Quality and Risk Management - Initial Report

Work Package 1 – Deliverable D1.3

Project title	Raise excellence in R&S&I in HEI for widening countries
Project Acronym	Unite!Widening
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Work Package	WP1
Deliverable	D1.3 – Quality and Risk Management - Initial Report
Lead Beneficiary	Wroclaw University of Science and Technology
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Executive Summary

The "Quality and Risk Management – Initial Report" presents a comprehensive overview of the quality assurance and risk management activities undertaken during the first 15 months (January 2024 – March 2025) of the Unite!Widening project. This report reflects the structured implementation of the Quality and Risk Management Manual (QRMM) (D1.2) and documents the progress towards maintaining ambitious standards and managing potential threats to the project execution. The following project partners engaged in the project's quality and risk management activities:

Partner - legal name	Partner - short name
POLITECHNIKA WROCŁAWSKA WROCŁAW UNIVERSITY OF SCIENCE AND TECHNOLOGY	PWR WroclawTech
UNIVERSIDADE DE LISBOA UNIVERSITY OF LISBON	ULisboa
ASSOCIAÇÃO PARA O PÓLO TECNOLÓGICO DE LISBOA LISBON TECHNOLOGICAL PARK	LISPOLIS
AAVANZ - INOVAÇÃO UNIPESSOAL LDA AAVANZ - INNOVATION CONSULTING SERVICES	AAVANZ
WROCLAWSKI PARK TECHNOLOGICZNY SA WROCLAW TECHNOLOGY PARK	WPT SA
AGENCJA ROZWOJU AGLOMERACJI WROCLAWSKIEJ SA WROCLAW AGGLOMERATION DEVELOPMENT AGENCY	ARAW SA
POLITECNICO DI TORINO POLYTECHNIC UNIVERSITY OF TURIN	PoliTO
TECHNISCHE UNIVERSITÄT GRAZ GRAZ UNIVERSITY TECHOLOGY	TU Graz
TECHNISCHE UNIVERSITÄT DARMSTADT TECHNICAL UNIVERSITY OF DARMSTADT	TUDa
INSTITUT POLYTECHNIQUE DE GRENOBLE GRENOBLE INSTITUTE OF TECHNOLOGY	Grenoble INP-UGA
UNIVERSITAT POLITÈCNICA DE CATALUNYA POLYTECHNIC UNIVERSITY OF CATALONIA	UPC
AALTO KORKEAKOULUSAATIO SR AALTO UNIVERSITY	Aalto
KUNGLIGA TEKNISKA HÖGSKOLAN ROYAL INSTITUTE OF TECHNOLOGY	KTH

1 | Introduction

This "Quality and Risk Management - Initial Report" is the result of the activities described in the Grant Agreement of the Unite!Widening project as follows: *To provide a flexible coordination of the project activities, with a smooth decision process, a regular management of risks and unforeseen actions, a proper use of resources and the appointment of quality and scientific committees to contribute to reduction in the gap between the Widening and non-Widening countries.* This report provides the summary of the project work in terms of project quality and risk management for the period 1M-15M (January 2024- March 2025).

The general information about the data collection process of quality and risk is described above.

1.1 | Quality Management (Data Collection Process)

The data collection process for quality management is structured around the principles of the "Unite! Quality Management Manual (QMM)". The guidelines for the quality management in the Unite!Widening project are in the "Quality and Risk Management Manual" (Deliverable D1.2, see Appendix). The quality management process consists of three main stages:

1. **Quality Planning** - This phase involved identifying quality standards for the project and its deliverables. The standards were aligned with the specifications in the Grant Agreement and stakeholders' expectations. A Quality Management Plan was prepared at an early stage of the project.
2. **Quality Assurance** - In this phase, the planned standards were implemented in the project through various activities. The Quality Management Officer (PLQMO) arranged biannual quality reviews. The Quality Advisory Board (QAB) was informed about the reviews and had continuous access to the collected information (Google Drive).
3. **Quality Control** - This phase involves reviewing and recording the implementation of quality management activities to ensure that the deliverables meet expectations. A systematic monitoring process was established through a Quality Register (maintained in an Excel spreadsheet) to track and assess the project quality over time. The QAB and the Project Coordinator had continuous access to the information collected (through a specially developed Google Drive).

The project also follows a PDCA (Plan-Do-Check-Act) cycle for continuous improvement, which ensures ongoing evaluation and refinement of the deliverables.

1.2 | Risk Management (Data Collection Process)

The guidelines for the risk management in the Unite!Widening project were also written in the "Quality and Risk Management Manual" (Deliverable D1.2, see Appendix). The key stages of risk management include:

1. Risk Identification - Potential risks were identified through techniques suggested in the QMM Manual (e.g., brainstorming, expert interviews, and reviewing historical project data). A predefined list of potential risks was maintained in the project documentation, and additional risks could be identified during reporting cycles.
2. Risk Assessment - Identified risks were analysed to determine their likelihood and impact. They were prioritized based on a risk matrix, helping project managers (WP Leaders, Project Coordinator) to focus on high-priority threats.

3. Risk Treatment – Strategies were implemented to address key risks, including risk avoidance, mitigation, transfer, or acceptance. A Risk Register (in an Excel spreadsheet) was maintained to document identified risks, assessments, and treatment strategies.
4. Monitoring & Reporting – Continuous risk monitoring was conducted through biannual risk reviews. The risk status was recorded systematically, ensuring transparency and accountability. The QAB and the Project Coordinator had continuous access to a specially developed Google Drive.

This structured approach ensures that the risk data is continuously updated and used to improve project decision-making.

1.3 | Quality and Risk Management (Involved Bodies)

The following **bodies engaged in** the quality and risk data collection process (Table 1).

Table 1 - Bodies involved in the quality and risk management in the Unite!Widening project

Bodies	Quality Management	Risk Management
Quality Management Officer (PLQMO)	- Organised quality reviews of the deliverables and their processes. - Collected project quality data on a platform accessible to the QAB and the Project Coordinator. - Organised Quality Advisory Board (QAB) meetings.	- Organised risk reviews and its processes. - Collected risk quality data on a platform accessible to the QAB and the project coordinator. - Organised Quality Advisory Board (QAB) meetings.
Quality Advisory Board (QAB)	- Created the Quality Register. - Improved the quality data collection process within the project. - Advised the Work Package Leaders (WPLs) on the implementation of quality management. - Reviewed the quality data collected. - Compiled the global Quality Register and provided a report to the Unite! General Assembly.	- Created the Risk Register. - Improved the risk data collection process in the project. - Advised the Work Package Leaders (WPLs) on the implementation of risk management. - Reviewed the collected data about risk. - Compiled the global Risk Register and provided the report to the Unite! General Assembly.
Work Package Leaders (WPLs)	- Checked that the work outputs met the quality standards and stakeholder expectations. - Completed the Quality Register including quality evaluation.	- Identified and up-dated risk data. - Completed the Risk Register including the Risk Mitigation & Monitoring Plan for their work packages.
Responsible of the deliverables	- Provided information for the Quality Register.	- Provided information for the Risk Register.

All quality and risk data were collected and recorded in the appropriate tools (Quality Register, Risk Register) and were available for regular reviews and assessments.

Additional information on how quality and risk have been managed in the project over the past months of its implementation:

1. The QAB members worked with various forms of communication, including online meetings, face-to-face meetings during Dialogues and email correspondence. Since September 2024, the Quality Management Officer (PLQMO), who is a member of the QAB, has also been a member of the Quality Management (QMET) Expert Team in the Unite!Erasmus project. Due to regular meetings, it was possible to exchange information between both projects (Table 2).

Table 2 - List of meetings of the QAB in the Unite!Widening project

Meetings of QAB	Main information
Online Meeting 19th April 2024	Agenda: 1) Welcome and introduction of participants (10 minutes) 2) The Unite!Widening project – scope, organizational structure (15 minutes) 3) QAB administrative issues (meeting dates, further works) (5 minutes) 4) Quality and Risk Management Manual - analysis and discussion (30 minutes)
Online Meeting 29th May 2024	Agenda: 1) Information about the Manual 2) Discussion of a tool on data collection for project risk management 3) Discussion of a tool on data collection for project quality management
Hybrid Meeting Darmstadt Dialogue 24th September 2024	Agenda: 1) Report about process of collecting data about risk and quality in the Unite!Widening project: with difficulties encountered 2) Proposal for improvements in Excel files (tools for collecting data about risk and quality in the project) 3) Preparation of the schedule and rules for the next data collection activities
Hybrid Meeting Darmstadt Dialogue 25th September 2024	- Lessons learned: data collection tools - their potential improvements - Agreement of the reporting format: structure, information (next Deliverable: D1.3 Quality and Risk Management – Initial Report)
Regular (monthly) Quality Management Expert Team meetings	- Communication of the most important information's about the data collection process regarding quality and risk
Hybrid Meeting Barcelona Dialogue 26th February 2025	Agenda: 1) Presentation of the current draft "Quality and Risk Management - Initial Report". 2) Submission of comments from QAB members along with a discussion on their acceptance/rejection 3) Determining the next steps and deadlines for their implementation

*The minutes of all Agendas are provided in Google Drive (for Unite!Widening) and uShare (for Unite! Alliance).

2. In the period from 1M to 15M, there were several changes in the composition of the QAB, involving different partners. Table 3 summarizes the original composition of the QAB (from Milestone 1, appointment of the 2 Advisory Boards) and the actual composition in March 2025.

Table 3 - The composition of the QAB members

Partner	Original composition	Actual Composition (March 2025)
WroclawTech	Agata Klaus-Rosińska	Agata Klaus-Rosińska
ARAW	Mateusz Jarzombek	Mateusz Jarzombek
Aalto	Ruben Vicente-Saez	Marja Niemi
TU Graz	Manuela Berner	Manuela Berner and Volker Lang
TUDa	Judith Fender	Miglena Amirpur and Michelle Mallwitz
KTH	Leif Gifvars	Inger Wikström Öbrand
UPC	Ricardo de la Vega	Ana Muñoz Medina
Grenoble INP-UGA	Noélie Bouzon	Alissa Grenet
PoliTO	Luigi Erriquens	Luigi Erriquens
ULisboa	João Patrício	João Patrício
Aavanz	Nuno Cunha	Nuno Cunha and Sandra Silva

2 | Tools for Collecting and Recording Data About Quality and Risk

2.1 | Quality Management (Tool for Collecting and Recording Data)

For the quality management of the Unite!Widening project, an Excel tool was developed, and data was collected from Partners in June 2024 and January 2025. The first version of the tool was launched prior to the Dialogue in Darmstadt, which took place on 23-26 September 2024. During the Dialogue, the QAB members suggested several improvements to the Spreadsheet file (the project's quality data collection tool), which were implemented on the actual version. The changes to the Quality Register file are outlined below:

- Title QUALITY REGISTER on each sheet,
- On the first sheet, brief instructions on how to complete the file (including that data are collected twice a year, the deadline for completing the file, and the period for which data will be collected),
- Comments on entering information in the various columns (not just a drop-down list),
- On the right-hand part of the sheet QR 1_Other - concerning the description of Deliverables - one table for the Deliverable, rather than several fields,
- A reference to the Unite! Common Quality Goals (to each individually): sheet QR 1_DMP or R and sheet QR 1_Other,
- Non-mandatory columns (sheet QR 1_DMP or R and sheet QR 1_Other).

Changes were made in the Excel Spreadsheet file (Quality Register) which contains now the following 5 sheets, named as:

1. **Description:** Provides brief instructions on how to complete the Quality Register, reference to the Manual of Quality and Risk Management for the Unite!Widening project and a Description of the columns of the Quality Register and Sheets (Figure 1).
2. **QR 1_DMP or R:** Used to assess the quality of the deliverables of the following types: DMP - Data Management Plan and R - document/report. This sheet contains 21 columns:
   a. No, NoD, WP, NoT - action identifiers and their numbering,
   b. % of achieving deliverable - percentage of completion of the deliverable,
   c. Responsible person – the person who is responsible for the deliverable,
   d. Visibility, Usability, Availability of use, Safety, Flexibility, Sustainability - indicators to assess the quality of the deliverables. The quality criteria have 4 rates (VERY HIGH, HIGH, LOW, VERY LOW),
   e. Other suggested by WPL criteria - indicators to assess the quality of the deliverable proposed by the WP Leader. The quality criteria have 4 rates (VERY HIGH, HIGH, LOW, VERY LOW),
   f. Unite!Goal - assessing the performance of a deliverable in terms of Unite! The evaluation criteria have 4 rates (definitely, satisfactorily, partially, not at all),
   g. PARTNER - Name of institution,
   h. Date of completion.
3. **QR 1_Other:** Used to assess the quality of deliverables of the type: Other. It contains 14 columns:
   a. No, NoD, WP, NoT - action identifiers and their numbering,
   b. % of achieving deliverable - percentage of completion of the deliverable,

c. Responsible person – the person who is responsible for the deliverable,
   d. Suggested by WPL criteria - indicators to assess the quality of the deliverable proposed by the WP Leader,
   e. Unite!Goal - assessing the performance of a deliverable in terms of Unite! The evaluation criteria have 4 ratings (definitely, satisfactorily, partially, not at all),
   f. PARTNER - Name of institution,
   g. Date of completion.
4. **QFinalEval:** Used for all types of deliverables (Figure 2). The final quality evaluation criteria have 4 ratings (definitely, satisfactorily, partially, not at all) and show the results of the evaluation carried out by the WP Leaders. The WP Leader completes one form for each deliverable of which they are responsible (when the content or scope of the Deliverable is completed - stage 80%).
5. **DATA:** Contains 10 columns with data that were used to develop the drop-down lists in the sheets "QR 1_DMP or R" and "QR 1_Other", i.e. NoD (Type DMP or R), NoD (Type Other), WP, NoT, % of achievement of deliverable, Quality criteria scale, Rating, Responsible person, Partner, NoD (All types).

QUALITY REGISTER - for quality recording and reporting

The Quality Register consists of the information on the status and quality of deliverables of the Unite.WIDENING project. The e-mail requesting completing the file will contain the following information: the deadline for completing the file, and for which period the data are collected.

When entering data in the individual sheets, follow the provisions of the "Manual of Quality and Risk Management" for the Unite.WIDENING project.   The Manual

In brief, the steps to be taken are as follows:
1. Start with sheet "QR 1_DMP or R" or "QR 1_Other", here you can find Quality Register to be filled in.
2. Fill in the table from left to right, reading the descriptions of each column.
3. Next sheet that should be used to complete is the "QFinalEval".

Description of the columns of Quality Register:
NoD – Number of Deliverable, select from the list
WP – Work Package, select from the list
NoT– Number of Task, select from the list
% of achieving deliverable – The state stage of deliverable, select from the list
Responsible person – The person who is responsible for the deliverable
Degree of compliance with quality criteria for DMP or R deliverable type – The quality criteria select from the list (or insert as an additional criterion) and their assess
Degree of compliance with quality criteria for OTHER deliverable type – The quality criteria insert and their assess
Partner – select from the list
Date of completion - date of deliverable quality assesment

Sheets:
QR1_DMP or R - QUALITY REGISTER FOR DELIVERABLE IN TYPE: DATA MANAGEMENT PLAN OR REPORT (DMP or R)
QR1_Other - QUALITY REGISTER FOR DELIVERABLE IN TYPE: OTHER
QFinalEval - QUALITY FINAL EVALUATION FOR EACH DELIVERABLE

Figure 1 - Instructions on the "Description" of the Excel Spreadsheet file 'Quality Register'

Deliverable subjected to quality final evaluation	
Evaluation criterion	**Rating**
The deliverable meets the WP objective	
The deliverable meets the Task objective	
The deliverable contributes to the state of art of the Unite.WIDENING project	
The deliverable contributes to the strategic quality goals of Unite! as a long-term	
Recommendation of correction and/or improvement	

Recommendation of correction and/or improvement

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Figure 2 - Blank form for the "Quality Final Evaluation" of the Excel Spreadsheet file 'Quality Register'

2.2 | Risk Management (Tool for Collecting and Recording Data)

For the risk management of the Unite!Widening project, an Excel tool was also developed to collect data from Partners in June 2024 and January 2025. Again, the preliminary version of the tool, developed prior to the Darmstadt Dialogue, was improved during it, with the suggestions of the QAB members to the Spreadsheet file (the project's risk data collection tool). The changes to the Risk Register file are outlined below:

- title RISK REGISTER on each sheet,
- on the first sheet, brief instructions on how to complete the file (including that data will be collected twice a year, the deadline for completing the file, and for which period the data will be collected),
- comments on how to enter information in the various columns (not just a drop-down list).

Changes were made in the Excel Spreadsheet file (Risk Register), which have the following 4 worksheets:

1. **Description:** Provides brief instructions on how to complete the Risk Register, reference to the Manual of Quality and Risk Management for the Unite!Widening project and a Description of the columns of the Risk Register and Sheets (Figure 3).
2. **RR:** Used for risk assessment. This sheet contains 14 columns:
   a. No, NoCR, Risk identification, Number of Task, Category, WP - action identifiers and their numbering,
   b. Likelihood, Impact, Assess - data for analysis and assessment,
   c. Mitigation strategy, Mitigation plan - data for risk mitigation and monitoring plan,
   d. Risk owner - Task Leader or a person who is personally responsible for implementing the mitigation strategy and monitoring the risks,
   e. PARTNER - Name of institution,
   f. Date of completion.
3. **PREDEFINED RISKS:** Lists 15 Critical risks from Grant Agreement together with Predefined Potential Risks.

4. **DATA:** Contains 8 columns with data to develop the drop-down lists in the sheet "RR", i.e. Task, Category, WP, Likelihood, Impact, Assess, Mitigation strategy and Partner.

RISK REGISTER - for risk recording and reporting

The Risk Register determines the Risk Mitigation & Monitoring Plan and contains all the information needed to effectively manage the risks in the project. We therefore recommend using the Risk Register as a tool to record the identification, assessment and monitoring and review of risks. Project risk data is collected twice a year. The e-mail requesting completing the file will contain the following information: the deadline for completing the file, and for which period the data are collected.

The data entry of the register is in accordance with the 'Manual of Quality and Risk Management' for the Unite.WIDENING project. The Manual

In brief, the steps to be taken are as follows:
1. Start with sheet RR, here you can find Risk Register to be filled in.
2. Fill in the table from left to right, reading the descriptions of each column.
3. The Predefined risks sheet does not need to be completed. It is a sheet that can be used to complete the RR sheet.

Description of the columns of RR:
NO CR - critical risk number
RISK IDENTIFICATION – copied from the "List of Predefined Potential Risks" or/and identified a new risk
TASK – selected from the list of task: 1.1.,1.2.,2.1.,2.2.,2.3.,2.4.,2.5.,3.1.,3.2.,3.3.,3.4.,4.1.,4.2.,4.3.,4.4.,4.5.,5.1.,5.2.,5.3.,5.4.,5.5.
CATEGORY – selected whether the risk is more related: to the product of the task (DELIVERABLE) or to a milestone assigned to the task (MILESTONE)
WP – selected from the list: WP1, WP2,WP3,WP4, WP5
LIKELIHOOD – selected from the list: VERY LIKELY, LIKELY, UNLIKELY, VERY UNLIKELY
IMPACT – selected from the list: NON-SIGNIFICANT, MINOR, MEDIUM, MAJOR, DISASTER
ASSESS – selected from the list: VLNS,VLMI,VLME,VLMA,VLDI,LINS,LMIN,LMED,LMAJ,LDIS,UNNS,UNMI,UNME,UNMA,UNDI,VUNS,VUMI,VUME,VUMA,VUDI
MITIGATION STRATEGY – selected from the list: ACCEPT, AVOID, MITIGATION, TRANSFER
MITIGATION PLAN – described how the mitigation strategy will be implemented
RISK OWNER – Task Leader or a person who is personally responsible for implementation mitigation strategy and monitoring risk
PARTNER – selected from the list: ULISBOA, LISPOLIS, AAVANZ, PWR, WPT SA, ARAW SA, POLITO, TU GRAZ, TUDa, Grenoble INP, UGA, UPC, AALTO, KTH
Date of completion - date of risk indication

In the Sheet RR Initial and Report 1 data risks have been sorted according to the following key:
1) Task numbers
2) identification (field with description)
3) date of data collection.

Figure 3 - The Sheet "Description" of the Excel Spreadsheet file 'Risk Register'

3 | Analysis of the Collected Data about Quality and Risk

3.1 | Analysis of the Collected Data about Quality

The data herein included was collected in M6 - June 2024 and M13 -January 2025 (See Appendix, Data recorded: QR initial + QR R1) and the Deliverables used to analyse Quality in the project are listed in Table 4.

Table 4 - Project deliverables and their level of achievement at M13 (January 2025)

Type of DI's	Deliverable	Level of Achievement
DMP or R	D1.1 - Data Management Plan	100%
	D1.2 - QM and Risk Management Manual	100%
	D1.3 - Quality and Risk Management - Initial Report	10-40%
	D4.1 - New Policy Recommendations for R&I Widening countries Agendas	100%
	D4.2 - Research management needs in PL and PT - identification of gaps and future actions	100%
	D4.3 - Handbook of HRS4R for Widening Countries	100%
	D4.4 - Enhanced, extended and updated online catalogue of RIs + directory of TTOs	80%
	D4.5 - UNITE White Paper "A new university Open Science & Innovation Strategic Roadmap" - adapted version to Widening countries	100%
	D5.1 - Development of Gender, Inclusion and Equity Plans in research careers - Survival Guide to Widening Countries	10-40%
	D5.3 - Risks-benefits analysis on allowing external users access to an RI	10-40%
	D5.4 - Establishment of the Research Assessment Framework in Widening Countries	10-40%
	D5.5 - Legal framework and agreement template for UDS segment in PL and PT - UIDS (Unite Industrial Doctoral School)	10-40%
	D5.6 - Best Practices Report in Outreach and involvement of citizens in R&I	10-40%
	D6.1 - Guidelines to the creation of a Science & Innovation Skills Academy	10-40%
	D8.1 - Training Implementation Report	10-40%
	D11.1 - Plan for dissemination, communication, and exploitation. Dissemination, Awareness raising, and Communication plan – Strategies for Widening Countries	100%
Other	D5.2 - Design and implementation of a long-term scheme for joint MRO of the above	10-40%
	D7.1 - Training Programmes Contents and Guides – Manual	10-40%

Quality assessment

Deliverables (DMP or R types) were evaluated against several quality criteria, such as Visibility, Usability, Availability of use, Safety, Flexibility and Sustainability. Deliverables (type Other), on the other hand, were assessed against criteria proposed by the WP Leaders. The WP Leaders only assessed the quality of the deliverables according to these criteria if achieving deliverables was more than 40%.

Most of the ratings were 'HIGH' or 'VERY HIGH', suggesting that the products of the project meet high quality standards.

Partners and responsible persons

Different people are responsible for the implementation of the several deliverables, indicating a separation of responsibilities between the Partners and cooperation in the project. The people responsible for providing data are, according to the QM Manual, the Leaders, who may have used information obtained from other project staff, *e.g.* Task Leaders. Six partners participated in the implementation of the products during the period M1-M15: ULisboa, WroclawTech, PoliTO, Grenoble INP-UGA, Aalto and UPC.

Unite! Quality Goals

The project products were also assessed against the Common Quality Goals of the Unite! alliance, such as "Enabling participation & co-creation", "Being attractive, equally accessible & easy to join", "Generating high-impact" and "Being structural & systemic". The majority of ratings in these categories are at the 'definitely' level, suggesting that the products contribute to Unite!'s strategic objectives.

Quality final evaluation

Each deliverable is subject to a final evaluation process whose Quality consisted of the following four criteria:

- The deliverable meets the WP objective,
- The deliverable meets the Task objective,
- The deliverable contributes to the state of art of the Unite!Widening project,
- The deliverable contributes to the Unite!'s strategic quality goals as a long-term alliance.

So far, the final quality assessment was made for the following Deliverables:

- D1.1 - Data Management Plan.
- D1.2 - QM and Risk Management Manual.
- D4.1 - New Policy Recommendations for R&I Widening countries Agendas.
- D4.2 - Research management needs in PL and PT - identification of gaps and future actions.
- D4.3 - Handbook of HRS4R for Widening Countries.
- D4.4 - Enhanced, extended and updated online catalogue of RIs + directory of TTOs.
- D4.5 - UNITE White Paper "A new university Open Science & Innovation Strategic Roadmap" - adapted version to Widening countries.
- D11.1 - Plan for dissemination, communication, and exploitation. Dissemination, Awareness raising, and Communication plan – Strategies for Widening Countries.

Most of the criteria were assessed as 'definitely' in all the deliverables, suggesting that the products meet the highest standards. As exceptions, we have:

Deliverable D1.2. - in June 2024, criterion 'The deliverable contributes to the state of art of the Unite!Widening project' was 'satisfactorily'. A 'Recommendation of correction and/or improvement' was proposed as follows: The rating results from the detailed assessment (QR sheet 1_DMP or R) of the criterion 'Popularity'. In line with the PDCA cycle, it was recommended that actions should be taken: to disseminate information about the Manual on Quality and Risk Management in the project, to do regulatory meetings, to establish dedicated meetings, and to take part in the Dialogues. In the next assessment (January 2025), this criterion was updated to the 'definitely' level. The WP Leader in the Quality Register commented: RECOMMENDATIONS HAVE BEEN IMPLEMENTED. But it is still advisable to take actions to disseminate information about the Manual on Quality and Risk

Management in the project (including the regulatory and dedicated meetings, and participation at the Dialogues).

Deliverable D4.4. - In January 2025 one criterion was 'satisfactorily'. A 'Recommendation of correction and/or improvement' was proposed as follows: The catalogue is ready, but the report needs to be revised and improved with the necessary information. To note that the due date for this deliverable was postponed from September 2024 to March 2025.

Recommendations in quality management area

In some cases, recommendations were made to improve product quality, indicating continuous improvement, in line with the PDCA cycle (Table 5).

Table 5 - Examples of recommendations identified to improve product quality

Objective	Recommendation
Improved assessment of the "Visibility" and "Popularity" criteria	Increase promotional and outreach activities for the products supplied. This may include organising webinars, publishing articles in trade journals and being active on social media.
Improving the assessment of the criterion "Cooperation" and "Unite! Goal: Enabling participation & co-creation"	Organise regular meetings and workshops to enable the exchange of knowledge and experience between project partners.
Improved assessment of the "Safety" and "Flexibility" criteria	Conduct safety audits and introduce risk management procedures. In addition, introduce flexible working methods to adapt quickly to changing conditions.
Improved evaluation of the "Usability" and "Availability of use" criteria	Conduct usability tests and collect end-user feedback. Based on the data collected, make improvements that will increase the accessibility and usability of the products.
Improved assessment of the criterion "Sustainability"	Introduce sustainable practices such as minimising resource consumption, recycling and promoting green solutions.
Increased awareness and compliance with project quality guidelines	Continue outreach activities on the 'Manual of Quality and Risk Management' in the project. This may include regulatory meetings, dedicated meetings and dialogues.

3.2 | Analysis of the Collected Data about Risks

Entering the Risk Register collected data

The initial data was collected after the publication of The Quality and Risk Management Manual (The Manual), until June 2024. A total of 9 files completed by WP leaders or task leaders were collected. The data was gathered in a single work file, the Initial Risk Register, with 116 rows. The data for Report 1 was collected in January 2025. A total of 11 files completed by WP leaders or task leaders were collected. The data from all the files was merged in a single RISK REGISTER Report 1 work file, with 174 rows.

In order to analyse the identified risks and their assessment for the period June 2024 - January 2025, both work files were combined into one file and a collective table of 290 rows were created (which means 290 identified risks). For clarity, the entries in the "Date" field have been made uniform:

- 2024-06-30 means that the table record is from the file "Risk Register Initial work file",
- 2025-01-17 means that the table record is from the file "Risk Register Report 1 work file".

Successive fields in the Risk Register consist of risks that were selected by the complementary ones and copied from the 'List of Predefined Potential Risks' referring to the Critical Risks from the Project Agreement. In the case where there is no information on which Critical Risk a given risk refers to - this data was completed. In the case of new risks identified, 'NEW' was entered in the NoCR field.

In the case of lack of categories, a category was added, which had not been defined before: 'project'. (See Appendix, Data recorded: RR initial + RR R1).

Quantitative summary of risks identified

There was a large disparity between the identified risks for the Tasks (both for Initial Report and Report 1). Table 6 shows the quantitative summary of risks identified by WP and tasks.

Table 6 - Identified risks by WP and Tasks

WP	NoTask	2024-06-30	2025-01-17	change	
WP 1	1.1.	20	42	▲	22
	1.2.	18	15	▼	-3
WP 2	2.1.	20	13	▼	-7
	2.2	2	3	▲	1
	2.3.	8	6	▼	-2
	2.4	17	38	▲	21
	2.5	2	2	▭	0
WP 3	3.1	0	8	▲	8
	3.2.	0	3	▲	3
	3.3.	11	11	▭	0
	3.4.	0	2	▲	2
WP4	4.1.	4	8	▲	4
	4.2.	1	5	▲	4
	4.3.	0	0	▭	0
	4.4.	0	0	▭	0
	4.5.	2	4	▲	2
WP5	5.1.	0	0	▭	0
	5.2.	0	0	▭	0
	5.3.	0	0	▭	0
	5.4.	0	0	▭	0
	5.5.	6	7	▲	1
	total*	111	167	▲	56

*Total does not include risks that did not have task numbers.

The Tasks with the highest number for Initial Report of identified risks were:

- 1.1. Project Management (20 identified risk).
- 1.2. Quality Assurance, Tasks Monitoring & Risk Management (18 identified risks).
- 2.1. Diagnosis and SOA towards a multi-dimensional roadmap (20 identified risks).

- 2.4. Reinforcing cooperation between Academia and Business (17 identified risks).

The tasks with the highest number for Report 1 period of identified risks are:

- 1.1. Project Management (42 identified risks).
- 2.4. Reinforcing cooperation between Academia and Business (28 identified risks).

Further risks have been identified over time. The largest increase in identified risks were for Task 1.1 and Task 2.4. It is noteworthy that risks for new tasks were identified in January 2025, which is consistent with Gantt's schedule for the project.

An overview of the risks in the Risk Register, e.g., the number of risks identified for deliverables or milestones or regarding how they have been assessed, is available by filtering the data in the Data recorded: RR initial + RR R1 excel file.

High priority Risks

From a project risk management perspective, high priority risks are crucially important. Risks assessed as 'very likely and medium major or disaster impact', 'likely and major or disaster impact' and 'unlikely or very unlikely and disaster impact' in the Risk Register were marked in red (according to The Quality and Risk Management Manual). As of the Initial collected data indicates 18 and Report 1 collected data indicates 22 of such risks (see the 'high priority risks' sheet in the Appendix, Data recorded: RR initial + RR R1, completion date 2024-06-30 and 2025-01-17 for details).

A summary of the risks assessed in both reporting periods is shown in Table 7. For each WP, the data is presented in the following order: risks identified on 2024-06-30, risks identified on 2025-06-17, risks identified in both periods (highlighted in blue).

Table 7 shows that 28 high-priority risks have been identified. As indicated in the Manual, it is recommended that these tasks are continuously reviewed and monitored (e.g., quarterly or even monthly) to ensure effectiveness.

Table 7 - High priority risks identified in the reporting periods

WP	Task	High Priority Risks Identified	Reporting period
WP1	1.1.	Operational Responsibility: The allocation of operational responsibility to local PM Offices in PL/PT (presumably Poland and Portugal) carries the risk of inconsistency or differences in approach between different locations. Lack of coordination or alignment with the overall project goals could lead to inefficiencies or conflicts.	2024-06-30
		Reporting Structure: If the reporting back to the steering committee is not timely or accurate, it could result in poor decision-making or lack of oversight, leading to project deviations or failures.	2024-06-30
		Skill and Experience Matching: Ensuring that replacements have the same level of experience and skill as the outgoing staff members may be challenging. If replacements are not adequately qualified, it could impact the quality of work or lead to increased training needs.	2025-01-17
		Staff Turnover: If there's high turnover among staff members, constantly replacing individuals could impact team morale, productivity, and project continuity.	2025-01-17
		Decision-Making Bottlenecks	2025-01-17

		Inadequate Participation or Engagement: Despite scheduling regular interactions, there's a risk that some partners may not actively engage or contribute to discussions, impacting the overall effectiveness of knowledge transfer and collaboration.	2024-06-30 2025-01-17
	1.2.	Communication Breakdown: Although continuous communication is emphasized, there is a risk of breakdowns in communication channels. This could occur due to technological issues, language barriers, or lack of clarity in communication protocols, leading to delays, errors, or misunderstandings.	2024-06-30
		Dependency on Consortium Members: The success of the project relies on the cooperation and contribution of consortium members. If there are disagreements, lack of commitment, or inability to meet expectations, it could hinder progress.	2025-01-17
		Overreliance on Management Team: Depending heavily on the management team and project coordinator to establish and maintain a feasible calendar could lead to bottlenecks or delays if these individuals become overloaded or unavailable.	2025-01-17
		Communication Challenges: There may be risks associated with ineffective communication between partners, the management team, and task leaders, leading to misunderstandings, delays in decision-making, or misalignment of priorities.	2024-06-30 2025-01-17
WP2	2.1.	Lack of a clear understanding of the scope of deliverables by all partners	2024-06-30 2025-01-17
		Policy recommendations do not reflect the key issues blocking and slowing down the green transition	2024-06-30 2025-01-17
		Low level of interest in the project of stakeholders and decision makers at different levels	2024-06-30 2025-01-17
		Lack of commitment resulting from the belief that change is not possible or that the European Commission and governments of widening countries will not pursue it	2024-06-30 2025-01-17
	2.4.	Legal issues in introducing common agreement template for UDS segment in PL and PT - UIDS (Unite Industrial Doctoral School).	2024-06-30 2025-01-17
		Insufficient stakeholder involvement: The lack of active participation of local partners, such as science and technology parks and innovation agencies, can limit the effectiveness of local innovation community development activities.	2024-06-30 2025-01-17
WP3	3.1.	Know-how sharing barrier	2025-01-17
	3.3.	Potential Stakeholder Mismatch	2024-06-30 2025-01-17
		Ineffective Training Execution	2024-06-30 2025-01-17
		Lack of Continuous Improvement	2024-06-30
		Insufficient Pilot Testing	2025-01-17
WP4	4.2.	Lack of continuity of work done so far	2025-01-17
		Difficulties in appointing teams for each task	2025-01-17
		Cultural Clash, different regulations and rules being in force in different countries	2024-06-30 2025-01-17

WP5	5.5.	Audience Engagement	2024-06-30
		Lack of engagement of the partners	2024-06-30
		Difficulty to disseminate and communicate to the end audiences/stakeholders	2025-01-17
		Miscommunication	2024-06-30 2025-01-17

Apart from the fact that the highest priority risks have been identified above due to their high probability and impact assessment and the need for monitoring, continuous monitoring of the remaining risks is also advisable and necessary.

Risk assessment

The risk assessment shows how WP Leaders perceive the risk and then how they manage it in the project to achieve the expected results. The following is a summary of the risks where there has been a change in assessment between June 2024 and January 2025, or where the risks have been assessed differently by different people or/and the differences were significant enough to change the colour of the priority field (Table 8).

Table 8 - Risk assessment changes over time

Risk identification	No task	Likely hood	Impact	Assess	Partner	Completion date
Geographical Barriers	1.1.	LIKELY	MINOR	LI-MI	ULISBOA	2025-01-17
Geographical Barriers	1.1.	UNLIKELY	MINOR	UN-MI	PWR	2024-06-30
Note: Different date of completion by different persons						
Ineffective Kick-off Meeting	1.1.	UNLIKELY	MINOR	UN-MI	ULISBOA	2025-01-17
Ineffective Kick-off Meeting	1.1.	LIKELY	MEDIUM	LI-ME	PWR	2024-06-30
Note: Different date of completion by different persons						
Operational Responsibility	1.1.	LIKELY	MAJOR	LI-MA	PWR	2024-06-30
Operational Responsibility	1.1.	UNLIKELY	MAJOR	UN-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Reporting Structure	1.1.	LIKELY	MAJOR	LI-MA	PWR	2024-06-30
Reporting Structure	1.1.	UNLIKELY	MAJOR	UN-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Skill and Experience Matching	1.1.	VERY UNLIKELY	MAJOR	VU-MA	PWR	2024-06-30
Skill and Experience Matching	1.1.	LIKELY	MAJOR	LI-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Staff Turnover	1.1.	VERY UNLIKELY	MAJOR	VU-MA	PWR	2024-06-30
Staff Turnover	1.1.	LIKELY	MAJOR	LI-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Succession Planning	1.1.	VERY UNLIKELY	MEDIUM	VU-ME	PWR	2024-06-30

Risk identification	No task	Likely hood	Impact	Assess	Partner	Completion date
Succession Planning	1.1.	LIKELY	MEDIUM	LI-ME	PWR	2025-01-17
Note: Different date of completion by the same person						
Communication Breakdown	1.2.	LIKELY	MAJOR	LI-MA	PWR	2024-06-30
Communication Breakdown	1.2.	UNLIKELY	MAJOR	UN-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Overreliance on Management Team	1.2.	LIKELY	MEDIUM	LI-ME	PWR	2024-06-30
Overreliance on Management Team	1.2.	LIKELY	MAJOR	LI-MA	PWR	2025-01-17
Note: Different date of completion by the same person						
Lack of engagement of all Partners	2.1.	UNLIKELY	MEDIUM	UN-ME	POLITO	2024-06-30
Lack of engagement of all Partners	2.1.	VERY UNLIKELY	MEDIUM	VU-ME	POLITO	2025-01-17
Note: Different date of completion by the same person						
Schedule Delays	2.3.	UNLIKELY	MEDIUM	UN-ME	Grenoble INP-UGA	2024-06-30
Schedule Delays	2.3.	VERY UNLIKELY	MEDIUM	VU-ME	Grenoble INP-UGA	2025-01-17
Note: Different date of completion by different persons						
Resistance to Change	2.4.	UNLIKELY	MEDIUM	UN-ME	ULISBOA	2024-06-30
Resistance to Change	2.4.	UNLIKELY	MINOR	UN-MI		2024-06-30
Note: Completion by different persons						
Assumption of Transferability	3.3.	UNLIKELY	MINOR	UN-MI	PWR	2024-06-30
Assumption of Transferability	3.3.	LIKELY	MEDIUM	LI-ME	PWR	2025-01-17
Note: Different date of completion by different persons						
Inadequate Needs Assessment	3.3.	UNLIKELY	MEDIUM	UN-ME	PWR	2024-06-30
Inadequate Needs Assessment	3.3.	VERY UNLIKELY	MEDIUM	VU-ME	PWR	2025-01-17
Note: Different date of completion by different persons						
Lack of Continuous Improvement	3.3.	LIKELY	MAJOR	LI-MA	PWR	2024-06-30
Lack of Continuous Improvement.	3.3.	UNLIKELY	MEDIUM	UN-ME	PWR	2025-01-17
Note: Different date of completion by different persons						

As Table 8 indicates, changes in risk occurred both in the direction of decreasing the probability and impact of a given risk on the project and increasing the probability and impact on the project. **Particularly important are risks where there has been an increase in the probability or impact or both risk assessment parameters.**

Recommendations in risk management area

- Some of the fields in the files received were not filled in (despite the information in The Manual, in the file description and in the additional information given directly to the fillers). This makes a full cross-cutting analysis of all identified risks difficult. Examples of missing fields include lack of indication of the task number to which the risk applies, lack of likelihood, lack of assessment, lack of risk owner, lack of mitigation strategy and plan.
- In subsequent reporting periods, it will be necessary to supplement the information provided by e-mail with additional meetings in the form of workshop tutorials.
- Comments are related to the current solutions, if moving to another form - the way of filling in will be different, the messages will be different, the new tool will allow validation of the data.
- It seems necessary to introduce the analysis of 'high priority' risks into the regular, min. every month, meetings of the teams working on the individual tasks and WP Leaders.

4 | Conclusions and Recommendations for future periods

The initial phase of quality and risk management in the Unite!Widening project (M1–M15) demonstrates a solid foundation for ensuring project excellence and mitigating potential threats across all Work Packages and Tasks. The adopted framework - rooted in the Quality and Risk Management Manual (QRMM) - has enabled the structured implementation of procedures, tools, and responsibilities that support effective project coordination and delivery.

The Quality Management approach, through a well-defined cycle of planning, assurance, and control, has ensured that deliverables meet both internal standards and stakeholder expectations. The use of tools such as the Quality Register and biannual reviews has allowed for transparent and consistent tracking of performance. The majority of the deliverables were evaluated as high quality, contributing directly to the strategic goals of the project and the Unite! Alliance, reinforcing the project's added value in the Widening countries.

Risk Management processes have proven to be equally effective in identifying, assessing, and responding to project risks. The gradual increase in identified risks and updates to risk evaluations indicate an evolving awareness among partners and an initiative-taking attitude towards continuous monitoring. The Risk Register has become a vital tool for documentation and decision-making, while high-priority risks were adequately highlighted for targeted oversight.

Thanks to the activities in the area of quality and risk management, it was possible to identify several issues for improvement. Data completeness remains a challenge, particularly regarding risk documentation, and it was emphasized: the need for tutorial support and clearer instructions for contributors (what has been implemented). Moreover, the transition to a new platform (AGORA) presents an opportunity to improve the efficiency and accuracy of data collection and validation processes.

Regular involvement of the Quality Advisory Board, structured feedback loops, and growing partner engagement are clear strengths of the current approach. However, ensuring that all partners consistently complete quality and risk assessments - while aligning more explicitly with Unite!'s strategic objectives - remains essential for long-term project success.

In summary, the Unite!Widening project has successfully established and operationalized a quality and risk management system that promotes accountability, continuous improvement, and strategic alignment. With targeted refinements and enhanced support tools, this system will continue to serve as a backbone for effective project delivery throughout the remaining project phases.

What should be maintained

- Regular meetings of QAB members.
- Conduct tutorial sessions as part of the data collection process for those who need it.

The organization of tutorial sessions was recommended by the QAB at the Dialogue in Darmstadt. During the data collection process, three tutorial sessions were launched: two for the WP Leader from WroclawTech, one for the WP Leader from Grenoble INP-UGA.

What should be changed

- WP Leaders should contribute proactively to fill in all fields in the registers (without omitting any). Every time there is a request to fill in the tables with data, QAB reminds you to fill in all required fields.

This is particularly true for the level of consideration given to the Unite!Widening objectives when carrying Deliverables.

Our comments and improvements concerning the existing solutions in the scope of collecting data could also be lost. If we switch to a different form, the way of filling the data will be different, the way of communication between QAB and WP Leaders will be different, and a new tool will allow for data validation (e.g. it will indicate that the data has been entered incorrectly or omitted). There are plans to change the tools for the process of collecting and recording data on quality and risk in the project Unite!Widening: Unite! alliance, through the UPC and one of the projects in its ecosystem, the aUPaEU project - "A University Partnership for the Acceleration of European Universities" developed AGORA, a platform for services and document sharing, important for fostering collaborations between projects. This platform was also proposed to be used in the Unite!Widening project and accepted.

Appendix

Relevant Links

1. Quality and Risk Management Manual (QRMM): https://unite-widening.eu/wp-content/uploads/2024/05/FINAL-FILE_QRMM_29.04.pdf
2. Unite! Quality Management Manual (QMM): https://ushare.unite-university.eu/unite-community/documents/01-overall-planning/unite-quality-management-instructions-and-support-materials/20211206_qualitymanagementmanual_approved.pdf
3. Data recorded: QR initial + QR R1. Access to the file can be granted upon request, e-mail: agata.klaus-rosinska@pwr.edu.pl (PLQMO)
4. Data recorded: RR initial + RR R1. Access to the file can be granted upon request, e-mail: agata.klaus-rosinska@pwr.edu.pl (PLQMO)