LIGHTJUMPS

An efficient and effective platform for the cooperation of photonics clusters and the exploitation of European SMEs potential.

Grant Agreement: **619463**

Project Acronym: **LightJumps**

Funding scheme: **Coordination and support action**

WP1 – "Project Management"
Deliverable D1.1.3
" Risk Management Plan"

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Contribution of the following organisations and people:

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Dissemination Level		
PU	Public	x
PP	Restricted to other programme participants (including the Commission Services)	
RE	Restricted to a group specified by the consortium (including the Commission Services)	
CO	Confidential, only for members of the consortium (including the Commission Services)	

Contents

1. LIST OF ABBREVIATIONS AND DEFINITIONS

DoW	Description of Work
EC	European Commission
PM	Project Manager
WP	Work Package
CA	Consortium Agreement
GA	Grant Agreement
RMP	Risk Management Plan
RTD	Research and Technology Development

18/03/2014

2. INTRODUCTION

The present document "Risk Management Plan (RMP)" describes the LightJumps approach of implementing an appropriate risk management. The main objective of the document is to act as a guideline for the Consortium partners concerning rules and procedures for Risk management within the LightJumps project.

The document therefore provides an overview of the principles of Risk Management and the detailed rules to be applied within the project, as well as a first identification of risks.

3. The risk management plan

3.1 Risk management overview

The LightJumps project is a coordination and support actions, therefore it does not present specific technological risks. Nevertheless, the project presents organisational and operative risks that should be correctly managed to avoid that such risks could jeopardise the achievement of the project's objectives.

This Risk management plan defines how and when Risk Management is to be performed during the execution of the project. The plan also defines the roles and the responsibilities for performing the risk analysis within the project.

The Risk Management Plan (RMP) is valid within the LightJumps project and shall be followed by the involved partners. The project's risk level and most important risk areas are identified and analyzed in the risk analysis. An important part of the risk management planning is to adapt the risk management process to the specific needs of the project, and also to identify roles and responsibilities for carrying out the risk management.

Project risks and project maturity are linked with each other, as illustrated in Figure 1.

The project risks decrease as a function of progress through the different project phases and ultimately will be assessed as a step function. Risk-reducing factors are the completion of milestones at different levels.
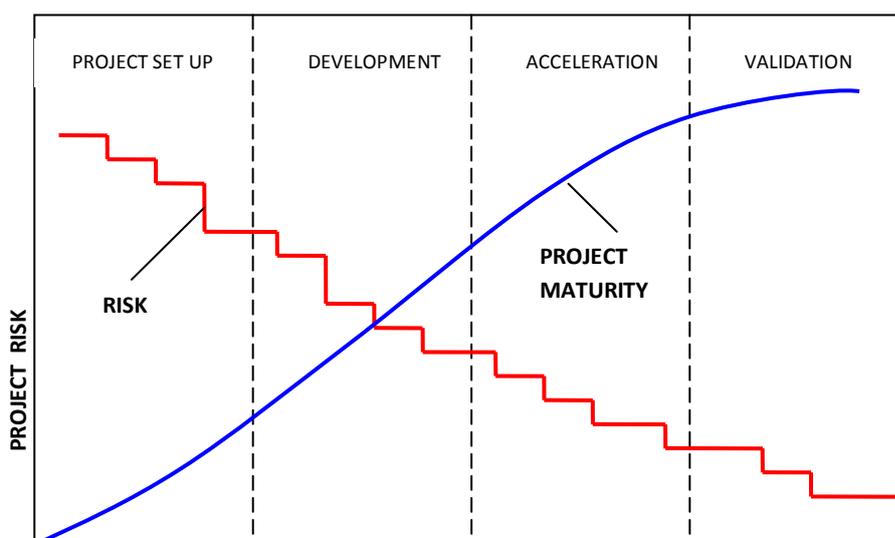

Figure 1 - Risk evolution

3.2 Risk management process

3.2.1 Main activities in the risk analysis

LightJumps will adopt a qualitative approach to risk analysis. The main activities may be listed as follows:

Planning of risk analysis: In the planning of the risk analysis an evaluation shall be done regarding areas assumed to contain the largest amount of, and most serious, risks. Relevant areas shall be identified in the planning of the risk analysis, suggested areas are: support actions, resources, quality, requirements fulfilments, and other project risks.

Risk identification: Risk identification involves determining which risks might affect the project and documenting their characteristics. Risk identification is an iterative process, and the first step of the risk assessment cycle, where different types of risks that could affect the project's ability to reach its goal should be identified. The description of an identified risk should be as specific as possible.

Risk analysis: The risk analysis involves qualitative analysis of the identified risks and assessment of their impact on the project's ability to achieve its goals. Qualitative risk analysis is a way to determine the importance of addressing specific risks and guiding risk responses.

The risk analysis is a process of assessing the consequences and probability of identified risks. In this process risks are prioritized according to their potential effect on the project's ability to achieve its goal. The time-criticality of risk-related actions may magnify the importance of a risk. Risk quantification involves evaluating risks and risk interactions to assess the range of possible effects on the project goal, regarding time, cost, quality and deliverables.

The risk analysis results in a risk table where the risks are described. Risks and conditions can be prioritised by a number of criteria. This includes an evaluation of the impact on the project and probability of the identified risks. Impact on the project and probability are valued on a scale from 1 to 3, based on the reference table shown below.

Ordinal Scale	Low	Moderate	High
Cardinal Scale	1	2	3
Cost	< 5% cost increase	5-20% cost increase	> 20% cost increase
Schedule	< 5% schedule slippage	5-20% schedule slippage	> 20% schedule slippage
Performance	Minor areas of scope are affected	Scope reduction unacceptable for the project	Project end item is effectively useless

Table 1 - Impact Evaluation

Ordinal Scale	Low	Moderate	High
Cardinal Scale	1	2	3
Probability	<20%	21%-50%	>50%

Table 2 - Probability Evaluation

Risk response: The risk response shall ensure that the identified risks are properly addressed by determining actions to reduce threats to the project's objectives. It includes the identification and assignment of individuals or parties to take responsibility for each agreed risk response. Risk response is an iterative process. Decisions on response actions should be based on the ranking of the risks. Risk response actions can be divided into five different approaches, which can be combined:

- *Avoidance*: risk avoidance is changing the Project Specification to eliminate the risk or condition or to protect the project objectives from its impact.

- *Transference:* risk transfer is seeking to shift the consequence of a risk to a third party together with ownership of the response.

- *Mitigation:* mitigation seeks to reduce the probability and/or consequences of an adverse risk event to an acceptable threshold. Taking early action to reduce the probability of a risk's occurring or its impact on the project is more effective than trying to repair the consequences after it has occurred.

- Acceptance: this technique indicates that the project team has decided not to change the Project Specification to deal with a risk or is unable to identify any other suitable response strategy.

- *Ignore:* a risk may be ignored if the probability for occurrence and the consequences are perceived as low. It is important to register the risk, and document the decision to ignore it, why the decision was made and by whom.

Risk monitoring and control: Risk monitoring and control is the process of keeping track of the identified risks, monitoring remaining risks and identifying new risks, ensuring the execution of risk response plans, and evaluating their effectiveness in reducing risks.

Risk monitoring should be performed at all levels, from the individual partner right up to the project management level. The WP leader is responsible for the overall monitoring of the risks relating to his WP. The LightJumps project Manager is responsible for the project level risk monitoring (Project Risk Register) as well as ensuring that adequate monitoring is carried out at the WP level (WP Risk Registers).

3.2.3 Risk register

As it is described in previous paragraph, each risk is described through:

- Risk (description)

- Responsible (Risk owners)

- Probability value (P, 1-3)

- Impact values on the project: Impact on Cost, Impact on Schedule, Impact on Performance (IoC, IoS, IoP, 1-3)

- Risk factor, RF=P*max(IoS, IoC,IoP)

- Risk impact on the project (deliverable affected, change of schedule)

- Risk handling/reduction. The response actions should be documented. For each action, the name of the person who will be responsible for the implementation of the response action, the risk response owner, and a completion date, should be defined.

- Action Status

A Risk Register (Figure 2), distributed to all the partners, is used to monitor and manage the risks. The Risk Register shall be regularly updated by each organisation, WP leaders and project managers.

RISK REGISTER															
LIGHT JUMPS PROJECT															
Last Update		dd/mm/yyy													
ID Risk	WP	Risk Description	Cause of Risk	Risk Owner	Probability	Impact on schedule	Impact on Cost	Impact on Performance	RF	Deliverable	Deliverable Date Planned	Deliverable Date Revised	Action Description	Action Owner	Target Date	Action Status
									0						
									0						
									0						
									0						
									0						

Figure 2 –Risk Register.

3.2.3 Responsibilities and general conditions for risk management

The project manager is responsible for the Risk Management in the programme. The partner organisation risk manager is responsible for carrying out the main activities relating to LightJumps Risk Management within the partner organisation.

The Risk Management shall be performed according to the following:

- All partners shall perform risk analysis at least every 2 months, and also before the start of a main new phase of the project. The risk analysis consists of the following main activities: risk identification, risk analysis including documentation and risk response planning. The WP leaders should carry out risk analysis for their WPs.

- The outcome from a risk analysis within a partner / WP shall be documented in the Risk

register list;

- Risk monitoring must be performed continuously.

4. The current project risks

In the first months of the project, several issues affected the planned schedule; however they were managed by the partners also through a correct risk management approach. These issues are listed as it follows:

- The starting date was retroactively assigned to be on the 1st of November in the Grant Agreement, but the coordinator received the contract (Grant Agreement) at the end of November, with the kick off meeting organised on the 11th of December.
- Christmas holidays just after the kick off meeting substantially delayed up to January 2014 (third month of the project) the starting of the project activities.
- Withdraw of an important partner (FSA) that was involved in the several activities to be performed at the beginning of the project and in several deliverables of WP2.

The above issues will not have an impact on the final results of the project, given the contingency measures that have been already put in place; however they have caused the delay of some deliverable (including the present deliverable), as will be explained in the progress report.

The following table provides an overview of the Risk Register including the risks, already incurred, and those that are now considered by the partners.

					RISK REGISTER											
					LightJumps PROJECT											
Last Update		18/03/2014														
ID Risk	WP	Risk Description	Cause of Risk	Risk Owner	Probability	Impact on schedule	Impact on Cost	Impact on Performance	RF	Deliverable	Deliverable Date Planned	Deliverable Date Revised	Action Description	Action Owner	Target Date	Action Status
1	WP1	EC contribution provided to one partner to be requested back	Partner Withdraw (FSA)	CTECH	3	1	3	1	9	D1.1.1.	M6	M6	Request formal withdraw letter, Form C, and EC contribution wiretransfer in coordinator bank account	CTECH	M6	Finalising
2	WP2	Activities related to knowledge base and barriers and needs analysis to be re-scheduled and re-allocated	Partner Withdraw (FSA)	CTECH	3	3	1	1	9	D2.2.2; D2.2.3; D2.2.6;	M6	M8	Identification of new partner, re-allocation of tasks	CTECH	M6	Finalising
3	WP4, WP5	Activities related to SMEs individual business cases, dissemination actions to be reallocated	Partner Withdraw (FSA)	CTECH	3	1	1	1	3	D4.x; D5.x	M12-M24	M12-M24	New partner already identified and with capabilities to perform activities on time	CTECH	M6	Finalising
4	WP2	Classification scheme of photonic organisation delayed	Interaction with other database owners delaying provision of information	CTECH	3	2	1	1	6	D2.2.1	M3	M6	The target is to align the classification scheme to databases already existing to avoid duplication of efforts and provide a service to the full photonic community. In the case of no answer	CTECH	M6	On going

18/03/2014

#	WP	Risk	Detail	Resp						Deliverable	Start	End	Mitigation	Resp	M	Status
									6				from database owners, analysis will be based on direct check of search / registration fields to extrapolate at the best of our knowledge the database schema.			
5	WP3	Initial delay in requirements analsysi and WP2 activities	Initial delay of 2 months in operative project start and D2.2.1 delivery	CTE CH	3	2	1	1	6	D3.3.1	M7	M9	Iterative release of features in the LIGHT JUMPS platform. Public site already on line, new features to be included once available but without hampering final results of community generation	CTECH	M8	On Going
6	WP2	Analysis based on not relevant number of interviewed organisations	Difficulties in gathering and analyzing information and in conducting market analyses	CTE CH	2	1	1	2	4	D.2.2.2; D2.2.3; D2.2.5;	M6	M8	Strong commitment from the side of Clusters to stimulate organisations answering to questionnaires	CTECH	M8	On going
7	WP2	Difficulties in selecting key enabling technologies	RTD organizations not prone to provide information	POLI MI	2	1	1	2	4	D2.2.4;	M12	M12	Usage of partners network to gather commitment from RTDs to gather relevant information	POLIMI	M12	On going
8	WP4	Difficulties in selecting photonics applications and promising ideas and business cases	Lack of interaction with organisatinos having ideas and technologies	POLI MI	1	1	1	3	3	D4.2.1	M12	M12	Focus on the involvement of key actors (RTD, SMEs) and regional/national clusters	POLIMI	M12	On going