checklists were used to assess the quality of the articles?.....

4.7 Gender Impact Assessment Checklist

1. I take into consideration the diversity of quoted authors (sex, geographical origin,...) YES NO I don't know
2. I considered gender implications in how I elaborated my research question and my research goals. YES NO I don't know
3. When thinking of the research or data gaps, I consider how gender may play a role in producing such gaps. YES NO I don't know
4. I plan to include sex and gender-disaggregated data. YES NO I don't know

5. I have considered the gender-specific risks associated with this research and I have designed measures to mitigate against these risks. YES NO I don't know

4.8 Leaflet Evaluation Tool

Evaluation Criteria	Scale
Readability	Likert scale 1-5: 1-poor, 2-fair, 3-good, 4-very good, 5 - excellent.
Comprehensibility	Likert scale 1-5: 1-poor, 2-fair, 3-good, 4-very good, 5 - excellent.
Accurate information	Likert scale 1-5: 1-poor, 2-fair, 3-good, 4-very good, 5 - excellent.
Structure and layout	Likert scale 1-5: 1-poor, 2-fair, 3-good, 4-very good, 5 - excellent.
Communicative effectiveness	Likert scale 1-5: 1-poor, 2-fair, 3-good, 4-very good, 5 - excellent.

4.9 Curriculum evaluation tool

Please assess the presence of the following components in the curriculum:

1. Have the needs of the learners been diagnosed? YES NO
2. Are the objectives formulated? YES NO
3. Can these objectives be achieved? YES NO
4. Do the chosen objectives refer to the content of the curriculum?
YES NO
5. Is the curriculum content structured? YES NO
6. Have learner-centred learning methods been used? YES NO
7. Have evaluation criteria been developed to achieve the learning outcomes? YES NO

4.10 Communication Plan Evaluation Tool

Evaluation Criteria	Scale
Clear objectives that support wider project goal are identified	Likert scale 1-5: 1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree
Target audiences are identified	Likert scale 1-5: 1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree
Audience-focused key messages are identified	Likert scale 1-5: 1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree
A realistic set of outputs and activities are identified	Likert scale 1-5: 1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree
It is considered what success would look like	Likert scale 1-5: 1 – Strongly disagree 2 – Disagree 3 – Neither agree or disagree 4 – Agree 5 – Strongly agree

4.11 Need assessment report evaluation tool

Please assess the presence of the following components in the report:

1. Executive Summary: A summary of the need assessment findings, conclusions, and recommendations. YES NO
2. Background: An overview of the need assessment context, scope, purpose, and methodology. YES NO
3. Evaluation Questions: A list of the need assessment questions that guided the process. YES NO
4. Methodology: A description of the methods used in to prepare the needs assessment summary. YES NO
5. Findings: A presentation of the findings, and further use of the results for curriculum development. YES NO
6. Conclusions: A summary of the main evaluation findings and conclusions. YES NO
7. References: A list of references cited in the evaluation report. YES NO

Annex 1

DigiCanTrain Deliverable Review Template

Deliverable general information:

Deliverable	Description
Deliverable number	D Number
Deliverable name	Title
Dissemination level	Public/Sensitive
Deliverable leader	Name of Deliverable Leader
Deliverable authors	Name of Author(s)
Work package leader	Name of Work Package Leader
Task leader	Name of Task Leader
Due submission date	dd.mm.yyyy
Reviewer (Person, Organisation)	[Name Surname], [Organisation]
Date received for review	dd.mm.yyyy
Date of review completion	dd.mm.yyyy

One important step is to assess the quality of the project after completing each deliverable.

Following a review of the deliverable, please rate the deliverable on the points specified below, using the following traffic light colors assessment criteria. If You have any questions do not hesitate to contact us.

Red: Major revisions are required before considering the deliverable as adequate for submission to the European Commission
Yellow: Some revisions are required before considering the deliverable as adequate for submission to the European Commission
Green: No revisions are required before considering the deliverable as adequate for submission to the European Commission

Quality of the content	Rating	Comments for rating and recommendations for improvement
Is the deliverable adequate in terms of content?	Red/Yellow/Green	
Is the deliverable adequate in terms of relevance?	Red/Yellow/Green	

Is the deliverable adequate in terms of scope? Does the deliverable contain what was defined in the deliverable description in the Grant Agreement?	Red/Yellow/Green	
Is the reporting style the one indicated on the template?	Red/Yellow/Green	
If citations are included, do these follow the logical citation system?	Red/Yellow/Green	
If citations are included, is a reference list provided at the end of the document?	Red/Yellow/Green	

Length	Rating	Comments
Is the overall length of the deliverable justified?	Red/Yellow/Green	
Is there any repetition and/or redundancy?	Red/Yellow/Green	
Are there any parts that are too short?	Red/Yellow/Green	

Language	Rating	Comments
Is the language adequate in terms of grammar, punctuation, and spelling?	Red/Yellow/Green	
Is it written concisely?	Red/Yellow/Green	

Consistency	Rating	Comments
Is the deliverable coherent in terms content?	Red/Yellow/Green	
Is the deliverable coherent in terms style?	Red/Yellow/Green	
Is the deliverable coherent in terms formatting?	Red/Yellow/Green	

Timeliness	Rating	Comments
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Does the deliverable submission align with the stipulated timelines?	Red/Yellow/Green	
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Strengths	Rating	Comments
What are the major strengths of the deliverable?	Red/Yellow/Green	

Weaknesses	Rating	Comments
What are the major weaknesses of the deliverable?	Red/Yellow/Green	

Overall Deliverable Rating	Rating	Comments
What is the overall rating of the deliverable?	Red/Yellow/Green	

<p>Current version of the deliverable is:</p> <ul style="list-style-type: none"> <input type="checkbox"/> Adequate and ready to be submitted to the European Commission <input type="checkbox"/> Adequate but requires minor revisions prior to submitting to the European Commission <input type="checkbox"/> Inadequate and requires major revisions <p>Additional comments/recommendations: If the deliverable requires major revision, please provide concrete recommendations on how the deliverable can be improved.</p>		
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Annex 2

Deliverable review plan

Work Package No	Deliverable Related No	Deliverable Name	Lead Beneficiary	Due Date	Assessor	Assessment Date	Review Due Date
WP1	D1.1	Project management model	TURKU UAS	31 May 2023	UTU	NA	NA
WP1	D1.2	Midterm report summary	TURKU UAS	31 Aug 2024	UTU	16.8.2024	23.8.2024
WP1	D1.3	Final report summary	TURKU UAS	28 Feb 2026	UTU	13.2.2026	20.2.2026
WP2	D2.1	Need assessment report	TURKU UAS	22 Dec 2023	UTU	15.12.2023	29.12.2023
WP2	D2.2	A systematic review on digital skills	UTU	07 Dec 2023	TURKU UAS	22.11.2023	29.11.2023
WP2	D2.3	A systematic review on digital tools in oncology	UTU	07 Dec 2023	TURKU UAS	22.11.2023	29.11.2023
WP3	D3.1	DigiCanTrain Curriculum	NUI GALWAY	1 Jan 2024	TTK	18.2.2024	28.2.2024
WP3	D3.2	DigiCanTrain modules	NUI GALWAY	31 Aug 2024	TTK	16.8.2024	23.8.2024
WP4	D4.1	Pilot evaluation report	ICO	31 Aug 2025	UoG	16.8.2025	23.8.2025
WP5	D5.1	Quality Management Plan	TTK	22 Dec 2023	TURKU UAS	4.12.2023	15.12.2023
WP5	D5.2	Article on the impact of the DigiCanTrain programme on Digital skills	THL	31 Aug 2025	TURKU UAS	15.8.2025	22.8.2025
WP6	D6.1	Communication and publication plan	TURKU UAS	07 Dec 2023	UTU	22.11.2023	29.11.2023
WP6	D6.2	Website	TURKU UAS	30 Apr 2023	UTU	NA	NA
WP6	D6.3	Project leaflet at the beginning of the project	TURKU UAS	07 Dec 2023	ICO	22.11.2023	29.11.2023
WP6	D6.4	Project summary leaflet	TURKU UAS	28 Feb 2026	ICO	13.2.2026	20.2.2026
WP6	D6.5	Dissemination final report	TURKU UAS	31 Jan 2026	ICO	16.1.2026	23.1.2026
WP6	D6.6	Exit strategy	TURKU UAS	31 Jan 2026	UTU	16.1.2026	23.1.2026

Annex 3**PROJECT IMPLEMENTATION ACTIVITIES SURVEY**

1. What activities (in your organization) have been taken to promote project implementation at this phase of the project? (What has been done so far?)
2. Has the goals planned been achieved at this phase of the project? If not, why?
3. Do the project documents support the implementation of project activities?
4. Does the project promote your own development regarding the project theme?
5. Does the project promote the overall development of participants` knowledge regarding project topics?
6. Have you received support from other project participants/ your own project team members to carry out development activities?
7. Have you received support from the research team on implementing the review/mapping/pilot?
8. What else do you want to say about the project?