BIOSINT

Co-funded by the European Union

Strengthening capacities and digital competences in biomedical education through internationalization at home

BIOSINT

Risk Management Plan

Version 1.0, May 12th 2023

Work package	Title
1	Management of project activities
Activity	Title

T1.4	Development of project management and quality strategies

Content

Introduction

Risk is defined as the possibility of the occurrence of an event associated with a damaging impact on the project.
The risk is measured by two factors: the probability of the event to occur and the intensity of the damage to the project in case the event actually occurs.
The process of risk management starts at the planning stage and follows the project throughout its lifecycle.
Three tasks are included in the planning process: the identification, the assessment and the response planning. Risk control is a process that follows the project until its completion.
The project coordinator, together with work package leaders, is responsible to monitor and manage the risk management.
In the Erasmus+ BIOSINT project, the risk management is performed as part of work package 1 – Project management and quality architecture and it is under the responsibility of UniKg.

Risk Management Methodology

The risk management methodology as presented by the PMBOK (Project management Body of Knowledge[1]) includes four main phases:

- Identification – detect the events that may impair the success of the project. The occurrence of these events might be estimated and identified by brainstorming, questionnaires, professional checklists, and analysis of related literature and articles or by evaluating the experience of the project coordinator and other members of the team.
- Assessment – evaluation should be performed using quantitative procedures and qualitative methods in order to define a scale for the magnitude of the risk. Every risk event is assessed by two parameters: its probability to happen and the impact of its occurrence to the project. The risk scale is based on a weighted procedure of these two parameters.
- Response Plan – the risk management team, in cooperation with the relevant parties, initiates a program for response that includes responsibility assignment, strategy of response and the time for implementation.
- Control – during the lifecycle of the project, a predefined monitoring system must be implemented, in order to maintain full control over the development of the risk events. Since there might be risk events that were not identified during the planning process, the procedures of identification and assessment should be re-initiated.

Exhibit 1 (on the next page) displays the process of the risk management in the project.

[1] PMI (2013) PMBOK Project Management Body Of Knowledge 5th ed., PMI

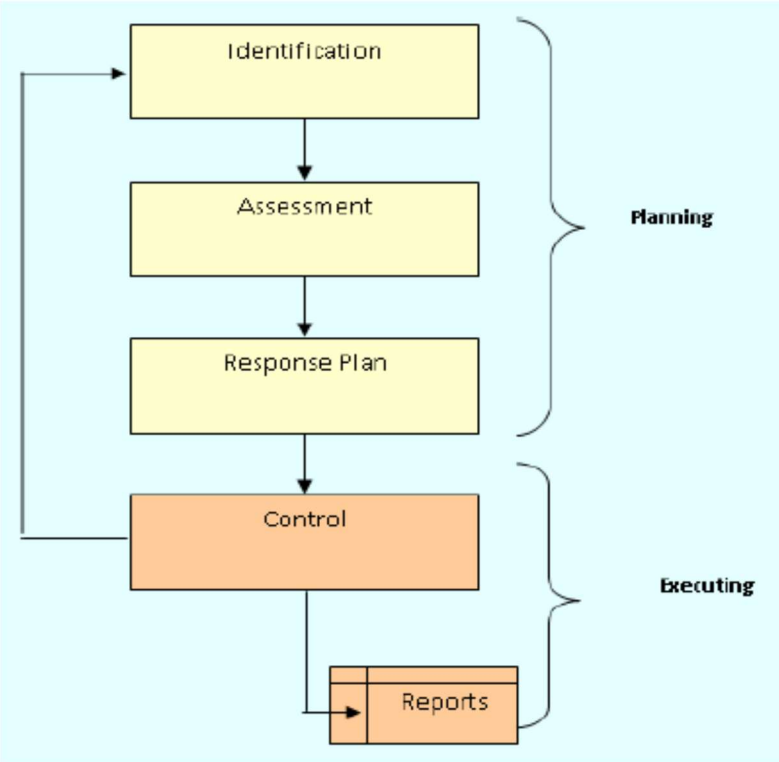


Exhibit 1. Risk Management Process' Chart (PMBOK, PMI)

The risk management methodology recommends ongoing control (work package 6) and reports to monitor new risks and to update the partners regarding the status of identified risks.

Risk Identification

This section presents key identified risks in the Erasmus+ BIOSINT project, regarded project work packages. All identified risks within work packages are revised and some new risks (much more important) are identified, so the version of the project risk plan is updated/ innovated.
The following table displays the BIOSINT project risk events, derived from the analysis of the project plan.

Table 1. Key risk events

Nº	Risk Event	Details
1	Project cash flow	Project cash flow, especially travel costs and costs of stay before project meetings, staff costs, subcontracts, has to be on-time, otherwise, the realization of project activities will be difficulty.
2	Financial difficulties in European Partners' institutions.	The current financial situation in the world, and especially in Europe, might create complications for one of the European partners and make them leave the project or not to be able to participate in the planned tasks.
3	Organizational changes in partner institutions.	Organizational changes in partner institutions might change the willingness to take part in this project, the priority of the project in the institution portfolio, and the people involved in the project.
4	Poor cooperation between the EU professionals and the WB university staff.	The interaction between the EU professionals and the academic, administrative staff and students at the universities is a cornerstone in this project. The different cultural background, priorities, and points of view might cause ineffective implementation of advices.
5	Conflict between the different managers of the work packages.	Managers of various tasks, with different interests and points of view, might be reluctant to exchange relevant information.
6	Erroneous managerial decisions.	Improper managerial decisions might have delayed impact on the project. A wrong decision taken by management at a certain point of the process might not be detected before creating accumulative serious damage. Thus, creating budget overruns and time delays.
7	Poor cooperation and information exchange between partners.	The project partners are part of one network that should work together to achieve the project goals and objectives. A collaborating atmosphere should be applied throughout the project to enable deliveries on time and in budget.
8	Change in the partners' preferences for implementation.	Changes in the partners' preferences, during the project lifecycle, might require alternative developments in the project scope. These might cause disagreements and slow down the

		implementation improvements proposed by the project.

Table 2. Risks identified per work packages

Nº	Nº of WP	Title of WPs	Details
1	1	Project management and quality architecture	The appointment of incompetent people to participate in the project by the individual project partners
2			Delay payment of financial compensation defined in the project
3			Disrespect CMP
4			Poor quality of created internal and external reports
5			Conflicts
6	2	Research and needs analysis	Presentation of incorrect data
7			Unwillingness for comparative analysis
8			Incorrect filling of questionnaire
9			Mismatching recognition model with the European model
10			Incoherence strategy with indicators
11	3	Development of appropriate system and protocol for IaH	Procurement of equipment
12			The needs of certain universities for different equipment than defined
13			Understanding of the cultural context of internationalisation
14	4	Internationalization of curriculum (IoC)	Wrong selection of activities
15			Unpreparedness to implement the activities
16			Unpreparedness for making the comparative analysis
17	5	Impact and dissemination	WB political unstable state
18			The reluctance of some partners on reporting in the media

Risk Assessment

Tools to Assess Risks

Risk assessment is normally performed by the use of tools such as: team brainstorming, distribution of questionnaires, analysis of historical data and professional consulting services. In the current project we used for the preliminary assessment phase several tools.

Brainstorming – during the kick-off meeting all project partners will estimate the project risk events in brainstorming session. Results will be entered into this document.

Historical data – The project management team evaluated the experience of historical data information gathered from another Erasmus projects that took place in WBC and in the EU.

Risk Assessment Method

Qualitative risk method is applied in order to present the Risk Index (RI) values that can be calculated and arranged in a prioritized list.

The value of the risk index is calculated by multiplying the probability (P) value by the Impact (I) value:

*Risk Index = Probability * Impact*

Probability (P). The possibility of an event occurrence is defined by an ordinal scale method, ranging from very low (1) to very high (5).

Table 3. Estimate of Risk Event Probability

Value	Probability	Details
1	Very Low	The event may occur, but never actually occurred.
2	Low	The event actually occurred in the past, but it never happened in a Erasmus project.
3	Medium	The event seldom occurs in Erasmus projects.
4	High	The event occurs frequently and actually happened several times in Erasmus projects.
5	Very High	Very common event that actually happened in most projects.

Impact (I). The impact value is based on three parameters: performance, cost and time. It is defined by an ordinal scale method, ranging from very light (1) to extreme (5).

Table 4. Estimate of Risk Event Impact Table

Value	Impact	Details
1	Very Light	The event will have no direct impact.
2	Light	The event might cause minor changes in the project plan.
3	Moderate	The event will probably cause changes in the project plan that will require some changes in the project schedule and budget plans.
4	Severe	The event will cause substantial changes in the project scope and ability to deliver the planned deliverables. It will require major changes in the project schedule and budget plans.
5	Extreme	The event will cause fatal damage to the project and might cause its termination ahead of time.

Performance is of extreme importance in the Erasmus+ BIOSINT project, since it indicates the level of compatibility between the project goals and specific objectives as defined in the formal application and the actual deliverables.
Cost is important in this project because the budget allocated for the project represents a meaningful investment of the EU aimed to promote higher education in WBC. In the current project there is no option for budget overruns, thus the tasks must be performed in accordance with the budget.
Time is defined as a solid framework, which requires that all the project activities will be executed during the 36 months between January 2023 and December 2025.

Risk Assessment Evaluation

The method of evaluation is based on three steps: an evaluation of the probability of the event to occur, an assessment of the impact, and an arithmetical calculation of the risk index values.
The following table presents the assessment values for the risk events.

Table 5. Probability & Impact Assessment table

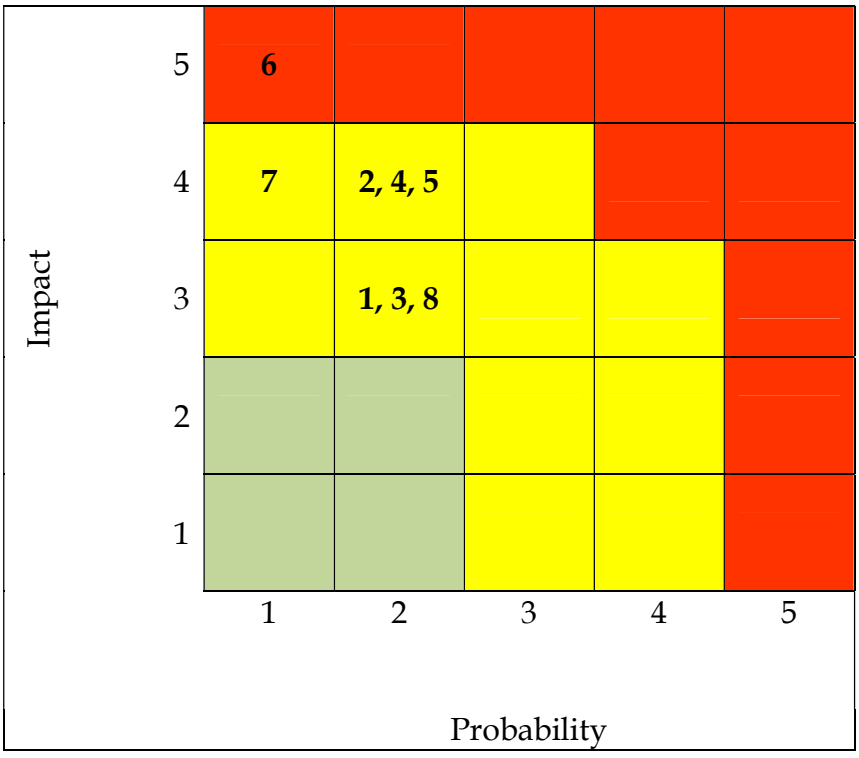
No	Risk Event	Probability	Impact	Risk Index
1	Project cash flow	Low (2)	Moderate (3)	2 * 3 = 6
2	Financial difficulties in European Partners' institutions.	Low (2)	Severe (4)	2 * 4 = 8
3	Organizational changes in partner institutions.	Low (2)	Moderate (3)	2 * 3 = 6
4	Poor cooperation between the EU professionals and the WB university staff.	Low (2)	Severe (4)	2 * 4 = 8
5	Conflict between the different managers of the work packages.	Low (2)	Severe (4)	2 * 4 = 8
6	Erroneous managerial decisions.	Very Low (1)	Extreme (5)	1 * 5 = 5
7	Poor cooperation and information exchange between partners.	Very Low (1)	Severe (4)	1 * 4 = 4
8	Change in the partners' preferences for implementation.	Low (2)	Moderate (3)	2 * 3 = 6

This table 5. is filled out at the Kick-off meeting in Kragujevac by all project partners and calculated into average marks. In accordance with calculated risk index, the table 6. is filled out with numeric values of risk index for each risk event.

Risk Map

Following is a risk map presents the values of the risk events.
The X-axis presents the Probability and the Y-axis presents the Impact.
The chart is constructed of three areas, based on experience and professional literature.
The first area (green) represents the low end of the response requirements, which includes low values of probability and impact. This area contains most of the risk events.
The second area (yellow) represents medium risks and is defined by average levels of probability and impact.
The third area (red) represents high-risk index, this area is the smallest and contains very few events. Nevertheless, these events are fatal.

Table 6. Risk Map (numbers within shaded area - No of Risk events as in table 5)



Priority of Risk Events Responses

The response priority plan is divided into three level indicators that are defined by the risk index of the event.
High-Risk Index (red) – High-risk index is a combination of extreme impact and high or very high probability. An occurrence with a high-risk index requires immediate response, since it might endanger the success of the entire project.

Medium-Risk Index (yellow) – Medium-risk index is a combination of one parameter with a high value and the other with a low value. Although these are not events with fatal implication on the project, they must be closely monitored and adjusted throughout the project.
Low-Risk Index (green) – Low-risk index is a combination of two low value parameters. Events of this nature create only a local impact on the project and can be corrected by the working teams, closed to the occurrence.

Risk Response

The risk management team prepares a plan to avoid significant project performance deficiencies due to risk occurrences in accordance with evaluated key risk events in table 5. The team monitors each of the high-risk index events and the medium-risk index events.
During internal and external controls special attention will be dedicated to impact of risks and their avoidance for all project activities.

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