EPD-NET

Filling the Gap: Development of Ecological Planning and Design Learning Network and Adaptive Smart Training Module for Disaster Resilient and Sustainable Cities

RISK MANAGEMENT PLAN

This document addresses all risks related to the execution of the project in order to ensure its successful implementation.

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EPD-Net Risk Management Plan

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ABBREVIATIONS

AB	Accreditation Body
AI	Artificial Intelligence
AIJU	Asociacion De Investigacion De La Industria Del Juguete Conexas Y Afines
AU	Ankara University
BS	Basarsoft
CTLA	Turkish Chamber of Landscape Architects
CU	Cukurova University
EQF	European Qualifications Framework
ESRI	Environmental Systems Research Institute Türkiye Branch
ESTU	Eskisehir Technical University
GA	Grant Agreement
GIS	Geographical Information Systems
HEI	Higher Education Institution
HU	Harran University
IFLA	International Federation of Landscape Architects
IKU	Istanbul Kultur University
KPI	Key Performance Indicator
LAAA	Latvian Association of Landscape Architects
LBTU	Latvia University of Life Sciences and Technologies
LE	Large Enterprise
MENDELU	Mendel University in Brno
NC	NetCAD
NGO	Non-Governmental Organisation
NLP	Natural Language Processing
NMBU	Norwegian University of Life Sciences
PC	Professional Chamber
PI	Performance Indicator
PF	Previform - Laboratório, Formação, Higiene e Segurança no Trabalho, Lda
PM Team	Project Management Team
PMS	Project Management System
RAM	Risk Register and Risk Assessment Matrix
RMP	Risk Management Plan
QAP	Quality Assurance Plan
RI	Research Institute
SC	Steering Committee
SK	Semantic Kernel
SME	Small and Medium Enterprise
SPU	Slovak University of Agriculture in Nitra

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TAPLAK	Design and Planning Accreditation Board
THCA	Turkish Healthy Cities Association
VET	Vocational Education and Training
VSB	Technical University of Ostrava
WP	Work Package

Executive Summary

The EPD-Net Risk Management Plan (RMP) (Deliverable D1.2) presents a robust and context-specific strategy to manage potential threats to the project's implementation. It focuses on ten identified risks—each directly tied to a specific WP—covering areas such as data collection, module design, pilot testing, dissemination, stakeholder adoption, and sustainability.

Using a structured methodology based on impact–likelihood scoring, the plan incorporates tools such as a clear visual risk matrix, detailed mitigation strategies, assigned responsibilities, and monitoring procedures. It includes dynamic tools such as the Risk Tracker Template, Risk Heat Map, Monitoring Calendar, and a formal Contingency Response Framework.

Governance is shared across all WP leaders, coordinated by ESTU, and overseen by the SC. This plan is updated regularly, embedded into the QAP, and ready to respond to emerging risks through flexible, pre-defined procedures.

With this plan in place, EPD-Net ensures that risk is not merely avoided but actively managed, turned into learning, and aligned with the project's broader goals of resilience, sustainability, and innovation in ecological planning education.

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1. INTRODUCTION

RMP for EPD-Net, developed under WP1 (Task 1.2), outlines a strategic approach to identifying, assessing, mitigating, and monitoring risks that may affect the project's success. A risk is defined as any uncertain event or condition that could impact project objectives, timelines, deliverables, or outcomes—positively or negatively.

The RMP complements the Quality Assurance Plan (QAP) (D1.1) and is fully aligned with the relevant provisions of the Grant Agreement (GA), particularly those concerning project implementation, reporting obligations, and force majeure.

Given EPD-Net's interdisciplinary structure and multi-stakeholder environment, including pilot activities and external engagement, the project faces a diverse set of risks—technical, organizational, financial, and beyond.

Rather than being a static compliance document, the RMP is a dynamic governance tool that ensures risks are:

- Anticipated early in WP planning

- Assessed through impact-likelihood scoring

- Monitored throughout the project lifecycle

- Addressed through predefined escalation and contingency protocols

1.1 Purpose of the Risk Management Plan

The purpose of the RMP is fourfold:

- Strategic Protection – To safeguard the project's timeline, quality, and outcomes from known and unknown threats;
- Operational Clarity – To define clear processes for risk detection, escalation, and response across all consortium levels;
- Compliance and Accountability – To meet Erasmus+ requirements regarding governance, transparency, and responsiveness;
- Learning and Adaptation – To contribute to the project's organizational learning capacity by institutionalizing responsive decision-making.

1.2 Structure and Components

RMP includes:

- A clearly defined risk management methodology based on best practices in EU-funded collaborative research and innovation projects;
- A risk register including the ten predefined risks identified during proposal development and codified in the GA;
- A scoring system using 5-point scales for impact and likelihood, leading to prioritization and color-coded categorization (Low–Medium–High–Critical);

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- Defined roles and responsibilities at the level of WP Leaders, the Project Coordinator, and the Steering Committee (SC);
- A monitoring and reporting calendar synchronized with project milestones, deliverables, and quality assurance cycles;
- A contingency response framework to manage high-risk scenarios and unforeseen developments effectively.

2. APPROACH TO RISK MANAGEMENT

Risk management in the EPD-Net Project is not treated as a secondary administrative obligation, but as a **core strategic and operational function** embedded into every layer of project execution. Given the project's complexity—spanning multiple partner types (HEIs, VETs, NGOs, professional bodies), thematic domains (ecological planning, disaster resilience, artificial intelligence (AI)-driven learning), and geographic and cultural contexts (EU and non-EU states)—an anticipatory and structured approach to risk is indispensable.

EPD-Net adopts a **preventive and responsive approach** to risk management, integrating risk analysis into the core of its management and decision-making processes. The methodology builds on the following principles:

- **Early identification of foreseeable risks** across all WPs, deliverables, and stakeholder activities

- **Systematic assessment** of risk probability (likelihood) and impact (severity)

- **Assignment of ownership** to relevant WP leaders or core partners

- **Definition of mitigation and contingency strategies** with measurable control points

- **Continuous monitoring** through internal reporting loops and SC oversight

- **Integration** with the broader quality assurance system and project governance

RMP uses a color-coded risk matrix to determine the level of response required and defines both *proactive* and *reactive* measures for each risk type.

This section presents the **philosophy**, **principles**, and **operational mechanisms** guiding the project's approach to risk.

2.1 Guiding Principles

The risk management system of EPD-Net operates on the basis of the following six interlocking principles:

Principle	Operational Implication
Proactivity	Risks are identified during WP planning phases, not reactively during implementation.
Integration	Risk thinking is embedded in activities related to QAP (D1.1), D1.3 Project Monitoring Plan, and D1.4 Project Evaluation Strategy Plan.

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Principle	Operational Implication
Transparency	All risk information is documented and accessible to the consortium.
Scalability	The system accommodates both WP-level and project-wide risks.
Accountability	Risk ownership is clearly assigned to responsible individuals or institutions.
Revisability	The Risk Register, maintained on the ClickUp platform, is treated as a dynamic document, subject to scheduled and situational updates.

2.2 Communication Risk Escalation Protocol

To enhance the timely coordination and prevent operational disruptions caused by communication-related risks, a formal Communication Risk Escalation Protocol is established. This protocol specifically addresses risks such as prolonged response times, inconsistencies due to uncontrolled version updates, and misunderstandings across different WPs. The protocol defines:

Alert Triggers: Risk alerts will be triggered when communication delays exceed 10 calendar days without a documented justification or when conflicting document versions are detected during collaborative tasks.

Escalation Levels: A structured escalation ladder will be used to ensure timely intervention. The initial resolution attempt will be made at the WP Leader level. If unresolved within 3 days, the issue will be escalated to the Project Management (PM) Team.

Documentation and Version Tracking Tools: The protocol will be implemented using digital project management platforms such as ClickUp, where all communication threads, action items, and document uploads will be timestamped and archived.

Review Cycle: The effectiveness of this protocol will be reviewed semi-annually as part of the internal quality assurance process. Lessons learned from past escalations will be documented and used to refine communication strategies.

This structured mechanism is expected to enhance transparency, prevent workflow disruptions, and strengthen accountability across project actors. It also contributes directly to the quality assurance and risk mitigation framework by introducing a traceable and proactive communication management process.

2.3 Methodological Framework

EPD-Net applies a standardized five-step risk management cycle adapted from ISO 31000 principles:

1. **Risk Identification**

   o Conducted during proposal design, WP planning, and at key milestones.

   o Sources comprise technical, financial, institutional, stakeholder-related, legal/ethical, external/environmental ones.

2. **Risk Analysis**

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o   Each risk is scored for Impact and Likelihood on a 1–5 scale.

3. **Risk Evaluation**

    o   Risk Level = Impact × Likelihood → plotted on a color-coded Risk Matrix to prioritize risks.

    o   Risks can be updated depending on monitoring framework: risk probabilities and impacts may change, new risks may be added, and some risks may be dropped as the project progresses

    o   Prioritization levels include Low, Moderate, High, and Critical risks.

4. **Risk Treatment and Mitigation Planning**

    o   Specific treatment strategies are defined based on risk severity: avoidance, reduction, sharing (e.g., insurance), or acceptance.

    o   Mitigation actions are designed following a "proportionality principle"—more severe risks receive layered interventions.

5. **Monitoring and Escalation**

    o   Monitoring frequency and escalation triggers are defined based on risk level.

    o   The SC intervenes in all High (≥10) or Critical (≥16) risks, supported by quality assurance processes and external expert input where necessary.

To support this methodology, EPD-Net employs a structured Risk Management Toolkit, hosted on the ClickUp platform, comprising:

- A **Risk Register Table** with detailed attributes (description, probability, impact, owner, action plan, contingency actions, triggers)

- An **Extended Risk Assessment Matrix (RAM)** integrating ownership, response planning, and triggers

- A **Monitoring Calendar** for scheduled reviews and updates.

2.4 Risk Typologies in EPD-Net

The following categories guide the classification of risks, ensuring alignment with project structure and objectives:

Risk Type	Examples in EPD-Net	Associated WPs
Technical Risks	Risks related to technological tools, systems, or infrastructure used in the design, development, or delivery of the project, including software functionality, platform stability, and technical integration failures.	WP2, WP3, WP4

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Risk Type	Examples in EPD-Net	Associated WPs
Organizational Risks	Risks arising from coordination, management, staffing, or internal communication issues among project partners or within WPs, including role confusion, delays, or internal bottlenecks.	WP1
Content Risks	Risks related to the quality, relevance, contextualization, or localization of the educational and training content produced in the project. This includes conceptual misalignment and lack of pedagogical adequacy.	WP2, WP3
Engagement Risks	Risks that affect the participation, involvement, or response of key stakeholders such as learners, pilot testers, target groups, or broader audiences in dissemination and adoption activities.	WP4, WP5
Sustainability Risks	Risks concerning the long-term viability and post-project continuation of the project outcomes, including funding shortfalls, low institutional uptake, or lack of strategic alignment.	WP5, WP6
External/Force Majeure Risks	Risks driven by external, uncontrollable factors such as policy shifts, legal changes, geopolitical events, natural disasters, or pandemics that may impact project implementation.	Cross-cutting
Financial Risks	Risks related to budgeting, fund disbursement, co-funding requirements, cost eligibility, or financial reporting accuracy that may affect the project's financial health or compliance.	WP1, Cross-cutting

2.5 Strategic Alignment

This approach is cross-validated with:

- **Annex 1 – Risk Heat Map**: for visualization and prioritization

- **Annex 2 – Risk Tracker:** for documentation and updates

- **Annex 3 – Monitoring Calendar**: for timing and frequency of reviews

- **Annex 4 – Contingency Response Framework**: for escalation and resolution

Furthermore, the approach is **synchronized with the QAP (D1.1)** and **Continuous Reporting Obligations** as outlined in the GA (Article 21).

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3.   ROLES AND RESPONSIBILITIES

Effective and accountable risk management within EPD-Net Project relies on a clearly defined structure of roles, distributed across different layers of the project's governance. The responsibilities outlined below ensure that risk identification, analysis, mitigation, monitoring, and escalation are not confined to a single institution but embedded across the consortium, WPs, PM Team, and governance bodies.

This distributed model supports transparency, traceability, and responsiveness, while also reducing dependency on a single point of control.

3.1 Risk Governance Structure Overview

Effective risk management in EPD-Net is a **shared responsibility**. The following roles and responsibilities are defined:

The following actors and bodies are directly responsible for risk-related tasks within the EPD-Net Project:

Actor / Body	Core Role	Primary Responsibilities
WP1 Leader and PM Team	Central oversight and Methodological support	Maintains the Risk Register; consolidates WP reports; initiates escalation processes; coordinates SC risk reviews; updates EU Continuous Reporting Oversees all risk-related decisions; ensures alignment with QAP and monitoring plans. Ensures consistency with QAP (D1.1); integrates risk outputs into quality assurance reports; evaluates control mechanisms.
WP Leaders	Operational monitoring	Monitor risks within their WP; provide monthly updates; report new or evolving risks. Identify WP-specific risks; assess severity and likelihood; implement mitigation; submit monthly updates.
SC	Strategic decision-making	Reviews high and critical risks; validates response strategies; authorizes escalation measures and contingency deployments. Reviews risk ratings and mitigation effectiveness; approves risk response revisions.
All Partners	Network-wide vigilance	Report emerging risks; contribute to mitigation; participate in SC decisions via WP leaders Notify WP leaders or PM Team of any risk-related developments; contribute to mitigation when assigned.

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3.2 Detailed Responsibilities by Role

a) Project Coordinator, WP1 Leader, and PM Team

- Owns the master version of the Risk Register and ensures version control

- Consolidates monthly WP risk reports into quarterly project-wide summaries

- Oversees proper documentation of contingency activations and resolutions

- Reports key developments to the EU Funding & Tenders Portal via continuous reporting

- Coordinates risk-related communication with external evaluators and reviewers

- Initiates extraordinary SC meetings if high/critical risk thresholds are crossed

- Implements the documentation of decisions, action tracking, and audit preparation using the Clickup

- Validates the alignment of risk scoring with overall project evaluation logic

- Ensures cross-checking between Risk Register and performance indicators (PIs) (Annexes in D1.1)

- Participates in SC meetings as an advisor on risk dynamics

- Assists in the documentation of decisions, action tracking, and audit preparation

b) WP Leaders (WP1–WP6)

- Conduct initial WP-level risk identification at task planning stage

- Use Risk Tracker (Annex 2) for updates and internal follow-up

- Engage with internal teams and task leaders to assess changing risk conditions

- Trigger escalation to the Coordinator when:

  o Mitigation efforts prove ineffective risk management

  o New, unforeseen WP-level risk emerges

  o Risk score increases beyond predefined thresholds

c) SC

- Holds quarterly formal risk reviews (aligned with quality assurance schedule)

- Reviews and approves:

  o Revised risk scores (e.g., medium → high)

  o Activation of contingency protocols

  o Mitigation strategy reallocations (time, budget, personnel)

- May reassign task ownership or reallocate responsibilities in high-risk cases

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- Issues official Resolutions for escalated risks (logged under "SC Decisions")

d) All Partners

- Participate in risk awareness trainings during kick-off and annual meetings

- Act as sensors for emerging threats, especially in stakeholder and dissemination-related domains

- Cooperate in multi-WP mitigation responses (e.g., WP3–WP4 joint testing)

- Ensure that risk reporting is integrated into internal documentation and communication

3.3 Communication Flow and Decision Authority

The communication flow is given below:

Partner [Consortium Partner] --> WP Leader

Partner [Consortium Partner] -->   PM Team

WP Leader --> PM Team/WP1 Leader

PM Team--> SC [Steering Committee]

SC --> Decision [Formal Decision / Resolution]

Project Coordinator --> EU [Continuous Reporting to EC]

PM Team --> SC

PM Team --> Coordinator

3.4 Escalation Thresholds and Role Activation

Risk Level	Authority for Initial Response	Escalation Required?	Final Authority
Low (1–4)	WP Leader	No	WP Internal
Medium (5–9)	WP Leader + PM Team	If sustained >6 months	Coordinator
High (10–15)	WP Leader + PM Team + Coordinator	Yes	SC
Critical (16–25)	Coordinator + PM Team	Immediate	SC + EC Notification (if needed)

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4.   RISK MATRIX METHODOLOGY

The risk matrix used in EPD-Net serves as a practical visual tool to prioritize identified risks based on their likelihood of occurrence and the severity of their potential impact. This enables WP leaders and the PM Team to determine which risks require immediate attention and which can be monitored over time.

In EPD-Net Project, each identified risk is assessed using a 5×5 scoring system for both Impact and Likelihood, resulting in a composite risk score ranging from 1 (very low) to 25 (critical). These scores are plotted on a color-coded matrix to determine the corresponding risk level: Low, Moderate, High, or Critical (Annex 1).

Each risk is evaluated along two primary axes:

Dimension	Definition	Scale
Impact (I)	The potential degree of negative effect on project objectives if the risk materializes	1 (Negligible) → 5 (Severe)
Likelihood (L)	The estimated probability that the risk will occur during the project's lifetime	1 (Very Low) → 5 (Very High)

The **Risk Score (R)** is *derived by multiplying Impact and Likelihood scores (each ranging from 1 to 5), producing a total score between 1 and 25.*
R = Impact × Likelihood → ranges from 1 to 25

The methodology supports consistent risk prioritization across WPs and helps define escalation paths and mitigation needs proportionally. While the matrix facilitates prioritization, other tools such as the Risk Register and Risk Assessment Matrix (RAM) support classification, ownership assignment, and contingency planning.

Risk Level Categories and Interpretation, Risk Matrix Visualization are provided in Annex 1.

4.1 Scoring Guidelines and Anchor Questions

To support consistent scoring across WPs, EPD-Net adopts predefined **anchor questions** to determine each dimension:

Impact Anchor Questions:

- Would the risk affect delivery of a key deliverable or milestone?

- Would it compromise stakeholder trust, engagement, or participation?

- Could it undermine the educational value or scientific credibility of the outputs?

- Might it require additional budget or personnel not previously planned?

Likelihood Anchor Questions:

- Has a similar risk occurred in comparable projects or settings?

- Are current mitigation measures robust and tested?

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- Is the risk linked to external, less controllable factors?

- Have early warning signs or symptoms already been observed?

Each WP leader is encouraged to apply these questions during WP planning and monthly monitoring.

4.2 Review and Adjustment Protocol

Risk scores are regularly reviewed to ensure timely adaptation to evolving project conditions. The review process follows this protocol:

- **Monthly reviews** are conducted at the WP level.

- **Quarterly reviews** are held at the overall project level.

If a risk score changes significantly (e.g., from Medium to High), this triggers a mandatory discussion within the **SC** to reassess mitigation and escalation needs.

In addition to regular reviews, risk scores are re-evaluated at key project milestones:

- **Pilot testing phase**

- **External evaluation rounds**

- **Annual stakeholder feedback analysis**

Any reclassification of a risk must be formally recorded using the **Risk Tracker** and reported during the next **SC meeting.**

4.3 Updating the Risk Register

Risk updates will occur under these specific conditions:

- Detection of a new risk (submitted via WP reports or flagged by any partner)

- Material change in impact or likelihood of an existing risk

- Activation of a contingency plan (i.e., shift from mitigation to intervention)

- Feedback from external reviewers or EU-appointed monitors

- SC vote on escalation or reclassification

Each update to the register will be version-controlled, with a changelog noting:

- Date of revision

- Type of change (add/update/remove)

- Responsible unit

- Justification and reference documents

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5.   IDENTIFIED RISKS AND MITIGATION STRATEGIES

This section presents the initial set of risks identified during the planning and early implementation phases of the EPD-Net project. These risks have been assessed by the relevant WP teams in collaboration with the PM Team, based on the standardized risk scoring methodology.

The Risk Register Table below captures key attributes of each risk, including its origin (WP), severity score (Impact × Likelihood), category, assigned mitigation strategy, and responsible entity. Color coding is used to highlight risk levels and trigger appropriate response protocols. High and critical risks are subject to close monitoring by the SC.

The table is a living document, maintained on the ClickUp platform and regularly updated throughout the project lifecycle. It serves as a central tool for tracking mitigation progress and informing decision-making.

EPD-Net Risk Register Table

Risk ID	Description	WP	Impact (I)	Likelihood (L)	Risk Level (I×L)	Risk Category	Mitigation Strategy
R1	Difficulty in finding relevant and high-quality sources for the literature review report	WP1	3	4	12 ■	Technical	Ensure that the research team includes individuals with relevant expertise and experience in the field of disaster management and recovery, and ecological planning and design. Conduct a thorough and comprehensive search for sources, including both academic and non-academic materials. Verify the credibility and reliability of sources through careful evaluation and review.
R2	Incomplete or inaccurate information gathered during the needs assessment.	WP1	5	3	15 ■	Content	Develop a clear and comprehensive data collection plan to guide the needs assessment process. Ensure that the survey instruments and interview protocols are well-designed and thoroughly

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Risk ID	Description	WP	Impact (I)	Likelihood (L)	Risk Level (I×L)	Risk Category	Mitigation Strategy
							tested prior to data collection. Use multiple sources of data and triangulation methods to verify the accuracy and completeness of information gathered.
R3	Difficulty in developing smart training module that meet the needs of a diverse range of stakeholders and learners.	WP2	5	3	15	Content	Conduct a thorough needs assessment to understand the training needs and preferences of different stakeholder groups. Develop a flexible and adaptable curriculum that can be customized to meet the specific needs of different audiences. Use a variety of teaching methods and materials to accommodate different learning styles and preferences.
R4	Technical difficulties or delays in developing the training module guidebook and materials.	WP2	3	2	6	Technical	Ensure that the development team includes individuals with the necessary technical expertise and experience. Develop a detailed project plan with clear timelines and milestones for developing and producing the training materials. Monitor progress closely and take prompt action to address any issues or delays.
R5	Difficulty in recruiting and retaining	WP3	3	3	9	Engagement	Develop a targeted recruitment strategy that emphasizes the benefits

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Risk ID	Description	WP	Impact (I)	Likelihood (L)	Risk Level (I×L)	Risk Category	Mitigation Strategy
	participants for the pilot testing.						and relevance of the smart training module. Provide incentives and recognition for participants who complete the training. Monitor participant satisfaction and engagement throughout the training and address any issues promptly.
R6	Limited availability of suitable pilot testing sites or partners.	WP3	3	2	6	Organisational	Develop a broad and diverse network of potential partners and sites for the pilot testing. Develop a clear and comprehensive site selection process that considers factors such as location, audience, and resources. Ensure that all partners and sites are thoroughly vetted and trained prior to the start of the pilot testing.
R7	Limited reach or impact of the dissemination and outreach materials and activities.	WP4	5	3	15	Engagement	Develop a comprehensive and targeted dissemination and outreach plan that includes a variety of channels and strategies. Develop high-quality and visually engaging materials designed to appeal to different audiences. Monitor engagement and feedback from the target audience and adjust the dissemination and outreach strategy as necessary.

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Risk ID	Description	WP	Impact (I)	Likelihood (L)	Risk Level (I×L)	Risk Category	Mitigation Strategy
R8	Negative feedback or criticism of the project from stakeholders or the broader community.	WP4	5	2	10 ■	Engagement	Develop a clear and transparent communication strategy that emphasizes the goals and benefits of the project. Monitor feedback and engagement from stakeholders and the broader community throughout the project. Be responsive and transparent in addressing any concerns or criticisms that arise.
R9	Lack of funding or resources to sustain the project outcomes beyond the project duration	WP5	5	2	10 ■	Sustainability	Develop a sustainable business model to continue providing the smart training module and services beyond the project duration, including exploring funding opportunities and seeking partnerships with relevant organizations.
R10	Difficulty in finding partners and stakeholders to promote and adopt the project outcomes	WP5	5	2	10 ■	Sustainability	Establish and maintain a network of partners and stakeholders from the ecological planning and design and disaster management field to promote and adopt the project outcomes, including through targeted outreach and engagement strategies.
R11	Limited interest from the industry or potential clients to utilize the Ecological Planning	WP5	5	2	10 ■	Engagement	Conduct market research and engage with potential clients and industry stakeholders to identify their needs and interests,

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Risk ID	Description	WP	Impact (I)	Likelihood (L)	Risk Level (I×L)	Risk Category	Mitigation Strategy
	and Design for Disaster Management smart training module and services						and tailor the smart training module and services to meet their needs. This can include offering customized training programs or developing partnerships with relevant organizations to increase uptake and utilization.
R12	Missing data in the project management system (ClickUp)	WP1	3	5	15 ■	Organisational	Enhance communication with project partners

🔍 **Legend**:

🟩 Green = Low (1–4) → Monitor

🟧 Yellow = Medium (5–9) → Mitigation required

🟧 Orange = High (10–15) → Immediate mitigation and SC oversight

🟥 Red = Critical (16–25) → Crisis protocol, direct intervention

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6. MONITORING AND REVIEW SCHEDULE

In the EPD-Net Project, risk monitoring is not an isolated activity but is deeply embedded into the overall **project governance, evaluation, and quality assurance system**. This ensures that risks are not only identified at the outset but are also systematically tracked, re-evaluated, and re-prioritized throughout the project life cycle. This monitoring structure rests on three foundational principles: **periodicity, accountability, and responsiveness**.

6.1 Periodic Risk Review Mechanisms

The Risk Register is a **living document**, subject to iterative revision and review. The plan includes both **routine review intervals** and **trigger-based revisions**:

Level	Frequency	Instrument	Responsible Actor(s)	Purpose
Monthly	WP-level team meetings	WP Risk Snapshot Update	WP Leader, Team Members	Detect emerging or evolving risks; report any deviations
Quarterly	Project-wide risk review	Consortium-Wide Report	PM Team, SC	Recalculate risk levels; integrate cross-WP insights Formal risk review
Milestone-based	Prior to major deliverables or events	Milestone Risk Check	WP Leaders, Members	Ensure readiness for next stage; deploy contingency if needed
Annually	In the last SC meeting of each year	Comprehensive Risk Audit	SC	Strategic risk review: adjust mitigation plans and budget alignment
Ad hoc	On-demand in crisis or major disruption	Extraordinary Risk Review	Project Coordinator, SC Chair	Trigger contingency protocols; escalate for decision-making.

6.2 Monitoring Tools and Documentation Instruments

The risk management process is primarily conducted using the Clickup software, which enables a variety of actions to be submitted, stored, updated, and followed. Still, during the project management life cycle, the following tools can be used to record relevant decisions and actions for risk management.

Tool	Purpose	Format/Location
Risk Register	Core tracking document for identified risks	D1.2 – Managed by WP1 Leader and PM team on the Clickup/Cloud Service
Meeting Minutes (Directive Code: WPx-YY-NN, SC-YY-NN)	Tracks decisions, risk alerts, corrective actions	ClickUp platform / Cloud Service

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Tool	Purpose	Format/Location
Risk Summary Dashboards	Visual tracking of trends and heat map changes	Included in ClickUp services
SC Decision Logs	Archives all escalation outcomes	Stored in relevant directory in the cloud
Continuous Reporting Logs (Funding Portal)	Fulfills relevant GA articles for continuous risk reporting duty	EU Portal interface, updated by the Coordinator

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7. CONCLUSION

The RMP developed under WP1 (T1.2) serves as both a required deliverable and a core governance tool within EPD-Net's quality and evaluation framework.

It outlines a proactive, structured, and responsive approach to identifying and managing risks that may affect the development and delivery of EPD-Net's inclusive, smart training module.

Key strengths of the RMP include:

- **Context-specific risks**, clearly linked to project tasks and stakeholder engagement

- **Prioritization** using a five-level scoring matrix

- **Clear ownership and accountability** assigned to WP leads and institutions

- **Built-in monitoring**, integrated with monthly, quarterly, and milestone reviews

- **Preparedness for escalation**, with contingency protocols and decision mechanisms

- **Full integration** with reporting and quality assurance systems

As a living document, the RMP will be regularly updated in line with project developments. Beyond mitigating risks, it strengthens the project's adaptability and long-term value for the European ecological planning and disaster resilience community.

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8. ANNEXES – SUPPORTING TOOLS AND DOCUMENTATION

The following annexes provide structured tools and reference materials that operationalise the risk management methodology outlined in this plan. Each annex is designed to enhance traceability, facilitate routine monitoring, and ensure consistent decision-making across the consortium.

Annex 1: Risk Heat Map: A visual representation of the twelve predefined risks based on their impact and likelihood scores. It enables prioritisation and color-coded categorisation of risk severity levels.

Annex 2: Risk Tracker: A standardised reporting tool for logging, updating, and tracking risk evolution. Used by WP leaders and the coordinator to document status, actions, and responsibilities over time.

Annex 3: Risk Monitoring Calendar: A time-based framework detailing when each risk is reviewed, by whom, and under what conditions escalation is required. Synchronised with project milestones and quality assurance cycles.

Annex 4: Contingency Response Framework: A structured decision-making protocol for responding to materialised or critical risks. Defines activation criteria, response workflows, and resource reallocation pathways.

Together, these annexes transform the RMP from a static document into a dynamic, actionable system aligned with EPD-Net's quality and governance structures.

Annex 1. Risk Heat Map

a) Purpose of the Heat Map

The Risk Heat Map provides a **visual synthesis** of the probability–impact relationship for each identified risk. It is used by the WP Leaders, Project Coordinator, and SC to:

- Prioritize action planning

- Quickly detect critical threats

- Allocate risk response resources more effectively

- Reclassify risks as project conditions evolve

The heat map applies a **5×5 matrix**, where each risk is plotted according to:

- **Likelihood** (horizontal axis): Probability of occurrence (1 to 5)

- **Impact** (vertical axis): Severity of the risk if realised (1 to 5)

b) Risk Classification Grid

	L1 Very Low	L2 Low	L3 Medium	L4 High	L5 Very High
I5 – Severe	5 (Low)	10 (Medium)	15 (High)	20 (Critical)	25 (Critical)

	L1 Very Low	L2 Low	L3 Medium	L4 High	L5 Very High
I4 – Major	4	8	12	16	20
I3 – Moderate	3	6	9	12	15
I2 – Minor	2	4	6	8	10
I1 – Negligible	1 (Monitor)	2	3	4	5

🟩 **Green (1–4)**: Monitor only

🟧 **Yellow (5–9)**: Mitigation Required

🟧 **Orange (10–15)**: Strong Preventive Action Required

🟥 **Red (16–25)**: Immediate Escalation to SC

c) EPD-Net Risk Plot

Based on your predefined 12 risks, each risk is placed into the map as follows:

- 🟧 **R1** – Literature source quality (3×4 = 12)

- 🟧 **R2** – Needs assessment data inaccuracy (5×3 = 15)

- 🟧 **R3** – Training module mismatch to stakeholder needs (5×3 = 15)

- 🟧 **R4** – Technical delays in training materials (3×2 = 6)

- 🟧 **R5** – Recruitment for pilot testing (3×3 = 9)

- 🟧 **R6** – Pilot site availability (3×2 = 6)

- 🟧 **R7** – Dissemination impact weakness (5×3 = 15)

- 🟧 **R8** – Negative public/stakeholder feedback (5×2 = 10)

- 🟧 **R9** – Lack of post-project funding (5×2 = 10)

- 🟧 **R10** – Difficulty in stakeholder adoption (5×2 = 10)

- 🟧 **R11** – Industry disinterest (5×2 = 10)

- 🟧 **R12** – Missing Information in Project Management Tool (5×3 = 15)

d) Interpretation and Action Thresholds

Risk Level	Interpretation	Action Strategy
1–4 🟩	Minimal threat	Track through monthly WP meetings
5–9 🟧	Medium threat	Mitigation plan must exist, tracked quarterly
10–15 🟧	High threat	Preemptive action; reported to SC; risk owner assigned
16–25 🟥	Critical threat	Escalate immediately; contingency budget & reallocation required

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Annex 2. Risk Tracker

a) Purpose of the Risk Tracker

The **Risk Tracker** serves as a structured tool to regularly log, update, and monitor the evolution of each identified risk throughout the project lifecycle. It ensures:

- Traceability of all changes in the risk profile

- Alignment with quality assurance and reporting cycles

- Accountability through assignment of responsible persons and WPs

- Transparent documentation for both internal governance and external auditing

The tracker is **dynamic** and version-controlled, housed on EPD-Net's internal project repository and updated in coordination with WP leaders and the Project Coordinator.

b) Tracker Structure and Fields

Below is the core structure of the EPD-Net Risk Tracker. This data is used monthly at WP level and quarterly at the consortium level.

Field Name	Description
Risk ID	Unique identifier (e.g., R1 to R11)
Risk Title	In ClickUp: "Name". Short name of the risk (e.g., "Needs Assessment Error")
Full Description	Extended definition of the risk scenario
WP Affected	Relevant WPs
Risk Owner	In ClickUp: "Tags". Institution or WP Lead responsible
Date Identified	First registration date
Impact Score (1–5)	As defined in the matrix
Likelihood Score (1–5)	As defined in the matrix
Risk Level (I × L)	Computed value and color zone
Mitigation Measures	Planned or active mitigation actions
Contingency Plan	Optional response if mitigation fails
Monitoring Frequency	E.g., Monthly, Milestone-based
Status	New entry / Active / Closed / Escalated
Last Updated	Date of last entry/modification
Responsible Person	Contact person overseeing the action

c) Sample Tracker Entry (R2 – Needs Assessment Inaccuracy)

Field	Entry
Risk ID	R2

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Field	Entry
Risk Title	Needs Assessment Inaccuracy
Description	Collected data may be incomplete or biased, leading to flawed module design
WP Affected	WP1
Risk Owner	ESTU, HU
Date Identified	March 2025
Impact Score	5
Likelihood Score	3
Risk Level	15 🟧
Mitigation Measures	Triangulation, piloting of data collection tools
Contingency Plan	Use focus groups and expert panels for correction
Monitoring Frequency	Monthly
Status	Active
Last Updated	April 2025
Responsible Person	Dr. Aysu Oryaşın Balkan (HU)

d) Integration with Reporting and Quality Assurance Cycles

- Tracker updates feed directly into quarterly quality assurance reports (T1.1)

- Used as evidence in SC meetings for re-prioritization

- Forms the basis for any corrective action plans or escalation pathways

- Syncs with the EU Continuous Reporting via the GA Portal

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Annex 3. Risk Monitoring Calendar

a) Purpose of the Monitoring Calendar

The Risk Monitoring Calendar provides a time-bound framework for tracking and revisiting all registered risks in EPD-Net. This calendar ensures:

- Proactive identification of changes in risk levels

- Timely updates to the Risk Tracker and QAP

- Consistency across WPs in monitoring intensity

- Synchronization with deliverables, milestones, and external evaluations

It is developed and maintained under WP1 (Task 1.2) and regularly shared with all WP Leaders and the SC.

b) Monitoring Frequency by Risk Severity

Risk Level	Color	Review Frequency	Responsible	Escalation Requirement
Low (1–4)	Green	Every 6 months	WP Leader	No escalation unless a significant change occurs
Medium (5–9)	Yellow	Every 3 months	WP Leader + PM Team	Escalation if status persists > 6 months
High (10–15)	Orange	Monthly	WP Leader + Coordinator	Escalation to SC mandatory if no change after 2 cycles
Critical (16–25)	Red	Bi-weekly	Coordinator + SC Chair	Immediate SC intervention; formal corrective action plan triggered

c) Calendar of Risk Monitoring Events (2025–2028)

Date / Period	Event / Trigger	Related Risk Action	Deliverable / WP
M3 – May 2025	D1.2 RMP submitted	Initial registration of 12 known risks	WP1
M6 – Jul 2025	E1.2 Team Meeting (Czechia)	1st formal SC review of risk register	WP1, SC
M12 – Jan 2026	Mid-year quality assurance report	Adjustment of mitigation strategies	WP1, PM Team
M24 – Jan 2027	Annual quality assurance Summit	Impact of R5–R7 (pilot/diffusion risks) reviewed	WP3, WP4
M30 – Jul 2027	Pre-sustainability alignment	Focus on R9–R11 sustainability risks	WP6
M34 – Nov 2027	Final SC Risk Review	Closure of active risks, archiving	WP1, SC

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Date / Period	Event / Trigger	Related Risk Action	Deliverable / WP
M36 – Jan 2028	Project closure	Final Risk Register version + legacy log	WP1

d) Escalation Triggers and Decision Pathways

Trigger Condition	Immediate Action	Escalation Pathway
A risk changes category (e.g., Yellow → Orange)	Risk Tracker updated; WP notified	Coordinator validates; SC briefed in next meeting
A new unforeseen risk is detected	New entry created; interim mitigation logged	Fast-track SC discussion; decision within 10 working days
A mitigation strategy proves ineffective	Status escalated; corrective measures revised	SC review with quality assurance support; documentation in QAP
A critical event occurs (e.g., partner withdrawal)	Emergency risk report filed	SC convenes ad hoc within 7 days; implement contingency

e) Calendar Ownership and Access

- Maintained in shared cloud project repository

- Editable by PM Team and Project Coordinator

- View-only access granted to all consortium members

- Versioned as "Risk_Calendar_EPDCODE_YYMM" and linked in quarterly quality assurance reports

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Annex 4. Contingency Response Framework

a) Purpose and Scope

The Contingency Response Framework defines the structured response pathway EPD-Net will follow in the event that a **risk materialises** or its **mitigation strategy fails**. It ensures that crisis situations are managed **swiftly**, **coherently**, and with **predefined decision chains**, thus minimizing disruption and protecting project outcomes.

This framework applies to:

- All risks scoring **10 or higher** (🟧 / 🟥)

- All risks escalated by WP leaders or flagged in external reviews

- Any **unforeseen risk** (emerging mid-project) that affects scope, budget, consortium, or implementation
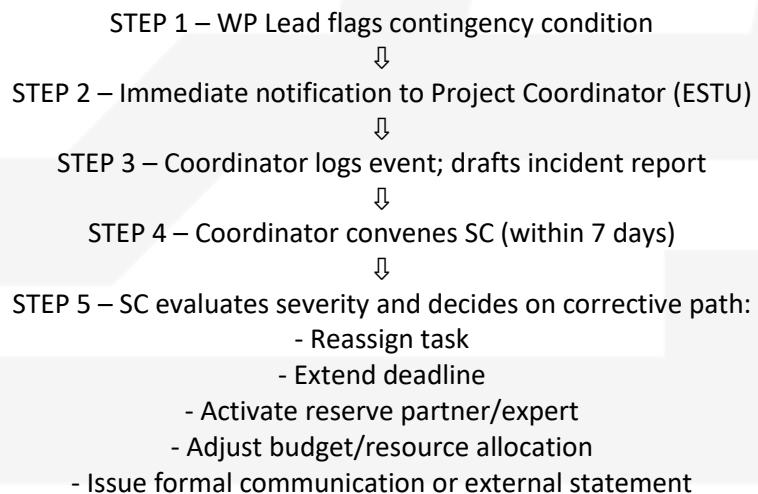
b) Contingency Activation Criteria

A contingency protocol is activated when **one or more** of the following conditions are met:

Trigger Code	Contingency Trigger Condition
CT1	A planned mitigation action proves ineffective after two consecutive reporting cycles
CT2	A critical risk (score ≥16) emerges or is escalated
CT3	A deliverable or milestone is at risk of delay beyond 10% of its timeline
CT4	A core partner withdraws or becomes unresponsive
CT5	A public/sectoral backlash threatens reputational harm
CT6	Legal, ethical, or data protection compliance issues arise

Each trigger automatically flags the risk as **"Contingency Status: Active"** in the Risk Register and activates the response sequence below.

c) Response Activation Workflow

STEP 1 – WP Lead flags contingency condition
⇩
STEP 2 – Immediate notification to Project Coordinator (ESTU)
⇩
STEP 3 – Coordinator logs event; drafts incident report
⇩
STEP 4 – Coordinator convenes SC (within 7 days)
⇩
STEP 5 – SC evaluates severity and decides on corrective path:
- Reassign task
- Extend deadline
- Activate reserve partner/expert
- Adjust budget/resource allocation
- Issue formal communication or external statement

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d) Sample Contingency Plans for Identified Risks

Risk ID	Contingency Measure
R1 (Literature access)	Engage external library partners or academic networks (NMBU/MENDELU) for expanded database access
R2 (Needs assessment flaw)	Launch expert panel consultation for re-validation of needs findings
R3 (Module misfit)	Convene design sprint with stakeholder advisory group to reframe module components
R5 (Recruitment failure)	Trigger institutional outreach campaign via HEIs and VET centers; involve WP6 network
R9–R11 (Post-project sustainability risks)	Reallocate WP5 resources to strategic partnership development, supported by CTLA/NMBU external advocacy

e) Resource Allocation for Contingencies

The CRF draws on three flexible resource pools:

- **Time buffer** built into WP Gantt charts (5–10% per task)

- **Reserve person-power**: cross-partner skill-sharing mechanisms

- **Budget reallocation margin**: within 10% per WP without EC amendment, per GA Article 6.2

Major reallocations beyond internal thresholds require amendment request to EC, coordinated by ESTU.

f) Documentation and Audit Trail

All contingency responses are:

- Registered under a unique Contingency Case ID (e.g., CC-R2-2025-M06)

- Documented in a formal report stored in the "Contingencies" directory

- Summarized in the quarterly Quality Assurance and Risk Monitoring Report

- Shared with the EC via Continuous Reporting Platform if requested.

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