



RISK MANAGEMENT PLAN

D1.2

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List of Acronyms

DoA	
GA	General Assembly
PM	Project Manager
PC	Project Coordinator
SC	Steering Committee
WP	Work Package
WPL	Work Package Leader

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EC Summary Requirements

Changes with respect to the DoA

No changes with respect to the work described in the DoA.

Dissemination and uptake

This deliverable will serve as a reference document among consortium partners (experts and non-experts), to be aware of and kept up to date with the project's risk management procedures, responsibilities and requirements. It may also be used by individuals outside the consortium, including policymakers and scientists, as a documentation of the risk management plan and the rigorous procedures underpinning the legitimacy of the scientific processes carried out in the project and the results and policy recommendations.

Evidence of accomplishment

This report.

Preface

ROBOCOOP-EU proposes a breakthrough cultural change in the agro-sector, by deploying effective regional and circular bio-based Business Models for the valorisation of waste streams from 3 agricultural sectors: grape, olive and stone fruit. This will expand real scenarios of commercial opportunities to diversify the economy of small and medium scale farmers and cooperatives, enabling a more versatile biorefinery with a portfolio of biobased products. This model will allow the integration of secondary streams in a holistic closed loop, thus improving the ecological footprint and revenues with social impact.

Table 1. Participant of ROBOCOOP-EU

Number	Acronym	Name	Country	Logo
1	UEX	UNIVERSIDAD DE EXTREMADURA	ES	
2	BBEPP	BIO BASE EUROPE PILOT PLANT VZW	BE	
3	VITO	VLAAMSE INSTELLING VOOR TECHNOLOGISCH ONDERZOEK N.V.	BE	
4	INS	SIEC BADAWCZA LUKASIEWICZ INSTYTUT NOWYCH SYNTEZ CHEMICZNYCH	PL	
5	MEDINA	FUNDACION CENTRO DE EXCELENCIA EN INVESTIGACION DE MEDICAMENTOS INNOVADORES EN ANDALUCIA	ES	
6	NTUA	ETHNICON METSOVION POLYTECHNION	EL	
7	NATAC	NATAC BIOTECH SL	ES	
8	ADME	ARCHER DANIELS MIDLAND EUROPE BV	NL	
9	ARION	ARION ILAC SANAYI TICARET ANONIM SIRKETI	TR	
10	ROELMI	ROELMI HPC SRL	IT	
11	ENO	LA ENOLOGICA EXTREMENA SA	ES	
12	INOFA	INTERNET OF FOOD ALLIANCE SUPPORT OFFICE IKE	EL	
13	FUNDECYT-PCTEX	FUNDACION FUNDECYT – PARQUE CIENTIFICO Y TECNOLOGICO DE EXTREMADURA	ES	
14	SATIBA	SAT SATIBA	ES	

15	TROIL	TROIL VEGAS ALTAS SOCIEDAD COOPERATIVA DE ULTERIOR GRADO	ES	
16	ACVJ	AGRUPACION DE COOPERATIVAS VALLE DEL JERTE SOCIEDAD COOPERATIVA LIMITADA	ES	
17	IAMB	CENTRO INTERNAZIONALE DI ALTISTUDI AGRONOMICI MEDITERRANEI	IT	
18	CLUBE	CLUSTER VIOOIKONOMIAS KAI PERIVALLONTOS DYTIKIS MAKEDONIAS	EL	
18.1	DIMITRA	AGROTIKOS SYNETAIRISMOS VELVENTOU H DIMITRA	EL	
18.2	ENTEKA	KOKKALIARIS IOANNIS	EL	
19	INEUVO	INEUVO LTD	UK	

Executive summary

This deliverable contains the ROBOCOOP-EU internal risk management process and the results of the first regular review and update of the internal risk tables. It is part of the overall project coordination. It contains risks related to the project work packages, new risks detected or declared by the ROBOCOOP-EU members will serve to incorporate them in future versions. It defines detailed risk management and review processes and sets expectations, procedures, and responsibilities. It presents an extended version of the risk tables, updated with the state at the time of writing, and defines more detailed criteria for each identified risk and overall processes, leading to an operational risk management and tracking.

1 Introduction of Risk Management Plan

1.1 Purpose and Scope

Risk management is an integrated part of the overall project management down to individual Work Packages, Tasks, and partners. All consortium partners, Work Package leaders, and the Project Coordination Team are included in the risk management process to ensure integration of all stakeholders and viewpoints. Partners are expected to actively participate in risk management and actively work on risk mitigation, in line with the relevant agreements. The project does overall risk management with the help of an overall table of Critical Risks, which is also shared in the EU Participant Portal as part of regular reporting, and through individual processes as part of the management of individual Work Packages and Tasks. Managing risks is an iterative, adaptive, and ongoing process. It needs to be able to respond to changed context and project characteristics over time. Risk management should aim to not only react, but also anticipate and mitigate risks through appropriate processes and responses.

The table of identified risks will be regularly reviewed and evaluated to ensure regular updates yearly and in sync with periodic reporting. Risk review will include regular checking and updating of risks, mitigation measures, severity, imminence etc. the detailed risk assessment process consists of risk identification; risk analysis in terms of likelihood, impact, and other factors; and risk evaluation and decisions; leading to risk treatment; a process in line with ISO 31000¹. The risk management process itself can also be evaluated and improved through experiences over the project lifetime. Results will be documented in updated risk tables and updates to future versions of this risk management deliverable. The regular review process of the risk table is linked to the overall management of the changes in the project as described in GA to ensure risks are regularly updated in line with overall project management.

Specific project financial risks in overall project reporting are dealt with in the periodic reporting and are out of scope of this Deliverable. Specific economic risks for the project and its objectives are in scope. The current state of the risk tables is based on the DoA and its Critical Risks table. The internal risk tracker was initiated with those. Risk impact, likelihood, and weight were added. Only small adjustments were made on risk descriptions to better fit the experience in the first half year, mainly regarding personnel changes and handover processes. Further details and tracking will be developed and added as part of the process and the regular updates.

1.2 Structure of the Risk Management Plan

The ROBOCOOP-EU Risk Management Strategy will ensure early identification of potential risks within the innovation phase as well as during full-scale demo project implementation, monitoring and replication. Potential mismatches between risk owners and risk appetite across the consortium will be addressed, and risk identification and mitigation practices are implemented across the entire life-cycle of the project. These are defined in this Risk Management Plan and tracked in the risk table in the master list. Risk management within the project will be governed by the hierarchy of avoidance, transfer (risk sharing), mitigation, adaptation, and acceptance by engaging all partners. Risk management regularly reassesses and acts on the risk identified in the Critical Risk Table. The aim is to keep as many risks as possible at low or medium, through adequate mitigation measures, and hence reducing the risk level. Increased risks, at any stage of the project, will be examined and discussed (Project Manager, Work Package Leaders and Project Coordinator), and new mitigation measures put in place to reduce the overall risk to an acceptable level.

In some Project Management literature, risks can be negative and positive, as events happening in/to the project. The goal of project risk management then is to increase the level of positive risks and decrease the level of negative risks, to support the project success. We keep with the common

¹ ISO 31000:2018 Risk management -- Guidelines, International Organization for Standardization, <https://www.iso.org/standard/65694.html>

definition of risks versus opportunities, to ensure readability and easy understanding. However, we stress that we need to embrace such opportunities and use strategies to exploit (the opportunity directly), enhance (the likelihood), share (by allowing other parties to exploit), and accept (as it comes) such opportunities to embrace both sides of unforeseen events. The goal of the risk management processes is that project risks are identified, analysed, evaluated, and treated in a structured process that monitors and tracks them, and raises risks to the right level and responsibilities in the project. The processes and structures in the project are based on best practices, frameworks such as ISO 31000 2 processes.

Risk Management takes a high-level place in the project management structure, and all WPs are expected to contribute. The Coordinator will appoint the Project Manager to the Risk Manager role, supported by the Management Team from UEX. Risk reviews will take place regularly, as part of the updated Deliverables of this series, and as part of the Periodic Reporting to the EC. Additionally, risks can be raised through the processes described below to ensure fast reaction and mitigation. Risks that develop faster than anticipated, cross a threshold level above medium, or are the results of actual incidents, need to be raised immediately for proper risk handling. The regular reviews also could include what-if scenarios, to better understand influence factors and possible cross-dependencies, and to understand potential changes in environmental and context conditions. This includes identification of new risks, review of existing risks, adaptation of risk level assessments, adapting risk response strategy and mitigation actions, implementation of mitigation and follow up of mitigation results so far, learning from other projects and external factors, other issues, reporting of risks to the relevant bodies, escalation of risks when needed, and consistent and structured tracking with a detailed risk table. Periodic updates (each 3 months) are the basis of checking and updating risks, mitigation, severity, imminence etc., the occurrence of risks over time, forecasting in combination with what-if scenarios, regular reviews with WP leads, clear responsibilities and regular reviews, and a structure for follow ups. The following graphic provides a high-level overview of the five steps to follow.



Figure 1. Risk Management Process²

² Report. What-is-enterprise-risk-management-and-the-top-8-tools-to-achieve-it. Available at Sharpcloud tool (www.sharpcloud.com; accessed July 2023)

1.2.1 Identify potential Risks

It considers both individual Task risks and sources of overall project risk. Risks can be raised by any project member but should go through the Task leaders and Work Package leaders. Work Package Leader we report to PM and as risk owners as part of overall Work Package responsibility in the SC. The PM organises the process. Risks need to be raised in a sufficiently detailed way; the risk table will provide a template for this. In addition to the risk description, at minimum the initial estimate of risk likelihood, impact, overall risk level (weight), and imminence need to be documented, together with other factors. Preliminary risk responses may also be identified and recorded. The risks can be evaluated by several ways such as: comparing actual with planned deliverables status, regular communication of the WP Leaders with the task leaders or living lab leaders, regular communication of the project management team with the WP Leaders.

1.2.2 Analysing the Risk

The PM assesses the risk and its status with the one who raised the risk, and coordinates between multiple parties. In case of disagreements in the overall process, they can be escalated to the GA. Risk description, likelihood, impact, and other factors are determined.

1.2.3 Evaluating the Risk

This step assigns a risk owner, defines appropriate risk response strategy, and discusses and defines mitigation actions. New risks need to be presented to the SC for information and coordination between WPs. New risks that are above a threshold of medium also should be raised to the GA (General Assembly) for information and risk review. When risks change the status from being imminent to being present, either by progression of work or actual incidents need to be raised immediately to the WPL and to the PM. They will be tracked in the master list and appropriate responses will be decided.

1.2.4 Treating the Risk

Risks should be managed by tasks as well as by WPL for their Work Packages. Cross-cutting risks are the responsibility of the PM/PC together with all relevant partners as laid out in the risk table. Depending on ownership, mitigation actions need to be initiated and followed up by the respective Task leads, whose organizations are defined as risk owners in the risk table. These need to be coordinated by the WP lead and the PM. In most cases, this should be handled at a Task lead level by the risk owner, but for some cross-cutting risks may be one or multiple WPL.

1.2.5 Monitoring and Reviewing the Risk

Monitoring the Risk will assess a risk level based on likelihood and impact (a matrix to examine the imminence of a Risk is shown in Figure 2).

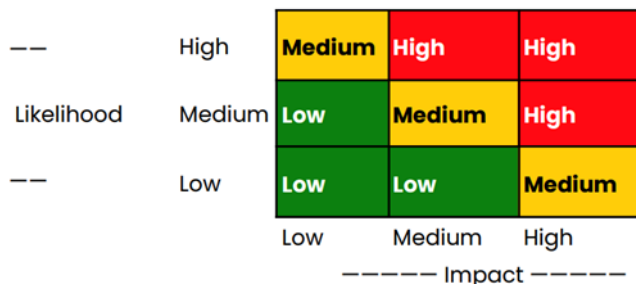


Figure 2. Matrix examining the impact and imminence of a Risk

In addition, Risks can be classified in remote, close, imminent or present.

2 Specific Risks at ROBOCOOP-EU

The different Risks identified as well as the mitigation measures that have been proposed in the case of each WP have been included in Table 2.

Table 2. List of critical Risks identified for each WP

Risk Number	Description	WP	Probability (L)	Impact (M)	Preventive measures/ Corrective actions	Risk status	Measures applied	Require actions? YES/NO	Risk owner	Additional comments
1	Partner activities are not aligned and do not meet project objectives	1	Low	Medium	Regular work package meetings will be held to ensure that activities are streamlined and that lessons learnt are shared					
2	A partner leaves the Consortium.	1	Low	Medium	The rest of the consortium will try to assume the partner objectives, responsibilities and resources. In case that is not possible, the consortium will look for another parent with the same profile.					
3	Partners do not agree on the IPR of the project results.	1	Low	Medium	An exploitation plan will be developed within the first steps of the project, identifying the expected results (foreground), as well as who will be the owner. In addition, a Consortium Agreement will be signed by all partners before the start of the project, establishing the basic rules for the management of the IPR issues regarding the results of the project.					
4	Personnel changes in the project management structure (e.g. due to changes in family or career plans)	1	Medium	Medium	The work plan will be systematized (providing work schemes of team members describing the procedures and documentation connected with project activities). Creating a notification and planification plan with the next bullets: Reassigning roles, provide training, and					

					a transition plan. With the idea of minimizing the impact in the team and the long-term success and ensuring the open communication with the consortium.					
5	Failure to achieve KPIs assumed	1, 8	Low	High	Regular monitoring measures will be undertaken to foresee any discrepancies and increase action rate in any field endangered. The issue will be taken into consideration in the Risk Management Plan which will define action plans.					
6	External worldwide influences (e.g. pandemic situation, climate emergency, wars)	1, 8	High	Medium	With relatively high transmissions ROBOCOOP-EU (meetings, travels, internships) will be carried out according to public settings to minimize the risk. Along with complete restrictions, meetings to be online. Additional SC meetings to be organized. There will design and crisis communication plan, prioritizing the safety, evaluating the impact of the project, reassessing the project goals and milestones					
7	Low yields in extraction and targeted biomolecules.	3	High	Medium	Selection of appropriate staff with experience in research and development, "know how" related to the subject of the project, analysis of input and output data at each stage of the project.					
8	The risk of failure of equipment necessary for the	2, 3	High	High	Routine service and repair of faults will be carried out, part of the research to					

	implementation of individual tasks.				subcontracts will also be considered and transferred.					
9	Low stakeholders' involvement in: a. Solving their tasks b. Receiving the advances of the project proactively.	1-8	A. Low B. High	A. Medium B. Medium	Preparing a recurrent tracking table of each partner and comminating them the detection of this lack of involvement and designing when detecting and implementing, in case of not solving the requirement, an alternative path for minimizing the impact of the overall objectives.					
10	Insufficient provision of data for testing and validating in later activities.	2-7	Medium	Medium	A data request follow up will be carried out, trying to serve for tracking the due time and the responsible in terms of each stakeholder					
11	Legislative constraints.	5	High	Medium	In the dissemination activities and the regulatory there will be a specific flag for requesting the government regulators for their view, and potential restriction in advance which will be shared and attended					

Table 3. List of Risk unforeseen for each WP

Risk Number	Description	WP	Probability (L)	Impact (M)	Preventive measures/ Corrective actions	Risk status	Measures applied	Requier actions? YES/NO	Risk owner	Additional comments

3 Conclusions

This report has laid out the current state of the ROBOCOOP-EU risk management processes and the risks identified so far. No major changes in the risks and assessment were necessary yet. The startup and consolidation phase of the project has helped to refine many processes in the interaction within the project. Risk management was part of these, and many processes take it into account. Such learnings are described in the respective other project reports, as they are closely relating to the work there and not the overall larger-scale risks handled here. Each WP leader will produce a progress update statement every three months, including a description of the progress achieved, risks associated and mitigation plan to minimize the identified risks, with intention to keep quality control and correct progress and monitoring of technical and non-technical tasks.