# Erasmus +: BLISS

## Blended Learning Implementation for reSilient, acceSsible and efficient higher education

Project 2021-1-SE01-KA220-HED-000023166

# Quality Assurance Plan

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# 1. Executive Summary

The aim of Quality Assurance Plan (QAP) is to set in place the instruments, indicators, responsibilities and milestones to ensure high-quality and timely project results and outputs.

The steps included are:

- Defining a **quality assurance strategy**, quality assurance (QA) measures, templates, instruments, indicators and milestones.
- Assuring **quality of administrative items**, including project meetings, reporting and monitoring templates, administrative process, financial management, project partner cooperation, mobilities.
- Assuring **quality of content items**.

# 2. Quality assurance plan

The Quality Assurance Plan formalizes the approach that will be followed by the BLISS consortium to ensure high quality of the project activities, outputs and outcomes, and project management.

Prof. Giuditta Pezzotta from UniBG is responsible for defining the quality assurance plan as well as for coordinating and monitoring the realisation of all the quality activities inside the project. All the partners support this quality assurance, and each partner must designate its own quality appointee. The Quality Management Team (QMT) is composed by:

- Giuditta Pezzotta – UniBG
- Antonio Maffei – KTH
- Dario Antonelli – PoliTO
- Primoz Podrzaj – Uni-LJ
- Emmanuel Francalanza – UM
- Sandi Ljubic - UniRI

The final Quality Assurance Plan, established from the collaboration among Prof. Giuditta Pezzotta and all the quality appointees (Quality Management Team - QMT) set up by the coordinating partner, will be approved and available to all the participants through the cloud repository in Google Drive.

The quality assurance process will include both internal and external specialists.

This document will include quality objectives, quality assurance measures, templates, instruments, indicators, and milestones of the project. The quality assurance activities will be based both on ***qualitative measures*** *(i.e.,* the observance of deadlines, the achievement of objectives and certain levels of performance) *and* ***quantitative measures*** (i.e., answers to questionnaires, number of participants in training and reports). Data will be gathered from all project partners and key stakeholders involved in each activity. Specifically, the Quality Assurance Plan defines procedures for:

1. Ensuring quality of project output:
   1.1 Monitoring the quality of the written documents, the deliverables, the project outcomes such as design tools and design labs, the project activities such as trainings, network activities.
   1.2 Providing measures and indicators to monitor the quality of all the project deliverables.

2. Ensuring quality of administrative processes and reports:
   2.1 Monitoring the quality of project management activity.
   2.2 Providing measures and indicators to monitor the quality of all the project management.

## *2.1 Quality of project deliverables – documents format and information*

The main quality objective of the BLISS project is that the project results meet the predefined requirements. Since several partners are involved, it is important to ensure that the same levels of quality can be achieved by all of them, to provide the appropriate results and related deliverables to the other actors.

All partners are to follow a consistent format for all document-based deliverables (e.g., Word documents, PowerPoint documents) using templates provided with this Quality Assurance Plan.

Regarding the specific information included in the deliverable, it is important that the amount of information in each deliverable shall be comprehensive, hence including all the relevant outputs of the project. Deliverables shall be concise and easy to follow. The readability of a document is a vital ingredient for its success hence it shall be written with their target readers in mind.

All the deliverables related to each result shall be reviewed by one internal expert. The review of each document must be finished 7-10 days before the deliverable deadline. Internal reviewers are appointed in Table 1. The Quality Assurance Plan includes a checklist (Annex A) that shall be used for the evaluation of the results and the related deliverables.

The templates and checklists are adopted by the QM in order to ensure a common appearance of deliverables as well as to ensure that a minimum amount of information will appear consistently in all documents produced by the project. This is not applicable to deliverables that, by their nature, need to have a different format (i.e., trainings, workshops). Regarding the teaching and training material, it will be essential to verify its correctness, clarity, completeness, and consistency. This material should be an output of the project, which will remain valid even after the project has been completed.

In addition to the quality of the written deliverables, time is also important: the project sets precise deadlines for the different deliverables. In case of delays, the deliverable responsible shall inform the QM who would support in proposing and sharing possible solutions. All the deliverables with the specific deadlines are reported in Table 1.

| Deliverable | Title | Responsible | Reviewer | Due date |
|---|---|---|---|---|
| D 1.1.1 | Database of analysed documents | UM | UNIBG | PM2 |
| D 1.1.2 | A set of requirements for completing the info from each institution | UM | UNIBG | PM4 |
| D 1.2.1 | Questionnaire for the Covid-19 impact survey | UM | UNIBG | PM2 |
| D 1.3.1 | Database of responses to the survey | UM | UNIBG | PM6 |
| D 1.4.1 | A research paper detailing results and conclusion of the survey | UM | UNIBG | PM7 |
| D 2.1.1 | Single institution research diaries | UNIBG | KTH | PM9 |
| D 2.2.1 | Research diary | UNIBG | KTH | PM10 |
| D 2.3.1 | Requirement for new curricula definition | UNIBG | KTH | PM12 |
| D 2.3.2 | Open access paper summarizing the findings of this activity | UNIBG | KTH | PM13 |
| D 3.1.1 | Ranking of the educational units identified | KTH | UNIRI | PM18 |
| D 3.2.1 | Documentation for the educational units (Syllabus) | KTH | UNIRI | PM21 |
| D 4.2.1 | The quality assessment procedure utilized in the feedback analysis | POLITO | UM | PM24 |
| D 4.2.2 | The amended set of ILO, TLA and AT | POLITO | UM | PM28 |
| D 5.1.1 | A survey of environment specific reasons for performance deterioration | UNILJ | POLITO | PM33 |
| D 5.2.1 | A document outlining approaches that need to be taken in order to make a specific blended learning educational unit more suitable for a certain environment | UNILJ | POLITO | PM36 |

**Table 1: Deliverables title, responsible, due date and reviewer**

## *2.2 Quality of project deliverables – events (meeting, training, workshops)*

Among the outcome of the BLISS project, many events such as workshops, trainings and meetings are foreseen. This section of the Quality Assurance Plan provides guidelines on the events organisation and standards to ensure coherence between the events organised by the project partners.

All events within the project shall be organised in an effective and efficient manner. The organisers shall provide in due time a full information package to all the participants. The latter includes: agenda, information about the venue and how to reach it (suggested hotels, public transports available, etc.), link to online conference software (in case of virtual events), material and tools required. Time for preparation activities depends on the event type. This will be settled by each Result team.

The organisers of the event shall ensure the implementation of the events respecting the proposed agenda (sessions and breaks). All the presentations used for the events shall use the Power Point template. The presentations used during the meeting with a wrap-up slide added to highlight the main point and to-do shall be available at the end of each event and shared via email. A list of attendees must also be filled with signatures. The event organisers are in charge of taking pictures and adding them to the project web platform (https://bliss-erasmus.eu/).

After each event, the organizer should report on it using the BLISS standard template (Annex B). It shall be used to inform colleagues and partners about events.

## *2.3 Quality of project results – courses*

As a main outcome, the project wants to contribute to the creation of new curricula based on blended learning approaches. To evaluate the most effective way of delivering specific learning content, it is important to collect feedback from students based on the way they received the content and on the learning methods adopted. A specific learning evaluation questionnaire (LEQ) will be developed and will be used to compare the results of the courses, evaluating pros and cons of the learning contents and approaches (traditional and/or blended). Once filled, LEQ results will be evaluated to bring updates and corrections to the course content and delivery method.

# 3. Quality Assurance Plan and Evaluation Plan

While the first part of the Quality Assurance Plan includes templates, rules, and procedures to ensure a common quality of documents and evaluations, the following part describes how the quality of the project results will be ensured. It also includes specific indicators and measures to ensure high quality of the results.

The quality assessment process will consist of the following steps:

1. Identifying key components of the evaluation (evaluation items, measures, qualitative and quantitative indicators).
2. Identifying approaches to collect and analyse data.
3. Defining how to communicate and apply improvement suggestions.
4. Monitoring the implementation of the improvement suggestions.

## *2.4 Key components of the evaluation*

The main results of the project to be evaluated are the milestones (Table 2), which represent the fundamental goals that each Intellectual Output (IO) must achieve. Milestones are fundamental, because the IO are interdependent: the outputs of one is the starting point for other following IO, this makes necessary that the deadlines are respected as much as possible to avoid delays in the implementation of the entire project. The parameters used for monitoring of the project are defined by the achievement of the objectives of each phase of the project, by the identification and the implementation of the results for each phase, by the respective contribution of each of the partners and by the adherence to the assigned deadlines.

| IO | Milestones |
|---|---|
| Result 1 | Mapping of the Covid-19 impact on the adoption of blended learning strategies |
| Result 2 | Characterization of blended learning responses to Covid-19 |
| Result 3 | Developing of blended learning educational units |
| Result 4 | Implementation and evaluation of the proposed educational units |
| Result 5 | Cross-application of educational units among the partners |

**Table 2: Milestones for each Result**

| Result ID | Indicator | Target (Quantitative indicators) | Qualitative indicators |
|---|---|---|---|
| Result 1 | Mapping of the response to Covid-19 of the involved institutions | 100% | Successful interpretation of the responses |
| Result 2 | Coverage of the relevant topic for the selected engineering profiles within the current body of knowledge proposed within the framework of the blended learning | 100% | |
| Result 2 | Matching of each topic with relevant literature in the domain of blended learning | 100% | |
| Result 2 | Identification of gaps and mismatches between current educational practices and leading literature | > 90% | Successful interpretation of the gaps |
| Result 2 | Formulation of educational requirement based on gaps and mismatches for the engineering profile | = 100% of the planned | Successful formulation of the requirements |
| Result 3 | Definition of training activities for the involved partners | = 100% of the planned | Do activities met the quality criteria? |
| Result 3 | Participation of the partners to the training activities: C1 | 100% | Satisfaction of the participants |
| Result 3 | Participation of the partners to the training activities: C2 | 100% | Satisfaction of the participants |
| Result 3 | Implementation of shared way of describing the proposed courses | 100% | |
| Result 3 | Number of educational modules produced | = 100% of the planned | |
| Result 4 | Participation of the partners to the training activities: summer school | 100% | Satisfaction of the participants |
| Result 4 | Number of participants in the dissemination and exploitation events - the min. expected to participate | At least 75% | |
| Result 5 | Development of joint activities to continue cooperation after the project conclusion: a. double degrees/joint programmes | At least 3 with embedded digital tools among the different partners | |
| Result 5 | Development of joint activities to continue cooperation after the project conclusion: b. joined profiles | At least one per partner | |

| Result ID | Indicator | Target (Quantitative indicators) | Qualitative indicators |
|---|---|---|---|
| Result 5 | Development of joint activities to continue cooperation after the project conclusion: c. teachers and students exchange | At least 5, each partner must be involved in at least 1 | |

**Table 3: Quantitative indicators for each result**

The quality assurance plan set out the quality criteria and requirements that governs the activity of the intellectual outputs produced. It focuses on the aspects of the activity which are considered important to the success and the quality of the project outcomes and in this sense, it defines the scope of the evaluation activity within intellectual output. Hereafter, Table 4 reports the list of specific indicators for Quality Assurance Plan (QAP).

| Indicator | Target (Quantitative indicator) |
|---|---|
| Activities completed within the planned deadline | 100% |
| Analysed literature shared among partners via online repository<br>100% (separate indicator for result 2) | 100% |
| Produced documentation shared among partners via online repository | 100% |
| Transparency of decision. Partner involved in decision: | 6/6 |
| Communication among partners. Average time for answering<br>a request: | 72 h |
| Availability of partners to cooperate. Average time to set up an e-meeting upon request | 1 week |
| Enhanced communication among partners. Minimum number of monthly e-meeting between 2 or more partners | 4 |

**Table 4: Indicators for the Quality Assurance Plan**

## *2.5 Collecting and analysing data*

The data, both qualitative and quantitative, will be collected by the project partners involved in the different activities to reach a specific milestone. Qualitative and quantitative data will be easily gathered during at the end of reach result thought the result report (Annex A). Information on the participants to each meeting will be collected. The data regarding the content of the events will be gathered through the reports of events (Annex B). Data about the learning outcomes from students will be collected trough the Learning Evaluation Questionnaire (LEQ).

## *2.6 Communicating and applying improvements suggestions*

The report of the evaluations performed by the Result leaders shall include all the information necessary to the QM to monitor the overall quality of the project. As soon as the reports are completed, they shall be sent to the QM who will take care of the results and, if necessary, support the Result leader in managing issues and problems.

# 4. Risk management plan

A risk represents the possibility of some event happening that has a negative impact on the project. In a project like BLISS, a risk is also represented by the failure to achieve certain objectives, as well as the failure to produce the expected deliverables, within the set timeframe. Often this can have a knock-on effect, which is transmitted from one Result to another.

A multi-year project with several partners inevitably involves risks. The risks affecting the project outcome can be related to two different potential factors:

- factors not depending on the project organisation team, such as socio-economic, geographical, political, regulatory, technological;
- factors depending on the project organisation team, such as partners' resources availability, organisational culture, and project management.

While in the case of risks depending on the project organisation, a detailed quality management plan has been established (see previous section) to limit the growth of risks, for what concerns the group of risks associated with factors not directly depending on the project consortium, it is of utmost relevance to identify and monitor them.

## *2.7 Risk management procedure*

To identify all the risks associated to the BLISS project, both internal and external, the consortium has identified a risk management plan. The main aim of such a plan is to:

1. Identify risks and elaborate their probability of occurrence and their impact on project development
2. Prioritize them and define risk mitigation measures to cope with it.
3. Monitor and update the Table 5 including the lists of risks identified in the project.

## *2.8 Risk identification and assessment*

The first activity to properly manage and avoid risks is to identify them and to evaluate their exposure (probability multiplied by impact).

Three different levels of "probability of risk occurrence" have been identified in the project:

- LOW: the probability that a risk occurs into the project is almost close to zero.
- MEDIUM: a risk could occur sometimes during the entire project duration.
- HIGH: a risk is very likely to occur during the project.

For what concerns the impact, three levels have been defined as well:

- LOW: the occurrence of the risk will have a negligible impact on the project.
- MEDIUM: the occurrence of the risk will have a marginal impact on the project.
- HIGH: the occurrence of the risk will have a critical impact on the project.

According to the abovementioned probability of occurrence levels and impact levels, the exposure to a given risk is estimated using the risk exposure matrix in Figure 1.

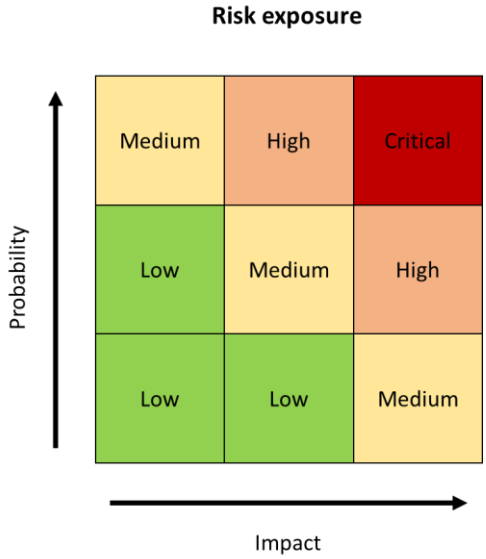


**Figure 1: Risk exposure matrix**

The matrix shows how the risks are classified. Hence, the risks shall be prioritized considering their exposure. Risks with “high” or “critical” exposure have to be analysed and managed before risks with “medium” exposure. In turn, the latter shall have the priority on risks associated to “low” exposure.

## *2.9 Risk mitigation measures*

For each risk identified a set of mitigation activities shall be settled in order to reduce the risk exposure. Each Result leader is responsible for executing the risk mitigation activities concerning the Result they lead. After the implementation of such activities, the risk exposure shall be reduced.

## *2.10 Risk monitoring and control*

All risks shall be entered into the Risk Management Table (see paragraph 4.6) and the Project Manager will be responsible for maintaining this Table.

The Table 5, including the main risks identified at the very beginning of the project, will be available to project partners through the BLISS web platform. Each Result leader will be responsible to update the Table 5 at the beginning of each Result with the new foreseen risks.

The Project Management committee will review the project’s risks on a regular basis and will write relevant issues into the progress report.

## *2.11 Roles and responsibilities*

The project manager is the overall coordinator of the Risk Management Plan. He is responsible to facilitate risk identification and assessment and to monitor all the risks identified into the project together with their mitigation measures. He is also responsible for briefing the Project Management Committee on the status of risks and write reports on them.

All the project partners, in particular Result leaders, shall coordinate with the project manager to review the overall risk management Table 5, identify new risk and the associated contingency plan. They shall also review and recommend any changes to the risk assessments made and the risk mitigation plans proposed. Finally, they shall inform the project manager about the completion of mitigation actions related to each risk.

## *2.12 The BLISS Risk Management Table*

Although risk monitoring will be a constant activity during the project, a preliminary list of potential risks underlying BLISS have been defined. Each risk has been defined and assessed with respect to the "risk exposure" rating identified.

The Risk Management Table contains the following information:

- Risk number
- Description
- Result
- Probability of occurrence
- Impact
- Risk exposure
- Risk mitigation measures

The risks foreseen within the BLISS project are listed in the following Table (Table 5). It constitutes a preliminary list of items to be taken into account, but it is only a start of the work and it will be updated during the overall project duration with newly identified risks. It shall be updated at the beginning of each Result and throughout the entire project in order to recognize and manage all the criticalities.

| Nr | Risk description | Result | Probability of occurrence | Impact | Risk exposure | Proposed mitigation measure |
|---|---|---|---|---|---|---|
| 1 | Ineffective participation of project partners | All Results | Low | High | Medium | The project management team should observe the behaviour of the project partners, including their participation in scheduled virtual meetings. In case of poor or not proactive participation of some partners, the reasons must be investigated. |
| 2 | Lack of coordination among the WPs | All Results | Medium | Medium | Medium | Most Results are overlapping in timing and are interdependent as deliverables; therefore, the project management team must ensure constant coordination between the WPs, encouraging continuous and effective communication between the project partners. |
| 3 | Coordination problems within each individual Results | All Results | Low | Medium | Low | The risk concerns the individual Results and the partners involved in them. As in the case of coordination between the different Results, communication between the partners and the effective dissemination of information should also be promoted here. |
| 4 | Delays in project implementation | All Results | Low | Medium | Low | The delay in completing a deliverable can cause a knock-on effect on the whole project, so it is fundamental to meet the deadlines of each deliverable. The manager of each Result will have to make sure that the relevant deliverables are ready in time, as well as the project management team will have to monitor the overall progress of the project |

| Nr | Risk description | Result | Probability of occurrence | Impact | Risk exposure | Proposed mitigation measure |
|---|---|---|---|---|---|---|
| 5 | Low impact of dissemination strategy | All Results | Medium | Low | Low | To ensure a good impact of dissemination activities, an effective strategy must be developed that takes into account the possibility of addressing heterogeneous figures from both industry and academia. It will be important to identify the right channels in relation to the targets to be reached. |
| 6 | Problems with plagiarism and credibility of sources used for the data collection | All Results | Low | High | Medium | The adoption of non-reliable sources can affect the credibility of the project. To avoid this, the BLISS project will adopt and use specific tools against plagiarism to ensure the credibility of the documentation used and developed. |
| 7 | Problems with management of the budget | All Results | Low | High | Medium | The misuse of the budget assigned to the project might lead to problems in its development, with funding used in the wrong way. To prevent this, a constant monitoring of the expenses related to project management, advancement, and technical activities will be made by the project leading group. |
| 8 | Poor collection of input data from participating institutions | Result 1 | Low | High | Medium | The questionnaire must respond to the need to collect precise information on the impact of COVID-19 on the various institutions. Questions should be precise and without margin for interpretation. A sufficient number of answers should be collected according to the indicators identified in the project proposal. |

| Nr | Risk description | Result | Probability of occurrence | Impact | Risk exposure | Proposed mitigation measure |
|---|---|---|---|---|---|---|
| 9 | Poor collection of literature related to the blended learning | Result 2 | Low | High | Medium | Regarding the collection of literature on blended learning, the organizations must cluster and identify all the typologies of blended learning. Result from this research should provide an overview of the pros and cons of each blended method and should guide the following steps of the project for the curricula definition. A wrong definition of the research query or analysis might exclude from the analysed pool important aspect that could beneficially contribute to the project development. The research query must be evaluated also according to the content of the literature found and, if necessary, run again including the new aspects. |
| 10 | Poor definition of the new curricula | Result 2 | Low | High | Medium | The definition of the new curricula is subject to the outcome of the previous tasks. A wrong definition of the curricula can impact the project outcome negatively neglecting some important way of delivering learning contents to the students. An evaluation of the curricula content should be carried out through testing to ensure the novelty of the proposal and avoiding redundancy with previously acquired competences. |

| Nr | Risk description | Result | Probability of occurrence | Impact | Risk exposure | Proposed mitigation measure |
|---|---|---|---|---|---|---|
| 11 | Problem in the transition of learning contents from traditional to blended approaches | Result 3 | Medium | High | High | The development of learning content materials and industrial cases is a central point of the project. The project management team must ensure that the material development activities are implemented effectively. The commitment of all project partners involved in these activities must ensure the right balancing between traditional and blended approaches, ensuring the right learning balance for the students. |
| 12 | Delays in the definition of the syllabi | Result 3 | Low | High | Medium | The development of the syllabi is fundamental to allow proper advancement of the project. For this reason, a constant effort by all partners should be made to provide the task responsible with all the required material as well as suggestions and feedback during the development. This also include the constant monitoring of the advancement of the syllabi definition. |
| 13 | Difficulties in involving the academic stakeholders outside the project consortium | Result 4 | Low | Medium | Medium | Obstacles to the involvement of academic stakeholders may be encountered: students may not understand the usefulness and benefits of testing new blended learning approaches and do not provide useful feedback to the consortium. A key role will be played by the project partner stakeholders and the management project team can also contribute to avoiding this problem. |

**Table 5: Risk Management Table**

**ANNEX A: Quality Assurance Checklist for evaluation of the Results**

| | |
|---|---|
| **Result Nr and Title:** | |
| **Responsible:** | |
| **Internal Reviewer (Institution, Person):** | |

| **Result content and objective** | **Evaluation** | **Comments** | **Recommendations** |
|---|---|---|---|
| Does the Result comply with the major objective of the BLISS project? | ☐ Yes<br>☐ No<br>☐ Partially | | |
| Does the Result correspond with the activity description as specified in the application form? | ☐ Yes<br>☐ No<br>☐ Partially | | |
| Is the Result on time? | ☐ Yes<br>☐ No<br>☐ Partially | | |
| Are the deliverables of the result completed on time? | ☐ Yes<br>☐ No<br>☐ Partially | | |
| Major strengths of the results | | | |
| Major weaknesses of the results | | | |

**ANNEX B: Event report template**

| | |
|---|---|
| **Author:** | |
| **Event Title:** | |
| **Event Date and Venue:** | |
| **Type of event (training, webinar, summer school):** | |
| **Organiser(s):** | |
| **Link to Agenda:** | |
| **Short description:** | |
| **Total number of participants invited:** | |
| **Total number of participants:** | |

| **EVENT ROLLOUT** |
|---|
| Please attach the final event agenda and the list of participants |
| |