CrossEU

D6.4 – Project Management Plan

WP6 - Task 6.1
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Executive Summary

The aim of this deliverable is to provide all necessary information related to the management of the project. These include the governance of the project with all related roles and responsibilities, the means, and processes to execute the day-to-day activities, the communication within the consortium as well as with external stakeholders and CINEA, and risk management.

Keywords

Climate change, socio-economic impacts and risks, climate policy, climate resilience, interdisciplinarity, climate adaptation and mitigation, decision support, cross-sectoral, climate change impact.

Abbreviations and acronyms

Acronym	Description
CA	Consortium Agreement
CC	Climate Change
CINEA	European Climate, Infrastructure and Environment Executive Agency
CROSSEU	Cross-sectoral Framework for Socio-Economic Resilience to Climate Change and Extreme Events in Europe
DL	Dissemination Level
DM	Delivery Month
DSS	Decision Support System
EEAB	External Expert Advisory Board
EC	European Commission
EGD	European Green Deal
EU	European Union
GA	General Assembly
LP	Lead Partner
M	Month
NDA	Non-Disclosure Agreement
NUTS	Nomenclature of Territorial Units for Statistics
PC	Project Coordinator

PM	Project Management
PMP	Project Management Plan
PU	Public
R	Report
RL	Risk & level of likelihood
SEN	Sensitive
STL	Storylines
URL	Uniform Resource Locators
WP	Work Package
WPL	Work Package Leader

Introduction

The project CROSSEU aims to respond to the increasing societal needs to reduce climate-damaging actions, adapt to the expected consequences and increase socio-economic resilience. The project aims are to deliver a climate-sensitive framework, including a ready-to-use decision support system platform and technical recommendations, to inform investment decisions, cost-effective adaptation and mitigation options and policy response to climate change. The project will contribute to advancing the understanding of the socio-economic risks and response options associated with climate change impact in Europe in different timeframes, including the post-COVID19 societal-environmental transformation, and derive practical recommendations for political and societal action. The solutions proposed are based on an extensive assessment of the socio-economic risks of climate change in a cross-sectoral hierarchical approach, based on storylines addressing key categories of climate hazards in different socio-economic sectors and climate change-sensitive areas across countries and European regions. The project will offer a ready-to-use solution that integrates complex information from available climate risk data sets and non-climatic sectoral data collected during the project implementation and derived through modelling based on demand-driven climate-socio-economic pathways. CROSSEU is designed to bridge the science-based information about the economic impacts of climate change and the unique contributions of the project will be (i) the quantification of costs of existent and emergent socio-economic risks and opportunities at NUTS3 level, (ii) an improved representation of adaptation within biogeophysical (BGP) climate change risk and (iii) a better consideration of modelling uncertainties by identifying their nature, assessing their characteristics in a systematic way to determine a better informed and robust decision-making.

CROSSEU builds on eight case studies associated with event-based storylines (STLs), covering a variety of climate and socio-economic contexts of the EU, which ensures their relevance and supports the upscaling process. The event-based STLs focus on four of Europe's key climate hazard categories, i.e. storms, heatwaves, droughts, and snow.

Two STLs address the impact of extreme events in the cross-sectoral multi-hazard risk framework and the indirect climate change impacts and spillover effects to Europe.

The CROSSEU case studies investigates (1) Health sectors in the United Kingdom and Czech Republic, (2) Multi-year drought on agriculture and food security in Central and South-Eastern Europe, (3) Storm damages in South Western Denmark and Northern Germany, (4) Valuation of social benefits of floods and flash floods adaptation and mitigation in Northeastern Italy, (5) Snow-related hazard risks in the European Alps and Carpathians, (6) Risks for socio-ecological systems in the Lower Danube, (7) Concurrent climate hazards on energy systems in Europe, and (8) Transboundary effects on agriculture and labour productivity.

This document is the deliverable "D6.4 – Project Management Plan" of the European project "Cross-sectoral Framework for Socio-Economic Resilience to Climate Change and Extreme Events in Europe". Deliverable D6.4 lays out the organisational structure and the management procedures and processes that CROSSEU will employ in order to ensure that the workflow is smooth and a good system of internal communication exists to ensure the efficient running of the Project.

This document is organized in 9 chapters as follows.

Chapter 1 – Introduction – outlines the concept and approach of CROSSEU. It elaborates the purpose of this deliverable as a plan for coordinating the Project, intended for Consortium members and the European Commission.

Chapter 2 – Description of CROSSEU Project – provides an overview of the project, furnishing key information regarding objectives, milestones, contractual deliverables and work plan.

Chapter 3 – Project Management – describes the governance structure of CROSSEU.

Chapter 4 – Management Processes and Tools – details the project working practices, the management processes and procedures, with emphasis on deliverables preparation process, reporting to the European Commission (EC) and procedures for conflict resolution.

Chapter 5 – Communication Processes and Tools – describes the various tools that are used for communication purposes among the consortium members. This will be at the heart of CROSSEU project.

Chapter 6 – Risk Management – provides information about tackling risks and challenges and assure that actual resource consumption is tracked against

plan, that any deviations from the plan are quickly surfaced and appropriate risk mitigation actions taken.

Chapter 7 – Quality Plan – exposes the way the consortium will face the documents' generation process, in order to guarantee the required quality and focus of the released documents.

Chapter 8 is dedicated to the financial management.

Chapter 9 is Conclusions.

This deliverable draws substantially from the CROSSEU Grant and Consortium Agreements and together with these documents will serve as a central reference for all project coordination issues.

1. Description of CROSSEU Project

1.1. Project Scope and Objectives

As a primary goal, the project CROSSEU aims at delivering a research-based framework for improving climate resilience and policy response to socio-economic risks of climate change and extreme events in Europe, through the co-development of a ready-to-use Decision Support System and cross-sectoral actionable knowledge. Based on an intensive engagement of different sectoral stakeholder groups, CROSSEU (i) enhances the context-specific understanding of the nature and extent of the climate change-driven socio-economic risks in different timeframes (i.e. 2030, 2050, and 2100), scenarios and regions, and (ii) co-develops a decision-making support that integrates tools, measures, and policy options to address the socio-economic risks and climate-related needs, in a cross-sectoral and -regional perspective

The European Green Deal (EGD) lays down clear guard rails for social, economic, environmental and cultural transformation, such as the reduction of climate-damaging actions and adaptation to cope with the expected consequences of climate change (CC) and to enhance the resilience of socio-ecological systems requiring scientifically robust methods and extensive stakeholder interactions, as well as behavioural changes. A key

CROSSEU outcome is policy-relevant integrated knowledge on CC, including the bio-geophysical (BGP) and socio-economic (SE) risks at local, national, and regional scales, within the context of the post-COVID-19 societal-environmental transformations and new geopolitical challenges (e.g., Russia-Ukraine conflict, shifts in energy supply and food chain).

The solutions proposed by CROSSEU are based on an extensive assessment of SE risks (and opportunities) of CC in a cross-sectoral hierarchical approach, based on event-based (i.e. heat, drought, storms, and snow-related) multi-hazard and spillover effect Storylines (STLs) in different climate change affected sectors. The focus is on health, social justice, migration, finance, insurance, energy, tourism, transport, biodiversity and ecosystem services, forestry, agriculture and food security, and water management, which are analysed for four CC sensitive systems (urban, rural, coast, and mountain area) across countries and European regions (i.e. Central and Eastern, Northern, Southern, and Western Europe). The project conducts a comprehensive analysis that integrates interdisciplinary information, such as (i) climate (e.g., in situ data, model outputs, reanalysis, satellite images), (ii) SE and BGP data collected during the project implementation (e.g., field surveys, national

datasets or local archives), (iii) model outputs of climate-sensitive SE pathways, (iv) demand-driven interactions with stakeholder groups at different decision levels (i.e., local, national, and EU), public and private sectors (e.g., research & academia, policy makers, industry, business investors and civil society), and evidence-based knowledge on BGP risks and SE impacts and cross-sectoral implications under different climate and SE scenarios co-produced with experts and practice users from public and private decision-makers, policy-makers, climate service users, investors, civil society, and vulnerable communities.

1.2. Project Overview

The consortium of CROSSEU consists of 16 partners from 9 European countries (Table 1). Its diversity is represented in Figure 1.

Table 1: CROSSEU Consortium

Participant No.	Participant organisation name	Country
1	ADMINISTRATIA NATIONALA DE METEOROLOGIE R.A. (MeteoRo)	Romania
2	WORLD METEOROLOGICAL ORGANIZATION (WMO)	Switzerland
3	UNIVERSITA DEGLI STUDI DI PADOVA (UNIPD)	Italy
4	CONOSCENZA E INNOVAZIONE SOCIETA A RESPONSABILITA LIMITATA SEMPLIFICATA (K&I)	Italy
5	HELMHOLTZ-ZENTRUM HEREON GMBH (HEREON)	Germany
6	LGI SUSTAINABLE INNOVATION (LGI)	France
7	ELECTRICITE DE FRANCE (EDF)	France
8	UNIVERSITAET FUER BODENKULTUR WIEN (BOKU)	Austria
9	DANMARKS TEKNISKE UNIVERSITET (DTU)	Denmark

10	UNIVERSITATEA DIN BUCURESTI (UB)	Romania
11	CESKA ZEMEDELSKA UNIVERZITA V PRAZE (CZU)	Czech Republic
12	UNIVERSITY OF EAST ANGLIA (UEA)	United Kingdom
13	UNIVERSITY COLLEGE LONDON (UCL)	United Kingdom
14	WORLD ENERGY & METEOROLOGY COUNCIL (WEMC)	United Kingdom
15	UNITED KINGDOM RESEARCH AND INNOVATION (UKRI)	United Kingdom

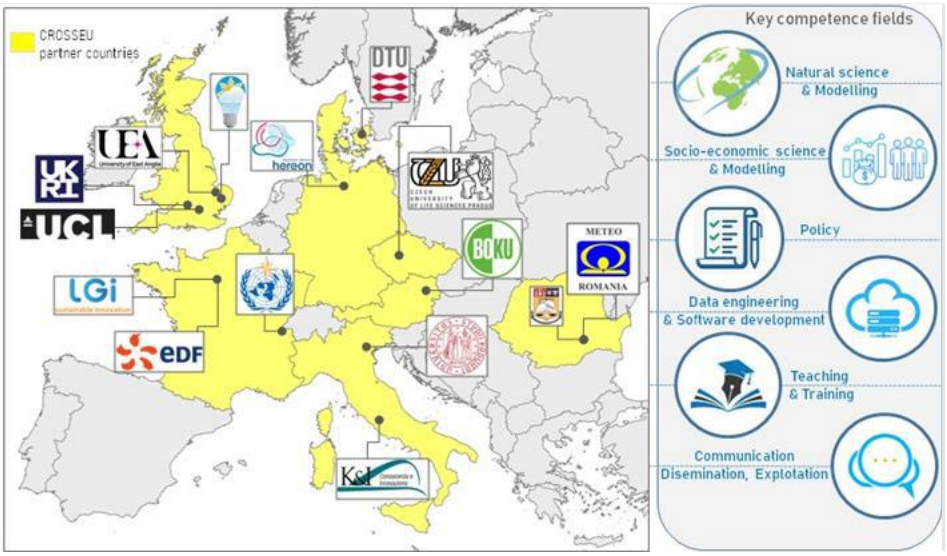

Figure 1: Diversity of the CROSSEU consortium

1.2.1. Project Deliverables

The work of the project will be documented in 44 deliverables, presented in Table 2.

Table 2: CROSSEU list of deliverables

WP	Deliverable number and short name	LP	Type	DL	DM
WP1	D1.1 Co-design and operationalization of the CROSSEU methodology	MeteoRo	R	PU	6
WP1	D1.2 Leveraging bio-geo-physical data outputs to enhance social value for climate adaptation	UEA	R	PU	17
WP1	D1.3 Data on the sectoral impacts of selected mitigation and adaptation strategies at European level	UCL	R	PU	17
WP1	D1.4 CROSSEU IAF and DAFNI functionalities (Version 1)	UKRI	R	PU	12
WP1	D1.5 CROSSEU IAF and DAFNI functionalities in support of the support system (Version 2)	UKRI	R	PU	35
WP1	D1.6 CROSSEU IAF-Harmonized data repository (Version 1)	UKRI	DATA	PU	12
WP1	D1.7 CROSSEU IAF-Harmonized data repository publicly released (Version 2)	UKRI	DATA	PU	35
WP2	D2.1 Assessment methodology for CCHs & STLs.	DTU	R	PU	12
WP2	D2.2 Key-findings in CCHs & STLs	DTU	R	PU	17
WP2	D2.3 Quantitative and qualitative assessments of	DTU	R	PU	24

	societal and human aspects of vulnerabilities				
WP2	D2.4 Conclusions about context specific issues and overall European policy recommendations	DTU	R	PU	24
WP2	D2.5 Knowledge database – climate change associated risks at EU level	DTU	R	PU	35
WP2	D2.6 Recommendations for upscaling CROSSEU IAF at EU scale.	DTU	R	PU	35
WP3	D3.1 Inventory of user requirements and support system processing workflow and functionalities	WEMC	R	PU	15
WP3	D3.2 Backend and frontend computational architecture extension and the support system dashboard	UKRI	OTHER	PU	30
WP3	D3.3 Support system prototype demonstration in operational sector environment for actionable solutions	WEMC	OTHER	PU	33
WP3	D3.4 Co-evaluation, refinement and final delivery of the CROSSEU support system	WEMC	OTHER	PU	35
WP4	D4.1 Effectiveness of the existing mitigation and adaptation policies (cross-sectoral) (Version 1)	UNIPD	R	PU	12
WP4	D4.2 Effectiveness of the existing mitigation and adaptation policies (cross-sectoral) (Version 2)	UNIPD	R	PU	24
WP4	D4.3 Analysis of the impacts and responses in sectoral policies (Version 1)	BOKU	R	PU	17

WP4	D4.4 Update of the climate change impact analysis and responses in sectoral policies (Version 2)	BOKU	R	PU	30
WP4	D4.5 Analysis of social aspects and consequences of climate change related policies (Version 1)	UNIPD	R	PU	17
WP4	D4.6 Update of the analysis of social aspects and consequences of climate change related policies (Version 2)	UNIPD	R	PU	30
WP4	D4.7 Analysis of economic, finance and investments policies at EU/national level and in local contexts (Version 1)	DTU	R	PU	17
WP4	D4.8 Economic instruments and measures as a framework for coping with climate challenges (Version 2)	DTU	R	PU	30
WP4	D4.9 Climate policy response. Targeted policy instruments for the relevant policy sectors and European investment planning	BOKU	R	PU	35
WP5	D5.1 Stakeholder Mapping and Engagement Plan	LGI	R	PU	3
WP5	D5.2 Dissemination and Communication Plan (Version 1)	LGI	R	PU	4
WP5	D5.3 Dissemination and Communication Plan (Version 2)	LGI	R	PU	17
WP5	D5.4 Dissemination and Communication Plan (Version 3)	LGI	R	PU	35
WP5	D5.5 User adoption & engagement with the	WEMC	R	PU	17

	international community (Version 1)				
WP5	D5.6 User adoption & engagement with the international community (Version 2)	WEMC	R	PU	35
WP5	D5.7 Exploitation strategy (Version 1)	LGI	R	PU	17
WP5	D5.8 Exploitation strategy (Version 2)	LGI	R	PU	35
WP6	D6.1 Data Management Plan (Version 1)	MeteoRo	R	PU	3
WP6	D6.2 Data Management Plan (Version 2)	MeteoRo	R	PU	17
WP6	D6.3 Data Management Plan (Version 3)	MeteoRo	R	PU	35
WP6	D6.4 Project Management Plan (Version 1)	MeteoRo	DEC	PU	3
WP6	D6.5 Project Management Plan (Version 2)	MeteoRo	R	PU	17
WP6	D6.6 Impact Monitoring and Evaluation (M&E) Plan (Version 1)	MeteoRo	R	PU	17
WP6	D6.7 Impact Monitoring and Evaluation (M&E) Plan (Version 2)	MeteoRo	R	PU	35
WP6	D6.8 Project Handbook	MeteoRo	R	PU	6
WP6	D6.9 Report on project policies (Version 1)	MeteoRo	R	PU	17
WP6	D6.10 Report on project policies (Version 2)	MeteoRo	R	PU	35

1.2.2. Project Milestones

CROSSEU has 13 milestones throughout its lifetime, which are summarised in Table 3.

Table 3: Milestones of CROSSEU

Milestone number and name	WP	Date	Means of verification
MS1.1. Harmonized repository (BGP and SE impact data) for internal use in place	1	18	Operating Database
MS1.2. Launch of CROSSEU IAF based on the DAFNI platform	1	13	'Up and running' of the IAFF within the DAFNI environment
MS1.3. Data from the CCHs and STL case studies assimilated in the CROSSEU repository	1	24	Final case study database available in the CROSSEU repository
MS2.1. Co-produced methodology developed	2	12	Methodology report available
MS2.2. Impact data from CCHs and STLs internally delivered	2	24	CCH and STL impact database ready
MS2.3. Upscaling and co-production of policy perspectives leveraged at the EU level	2	34	Draft report available
MS3.1. BETA version of CROSSEU DSS internally deployed	3	21	Initial CROSSEU DSS available for testing and evaluation by Case Study Users
MS3.2. CROSSEU DSS publicly released	3	34	DSS
MS4.1. Draft policy recommendations available for	4	30	Analysis report of sectoral, social and

internal review			economic policies delivered as input for DSS development
MS5.1. Engagement, communication and dissemination plans released	5	4	Stakeholder map
MS5.2. Project website functional	5	4	URL
MS6.1. Kick-off meeting	6	1	Meeting held and approval of project organisation
MS6.2. Project results presented at the final conference	6	36	Final conference held, results presented and published on the project website

1.2.3. Management Plan and Breakdown

The workplan of the project is organized in 6 Work Packages and are presented in Table 4, respectively with the responsible beneficiary and the assigned effort in person months.

Table 4: Work packages of CROSSEU

WP	WP Title	Lead Beneficiary	Person months	Start month	End month
WP1	Advancing the integration of bio-geophysical and socio-economic modelling in the climate change context	UEA	159.20	1	36
WP2	Sectoral Climate Change Hotspots and event based Storylines to address socio-economic risks of climate change	DTU	150.10		36

WP3	CROSSEU Decision Support System	WEMC	61.00	1	36
WP4	Governance analysis and recommendations for policies and investments	BOKU	81.50	1	36
WP5	Societal sharing - Communication, Dissemination & Exploitation	LGI	78.00	1	36
WP6	Project Management	MeteoRo	26.50	1	36

The CROSSEU work plan is based on a simple and efficient management structure consisting of six interconnected WPs (Figure 2).

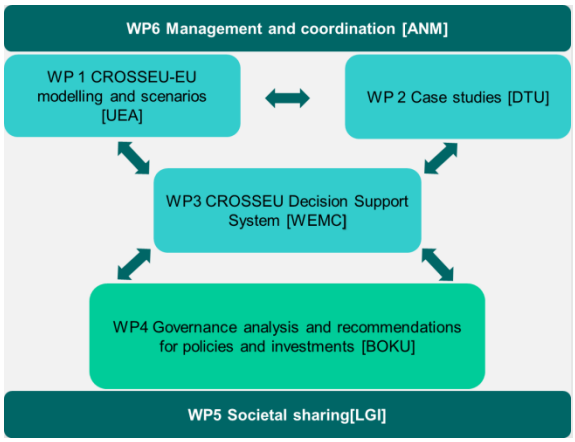

Figure 2: Work Package interdependencies and connections

The implementation of the work plan and the efficient administration of the resources will be secured by the Project Coordinator (PC), General Assembly (GA), including one representative/participant institution + PC, WP and Task Leaders. An Internal Advisory Unit, including responsible for quality control, gender, risk, and ethics, and a Science Advisory Board, consisting of leading outstanding experts selected for their experience in similar research, will be set. Communication and iteration between the project participants and forest stakeholders will ensure that the outputs converge on useful and usable services that will provide a legacy after the end of the project.

The timeline plan of the WPs and tasks is presented in the Gantt chart (Figure 3).

	Lead	start	end	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36
WP1	**UEA**	**1**	**36**																																				
T1.1	ANM	1	6																																				
T1.2	UEA	1	24																																				
T1.3	UCL	4	30																																				
T1.4	UKRI	1	36																																				
T1.5	UKRI	1	36																																				
WP2	**DTU**	**4**	**36**																																				
T2.1	DTU	4	12																																				
T2.2	DTU	7	18																																				
T2.3	DTU	7	24																																				
T2.4	DTU	19	36																																				
WP3	**WEMC**	**1**	**36**																																				
T3.1	WEMC	1	15																																				
T3.2	UKRI	7	30																																				
T3.3	WEMC	18	36																																				
T3.4	WEMC	18	36																																				
WP4	**BOKU**	**1**	**36**																																				
T4.1	K&I	1	24																																				
T4.2	BOKU	1	30																																				
T4.3	K&I	1	30																																				
T4.4	DTU	1	30																																				
T4.5	BOKU	18	36																																				
WP5	**LGI**	**1**	**36**																																				
T5.1	LGI	1	3																																				
T5.2	LGI	1	36																																				
T5.3	WEMC	4	36																																				
T5.4	LGI	4	36																																				
WP6	**ANM**	**1**	**36**																																				
T6.1	ANM	1	36																																				
T6.2	ANM	1	36																																				
T6.3	ANM	4	36																																				
T6.4	ANM	1	36																																				

Figure 3: CROSSEU Gantt Chart

2. Project Management and Governance

2.1. Project Management Strategy

Project management encompasses all critical tasks to guarantee the project's successful completion in line with the technical and financial specifications outlined in the Grant Agreement. MeteoRo led WP6 focuses on managing and coordinating the project to keep it on track with regards to scope, costs, resources, and quality. Any necessary modifications or optimizations are continually discussed with partners, and decisions are made with the partners' consent.

Effective communication management is vital for ensuring accurate information transmission and prompt decision-making. Quality management enhances collaboration and results delivery among consortium partners through relevant quality control and assurance activities. Risk management implements processes and techniques for assessing and controlling potential project risks, with an emphasis on early detection and handling.

2.2. Project Management Structure

As mentioned in the CA it has been defined different governing bodies for the governance, execution, control and monitoring of the project:

The General Assembly is the ultimate decision-making body of the consortium

The Project Coordinator (PC), as the legal entity, is acting as the intermediary between the Parties and the Granting Authority. The Project Coordinator shall, in addition to its responsibilities as a Party, perform the tasks assigned to it as described in the Grant Agreement and this Consortium Agreement.

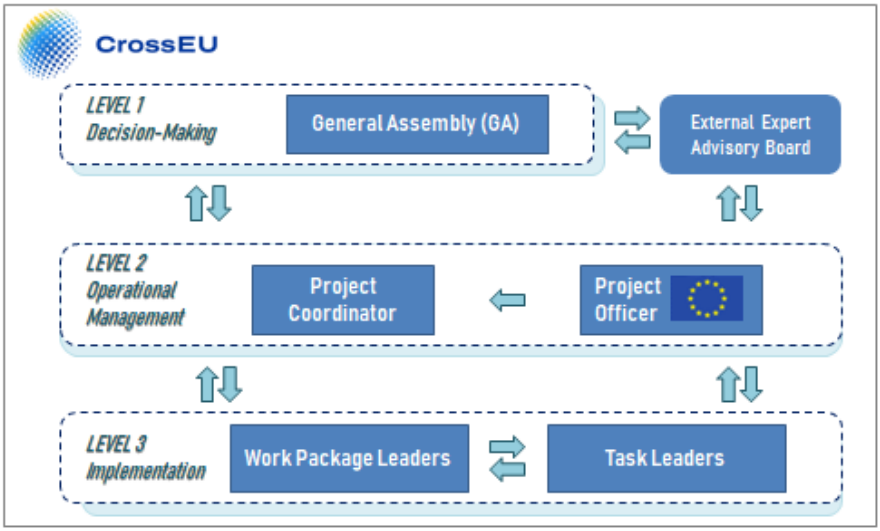

Figure 4: Project Management Structure in CROSSEU Project, according to the PMP

The General Assembly (GA) shall consist of one representative of each Party (hereinafter referred to as "Member").

Each Member shall be deemed to be duly authorised to deliberate, negotiate and decide on all matters listed in Section 6.3.7 of this Consortium Agreement.

The Project Coordinator shall chair all meetings of the General Assembly, unless decided otherwise by the General Assembly.

The Parties agree to abide by all decisions of the General Assembly.

This does not prevent the Parties from exercising their veto rights, according to Section 6.3.5, or from submitting a dispute for resolution in accordance with the provisions of settlement of disputes in Section 11.8 of this Consortium Agreement.

The General Assembly shall be free to act on its own initiative to formulate proposals and take decisions in accordance with the procedures set out herein.

The following decisions shall be taken by the General Assembly:

Content, finances and intellectual property rights

- Proposals for changes to Annexes 1 and 2 of the Grant Agreement to be agreed by the Granting Authority
- Changes to the Consortium Plan
- Modifications or withdrawal of Background in Attachment 1 (Background Included)
- Additions to Attachment 3 (List of Third Parties for simplified transfer according to Section 8.3.2)

- Additions to Attachment 4 (Identified entities under the same control)

Evolution of the consortium

- Entry of a new Party to the Project and approval of the settlement on the conditions of the accession of such a new Party
- Withdrawal of a Party from the Project and the approval of the settlement on the conditions of the withdrawal
- Proposal to the Granting Authority for a change of the Project Coordinator
- Proposal to the Granting Authority for suspension of all or part of the Project
- Proposal to the Granting Authority for termination of the Project and the Consortium Agreement
- Appointments
- On the basis of the Grant Agreement, the appointment if necessary, of:
- External Expert Advisory Board Members

The Project Coordinator (PC) shall be the intermediary between the Parties and the Granting Authority and shall perform all tasks assigned to it as described in the Grant Agreement and in this Consortium Agreement.

In particular, the Project Coordinator shall be responsible for:

- monitoring compliance by the Parties with their obligations under this Consortium Agreement and the Grant Agreement
- keeping the address list of Members and other contact persons updated and available
- collecting, reviewing to verify consistency and submitting reports, other deliverables (including financial statements and related certifications) and specific requested documents to the Granting Authority
- preparing the meetings, proposing decisions and preparing the agenda of General Assembly meetings, chairing the meetings, preparing the minutes of the meetings and monitoring the implementation of decisions taken at meetings
- transmitting documents and information connected with the Project to any other Parties concerned
- administering the financial contribution of the Granting Authority and fulfilling the financial tasks described in Section 7.2

- providing, upon request, the Parties with official copies or originals of documents that are in the sole possession of the Project Coordinator when such copies or originals are necessary for the Parties to present claims
- providing a copy of the Grant Agreement and its Annexes to the Associated Partners.

An External Expert Advisory Board (EEAB) will be appointed and steered by the General Assembly. The EEAB shall assist and facilitate the decisions made by the General Assembly.

The Project Coordinator will ensure that a non-disclosure agreement is executed between all Parties and each EEAB member.

By way of exception to Section 6.4.4 above, the Parties hereby mandate the Coordinator to execute, in their name and on their behalf, a non-disclosure agreement (hereafter “NDA”) with each member of the EEAB, in order to protect Confidential Information disclosed by any of the Parties to any member of the EEAB. The NDA for the EEAB members is enclosed in Attachment 5. The mandate of the Coordinator comprises solely the execution of the NDA in Attachment 5.

The NDA terms shall be not less stringent than those stipulated in this Consortium Agreement, and it shall be concluded before any confidential information will be exchanged or disclosed.

The Project Coordinator shall write the minutes of the EEAB meetings and submit them to the General Assembly. The EEAB members shall be allowed to participate in General Assembly meetings upon invitation but have not any voting rights.

3. Management Processes and Tools

3.1 Project Management Practices

Through the Consortium Agreement, all Project Partners have committed to cooperating and fulfilling their obligations under both the Grant Agreement and the Consortium Agreement promptly and punctually. Should any Partner become aware of significant information, facts, issues, or delays that could impact the Project, it is imperative that they promptly inform the other Partners.

Close collaboration and the exchange of information are fundamental to the project's success. Each Work Package has its own set of working methods, carefully selected based on efficiency. If necessary, these methods can be adjusted or modified during the course of the project's implementation to better suit evolving needs.

A portion of the project involves designing technical architecture and programming, aligning seamlessly with project management principles. This encompasses various aspects, including active stakeholder engagement through workshops, clearly defined roles and accountability, adherence to quality standards, and iterative development with integrated testing and incremental delivery.

Project managers and Work Package (WP) Leads foster a facilitative culture, with progress monitored through product deliveries and continual assessments of viability and benefits. Well-defined timeboxes with reviews at key points, coupled with an appropriate level of formality in tracking through regular meetings and fixed reporting periods, ensure effective project management.

While overall project management is primarily overseen by the Project Manager and WP Leads, individual Work Packages have the autonomy to determine their preferred working methods. Real-time visibility of task statuses within each WP is essential, facilitated by the use of online tools for progress monitoring, which can also be reviewed by other WP Leads.

The tasks and deliverables within each technical Work Package (WP2, WP3, WP4, WP5, and WP6) are conducted collaboratively to ensure the interoperability of project results. This involves systematic cross-check reviews and consulting with WP Experts from other Work Packages at decision-points, particularly during the technical architecture design phase and application testing. Plans, timelines, milestones, specifications, decisions, and general information are regularly shared and updated through WP Leads in their meetings and other internal forums.

3.2 Deliverable Preparation

According to the GA, CROSSEU has 44 deliverables, each one assigned to the partner responsible. The partner in charge of the deliverable is responsible for its timely and of high-quality submission to the PC. After the quality review, the final version of the deliverable is uploaded by the PC to the EC portal. The deliverable preparation process is depicted in Table 5.

Table 5: Deliverable preparation timeplan

Action	Due Date
Table of Content sent for feedback	45 days before deadline
Table of Content in place	40 days before deadline
First draft for internal review ready	20 days before deadline
Final draft with internal reviews ready	15 days before deadline
Review by the Quality Manager and provision of feedback to the deliverable leader	10 days before deadline
Approval of the draft by the PC and preparation of finalized version	5 days before deadline

Any deviations from the time plan should be communicated by the deliverable leader to the PC as soon as possible. The time plan can be adjusted if previously agreed between the author, the reviewers, and the PC. The deliverables marked as “public” will be uploaded to the CROSSEU website while the deliverables marked as “senzitive”, will be only made available to the EC and the consortium partners via the project’s repository (CROSSEU repository – section 5.1.1).

3.3 Document formats and naming conventions

A lot of material will be prepared and shared during the implementation of the project. Table 6 shows the recommended formats and tools that shall be used.

Table 6: Tools and formats recommended to be used in CROSSEU

Type	Format	Production Tool	Version
Documents	.docx	Microsoft Word	"Word 2010 or later", Google Docs
Data in tabular form and graphics	.xlsx	Microsoft Excel	"Excel 2010 or later", Google Docs
Scientific papers	various	various	Any desktop or online release
Images	.jpeg, .png etc	Any software tools that can produce images	various
Portable Document Format	.pdf	Any software tools that can produce .pdf files	various
Presentations	.pptx	Microsoft PowerPoint	"PowerPoint 2010 or later", Google Docs
Compressed files	.rar & .zip	WinRAR	WinRAR 5.60 or later

In order to ease the communication process and the identification of documents and versions all partners are advised to use some naming conventions based on the principle of self-explanatory titles and versions. The general file name conventions are as follows:

- CROSSEU_[name of the document]_Vxy_date_[partner acronym/person name].FileExtension
- The name of the document shall be as concise as possible but also self-explanatory i.e., Kick_Off_Project_Meeting_Minutes
- The date should be presented in the form yyyymmdd i.e., 20240115.
- The partner acronym or person name should be used as defined in the GA i.e., MeteoRo for the "Administratia Nationala de Meteorologie", Bucharest, Romania.

3.4 Reporting to the EC

CROSSEU has 2 reporting periods which are related to payment requests:

- Reporting Period 1 (RP1) from M1 – M18
- Reporting Period 2 (RP2) from M19 – M36

The Periodic reports are being prepared with the contribution of all partners and the overall responsibility and coordination of the PC. The final reports are to be submitted to the portal by the PC, within 60 days after the end of the reporting period.

Additionally, there will be 2 Interim Progress Reports documenting the reporting periods of the project without being related to payment requests. These are included in WP6 and namely as deliverables:

- D6.6 Impact Monitoring and Evaluation (M&E) Plan (Version 1): M17
- D6.7 Impact Monitoring and Evaluation (M&E) Plan (Version 2): M35

Similarly, for these reports, the PC is responsible for the coordination and the submission of the reports. All partners will be asked to contribute based on templates and instructions that will be circulated by the PC.

3.5 Conflict resolution

Transparency and effective communication among project members are crucial to prevent challenges and conflicts from arising. Proper implementation of the project plan and realization of its objectives can be ensured through project and quality management activities, as well as by ensuring that all partners are aware of their commitments. Decisions will typically be made by the partners responsible, as described in the GA.

The processes to be followed during the project for resolving various issues and reaching agreements start with informal contacts such as oral discussion or ad-hoc meeting, followed by written notification through email, minutes, etc.

The general principle for resolving conflicts is to solve them at the lowest possible level, starting with the task level, while placing a strong emphasis on using negotiation skills. The PC is responsible for overseeing this process (Figure 5).

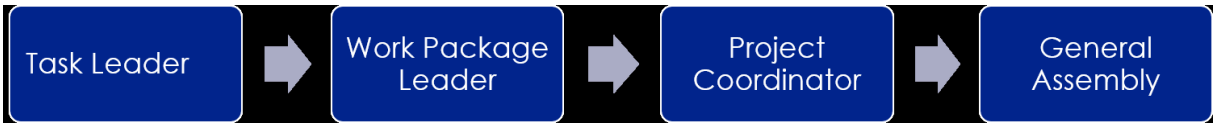

Figure 5: Conflict resolution chain

To resolve conflicts effectively, good communication among all involved parties is crucial. In case of conflicts arising, Task leaders and Work Package leaders should promptly notify the PC so that intermediate corrections can

be made. If the conflicts cannot be solved at the PC level, they will be reported to the General Assembly (GA). Any corrective actions taken will be in accordance with both the GA and the CA.

In the event of challenges encountered during the delivery of results, collaborative discussions are held between the respective Project Partner and WP Lead to identify solutions and mitigate any adverse impacts on the successful completion of the action. While it is the responsibility of the Project Partner to allocate resources and deliver results as stipulated in the Grant Agreement, any emerging issues posing a risk to result delivery are promptly escalated for the attention and action of the Project Manager. Depending on the severity, matters may also be brought to the attention of the Project General Assembly.

Examples of challenges that may arise include scope issues and work delays, significant decisions or changes necessitating action, or resource constraints and team changes affecting outcomes. WP Leads are responsible for promptly informing the Project Manager of any issues within their Work Package, including forecasted delays in Deliverables or Milestones, concerns about meeting acceptance criteria, budget changes exceeding 10%, or increased risks categorized as moderate or high.

Should efforts to resolve challenges prove unsuccessful, the Project Manager escalates the matter to the Project General Assembly, adhering to predefined severity criteria outlined in Table 7. This escalation process ensures that issues are addressed at the appropriate level and enables timely decision-making to mitigate any potential impacts on project delivery.

Table 7: Severity of the escalation issue

Severity	Impact	Notice given to PGA	Example on escalation
High	>15 %	Immediately	The deliverable won't be ready on time and there are significant issues on finding consensus on the technical solution.
Medium	>10 %	For information at the regular meeting	The deliverable won't get ready with planned budget and there is anticipated budget overrun of more than 10%
Low	>5 %	For information at the regular meeting	There is a risk for a small gap in resourcing

4 Communication Processes and Tools

4.1 Internal Communication and monitoring

The communication framework of CROSSEU, consisting of communication processes and tools, will serve as a guide for communication throughout the project and can be adjusted as needed. The Project Coordinator (PC) will play a central and proactive role in ensuring effective communication and facilitating the smooth implementation of the workplan. Internal communication among project partners will also be facilitated by the processes and tools used.

4.1.1 Project Team Directory/Repository

The central repository for the project will be CROSSEU Teams workgroup, accessible only to personnel involved. This CROSSEU Teams workgroup will allow all partners to share documents, written texts, and minutes of meetings. It will be linked with Teams spreadsheets and other potential electronic means for seamless integration. The structure of the CROSSEU Teams workgroup is detailed in Figure 6.

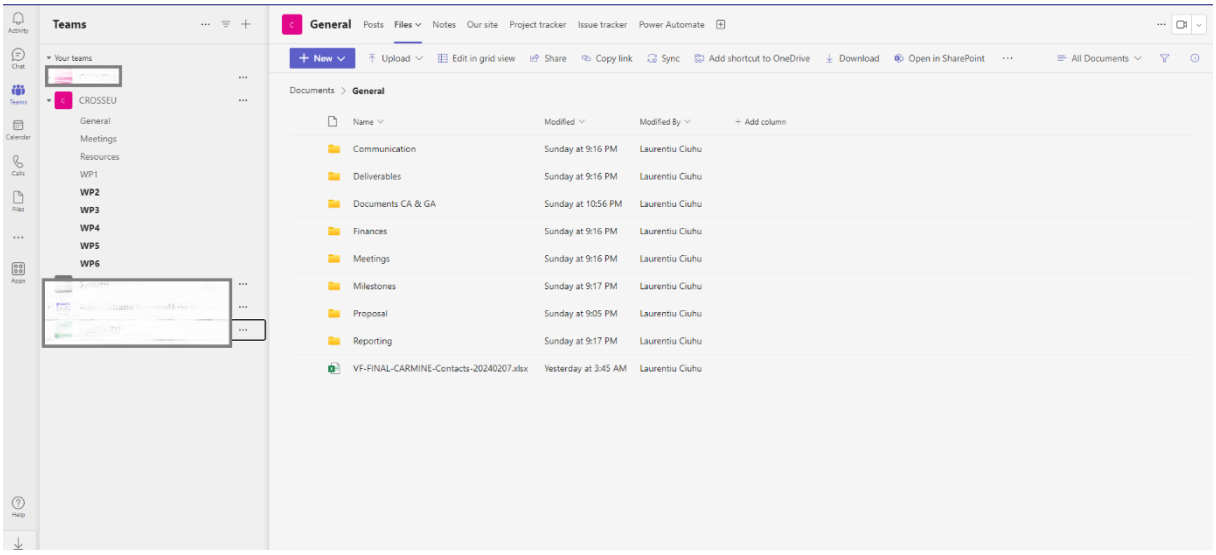

Figure 6: CROSSEU Teams workgroup

For sharing financial documents, CROSSEU Teams folders are set up restricted only to the PC and the respective partners.

All contact details, are organized in a Contacts Spreadsheet which is regarded as the central point of reference and will be always updated when the personnel of the partners changes.

4.1.2 Emails and Mailing lists

In order to ease the communication within the consortium, SharePoint Conversations integrates seamlessly with other Office 365 applications, such as Outlook, Teams, and OneDrive. This allows users to access conversations from within familiar tools and ensures that communication is centralized and accessible.

4.1.3 Online Meetings Platform

For the effective communication among the partners, regular online calls will be held. Partners are requested to use the Teams platform. In case technical issues arise the CROSSEU working groups may move to other platforms i.e. Google Meet, Webex, Zoom etc.

4.1.4 Organization of Meetings

For the organization of online meetings, the service Doodle (https://doodle.com/en/) will be used to agree upon the most convenient date and time of the meeting.

4.1.5 Project Meetings

A number of meetings will be held during the implementation of the project. Table 8 presents the type of meetings, their schedule, the organizers, participants, location and related documents.

Table 8: CROSSEU meetings

Meeting	Time	Organizer	Participants	Location	Deliverables
Kick-off meeting	M1 (31/01-01/02/24)	PC	All project partners	Face-to-face meeting	Agenda

					Meeting presentations Minutes - Action Plan
Bimonthly project meetings	Every 2 months	PC	All project partners	Online meeting	Agenda Minutes - Action Plan
General Assembly	At least every 12 month	PC	Members of the General Assembly	Face-to-Face meeting/online meeting	Agenda Minutes - Action Plan
Ad hoc meeting	Whenever needed	All project partners based on topic and need	Project partners based on topic and needs	Face-to-Face meeting/online meeting	Agenda Minutes - Action Plan

4.1.6 Project Templates

To ensure consistency in the CROSSEU project when communicating with external stakeholders or interested parties, a set of standard templates for various communications activities has been developed. These templates include:

- Deliverable template
- Meeting minutes template
- Standard PowerPoint presentation template
- Standard logos and colors for the project.

They are all available for download in CROSSEU document repository.

4.1.7 CROSSEU shared calendar

A Teams Spreadsheet Calendar specifically created for CROSSEU project has been shared among all partners. Each WPL is free to use any of these to organize with task leaders after convening with them to easily, securely and quickly organize meetings, add events, schedule appointments and manage deadlines.

Benefits:

- Share the project calendar with everyone in the team
- Organize team meetings and keep the team informed
- Stay up to date on appointments through automatic reminders
- Keep all your deadlines coordinated from a single place

4.2 External Communication

The consortium will establish its own website for external communications and use e-mail, social media platforms (Twitter, Facebook, LinkedIn), and accounts to communicate with external stakeholders. The partners are required to create high-quality presentations, scientific papers, and simplified press releases to showcase the project's impact and reach a wider audience. All external communications and materials (such as leaflets, posters, etc.) must use the project branding and reference the project, the European funding, and include the project acronym (CROSSEU) and GA number (No 101081377) as per Article 17.4 of the GA. The goal is to raise awareness and ensure high visibility of the project results throughout the project. The initial communication and dissemination plan will be outlined in Deliverable "D5.2 – Dissemination and Communication Plan (Version 1)"(M4), providing more information on external communication.

To keep track of the external communication activities of the whole consortium, LGI will provide a monitoring Excel table including outreach numbers, clustering activities, media mentions and newsletters links.

4.3 Communication with CINEA

The PC is the responsible contact point on behalf of the project, for communication with CINEA or the European Commission. He is responsible for keeping the project portal always up to date i.e., regarding communication activities, milestones reached, deliverables and progress report submitted etc. Moreover, the PC is responsible for providing any requested information by CINEA as well as inform the partners about any information that should be shared from the EC. The partners are not supposed to communicate with the EC directly except for there is a certain need that has been prior discussed and agreed upon with the PC. In all other cases, the PC will communicate any issues to the EC. It may happen that a partner (other than the PC) may have dealings with CINEA for other reasons outside the context of CROSSEU and that, as part of these contacts, CROSSEU

is also accidentally mentioned. In the case of such an eventuality, the partner in question is required to promptly report what will have been said in relation to CROSSEU to the PC.

5 Risk Management

According to the 5th Edition of the PMBOK® Guide (VV., AA. Practice Standard for Project Risk Management, .s.l.: Project Management Institute, 2009.), a risk is defined as "an uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives such as scope, schedule, cost, or quality." For the purpose of this document, only uncertain events with a potential negative impact are considered as a risk. If the foreseen event or condition takes place, it becomes an actual issue that must be addressed by the project's Consortium.

Risk Management involves identifying, assessing and prioritizing risks to control their probability and impact of negative events or threats. Although not all risks can be removed, mitigation strategies and contingency plans can be created to minimize their impact. Effective risk management requires a thorough understanding of relevant risks, prioritization of their relative importance, and a consistent approach to monitoring and control.

The responsibility of managing project risks lies with the Project Coordinator. The PM, with collaboration from each WP leader, monitors all risk management activities and raises alerts if any of the identified risks increase in priority. The Project Coordinator is tasked with addressing identified risks and dealing with specific issues relevant within each WP.

5.1 Risk management strategy

The Risk Management activities are applied to the CROSSEU project to attempt to decrease the probability and impact of negative events by identifying and planning for risks before significant negative consequences occur. The process includes identifying, classifying, documenting, and tracking risks throughout the project. The risk management lifecycle is comprised of the following steps, as depicted in Figure 7.

Figure 7: Risk Management Process

These steps are executed in sequence for each project risk introduced in the risk management process.

Each Work Package-Leader develops a specific risk management plan for the WPs they are managing. These WP-specific risk management plans will be rolled-up into a single risk register for the whole project.

The Risk Register is the most widely used tool to document information about risks in a project. It serves as the central repository for all potential threats identified by the project team. The PC prepares the Risk Register with inputs from all members, and it is used to classify, organize, evaluate, and track all levels of risks that may impact the project. Mitigation strategies are also identified and tracked for implementation as necessary throughout the project timeline.

The Risk Register is maintained by the PC and is constantly updated as the project evolves. The most significant risks in the register are discussed during the project's bi-weekly plenary meetings. During these meetings, the status of each risk is evaluated, including any changes since the last meeting, the effectiveness of mitigation measures, and any further actions needed. The Risk Register is kept as an electronic spreadsheet stored in the project's internal repository. Additionally, new risks are continuously identified, evaluated, and strategies for mitigating them will be developed.

5.2 Risk identification

Risk Identification is a proactive process to identify potential risks for the project. It is an iterative process that begins during the proposal phase. The risks identified in the proposal phase are updated based on the current status of the project.

This process of ongoing updating will continue throughout the lifecycle of the project.

Subject-matter experts, WPLs, project management, and team members are the participants in risk identification. The risk register documents the identified risks and they are discussed and reviewed during the bi-weekly project plenary meetings.

For CROSSEU, two categories of risks have been initially identified: project-level risks and WP-level risks. These risks may encompass various aspects such as political, design-related, procurement-related, environmental, technical, organizational, external, and/or economical.

To effectively manage risks, the greatest effort should be made at the outset to anticipate and monitor potential risks and plan mitigation actions if necessary. Each time a new risk is identified, it must also be managed.

5.3 Risk analysis, qualification, and prioritization

The Risk Analysis phase is the most detailed part of the risk management process. This involves evaluating and prioritizing the risks. To evaluate a risk, its potential effect on scope, cost, and/or schedule of the project must be established and valued. A determination is made as to the:

- Probability (likelihood) of the risk occurring;
- Ability to mitigate the risk;
- Potential effect of the risk.
- There are two primary methods for conducting risk analysis:
- Qualitative: assessing the probability and impact of risks;
- Quantitative: using mathematical methods to objectively assess the probability and impact of risks.

The subjective process of determining risk probability and impact in the CROSSEU project considers the criticality of internal and external project factors within the specific context of the project. This process involves the evaluation of the likelihood of occurrence and the degree of its effect. The probability and the impact for each identified risk are assessed using the following approach:

Probability:

- - Very Low – (<10%) chances
- - Low – (10-30%)
- - Medium – (30-50%)
- - High – (50-70%)
- - Very High – (>70%)

Impact:

- Very High (Catastrophic) – Risk that has a catastrophic impact project cost, schedule or performance;
- High (Major) – Risk that has a major impact project cost, schedule or performance;
- Medium (Significant) – Risk that has the potential to significantly impact project cost, schedule or performance;

- Low (Minimal) – Risk that has relatively minimal impact on cost, schedule or performance;
- Very Low (Trivial) – Risk that has only trivial impact on cost, schedule or performance.

The combination of probability and impact is used to evaluate the risk level (Low, Medium or High) and to get a list of the prioritized risks. Table 9 projects the Impact and Probability matrix, with risk levels marked in different colors, where:

- Green shows a low risk level
- Yellow shows a medium risk level
- Red shows a high-risk level, which requires constant monitoring.

Table 9: Impact and probability matrix

Impact						
	Very High					
	High					
	Medium					
	Low					
	Very low					
		Very low	Low	Medium	High	Very High
		Probability				

Based on the risk analysis, each risk is prioritized and ranked.

The qualitative risk analysis process prioritizes risks, which are then subject to further analysis to assess their impact on project activities. Quantitative analysis techniques such as simulation and decision tree analysis are used to provide data in this process:

- The impact on cost or schedule for each risk.
- The probability of meeting project cost and/or scheduled targets.
- Realistic project targets on cost, schedule, and/or scope.

Not every risk needs to go through quantitative analysis. The results of the risk analysis step are documented in the Risk Register, adding the following information:

- Risk impact.
- Risk probability.
- Risk level, computed by combining risk impact and probability (See Table x1)
- Project impact.

5.4 Risk response planning

The risk response process involves answering two crucial questions: (1) determining the ownership of the risk (i.e. assigning responsibility) and (2) outlining the scope and actions to be taken in response to the risk. Strategies and plans are then created with the aim of reducing the impact of the risk to a manageable level. For each major risk (i.e. those falling in the Red & Yellow zones in the Impact-Probability Matrix), a risk response plan is usually developed. The range of response actions for the project is as follows:

- Transfer: risk is external to the project. Risk management is most effective in dealing with financial risk exposure by transferring liability for risk. This transfer requires acceptance of the risk by the receiving party and implies the ultimate accountability, responsibility, and authority to expend resources. Resources and knowledge outside of the project are better able to manage the risk;
- Accept: do nothing but handle the risk as an issue if it occurs. These are usually risks of lower significance and however, no further resources are expended in managing the risk;
- Avoid: prevent the risk from occurring by determining actions and executing them enough in advance;
- Mitigate: reduce or eliminate the risk by shifting the timeframe of action, reducing the probability, or decreasing the impact;
- Watch: monitor the risks for early warning of critical changes in impact, probability, timeframe or other aspects;
- Contingency: to address a situation once a risk has occurred, actions are taken to minimize adverse consequences. These actions are executed to determine the best course of action.

The process for handling identified risks in a project involves the following steps:

1. Evaluation of various handling techniques: The feasibility, expected effectiveness, cost and schedule implications, and effect on the system's technical quality and performance of each handling technique should be evaluated.
2. Documentation of the evaluation and selection: The results of the evaluation and selection will be documented in the risk register, which includes the following:

- Assignment of responsibility to a consortium member (risk owner)
- Selection of an adequate response strategy (specific actions to reduce the risk of a threat becoming real)

- Definition of a contingency plan (actions to reduce the impact of a threat that becomes an issue)
- Description of triggers (indicators of risk event occurrence)
- Assignment of responsibilities for each agreed-upon response

3. Development and evaluation of risk handling strategies: The PC, along with the concerned WP and Task Leaders, is responsible for developing and evaluating different risk handling strategies that best fit the project's circumstances. Approval by the CROSSEU Project Management Board (mentioned in Figure 4) is required before the selected strategies are applied.
4. Monitoring and control of risk-handling actions: The Project Coordinator is also responsible for monitoring and controlling the performance of risk-handling actions.

5.5 Risk monitoring and control

Risk Monitoring is a continuous process of keeping track of risks and evaluating the effectiveness of response actions. The goal is to identify new risks, develop response strategies, and track the level of critical risks. In the CROSSEU project, the level of critical risks is regularly monitored and reported, with specific discussions during plenary conference calls.

During Risk Monitoring and Control, the following tasks are performed:

- Identification, analysis, and planning for new risks;
- Reviewing project performance information such as progress/status reports, issues, and corrective actions;
- Re-analysis of existing risks to assess changes in probability, impact, or response plan;
- Reviewing the execution of risk responses and their effectiveness;
- Evaluating the effectiveness of the risk process to determine the need for changes to approach, tools or techniques.

The result of Risk Monitoring and Control is an updated Risk Register, which contains recommended corrective and preventive actions. The latest version of the Risk Register is accessible to anyone in the project through the repository.

In the course of the project, concerns may increase or decrease in their impact on the project. An issue is a situation that has already occurred or will definitely occur, while a risk is a potential event. When a risk becomes an issue, analysis and responses are stepped up and status is reported more frequently. Alternatively, an issue may no longer be a concern or may have been resolved,

but the Project Coordinator may still wish to periodically monitor the surrounding situation.

5.6 Identified risks

As defined in Annex I of the GA, several risks and risk-mitigation measures have been already defined at the submission of the proposal (Table 10).

Table 10: Identified risks for CROSSEU. (i=probability , ii =impact)

Risk number	Description of risk	WP	Proposed risk-mitigation measures
1	Key staff members are leaving the project (i) Low; (ii) Very severe	WP1, WP2, WP3, WP4, WP5, WP6	Most WPs involve multiple partners and pair task forces, which collaborate closely to achieve the project tasks in a timely manner, with a proactive monitoring of the progress and flag problems to enable harmonious mitigation of emerging risks. Joint research and development activities are the most effective way to maintain a low-risk level.
2	Data for STLs and case studies delayed: (i) Low; (ii) Very severe	WP1	The STL and case studies start based on more aggregated existing data, and are afterwards adjusted with better data
3	STL scenarios delayed: (i) Low; (ii) Severe	WP2	Case studies can still be initiated based on intensive stakeholder dialogues. Early start of the preparation for STLs.
4	Insufficient stakeholder engagement: (i) Low; ii) Medium	WP1, WP2, WP3, WP4, WP5	Stakeholders are involved from the first stages of the project and are motivated throughout the project's implementation by engagement workshops, bilateral meetings and round table discussions for the co-design of the project's decision-making tool. The potential benefits for the stakeholders are made clear from the beginning, and the stakeholders are updated regularly with the essential outcomes of the research through the dissemination activities

			following a clear consultation calendar (Stakeholder Mapping and Engagement Plan) for a smooth knowledge transfer and effective dialogue.
5	A partner is unable to produce work of sufficiently high quality (e.g. poor scientific quality of the deliverables): (i) Low; (ii) Low	WP1, WP4, WP2, WP3, WP5, WP6	Regarded as a small risk, as all partners have a strong track record working on international projects. High quality is ensured according to the agreed procedure outlined in WP1. This risk is mitigated by internal adjustment of the tasks that has no impact on delays in submitting deliverables to the Agency/EC.
6	Conflicts among partners: (i) Low; (ii) Severe	WP1, WP2, WP3, WP4, WP5, WP6	In the list of WPs and tasks, specific attention is given to defining the responsibilities of each partner. The Coordinator provides partners with a management plan with instructions on decision-making. In a case of conflict, the GA decides how to resolve the conflict. Should an insolvable conflict between partners occur, the GA ultimately decides to exchange the partner with a new partner or allocate all tasks and budget to the outstanding partners.
7	Delays in one WP/Task leading to delays in other WPs/Tasks: (i) Medium; (ii) Medium	WP1, WP2, WP3, WP4, WP5, WP6	The project planning has been done carefully and agreed across the WP and task leaders in view of the entire workflow. All partners are experienced in project work and understand the 'domino effect' of delays. To mitigate this risk, a constant review of the progress will be implemented.
8	New (virus) outbreaks: (i) Medium; (ii) Medium	WP2, WP5	For each "face-to-face" method/action there is a fallback position "online meeting"
9	Missing data: (i) Medium; (ii) Medium	WP1, WP2	Data are collected from the very beginning of the project, and the results are based on a consistent collection of existing data. The model based approach is used to produce data when they are not already available.

10	Insufficient stakeholder input into DSS co-design and implementation: (i) Low; (ii) Medium	WP3	The DSS is based on an existing tool called TEAL and will ultimately be hosted on an existing infrastructure called DAFNI. Stakeholder input to the design of the CROSSEU-specific DSS tool will be collected via one-to-one consultations or workshops with stakeholders in Task T3.1. Relationships built with stakeholders by this process will be sustained during the project to bring users back for the regular elicitation sessions and demos which are planned in task T3.4. In the extremely unlikely event that these sessions provide little additional information to guide the design and development of the DSS tool, then the expertise of the partners WEMC and UKRI - who developed the existing baseline infrastructures and that serve similar communities - will be required to guide development.

6 Quality Plan

The main objectives of the quality plan in the project are:

- Monitoring progress and assuring output quality through planning review procedures (Section 3. Project Management and 4. Management Processes and Tools)
- Implementing risk management (Section 6. Risk Management)
- Establishing clear procedures for delivering high-quality results (Section 7.1 Project reporting)
- Providing guidance for project reporting and communication, data exchange, publication, and dissemination to the consortium (Section 5. Communication Processes and Tools and 7.1 Project reporting)
- Supplying the consortium with templates for project outputs (Section 5.1.6 CROSSEU project templates)

The quality plan serves as practical guidance for the Project Coordinator, coordinating bodies, and project partners to achieve these objectives and is explained in detail in other sections of the document to avoid duplication.

6.1 Internal Technical Reporting

WP leaders are required to submit technical progress reports on their respective WPs to the Project Coordinator every 9 months (at months 9, 18, 27, 36,). These reports must be submitted using the "Internal Technical Report Template" found in the CROSSEU document repository and should include the following information:

1. Work performed and main results achieved during the reporting period
2. Status of each WP task and details on work carried out by each beneficiary
3. Upcoming activities and updated planning for the next reporting period
4. Status of ongoing deliverables and delivery dates for the next reporting period
5. Progress towards milestones planned for the next reporting period
6. Status of risks and updated risk analysis for the WP
7. Critical assessment of technical progress, including deviations from the original plan and proposed measures

In addition, the report should also include information about organizational aspects of the WP, as reflected in the performance indicators (Section 8.1.3). The Technical Internal Report for the period M9-M18 and M27-M36 will only

cover the performance indicators section, while other sections will be included in the Progress Report (Section 8.1.4).

6.2 Use of resources reporting

The Project Coordinator requests that each Beneficiary provide the following information every 9 months (Month 9, 18, 27, and 36) using the template available in the CROSSEU document repository:

- Costs and brief notes on WP task activities carried out by the Beneficiary (such as travel, consumables, equipment, etc.), as well as personnel and subcontracting costs.

6.3 WP internal progress monitoring

The Project Coordinator will assess the progress of each work package (WP) and the effectiveness of the WP Team based on several performance indicators that take into account technical, economic, and organizational aspects. The following indicators will be considered at a minimum:

Technical:

- Delivery date of due Deliverables
- Achievement of foreseen Milestones
- Interactions with other WPs
- Time planning for individual Tasks
- Identification of risks, countermeasure proposals, and contingency management

Economic:

- Dedicated efforts by each partner
- Progress of costs compared to the forecasted budget for the WP in the entire project

Organizational:

- Number of physical meetings in the period
- Number of remote (Teams, etc) meetings in the period
- Meeting participants
- Availability of notes
- WP publications

6.4 Progress Reports to EC

Periodic progress reports have to be delivered to the EC according to the CROSSEU GA (Art. 20) at months 18 (+ max 60 days) and 36 (+ max 60 days). These reports include a technical and financial report, which must be drawn up using the forms and templates provided in the electronic exchange system (GA Art. 52).

The technical report is generated in collaboration with the WP leaders, using the internal technical periodic reports (section 8.1.1) and activities carried out during months 9-18, and 27-36. The Project Coordinator is responsible for submitting this report through the Participant Portal.

The WP leaders will not prepare and send internal technical reports at months 18 and 36. However, they will be asked to provide information for the evaluation of the organizational performance indicators in the period as part of the internal reporting (section 8.1.1). The contributions of the WP leaders will cover all activities carried out in the previous 18 months.

Timeline for the preparation of the progress reports to the EC (with respect to the deadline of the periodic report (i.e. Month 18, Month 36):

Table 11: EC Report Timeline

Timing	Action
1 month prior to deadline	PC sends requests to WPL
Deadline	WPL gather input from Task leaders
15 days after deadline	WP leaders send draft report to Project Coordinator and receive feedback
1 month after deadline	Final reports submitted to Project Coordinator

The technical report will be discussed by the General Assembly / Executive Board in a dedicated virtual meeting.

Each Beneficiary will provide information for the finance report directly through the Portal, covering declared costs, requested reimbursement, and use of resources. The PC will digitally build the report using this information. Partners are required to submit their finance information in the Participant Portal within 45 days after the periodic report deadline. The GA (Art. 6) extensively describes the rules of eligibility for costs and procedures for computing them.

7 Financial Management

The GA defines the total effort and budget for the projects in Annex 1 and Annex 2, respectively. The goal of effort and cost management is to make sure the project is implemented within the PMs and budget outlined in the GA. The PC will work with all partners to monitor effort and resources during the project, comparing actual numbers to the ones defined in the GA. To avoid confusion with National and EU reporting rules, all efforts should be reported in full hours and euro amounts should be reported with two decimals.

If a deviation in effort or cost of +/- 5% is detected, the status will be set to "cautionary". If the deviation is +/- 10%, the status will be changed to "alert" and will require corrective actions to be discussed between the PC and the affected partner. Any changes in effort or cost will involve thorough communication between the affected partner and the PC. Approval for significant changes may require amending the contract with the EC.

7.1 Financial statements

WP leaders must submit a report to the Project Coordinator every 9 months about using resources in their own WP. The report should be based on the "CROSSEU Financial Reporting Template", which can be found in the CROSSEU document repository. Additionally, each partner should complete the financial report (implementation-report-costs) and submit it through the application at the end of each Reporting Period (M18, M36) of the project.

The financial statements should be according to the partners' normal accounting rules. However, each partner should check that:

- The CROSSEU Project costs are correctly identified within their accounts
- Only eligible costs are claimed for and can be separated from non-eligible costs
- All records (timesheets, invoices, receipts etc.) are properly stored and are retrievable in the case of an audit

Actual Costs must be:

- Actually incurred by the beneficiary

- Incurred during the action
- Indicated in the estimated budget set out in Annex 2 of the Grant Agreement
- Incurred in connection with the action as described in Annex 1 of the Grant Agreement and necessary for its implementation
- Identifiable and verifiable – recorded in the beneficiary's accounts in accordance with the accounting standards applicable in the country where the beneficiary is established and with the beneficiary's usual cost practices
- Reasonable, justified and must comply with the principle of sound financial management
- Must comply with the applicable national law, labour and social security.

Ineligible costs include:

- Costs related to return on capital
- Debt and debt service charges
- Provisions for future losses or debts
- Interest owed
- Doubtful debts
- Currency exchange losses
- Bank cots charged by the beneficiary's bank for transfers for the commission/agency
- Excessive or reckless expenditure
- Deductible VAT
- Costs incurred during suspension of the actions

7.1.1 Personnel costs

1. Eligible Personnel Costs are:

- Related to personnel working for the beneficiary under an employment contract (or equivalent appointing act) and assigned to the action.

- Limited to salaries (including during parental leave), social security contribution, taxes and other costs included in the remuneration, if they arise from national law or the employment contract.

There are two methods of calculating personnel costs:

- Actual personnel costs: Calculation method defined in Grant Agreement;
- Or Unit costs which will not be applied within the CROSSEU project.

The total number of day-equivalents declared in EU grants, for a person for a year, cannot be higher than 215, minus time spent on parental leave (if any).

The number of day-equivalents declared for a person must be identifiable and verifiable.

Methods include:

- Actual Personnel Costs = hours worked on the project x hourly rate
- Hours worked on the project = hours on timesheet
- Hourly Rate = actual annual personnel costs / annual productive hours
- Annual Productive Hours = 3 possible methods
- Actual Annual Personnel Costs – based on last closed financial year

For all staff except those who spend 100% of their time working on the CROSSEU project for the full reporting period, it is mandatory to complete a timesheet. The timesheet should be filled out at least once a month, accurately documenting the time spent down to the level of a work package. The information recorded on the timesheet will be used to complete the "use of resources reporting template" which is part of the bi-annual reporting process.

Organizations that fall under the 100% work on the project rule will need to submit a declaration confirming their full-time involvement in the CROSSEU project.

2. Subcontracting costs:

Subcontracting costs for the action (including related duties, taxes and charges, such as nondeductible or non-refundable value added tax (VAT)) are

eligible, if they are calculated on the basis of the costs actually incurred, fulfil the general eligibility conditions and are awarded using the beneficiary's usual purchasing practices — provided these ensure subcontracts with best value for money (or if appropriate the lowest price) and that there is no conflict of interests.

3. Purchase costs

Purchase costs for the action (including related duties, taxes and charges, such as non-deductible or non-refundable value added tax (VAT)) are eligible if they fulfil the general eligibility conditions and are bought using the beneficiary's usual purchasing practices — provided these ensure purchases with best value for money (or if appropriate the lowest price) and that there is no conflict of interests.

Travel and subsistence

All the purchases for travel, accommodation and subsistence must be calculated on the basis of the costs actually incurred and in line with the beneficiary's usual practices on travel.

7.1.2 Preparation of financial statements

The Project Coordinator is accountable for gathering, verifying, and organizing the financial statements for the project. He will keep the Project Officer informed about any hindrances or complications faced during the creation and arrangement of the financial statements, including a lag in obtaining information from a partner or a significant discrepancy. If required, he will suggest a backup plan.

Financial statements should be submitted along with other reporting documents (Section 7.1) to the Project Coordinator within 45 days after each 6-month internal reporting period.

To ensure a timely response to the following procedure will be applied for the preparation of the Financial Statements:

- 30 calendar days after the end of the Intern Reporting Period the partners should have completed their Financial Statements (use of resources and personnel)

- 30 calendar days after the end of period 1 and period 2 of CROSSEU project (M18, M36) the partners should have completed their Financial Report in EMDESK Portal
- The Project Coordinator will compile all financial reports and check them for compliance
- In the case of a partner not submitting their Financial Statements in time, the Project Coordinator can decide whether or not to include that partner's financial statement in the submission to EC. Excluding a partner's financial statement will result in them having to wait until the next reporting period for further funds, but would allow the payments to all other partners to be delivered on-schedule and avoid the delay of payment to majority of the consortium.

7.2 Payment handling

7.2.1 Payments from the EC

The European Commission (EC) will pay all the funds for a Horizon Europe project to the project coordinator (PC), which is Administratia Nationala de Meteorologie (MeteoRo). The PC, in turn, is responsible for distributing the funds to the other project partners.

The maximum total EC financial contribution for CROSSEU is fixed at 3,444,624.00€.

Prefinancing

This is made at the start of the project, usually within 30 days of the EC signing the Grant Agreement.

The pre-finance payment made to the PC will be 80.00% of the Maximum EC Financial Contribution (as CROSSEU has two reporting periods: month 1-18 and 19-36). This translates into pre-financing of 2,755,699.20€. Of this 2,583,468.00€ is transferred to the consortium and 172,231.20€ kept by the Commission for the Guarantee Fund.

Interim payments

These are made after each period financial reports are submitted and accepted by the EC. Payment is subject to the approval of the periodic report.

Its approval does not imply recognition of the compliance, authenticity, completeness or correctness of its content. The amount due as interim payment is calculated by the Agency in the following steps:

Step 1 – Application of the reimbursement rates

Step 2 – Limit to 90% of the maximum grant amount

Final payment

This is made at the end of the project once EC has accepted all deliverables and reports and will include any final payment due to the project. This will include the Guarantee Fund payment.

Guarantee fund

The Guarantee Fund is a percentage of the budget, in the case of CROSSEU the EC withholds 5% of each partner's budget at the start of the project in the Guarantee Fund. This excludes UK partners, who receive funding from a separate source. If the project runs smoothly and there are no issues this 5% is paid out by the EC with the final payment.

The EC uses the money in this fund to reimburse the project when one of the partners is bankrupt and takes with it access to the costs reported.

7.2.2 Distribution of funds to partners

The EC financial contribution is received by the Project Coordinator on behalf of the consortium, split by the number of reporting periods. The Project Coordinator will then distribute the EC financial contribution to each partner without unjustified delay according to the rules set out in the Consortium Agreement and Grant Agreement. For the first pre-finance payment this will be distributed to the partners with each receiving 75.00% of their Maximum EC Financial Contribution.

Subsequent payments will be based on the validation of the deliverables and the cost statements submitted to EC and potentially dependent upon any budget changes proposed by the Project Management Board and approved by the General Assembly and the CROSSEU Project Officer.

8 Conclusions

Deliverable D6.4 - “Project Management Plan” details the processes and procedures established by WP7 to ensure the smooth and effective operation of the CROSSEU project in accordance with the Grant and Consortium Agreements. It outlines the responsibilities of governance bodies, beneficiaries, and members of the Project Consortium. It also specifies the structures, tools, processes, and procedures established by WP6 to ensure the successful and compliant execution of the Project.

The risk management strategy is a critical component of the Project management plan. It includes the following steps:

1. Identification and registration of risks in a Risk Registry accessible to all members.
2. Probability assessment of risk events.
3. Impact assessment of risk events.
4. Development of a mitigation strategy and risk response plan.
5. Regular review and update of the Risk Registry through Consortium meetings by Consortium management bodies.

This document, along with the Grant Agreement and Consortium Agreement, serves as a reference for the overall management of CROSSEU and guarantees effective work organization and high-quality Project results.

CROSSEU Partners

Meteo Romania	WORLD METEOROLOGICAL ORGANIZATION	UNIVERSITÀ DEGLI STUDI DI PADOVA | TESAF
K&I Conoscenza e Innovazione	Helmholtz-Zentrum hereon	LGI sustainable innovation
eDF	BOKU	DTU
UNIVERSITY OF BUCHAREST	CZU	UEA University of East Anglia | NORWICH BUSINESS SCHOOL
UCL	WEMC World Energy & Meteorology Council	UKRI UK Research and Innovation