



# WamPPP Risk Management Methodology

## 1. Introduction

As it is well known, the risk is defined as the possibility of the occurrence of an event associated with a damaging impact on the project. The risk can be measured by 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 beginning, i.e. in planning stage. Then process follows the project throughout its lifecycle.

Generally, when we talk about the planning process, we analyse the following three activities:

1. identification,
2. assessment and
3. response

Risk control is a process that follows the project until its completion. The project manager is responsible to monitor and perform the risk management activities.

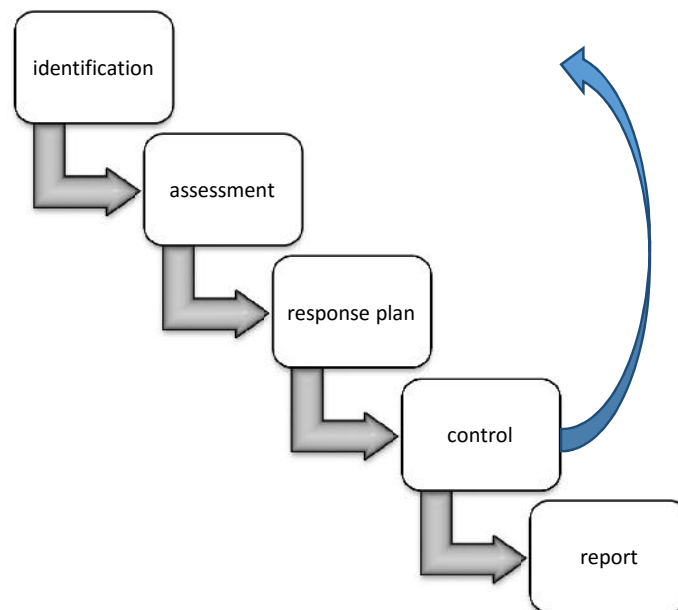


Fig 1: Risk control process



## 1.1. Risk Management Methodology

The methodology of the risk management consists the following four 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, analysis of related literature and articles or by drawing on the experience of the project manager and other team members.

**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 onto the project. The risk scale is based on a weighted processing 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.

The risk management methodology recommends ongoing continuous control and reports to monitor new risks and to update the partners regarding the status of identified risks.

## 1.2. Risk Identification by WPs

The risks identification list in WamPPP is taken from the LFM, regarding the project work packages. The WamPPP consortium decided to collect and compile all assumed/supposed risks and to make an action plan for their eventual appearance. Also, some risks appeared during the later analysis of the project plan.

The following tables displays the WamPPP project risk events, derived from the analysis of the project plan.



**Table 1: Potential WamPPP risks**

<b>ID</b>	<b>RISK</b>	<b>DESCRIPTION</b>
<b>1</b>	Problem with starting the professional (vocational) master study programmes	At the moment there are some legal obstacles for the accreditation of vocational master in the sense that there are certain accompanying legislation that have to be published in the Serbian Official Gazette.
<b>2</b>	Inertia of CAQA and slow changes in Serbian HE Laws	General problem of bureaucracy in Serbia and restricted time windows for submitting material for accreditation (twice per year), as seen in last 10 years, can produce delays in enrollment of the first students on the newly developed curricula.
<b>3</b>	Some employers may be reluctant to divulge their issues/problems with waste.	In certain companies, the problems encountered during the implementation of the work packages will be solved in accordance with company procedures and will be kept confidential.
<b>4</b>	Reluctance of industrial partners to actively contribute in the development of teaching and training scripts.	The possibility that industrial partners, because of their commitments, do not provide a sufficient contribution to, the achievement of these objectives.
<b>5</b>	Trainers from industrial partners may not be talented teachers - training in teaching methods will be provided.	The lack of methodical/pedagogical skills of lecturers from the industrial sector, to a large extent can create resentment towards workers offered the training courses.
<b>6</b>	Procedural problems during the equipment purchase	The problem of large-scale public procurement procedures, time limits, as the weak capacity of the market for laboratory equipment in Serbia.
<b>7</b>	Resistance of the industrial trainers to accept novel methodological approaches	Poor cooperation of economy and high education in a previous period is a constant threat to the implementation of the project results, such as new training methods based on ICT assistance.
<b>8</b>	Poor cooperation between the EU professionals and serbian colleges' staff.	The interaction between the EU professionals and the academic and administrative staff at the colleges is a cornerstone in this project. The different cultural background, priorities, and points of view might cause ineffective implementation of advices.
<b>9</b>	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.
<b>10</b>	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, thus damaging the overall progress.



## 1.3. Risk Assessment

### 1.3.1. Tools to Assess Risks

Risk assessment is normally performed using 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** – Members of the project management team and an expert from the project management field attended a brainstorming session, in which everyone provided his/her estimation for the project risk events.

**Historical data** – The project management team at P1 evaluated the experience of the previous project in which P1 and P2 participated and historical data information gathered from other Tempus projects that took place in Serbia.

**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:

$$\text{Risk Index} = \text{Probability} * \text{Impact}$$

The possibility of an event occurrence is defined by an ordinal scale method, ranging from low (1) to high (3).

**Table 2. Estimate of Risk Event Probability**

VALUE	PROBABILITY	Details
1	<b>Low</b> (Normal or Unlikely)	The event actually occurred in the past, but it never happened in this type of projects
2	<b>Medium</b> (Likely)	The event seldom occurs in this type of project
3	<b>High</b> (Very likely)	Very common event that actually happened in most projects

The impact value is based on three parameters: performance, cost and time. It is defined by an ordinal scale method, ranging from low (1) to high (3).



**Table 3: Estimate of Risk Event Impact**

VALUE	IMPACT	Details
1	Low (Light)	The event might cause minor changes in the project plan
2	Medium (Moderate)	The event will probably cause changes in the project plan that will require some changes in the project schedule and budget plans
3	High (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 WamPPP, 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 Serbia. In the current project there is no option for budget overruns, thus the tasks must be performed in budget.

Time is defined as a solid framework, which requires that all the project activities will be executed during the 36 months between October 2015 and October 2018.

### 1.3.3. Risk Assessment Evaluation

The presented risk assessment evaluation, analyzes the identified risk events discussed in section 1.2.

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 a calculation of the risk index values, (Table 4.)

**Table 4: Risk Matrix**

IMPACT		PROBABILITY		
		Low	Medium	High
		1	2	3
Low	1	Insignificant risk 1	Low risk 2	Medium risk 3
Medium	2	Low risk 2	Medium risk 4	High risk 6
High	3	Medium risk 3	High risk 6	Extreme risk 9



The following table presents the assessment values for the risk events:

**Table 5: Risk Events Matrix**

ID	RISKS	Proba bility	Impact	Risk Index
1	Problem with starting professional master	1	2	2
2	Inertia of CAQA and slow changes in Serbian HE Laws	2	1	2
3	Some employers may be reluctant to divulge their issues/problems with waste	1	1	1
4	Reluctance of industrial partners to actively contribute in the development of teaching and training scripts	2	3	6
5	Trainers from industrial partners may not be talented teachers - training in teaching methods will be provided	2	2	4
6	Procedural problems during the equipment purchase	2	2	4
7	Resist of the industrial trainers to accept a novel methodological approach	1	2	2
8	Poor cooperation between the EU professionals and serbian colleges' staff	2	3	6
9	Organizational changes in partner institutions	1	2	2
10	Conflict between the different managers of the work packages	2	2	4

### 1.3.5. 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** – 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** – 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** – 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, close to the occurrence.



## 1.4. Risk Response

The risk management team prepares a plan to avoid significant project performance deficiencies due to risk occurrences. The team monitors each of the high-risk index events and the medium-risk index events.

Mitigation plan is discussed on a bi-weekly basis and in every case that partners' involvement is required, the project management team contacts the parties and updates them about required actions.

Niš, December 2015.