



ResC4EU

RESILIENT SUPPLY CHAINS FOR EUROPE

D1.2

Risk Management Plan



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Deliverable Lead	Scaberia AS (SCA)
Lead Responsible	Dr. Ulrike H. Lueder
Contributing Partners	----
Contributing Authors	----
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List of Abbreviations

GA	Grant Agreement
SME	Small and Medium-size Enterprises
WP	Work Package
WPL	Work Package Leader

1 Executive Summary

This document is deliverable **D1.2 Risk Management Plan** of the ResC4EU project. It is an internal document aligned with the Grant Agreement and created to support proper project implementation.

The Risk Management Plan defines risk management processes, a **Risk Management Register**, and a **Risk Log** to be pursued during the project.

The **risk management process** includes the following five steps: 1. risk identification, 2. risk analysis, 3. risk response planning, 4. risk monitoring and control, and 5. risk reporting. Risks will be identified as early as possible to minimise their impact.

Risk Manager is the **Operational Project Manager** of the ResC4EU project. The Operational Project Manager working with the Project Management Team will ensure that risks are actively identified and managed throughout the entire project life.

Each project participant is responsible to inform the Risk Manager and the Work Package Leader about new potential risks.

A **Risk Management Register** is generated and will be updated as needed in order to record all possible risks of the project and any subsequence measures or actions required.

A **Risk Log template** is provided to report and monitor risk that did materialize.

2 Introduction

2.1 Purpose of this document

This document is deliverable **D1.2 Risk Management Plan** of the ResC4EU project. It is an internal document aligned with the Grant Agreement and created to support proper project implementation.

The Risk Management Plan defines risk management processes, a **Risk Management Register** and a **Risk Log** to be pursued during the project with the level required by the ResC4EU Consortium and Commission standard.

2.2 Document structure

The main part of the document covers:

- **Risk Management process (section 4):** a description of the risk management methodology to be applied during the entire life of the project in order to identify and manage risk that might affect the project progress and its objectives.
- **Risk Management Register (section 5):** a table summarising the critical risks and mitigation measures that were identified by the Consortium at proposal stage (**foreseen risks**) and that will be complemented with **unforeseen risks** identified during the entire life of the project.
- **Risk Log template (section 6):** a template to report and monitor risks that materialize during the project.

2.3 Targeted group

This Risk Management Plan has been created as guideline and for the use by all Consortium partners, and in particular by the Work Package Leaders and the entire Project Management Team.

This document is classified as 'public' to support the open science policy of the European Union.

3 Project Summary

The ResC4EU project is a **Coordination and Support Action (CSA)** funded by the European Union within EU's key funding programme for research and innovation Horizon Europe (2021-2027).

ResC4EU is a collaboration project and initiative funded by the European Union with 3 million Euros. It aims to support EU businesses, particularly Small and Medium sized enterprises (SMEs), in becoming more resilient and sustainable and be able to quickly adapt to supply chain disruptions such as experienced during COVID-19 crisis, geopolitical tensions or disasters (e.g. Suez Canal closure, floodings, strikes) by implementing Advanced Technologies.

ResC4EU will provide an open space for collaboration facilitated by industry associations and clusters, develop and provide models and digital tools that can assist SMEs in detecting and anticipating disruptions in their supply chains, and offering SMEs tailored support and training programmes. Further, manufacturing SMEs in need of implementing advanced technologies will be brought together with tech-savvy SMEs providing innovative solutions.

The work to be carried out in the ResC4EU project must follow the Description of the Action (DoA), the project schedule and budget as laid down in the ResC4EU Grant Agreement (ResC4EU-GA), more specific as laid down in the Annex 1 (Part A & Part B) and potential amendments.

Since ResC4EU is a Lump-sum funded project, the successful implementation of the project will be measured based on the objectives, deliverables and milestones achieved and work packages completed.

Based on the nature of the project we have distinguished between:

1. Risk associated with the management of the project
2. Risk associated with technical issues, in particular the development of models and tools of assessment of supply chain related risk
3. Risk associated with the exploitation and impact.

4 Risk Management Process

4.1 Process Overview

The **risk management process** includes the following five steps: risk identification, risk analysis, risk response planning, risk monitoring and control and risk reporting as illustrated in **Fig.1** below.

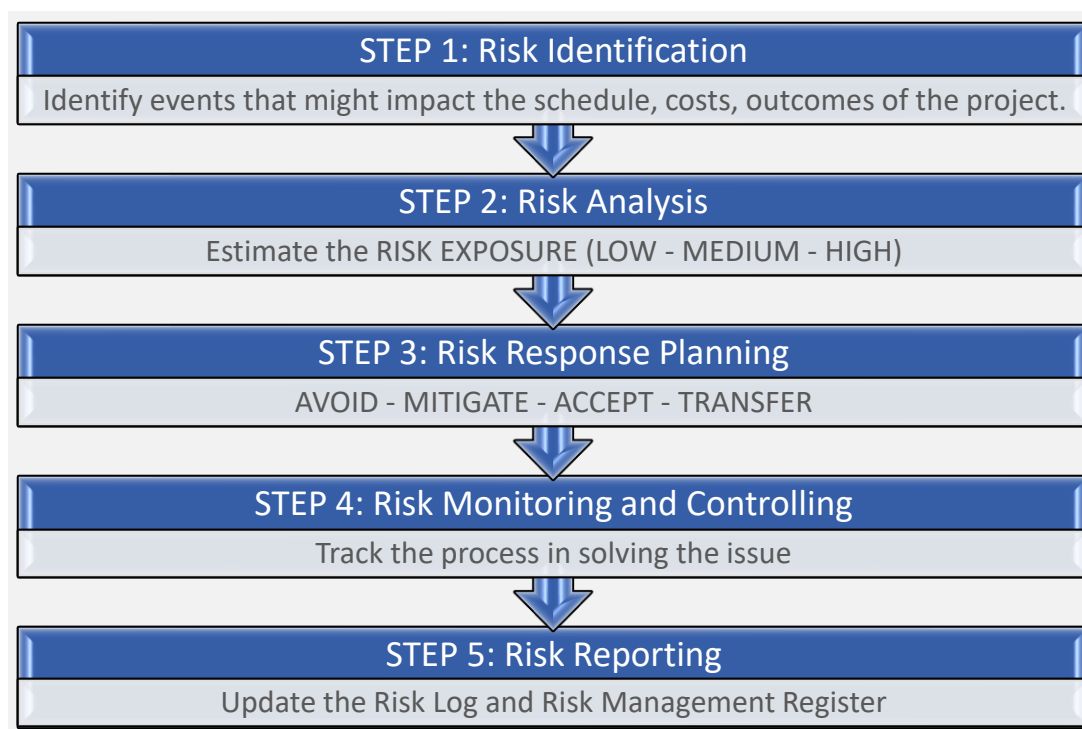


Fig. 1: Overview of the Risk Management Process

Risk Manager is the **Operational Project Manager** of the ResC4EU project. The Operational Project Manager working with the Project Management Team will ensure that risks are actively identified, analysed, and managed throughout the entire project life.

A **Risk Management Register** (see **Section 5, Tab. 1**) is generated and will be updated as needed in order to record all possible risks of the project and any subsequence measures or actions required. This Risk Management Register will be stored at the projects' document respiratory (CU's Carbon Connected platform) and accessible to the consortium members. A **Risk Log template** (see **Section 6, Tab.2**) is provided to report and monitor risk that might materialize.

Critical risks identified at proposal stage are also summarised in the table '**List of Critical Risks**' in the **Grant Agreement (Annex 1, Description of the Action, DoA, Part A)**, also called '**foreseen risk**'. This table will be updated with 'unforeseen risks' identified during the life of the project at least at the end of each project reporting period (M18 and M36).

4.2 Risk Identification

Risk identification will be done throughout the life of the ResC4EU project, with an emphasis on identifying risks as early as possible so that effective response planning and subsequent monitoring can take place.

Risk identification will be performed on work package and on task level. Work Package Leaders will report the risk to the Project Management Team, which will agree on the risk priority as well as on the respective response strategy.

Identified risks will be included in the Risk Management Register by the Risk Manager.

Risk identification involves the entire project management team and includes an evaluation of the work plan including the project objectives. Careful attention will be given to:

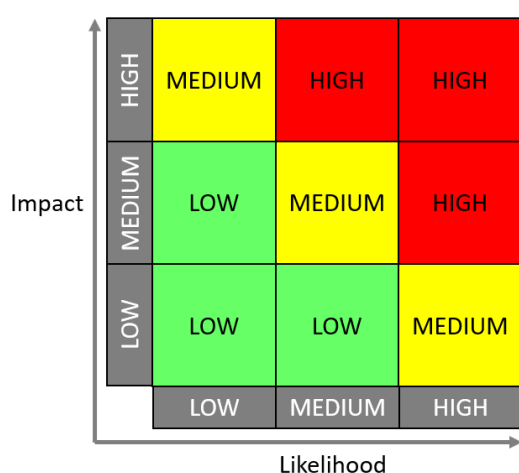
- Deliverable status
- Work Package/Task schedules and scopes
- Assumptions
- Constraints
- Effort estimates
- Resource plan
- Other key project documents.

It is the responsibility of each participant to inform the Work Package Leaders and the Risk Manager about any new potential risks.

4.3 Risk Analysis

All risks identified will be assessed to identify the range of possible project outcomes. Qualification will be used to determine which risks are the top risks to pursue and respond to and which risks can be ignored.

For each risk, the Risk Manager, in collaboration with the Project Management Team, will estimate the **likelihood (Low/Medium/High)** that the risk may occur and if it occurs, the size of the **potential impact (Low/Medium/High)**. The risk exposure matrix in **Fig. 2** will serve to estimate the risk level.



Impact	HIGH	MEDIUM	HIGH	HIGH
	MEDIUM	LOW	MEDIUM	HIGH
	LOW	LOW	LOW	MEDIUM
		LOW	MEDIUM	HIGH
		Likelihood		

Fig. 2: Risk exposure matrix.

Likelihood:

- **High:** more likely to happen than not; (greater than 70% probability of occurrence)
- **Medium:** quite possible; (between 30% and 70% probability of occurrence);
- **Low:** very unlikely, but not impossible; (below 30% probability of occurrence).

Impact:

- **High:** Risk that has the potential to greatly impact project cost, project schedule or performance;
- **Medium:** Risk that has the potential to slightly impact project cost, project schedule or performance;
- **Low:** Risk that has relatively little impact on cost, schedule or performance.

Risks that fall within the **GREEN zones** are **low-priority risks** that will be **accepted without any need for action**. Risk acceptance can be passive, where no active is taken at all, or active. The most common active approach to risk acceptance is to develop a cost and/or schedule revision to accommodate known (or unknown) threats. Utilizing a risk acceptance approach determines that the risk should be monitored rather than reassessed.

Risks that fall within the **RED and YELLOW zones** are **major risks (high and medium-priority risks)** and will require risk response planning (see **section 4.4**) which may include both a **risk mitigation** and a **risk contingency plan**.

4.4 Risk response planning

Each **major risk** (those falling in the **Red & Yellow zones; high and medium-priority risks**) will be assigned to a Project Management Team member for monitoring purposes to ensure that the risk will not “fall through the cracks”.

For each major risk, one of the following approaches will be selected to address it:

- **Avoid:** Eliminate the threat by eliminating the cause;
- **Mitigate:** Identify ways to reduce the probability or the impact of the risk;
- **Accept:** Nothing will be done;
- **Transfer:** Assign responsibility for risk to other parties (e.g. subcontracting).

Risk Mitigation Plan:

For each risk that will be **mitigated**, the Project Management Team will identify ways to prevent the risk from occurring or reduce its impact or probability of occurring. This may include adding tasks to the project schedule, adding resources, etc.

For each major risk that is to be **mitigated** or that is **accepted**, a course of action will be outlined for the event that the risk does materialize in order to minimize its impact.

The results of response planning will be included into the **Risk Log** and **Risk Management Register**.

Each project partner is responsible for implementing the risk mitigation measures which relates to the Work Package or task lead.

4.5 Risk monitoring and control

The level of risk on the ResC4EU project will be tracked, monitored and reported throughout the project lifecycle.

Each project partner is responsible to communicate to the **Risk Manager** the status and effectiveness of each risk and mitigation plan in order to update the **Risk Log** and **Risk Management Register** and **any new risk that arises (unforeseen risk)**.

The **risk owner** shall confirm the correct implementation of the risk responses and shall control the effectiveness of the response. The risk owner will monitor the risk and inform the Risk Manager.

The risk owner is the beneficiary with the actual risk (e.g. the beneficiary responsible for the development of a tool, the beneficiary where key personnel left the project).

Risk exposure will be continuously re-evaluated and modified accordingly. The results of monitoring and control will be documented.

4.6 Risk reporting

The **Risk Log** and **Risk Management Register** will be updated by the **Risk Manager** and will be reviewed during Project Management Team meetings and General Assembly meetings as a standing agenda item.

The **Risk Log** will contain the list of issues which occurred during the course of the project and the preventive measures and/or mitigation actions that were carried out.

Risk status: A risk will be considered closed after the adverse situation occurred and it can no longer be considered as a threat to the project.

5 Risk Management Register

The Risk Management Register contains the risk number, a description of the risk, the Work Package (WP) involved, the **likelihood (LOW/MEDIUM/HIGH)** that the risk may occur and if it occurs, the size of the potential **impact (LOW/MEDIUM/HIGH)** and the **risk exposure level (LOW/MEDIUM/HIGH)**, and the proposed risk mitigation measures for **risks foreseen (F)** before the start of the project.

Unforeseen risks (U) that arises during project implementation will be added accordingly.

At the end of each project reporting period (M18 and M36) and as part of the project periodic report, consortium partners must give the State of Play of every risk identified in the Description of Action (Annex 1 of the Grant Agreement) and if necessary, give new mitigation measures. Therefore, following questions must be answered for each registered foreseen and unforeseen risk

- State of the Play - Did you apply the risk mitigation measures? (YES/NO);
- State of the Play - Did the risk materialise? (YES/NO);
- State of the Play - Comments? If the risk mitigation measures couldn't be applied, explain why.

Based on the nature of the project we have distinguished between:

- **Part A: Risk associated with management of the project**
- **Part B: Risk associated with technical issues**, in particular the development of models and tools of assessment of supply chain related risk
- **Part C: Risk associated with exploitation and impact**

Tab. 1: Risk Management Register
PART A: Risk associated with MANAGEMENT of the project

Fore- seen / Un- fore- seen	Risk No.	Description of Risk	WP inv olv ed	Likelihood (Low, Medium, High)	Impact (Low, Medium, High)	Risk exposure (LOW, MEDIUM, HIGH)	Proposed Risk mitigation measures	Did you apply the risk mitigation measures? (YES/NO)	Did the risk materialize ? (YES/NO)	Comments
F	R1	Partner collaboration risks, e.g. underperforming partner; a key partner leaves the project, disagreement between partners	WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9	Medium	High	HIGH	WP leaders monitor progress (including potential partner conflicts) at WP levels and communicate difficulties to the project coordinator (PC) . Problems which cannot be solved bilaterally, will be referred to the PC and then to the Executive Board . The Consortium Agreement will also provide a framework for underperforming partners and conflict resolution procedures.			

							Reassignment of tasks to other partners.			
F	R2	Project Execution Risks, e.g. key milestones are delayed (likelihood: medium; severity: high)	WP1 WP2 WP3 WP4 WP5 WP6 WP7 WP8 WP9	Medium	High	HIGH	Generous time planning, concrete milestones, bi-weekly meetings, monthly monitoring of work progress to early detect/resolve problems.			

PART B: Risk associated with TECHNICAL issues

Fore- seen / Un- fore- seen	Risk No.	Description of Risk	WP inv olv ed	Likelihood (Low, Medium, High)	Impact (Low, Medium, High)	Risk exposure (LOW, MEDIUM, HIGH)	Proposed Risk mitigation measures	Did you apply the risk mitigation measures? (YES/NO)	Did the risk materialize ? (YES/NO)	Comments
F	R3	Recruitment and engagement of SMEs remains below critical mass	WP3	Low	High	MEDIUM	Out of 11 partners ResC4EU has 6 cluster organizations that can mobilize several hundred SMEs. Being able to join an operational digital B2B platform will be an			

							additional attraction for SMEs			
F	R4	The developed model for supply chain resilience is not actionable in practice	WP4 WP6 WP7	Low	Medium	LOW	Generous time planning, concrete milestones, bi-weekly meetings, monthly monitoring of work progress to early detect/resolve problems.			
F	R5	B2B platform developed in an EU H2020 project may not handle several hundred companies	WP4 WP6 WP7	Low to Medium	Medium to High	MEDIUM	The ResC4EU platform is based on the NIMBLE technology stack (H2020) which is also the basis of partner AID's existing B2B platform. This platform already handles 350+ companies and has been in use for 3 years.			
F	R6	Building Alliances Between Tech Savvy and Traditional	WP5	Low to Medium	Medium to High	MEDIUM	The six clusters in ResC4EU are strategically chosen to prevent such risk to happen.			

		SMEs, and launching pilot projects is too slow, putting MS6 at risk								
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PART C: Risk associated with Exploitation and Impact

Fore- seen / Un- fore- seen	Risk No.	Description of Risk	WP inv olv ed	Likelihood (Low, Medium, High)	Impact (Low, Medium, High)	Risk exposure (LOW, MEDIUM, HIGH)	Proposed Risk mitigation measures	Did you apply the risk mitigation measures? (YES/NO)	Did the risk materialize ? (YES/NO)	Comments
F	R7	Planned communication measures turn out to be inadequate.	WP8 WP9	Low	Medium	LOW	Apart from the dissemination, exploitation and communications skills of SCA, the chosen clusters are highly experienced in organising and managing events			

6 Risk Log template

The **Risk Log template** shall be used for risk that materialize.

The Risk Log comprises:

- Number of risks that materialize;
- Foreseen risk (F) or unforeseen risk (U);
- Risk Number it relates to (see **section 5, Risk Management Register**);
- Description of the Risk;
- Work Package (WP) involved;
- Task involved;
- date raised;
- risk owner;
- likelihood (Low/Medium/High) that the risk may occur;
- the size of the potential impact (Low/Medium/High) if the risk occurs;
- risk exposure level (LOW/MEDIUM/HIGH);
- risk response (AVOID - MITIGATE - ACCEPT – TRANSFER);
- implementation of countermeasures;
- comments;
- risk status.

Tab. 2: Risk Log template

No	Fore- seen/ Un- fore- seen (F/U)	Risk No.	Description of Risk	WP	Task	Date raised	Risk Owner	Likeli- hood (Low, Medium, High)	Impact (Low, Medium, High)	Risk exposure (LOW, MEDIUM, HIGH)	Risk response	Implementation of Countermeasures	Comments	Risk status

7 Reference documents

- ResC4EU Grant Agreement, 101137643, signed 05.12.2023



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contact@resc4eu.com



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