I-SEAMORE

Integrated surveillance ecosystem for European authorities responsible for maritime operations leveraged by reliable and enhanced aerial support

D1.1 Project management plan

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D1.1 Project management plan

Deliverable information

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Description Procedures, agreements, rules and mechanisms used throughout the project and in its management and quality assurance related activities	

Document history

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v0.1	19/01/2023	Sara Diez (ATOS)	Initial version
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List of Acronyms

Abbreviation / acronym	Description
AI	Artificial Intelligence (AI)
CA	Consortium Agreement
CD&E	Concept Development and Experimentation
CFS	Certificate on the Financial Statements
DL	Deliverable Leader
DoA	Description of Action
DT	Deliverable Team
Dx.y	Deliverable number y, belonging to WP number x
EAB	Ethics Advisory Board
EB	Executive Board
EC	European Commission
EM	Ethical Manager; Exploitation Manager
GA	Grant Agreement; General Assembly
GCS	Ground Control Stations
GDPR	General Data Protection Regulation
KPI	Key Performance Indicator
MOC	Maritime Operation Centres
PAB	Project Advisory Board
PC	Project Coordinator
PM	Person-month
PR	Peer Reviewer
QA	Quality Assurance
QM	Quality Manager
RASCI	Responsible/Accountable/Supportive/Consulted/Informed
SAB	Security Advisory Board
SELP	Societal, Ethical, Legal and Privacy
R&D	Research and Development
SSH	Social Sciences and Humanities
TIM	Technical and Innovation Manager
TL	Task Leader
UxVs	Unmanned Vehicles
WP	Work Package
WPL	Work Package Leader

Executive Summary

All communities need a set of rules to govern the way they relate to one another as a group and the way they interact and work together. I-SEAMORE management plan compiles the set of guidelines, procedures and standards that will guide the consortium collaboration in its duties under the project contract.

In this document the governance structure that will facilitate the monitoring of the project progress and the decision-making mechanisms are set up. Quality assurance procedures, risk management procedures and reporting procedures are described, as well as the rules and tools available for internal communication and data sharing among partners. The work plan with the expected contributions and responsibilities of each organisation and the resources available for each task have been incorporated as reference for consultation.

This handbook is intended to support project daily activities and help partners in the accomplishment of their tasks, and ultimately to facilitate the achievement of project's objectives.

This document is issued at the beginning of the project and might require to be amended/updated when necessary, as the work progresses throughout the project life.

1 Introduction

1.1 Purpose of the document

The I-SEAMORE project management plan has three main goals:

- Provide an overview of the project workplan by highlighting the resources and obligations of each partner
- Present project management structure and procedures such as project monitoring and project reporting among others
- Define the quality assurance and risk management processes.

The content of this document is aligned with the legal documents approved by the consortium and the European Commission, namely the Consortium Agreement [1] and the Grant Agreement [2].

The quality and risk management plan defined in this document aims at ensuring that the quality expected by the EC on the results of the project is achieved and risks are identified at an early stage and appropriately mitigated if so required.

The management and quality procedures that are here described follow ATOS methodology, defined and applied in all Horizon Europe projects coordinated by ATOS. This methodology has been adapted to the specific characteristics of the I-SEAMORE project.

1.2 Structure of the document

This document is divided into five main sections:

- Section 2 describes the project at a high level, including the workplan and estimated resources.
- Section 3 details the project governance structure and the management procedures put in place to support and facilitate project implementation and monitoring.
- Section 4 defines the processes that will be used to monitor and control the production of results and ensure that I-SEAMORE deliverables achieve appropriate quality levels.
- Section 5 illustrates the risk management processes set up to identify, assess, control and monitor all risks that could jeopardize the project expected results.

1.3 Glossary adopted in this document

The objective of this subsection is to provide definitions of some of the relevant terms used in this document to clarify their meaning to reviewers and the consortium members.

- **Legibility**. The quality of making readers able to see, discriminate, and recognise the characters and words used in the texts produced by the project. Legibility is thus mainly determined by visual design, specifically typography. [7] [8]
- **Readability**. The quality of writing a language use that makes text easy to read and content easy to understand. [7] [8]
- **Comprehension**. Measurement of whether a user can understand the intended meaning of a text and can draw the correct conclusions from the text. [7] [8]
- **Identify risks**. The process of determining which risks may affect the project and documenting their characteristics. [4]
- **Control risks**. The process of implementing risk response plans, tracking identified risks, monitoring residual risks, identifying new risks, and evaluating risk process effectiveness throughout the project. [4]

- **Plan risk management**. The process of defining how to conduct risk management activities for a project. [4]
- **Plan risk responses**. The process of developing options and actions to enhance opportunities and to reduce threats to project objectives. [4]
- **Risk**. An uncertain event or condition that, if it occurs, has a positive or negative effect on one or more project objectives. [4]
- **Risk avoidance**. A risk response strategy whereby the project team acts to eliminate the threat. [4]
- **Risk categorization**. Organisation by sources of risk, the area of the project affected, or other useful category (e.g., project phase) to determine the areas of the project most exposed to the effects of uncertainty. [4]
- **Risk category**. A group of potential causes of risk. [4]
- **Risk management plan**. A component of the project management plan that describes how risk management activities will be structured and performed. [4]
- **Risk mitigation**. A risk response strategy whereby the project team acts to reduce the probability of occurrence or impact of a risk. [4]
- **Risk reassessment**. Risk reassessment is the identification of new risks, reassessment of current risks, and the closing of risks that are outdated. [4]
- **Risk register**. A document in which the results of risk analysis and risk response planning are recorded. [4]

2 Project overview

2.1 Project identification

Project acronym	**I-SEAMORE**
Project title	Integrated surveillance ecosystem for European authorities responsible for maritime operations leveraged by reliable and enhanced aerial support
Project type	IA
Call	HORIZON-CL3-2021-BM-01 (Border management 2021)
Topic	HORIZON-CL3-2021-BM-01-01: Enhanced security and management of borders, maritime environment, activities and transport, by increased surveillance capability, including high altitude, long endurance aerial support
Contract	101073911

2.2 Project partners

All partners involved in the I-SEAMORE implementation are reported in the following table:

N.	**Partner Organisation**	**Short name**	**Country**
1	ATOS IT SOLUTIONS AND SERVICES IBERIA SL	ATOS IT	Spain
2	THALES NEDERLAND BV	TNL	Netherlands
3	EXAIL ROBOTICS SAS (ECA ROBOTICS)	ECA	France
4	PRIMOCO UAV DEFENCE SRO	PUD	Czechia
5	HIPERSFERA DOO ZA RAZVOJ I PRIMJENU TEHNOLOGIJA	HyS	Croacia
6	TERRASIGNA SRL	TS	Romania
7	IN-NOVATION GMBH	INI	Germany
8	F6S NETWORK IRELAND LIMITED	F6S	Ireland
9	INOV INSTITUTO DE ENGENHARIA DE SISTEMAS E COMPUTADORES INOVACAO	INOV	Portugal
10	NEDERLANDSE ORGANISATIE VOOR TOEGEPAST NATUURWETENSCHAPPELIJK ONDERZOEK TNO	TNO	Netherlands
11	VORTEX - ASSOCIACAO PARA O LABORATORIO COLABORATIVO EM SISTEMAS CIBER-FISICOS E CIBER-SEGURANCA	VTX	Portugal
12	ISTITUTO DI SOCIOLOGIA INTERNAZIONALE DI GORIZIA	ISIG	Italy
13	MINISTERIO DA DEFESA NACIONAL	MPT	Portugal
14	GARDA DE COASTA	RBP	Romania
15	AGENCIA ESTATAL DE ADMINISTRACION TRIBUTARIA	A.E.A.T.	Spain

16	CS GROUP-FRANCE	CS GROUP	France
17	UK Border Force	UKBF	UK

2.3 Project summary

I-SEAMORE is a multi-disciplinary and comprehensive innovation funded by the Horizon Europe programme and executed by a consortium of 17 European partners along 30 months, aiming at contributing to European maritime security, by providing enhanced cross border and cross-sectoral cooperation through improved information sharing and an improved integration environment connecting heterogeneous assets and tools.

I-SEAMORE is an Ecosystem composed of an advanced platform solution to host and manage the operation of several innovative assets, services and systems that aim to provide European authorities with increased situational awareness and operational capabilities for maritime surveillance operations resorting to aerial and water surface support.

The core platform (infrastructure and software layers) is conceptualized to be deployed and operated at Maritime Operation Centres (MOCs) with interfaces to other systems including the UxVs Ground Control Stations (GCSs), as well as external systems. It thus provides end-users with a holistic platform capable of handling several multipurpose tasks including wide maritime border and coastal areas monitoring, analysis of potential threats, support to search and rescue operations, detection of illegal activities, among others. Such tasks will be possible since I-SEAMORE platform provides a complete set of functionalities and capabilities to mission commanders, focusing on 4 main pillars:

- Employment and indirect tasking of multiple types of long-endurance unmanned assets (aerial and water surface)
- Exploitation of heterogeneous data sources e.g. payload data and open data sources including Copernicus Services.
- Provision of a common operational picture empowered by a novel and comprehensive suite of data fusion services based on Artificial Intelligence (AI) and Big Data Analysis, for optimal decision making and successful mission execution of the desired missions.
- Interoperability within the Ecosystem and its interface with key existing external systems.

The capabilities of the developed solution will be demonstrated and validated in an operationally relevant environment at the end of the project. Two initial use cases have been chosen which address different types of incidents and contexts, allowing to demonstrate the multi-purpose use of I-SEAMORE capabilities in different scenarios and operating conditions. The first one is ‘Smuggling of drugs’. The I-SEAMORE drugs smuggling scenario includes monitoring of events in a wide maritime area and detection of suspicious vessel behaviour. Emphasis will be given to information sharing and cooperation between adjacent member states i.e., Portugal and Spain for this specific use case. The second use case concerns ‘Irregular migration’. The main goal of this scenario is to demonstrate the I-SEAMORE’s enriched situational awareness capability enabling the detection of potential human trafficking activity, as well as providing support to search and rescue activities.

2.4 Overall work plan

I-SEAMORE project activities are structured around eight work packages, the main building blocks of the project workplan. Work packages are divided into tasks to facilitate and simplify work organisation and implementation, as well as to optimise activity assignment among partners considering each organisation expertise and knowledge. This work structure and the collaboration of the project partners will enable the achievement of the project objectives and the delivery of the expected results.

WP	Objective
WP2 I-SEAMORE Continuous SELP Landscape Assessment & Procedures Definition	**O5**: Maximize I-SEAMORE impact among end-users and citizens' communities by delivering dedicated analysis and studies, including recommendations and lessons learned on policies and standards
WP3 I-SEAMORE Co-Creation & Co-Design Phase	**O1** - Increase the level of cooperation between end-users, industrial and research players through the definition and implementation of co-design and co-creation methodologies and by involving external entities
WP4 I-SEAMORE UxVs, Satellites & Payloads	**O2**: Achieve several innovative enhancements of Unmanned Assets/Vehicles (UxVs) by increasing their operational capabilities and payload options based on the end-users' needs for maritime surveillance operations
WP5 I-SEAMORE Platform & Services	**O3:** Provide end-users with a set of tailored services and tools with increased levels of interoperability, enabling advanced threat detection, tracking, classification and identification capabilities to respond to a variety of scenarios
WP6 I-SEAMORE Ecosystem: Integration, Testing and Validation **WP7** I-SEAMORE Demonstrators & Final Evaluation	**O4**: Develop the I-SEAMORE Ecosystem using OECs for the deployment, testing, verification, validation and demonstration of new solutions and concepts for maritime security and assess its benefits alongside end-users
WP8 Dissemination and Exploitation	**O6**: Maximize the I-SEAMORE outreach, uptake and acceptance of results by end-users and stakeholders

WP1 deals with the coordination of the project including its management from administrative, contractual, financial perspectives, as well as from technical, legal and data management domains. **WP2** analyses and monitors social, ethical, legal and privacy (SELP) aspects and developed technologies from a social, sciences and humanities (SSH) perspective, as well as providing guidelines, recommendations for future collaborative operations and policymaking based on lessons learned. **WP3** encompasses the definition and implementation of co-creation and design processes, assessment of stakeholders' requirements and KPIs, definition of use cases and design of Operational Concepts, as well as definition of I-SEAMORE architecture, data model and security aspects (including data privacy). **WP4** comprises all the research and development (R&D) activities around the unmanned platforms and their payloads, including their adaptations and capabilities' enhancement, as well as the preliminary data acquisition campaigns for UxVs and Satellite data. **WP5** contains the development and adaptation activities with respect to I-SEAMORE interoperability layer, orchestration platform, services/tools and data fusion-based modules. **WP6** comprehends a phased integration of the results from WPs 4-5 by including a preliminary deployment of the Ecosystem at OEC to conduct multiple cycles of test and validation actions. **WP7** hosts the final demonstrators and includes the final evaluation of project results by the stakeholders. **WP8** incorporates all the communication, dissemination and exploitation related activities, as well as standardization and policy impact assessment, IPR management, and coordination of the advisory board engagement.

2.4.1Work methodology

The proposed methodology of work, to carry out the technical activities of the project, consists of four distinct phases which cover all the project duration.

1. **Definition & Co-Design Phase**: the project starts with the core focus of clearly understanding the current end-user needs and challenges within the maritime surveillance domain, including assessing state-of-the-art concepts and capabilities for future operations (T3.1). In parallel, the partners will also develop a specific co-design and co-creation methodology (T3.2) that will allow for a structured contribution of all stakeholders to the subsequent phases of the project. Following this initial step, the consortium will start the definition of concepts of operation, user requirements and use cases (T3.3) which will adopt a spiral approach that will allow for incremental content update based on findings from the development phase. This spiral approach will utilise standard and widely adopted concept development methodologies such as analysis of alternatives or Concept Development and Experimentation (CD&E). Finally, the results achieved at early stages will be used by the consortium to define the I-SEAMORE Ecosystem Architecture and technical requirements (T3.4 and T3.5).
2. **Iterative Development Phase:** after the initial knowledge gathering phase, the technical partners will follow an iterative approach to conduct the development of tailored solutions and technologies focused in providing the end-users with increased surveillance capabilities. To this end, an initial data-gathering phase (T4.1 and T4.2) will be pursued to establish preliminary data sets that are required for the foreseen developments. After that, specific improvements to the unmanned assets will be carried out (T4.3 and T4.4) to enhance their endurance, navigation, processing and detection capabilities, as well as to the list of services and tools (T5.3 and T5.4). These activities will be implemented in a spiral approach that foresees to receive regular feedback from the iterative activities dealing with the continuous assessment of user requirements, KPIs and concepts of operation proposed by the end-users (T3.3). In parallel, the orchestration platform and a dedicated testing environment (T5.2) will be setup to provide all partners with a common environment for continuous remotely development and testing.
3. **Integration, Testing, Validation** in order to ensure early detection of interoperability issues, and also to guarantee a seamless integration of all developed solutions and technologies, regular testing cycles (T6.1) will be conducted (starting early in the project, at M12, and concluding close to the final demonstrations, at M28), gathering the feedback of end-users for validation purposes, supported by a dedicated validation and evaluation framework (T2.4) to be proposed within the project. The early stages of these testing cycles will deal with the testing of each technology and solution separately, while at later stages these will include testing regarding integration and interfaces between different modules. Therefore, through these regular testing cycles the consortium will not only ensure that the achieved results are in line with the expectations of the end-users, but also that technical partners are able to overcome any potential issue that may arise from the foreseen integration activities (T6.2 and T6.3). Moreover, to prepare the demonstration phase, the system will be preliminary deployed at MPT's OEC (T6.4) early enough in the project to allow for any required adaptations or tailoring activities. In parallel, a multi-step approach for technical verification and validation (T6.5) will complement the end-user validation activities, thus ensuring the required maturity of the project for the last phase.
4. **Demonstration in realistic environment and end-users' final evaluation** to finalize the project and to show the real added value of I-SEAMORE Ecosystem to the end-users and other stakeholders, the consortium will host demonstrators in realistic operational scenarios (T7.1 and T7.2) that will leverage on the concepts of operation and use cases previously defined iteratively which will address different and complementary challenges from the end-users' perspective (T3.3). Ultimately, and making use of the Evaluation Framework (T2.4) developed in the project, the end-user partners and other stakeholders will conduct the final evaluation (T7.3) of the outcomes from the project according to the KPIs previously defined (T3.3).

I-SEAMORE workplan includes other type of activities, other than merely technical or development activities, which reinforce its **interdisciplinary approach and cover** adjacent aspects that are pivotal for the successful achievement of all project goals, including **Social Sciences and Humanities (SSH)**.

Under WP2, the consortium will perform a continuous societal, ethical, legal and privacy (SELP) impact assessment (T2.1) to ensure alignment with European standards in data protection, and social and ethical considerations. This includes developing and implementing I-SEAMORE ethical framework that will include ethics check lists and self-assessment tools for partners, as well as the organisation of ethics workshops together with end-user and technical partners. In addition to that, analysis on citizens' awareness and their acceptance on technologies for EU maritime security (T2.2) will be conducted in order to understand the impact of the project outcomes in the society through the deployment of a combination of quantitative (survey, statistical data analysis) and qualitative (e.g., focus groups) research methods and tools. These will also include the design of a participatory model allowing for a structured approach to citizens' involvement and implementation of specific engagement and communication strategies (i.e., based on ISIG/CoE "Civil Participation in Decision-Making" toolkit, 2017). Moreover, taking into consideration impact of the integration of I-SEAMORE solutions in current maritime security operations, new standard operating procedures (T2.3) and policy recommendations (T2.5) will be proposed as a way to address currently existing gaps.

Finally, the communication and dissemination aspects addressed in WP8 to raise awareness and successfully engage with project stakeholders and build exploitation and sustainability strategies allow for a wide and sustainable impact of the project outcomes.

2.4.2 Work Packages list

The project workflow is orchestrated around 10 Work Packages, as indicated in the following table. WP9 and WP10 were added by the Commission and have not allocated effort.

Table 1: Work Packages list

WP ID	WP Title	Lead Beneficiary	PM	Start Month	End Month
WP1	Project coordination	ATOS	53,5	1	30
WP2	I-SEAMORE Continuous SELP Landscape Assessment & Procedures Definition	ISIG	87	1	30
WP3	I-SEAMORE Co-Creation & Co-Design Phase	INOV	141	1	24
WP4	I-SEAMORE UxVs, Satellites & Payloads	ECA	110	1	18
WP5	I-SEAMORE Platform & Services	ATOS	188	7	23
WP6	I-SEAMORE Ecosystem: Integration, Testing and Validation	TNO	162,5	12	28
WP7	I-SEAMORE Demonstrators & Final Evaluation	MPT	150,5	24	30
WP8	Dissemination and Exploitation	FS6	162,5	1	30
WP9	Ethics requirements	ATOS	0	1	30
WP10	Security recommendations	ATOS	0	1	30
		TOTAL	**1055**		

2.4.3 Milestones

The following table summarizes the project milestones, which are key control points of the project execution:

Table 2: Project milestones

Milest. ID	Milestone title	WP	Lead beneficiary	Due Date	Means of verification
MS1	Project Kick-off and Setup	WP1	ATOS	M1	**D1.1** Project management plan
MS2	I-SEAMORE Architecture and Initial Requirements	WP3	ATOS	M9	**D3.3** I-Operational concepts, KPIs and User Requirements **D3.4** I-SEAMORE Architecture and Initial Requirements
MS3	UxVs and Payloads Improvement and Satellite data interfaces for further exploitation	WP5	PUD	M18	**D4.2** Preliminary datasets (UxVs and Copernicus) **D4.3** Operational and Processing Capabilities Enhancement for UxVs and Payloads
MS4	Final development of I-SEAMORE Platform, Services and Tools	WP5	TNL	M23	**D5.3** I-SEAMORE Services & Tools **D5.4** ISEAMORE Data Fusion Modules
MS5	Final integration, testing and validation cycles	WP4 WP5 WP6	TNO	M28	**D5.1** I-SEAMORE Interoperability Layer **D5.2** I-SEAMORE Orchestration Platform & Testing Environment **D6.2** Integration Actions and Preliminary Deployment of I-SEAMORE Ecosystem **D6.4** Preliminary testing cycles & end-users' validation
MS6	Final demonstrations, lessons learned and way forward	WP7 WP2 WP8	MPT	M30	**D7.1** I-SEAMORE Final Demonstrations **D7.2** ISEAMORE Final Evaluation & Future Uptake **D8.4** Business and Sustainability Plan

2.4.4 Gantt

					RP1																	RP2									
					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
WP	Title	Lead	Start M.	End M.	ene.-23	feb.-23	mar.-23	abr.-23	may 23	jun.-23	jul.-23	ago.-23	sep.-23	oct.-23	nov.-23	dic.-23	ene.-24	feb.-24	mar.-24	abr.-24	may 24	jun.-24	jul.-24	ago.-24	sep.-24	oct.-24	nov 24	dic.-24	ene.-25	ene.-25	feb.-25	mar.-25	abr.-25	jun.-25
Milestones					MS1								MS2									MS3					MS4					MS5		MS6
WP1	**Project Coordination**	**ATOS**	1	30																													
T1.1	Administrative, Contractual & Financial Management	ATOS	1	30	D1.1																												
T1.2	Technical & Innovation Management	TNO	1	30																													
T1.3	Data Management Plan & Monitoring	ISIG	1	30			D1.2												D1.3														
WP2	**I-SEAMORE Continuous SELP Landscape Assessment & Procedures Defin**	**ISIG**	1	30																													
T2.1	Analysis of social, privacy, ethical and legal constraints and recommendations	ISIG	1	30								D2.1							D2.3														D2.5
T2.2	Citizens Awareness & Acceptance analysis of EU maritime security systems	ISIG	1	30												D2.2											D2.4						
T2.3	Analysis and joint development of future collaborative standard operating proc	MPT	12	30																													D2.6
T2.4	Monitoring and Evaluation/Validation Framework	ISIG	12	30														D2.7															D2.8
T2.5	Definition of Policy Recommendations based on Lessons Learned	RBP	18	30																													
WP3	**I-SEAMORE Co-Creation & Co-Design Phase**	**INOV**	1	24																													
T3.1	Model based analysis of State-of-the-Art concepts and capabilities for Maritim	INOV	1	6						D3.1																							
T3.2	Setup of Co-Design & Co-Creation Processes from Technological & Societal F	INOV	1	6						D3.2																							
T3.3	Definition of Use Cases, Design of Operational Concepts and Elicitation of User	INOV	1	24						D3.3																		D3.5						
T3.4	Analysis of security, data privacy and confidentiality requirements & recommer	VTX	3	8																													
T3.5	Definition of I-SEAMORE Ecosystem Architecture and Technical Requirements	ATOS	3	9									D3.4																				
WP4	**I-SEAMORE UxVs, Satellites & Payloads**	**ECA**	1	18																													
T4.1	Assessment of existing capabilities of UxVs and Payloads & Preliminary data ac	ECA	1	6						D4.1																							
T4.2	Preliminary Copernicus data acquisition and pre-processing (through Mundi)	TS	3	9									D4.2																				
T4.3	Physical Adaptations of UxV Platforms and Payloads	PUD	4	18																		D4.3											
T4.4	Enhancements of UxVs processing capabilities	ECA	4	18																													
WP5	**I-SEAMORE Platform & Services**	**ATOS**	7	23																													
T5.1	Development of I-SEAMORE Interoperability Layer	TS	7	15															D5.1														
T5.2	Setup of I-SEAMORE Orchestration Platform & Testing Environment	TNO	7	18																		D5.2											
T5.3	Development & Adaptation of I-SEAMORE Services & Tools	ATOS	8	23																						D5.3							
T5.4	Development & Adaptation of I-SEAMORE DF Modules	TNL	8	23																						D5.4							
WP6	**I-SEAMORE Ecosystem: Integration, Testing and Validation**	**TNO**	12	28																													
T6.1	Preliminary Testing Cycles & End-users Validation Activities	MPT	12	28																		D6.1									D6.4		
T6.2	Integration of UxVs within I-SEAMORE Ecosystem	ECA	16	23																													
T6.3	Integration of Services & DF Modules within I-SEAMORE Ecosystem	ATOS	18	25																													
T6.4	Preliminary deployment of I-SEAMORE Ecosystem at Operational Experimenta	VTX	18	27																										D6.2			
T6.5	Technical Verification & Validation	TNO	21	28																											D6.3		
WP7	**I-SEAMORE Demonstrators & Final Evaluation**	**MPT**	24	30																													
T7.1	Definition of I-SEAMORE Demonstrators & Management of Administrative and L	MPT	24	29																													
T7.2	I-SEAMORE Demonstrators in realistic operational scenarios	MPT	26	30																													D7.1
T7.3	Stakeholders Final Evaluation Activities	RBP	28	30																													D7.2
WP8	**Dissemination and Exploitation**	**F6S**	1	30																													
T8.1	Communication and Dissemination Activities	F6S	1	30			D8.1												D8.2														D8.6
T8.2	Stakeholders Engagement & Advisory Board Management	INOV	1	30																													
T8.3	Business Model and Plan, Sustainability Plan & Exploitation Activities	INI	6	30																		D8.3											D8.4
T8.4	Standardization Activities and Policy Impact Assessment	F6S	6	30																													
T8.5	IPR policy, implementation and preparation of contract suite	INI	12	30																													D8.5
WP9	**Ethics requirements**	**ATOS**	1	30						D9.1																							
WP10	**Security Recommendations**	**ATOS**	1	30	D10.1					D9.2																							

Figure 1: Project Gantt

2.5 Project resources

Table 3:Effort in PMs per task

		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	Total
	Partner	ATOS	TNL	ECA	PUD	HyS	TS	INI	F6S	INOV	TNO	VTX	ISIG	MPT	RBP	AEAT	CS G.	UKBF	per task
WP1	**Project Coordination**	**28**	**1**	**1**	**1**	**1**	**2**	**1**	**1**	**1**	**5**	**1**	**5,5**	**1**	**1**	**1**	**1**	**1**	**53,5**
T1.1	Administrative, Contractual & Financial Management	20	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	36
T1.2	Technical & Innovation Management	6									3,5		0,5						10
T1.3	Data Management Plan & Monitoring	2					1				0,5		4						7,5
WP2	**I-SEAMORE Continuous SELP Landscape Assessment & Procedures Definition**	**9**	**0**	**0**	**0**	**4**	**2,5**	**0**	**0**	**2**	**1**	**0**	**26**	**14**	**15**	**5**	**0**	**8,5**	**87**
T2.1	Analysis of social, privacy, ethical and legal constraints and recommendations on best practices	2				3	0,5				1		8						14,5
T2.2	Citizens Awareness & Acceptance analysis of EU maritime security systems	2					0,5			1			7	2	3			2	17,5
T2.3	Analysis and joint development of future collaborative standard operating procedures	2				1							2	6	3	2		3	19
T2.4	Monitoring and Evaluation/Validation Framework	2					1,5			1			6	2		1		1	14,5
T2.5	Definition of Policy Recommendations based on Lessons Learned	1											3	4	9	2		2,5	21,5
WP3	**I-SEAMORE Co-Creation & Co-Design Phase**	**10**	**2**	**4**	**6,5**	**2**	**6,5**	**0**	**0**	**41**	**5**	**12,5**	**5**	**20**	**9,5**	**6,5**	**3**	**7,5**	**141**
T3.1	Model based analysis of State-of-the-Art concepts and capabilities for Maritime Surveillance	1		1	2	0,5	0,5			6	0,5			2	1	1		1	16,5
T3.2	Setup of Co-Design & Co-Creation Processes from Technological & Societal Perspectives	1			1		1			5		1,5	1	4	2			1	17,5
T3.3	Definition of Use Cases, Design of Operational Concepts and Elicitation of User Requirements & KP	2	1	1	1	0,5	3			27	1,5	2	1	12	6	5	1	5	69
T3.4	Analysis of security, data privacy and confidentiality requirements & recommendations	1			1					1		8	2						13
T3.5	Definition of I-SEAMORE Ecosystem Architecture and Technical Requirements	5	1	2	1,5	1	2			2	3	1	1	2	0,5	0,5	2	0,5	25
WP4	**I-SEAMORE UxVs, Satellites & Payloads**	**6**	**0**	**31,5**	**27**	**15**	**7**	**0**	**0**	**19**	**0**	**0**	**0**	**2**	**1**	**0,5**	**0**	**1**	**110**
T4.1	Assessment of existing capabilities of UxVs and Payloads & Preliminary data acquisition campaign	1		4,5	2	1								2	1	0,5		1	13
T4.2	Preliminary Copernicus data acquisition and pre-processing (through Mundi)	3					7												10
T4.3	Physical Adaptations of UxV Platforms and Payloads	2		3	13	5				2									25
T4.4	Enhancements of UxVs processing capabilities	0		24	12	9				17									62
WP5	**I-SEAMORE Platform & Services**	**33**	**24**	**15**	**2**	**2**	**20**	**0**	**0**	**13**	**28**	**28**	**0**	**3**	**0,5**	**1**	**18**	**0,5**	**188**
T5.1	Development of I-SEAMORE Interoperability Layer	6	2	15	2	2	6			2	1	2		2	0,5	1		0,5	42
T5.2	Setup of I-SEAMORE Orchestration Platform & Testing Environment	6					2				13	2		1					24
T5.3	Development & Adaptation of I-SEAMORE Services & Tools	19					2					24					18		63
T5.4	Development & Adaptation of I-SEAMORE DF Modules	2	22				10			11	14								59
WP6	**I-SEAMORE Ecosystem: Integration, Testing and Validation**	**22**	**5**	**7,5**	**12**	**14**	**14**	**0**	**0**	**8**	**14**	**22**	**4**	**18**	**8**	**4**	**5**	**5**	**162,5**
T6.1	Preliminary Testing Cycles & End-users Validation Activities	4	1	1,5	3	5	4			3	3	3	2	12	8	4	1	5	59,5
T6.2	Integration of UxVs within I-SEAMORE Ecosystem	5		3,5	4	2					1								15,5
T6.3	Integration of Services & DF Modules within I-SEAMORE Ecosystem	9	2				4			3	2	5					2		27
T6.4	Preliminary deployment of I-SEAMORE Ecosystem at Operational Experimentation Centres	2	1	2	3	5	4			1	2	13		6			0		39
T6.5	Technical Verification & Validation	2	1	0,5	2	2	2			1	6	1	2				2		21,5
WP7	**I-SEAMORE Demonstrators & Final Evaluation**	**10**	**2**	**3**	**5**	**10**	**3**	**2**	**1**	**9**	**9**	**11**	**6**	**49**	**13**	**7**	**4**	**6,5**	**150,5**
T7.1	Definition of I-SEAMORE Demonstrators & Management of Administrative and Logistics aspects	3	1	0,5	1	0,5	1			2	1	3	2	10	3	3		3	34
T7.2	I-SEAMORE Demonstrators in realistic operational scenarios	5	1	2	3	9	2			6	7	8	2	35	2	2	4	2	90
T7.3	Stakeholders Final Evaluation Activities	2		0,5	1	0,5	0	2	1	1	1	0	2	4	8	2		1,5	26,5
WP8	**Dissemination and Exploitation**	**11**	**2**	**2,5**	**6**	**2**	**1**	**47**	**53**	**9**	**2**	**4**	**6**	**6**	**4**	**2**	**1**	**4**	**162,5**
T8.1	Communication and Dissemination Activities	3	2	1,5	2	1,5	1	7	40	2	0,5	2	2	3	3	1		3	74,5
T8.2	Stakeholders Engagement & Advisory Board Management	1		0,5				3	5	7	0,5		2	1	1	1		1	23
T8.3	Business Model and Plan, Sustainability Plan & Exploitation Activities	4		0,5	2	0,5		24	2		0,5	1	1				1		36,5
T8.4	Standardization Activities and Policy Impact Assessment	1			1			4	5		0,5		1	2					14,5
T8.5	IPR policy, implementation and preparation of contract suite	2			1			9	1			1							14
	Total number of PMs per partner	**129**	**36**	**64,5**	**59,5**	**50**	**56**	**50**	**55**	**102**	**64**	**78,5**	**52,5**	**113**	**52**	**27**	**32**	**34**	**1055**

The table above summarises the project personnel resources, measured in person-months. It provides an overview of effort allocation matching the work breakdown structure of the project. The information about the efforts assigned to each work package was included in the Grant Agreement. The distribution of efforts among project tasks is the result of an exercise intended to facilitate planning and resources allocation within work packages to project partners. It is just an estimation and by no means binding.

WP9 Ethics requirements has no effort allocated, as the work package was created by the EC in the Grant Agreement preparation phase. WP9 activities will be led by ATOS and implemented alongside and in coordination with the ethics related activities of WP2 with the support of WP2 partners (and in particular by ISIG, WP2 leaders), and of all the project partners as required.

WP10 Security recommendations has no effort allocated, as the work package was created by the European Commission after the proposal revision. D10.1 Security Recommendation No. 1 2A. SAB – will be led by ATOS. The other security related activities in the project will be carried out by the SAB members with the support of all the project partners as required.

As might be expected WP5 I-SEAMORE platform and services and WP6 I-SEAMORE ecosystem integration, testing and validation are the WPs with the greatest workload, since the development and validation of all the project services and tools and its integration, including the data fusion modules, the interoperability layer as well as the set-up of the whole platform fall within their scope.

WP8 equals WP6 in workload reflecting the importance given by the consortium to communication, dissemination, stakeholders engagement, exploitation, and sustainability tasks.

2.6 Ethics and Security

Where applicable, all local and EU Ethics and Security regulations must be strictly adhered to. This is especially important for those Work Packages conducting demonstrations and data collection activities including processes in which collection of sensitive data is envisaged.

3 Project Management

3.1 Project Governance

The project governance is the management framework defining how the project decisions must be taken. The chosen structure indicates specific project players, their roles and responsibilities, as well as their interaction means for the life of the project. This structure aims at ensuring an effective project evaluation, control, and decision-taking, while guaranteeing an effective participation, motivation of all partners, and a proper conflict resolution strategy.

The project governance encompasses the set of rules, processes and roles established to manage and control a project. It defines responsibilities and relationships among partners and provides the framework for smooth decision-making and conflict resolution

3.1.1 Management structure and procedures

The overall management structure is presented in the following figure:

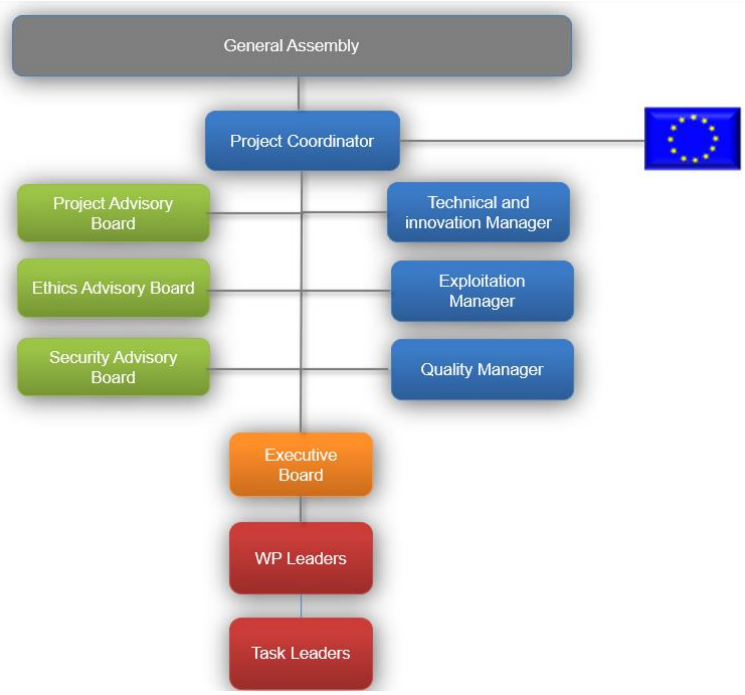

Figure 2: Project management structure

The following table compiles the project relevant roles and the name of the person holding the post.

Table 4: Project main roles

Role	Partner	Owner
Project Coordinator	ATOS	Ricard Munné
Technical and Innovation Manager	TNO	Ali Mohamoud
Exploitation Manager	INI	Wolfgang Kniejski
Ethical Manager	ISIG	Marina Andeva
Quality Manager	ATOS	Sara Diez Mínguez
WP1 leader	ATOS	Ricard Munné

WP2 leader	ISIG	Ramona Velea
WP3 leader	INOV	Elisabete Carreira
WP4 leader	EXAIL (ECA)	Alain Fidani
WP5 leader	ATOS	Jose Ramón Martinez
WP6 leader	TNO	Ali Mohamoud
WP7 leader	MPT	Ana Rita Rodrigues Oliveira
WP8 leader	F6S	Oriane Georges

3.1.1.1 Project Coordinator

The Project Coordinator (PC) is responsible for the coordination of the activities under the contract with the European Commission, as well as for the overall project monitoring and supervision. He oversees financial, administrative and management tasks as described in WP1 Project coordination.

The Project Coordinator is the intermediary between the consortium and the European Commission.

3.1.1.2 Technical and Innovation Manager

The Technical and Innovation Manager (TIM) supervises the project in terms of scientific and technical guidance. The Technical and Innovation Manager reviews the technical strategy of the project, including the alignment with external innovation, controls the accomplishment of technical objectives and cares about the quality of project outputs. He ensures technical consistency within the project and facilitates technical cooperation between partners.

3.1.1.3 Ethical Manager

The Ethical Manager (EM) supports the project execution process by ensuring that due consideration to ethical issues in all I-SEAMORE activities is given. The EM supervises the compliance of ethical requirements throughout the course of the project and helps to anticipate possible issues that might arise, by identifying means to address them. The Ethical Manager coordinates the Ethics Advisory Board (EAB) and is supported by the EAB throughout the project lifespan.

3.1.1.4 Quality Manager

The Quality Manager (QM) is responsible for formulating and supervising the execution of a detailed quality control strategy for each project deliverable in accordance with the Grant Agreement.

The tasks of the Quality Manager are: issuing the quality plan including a detailed deliverables evaluation process, supervising the implementation of the quality plan and the review of the project deliverables.

3.1.1.5 Exploitation Manager

The Exploitation Manager (EM) coordinates consortium efforts for the exploitation of the project results. He monitors the project implementation to ensure consistency between technical and marketing choices.

The Exploitation Manager coordinates knowledge-management and supervises the protection of Intellectual Property. He assesses the need and facilitates commercial agreements among partners leading to joint exploitation results of the project.

3.1.1.6 Work Package Leader

Work Package Leaders (WPL) are responsible for planning and monitoring the progress of the WP activities as well as for supporting Task Leaders (TL) in the successful completion of the WP objectives and the collaboration with the other WPs according to the work plan. They organise and chair WP meetings, at least monthly, prepare and circulate the minutes of the meetings, also when the meetings take place in the framework of a more general meeting (e.g. plenary meetings).

3.1.1.7 Task Leader

Task Leaders (TL) are responsible for coordinating the technical work in their tasks and making the day-to-day technical decisions that solely affect their tasks. Inter-task decisions are coordinated with the Work Package Leader.

3.1.1.8 General Assembly

It is composed by one representative of each partner, with each representative having one vote. The General Assembly (GA) is the main governance and ultimate decision-making body of the consortium. The GA must check the project progress, decide on contingency actions in case of deviations from the plan and take final decisions on policy and contractual issues and conflicts as requested by the Project Coordinator.

3.1.1.9 Executive Board

It is composed of the Project Coordinator, the Technical and Innovation Manager, the Ethical Manager, the Exploitation Manager, the Quality Manager, and the Work Package Leaders.

The Executive Board (EB) is the supervisory body for the implementation of the obligations under the EC contract and the implementation of the decisions taken by the General Assembly. It meets monthly and the members attendance is mandatory.

3.1.1.10 Ethics Advisory Board

The Ethics Advisory Board (EAB) will be established, with the participation of one representative for each partner and two external experts, to ensure a continuous monitoring and adherence to national and international laws and regulations. The EAB will meet (at least) twice a year and will be consulted whenever necessary.

Specifically the protection and privacy of personal data according to GDPR will be ensured and supervised by the EAB as well as the effective inclusion of a diversity and gender approach within research activities throughout the whole project lifecycle.

3.1.1.11 Security Advisory Board

The Security Advisory Board (SAB) will design and monitor all I-SEAMORE security arrangements and will have the highest authority over the operation and management of the project security aspects. The board will assess the nature of the information used and produced. It will review the project outcomes, reports and materials that might arise security concerns and define the appropriate security measures to follow with the aim of ensuring the preservation of information confidentiality.

3.1.1.12 Project Advisory Board

The Project Advisory Board (PAB) members will be selected among project stakeholders and experts (representatives from Border Authorities, LEAs, governmental institutions, regulators, academia, industry) The PAB will facilitate the effective transfer of knowledge, by enabling a feedback loop that will allow validating the results of the project and giving advice on how to improve the developed solutions. to maximize the impact of the project results.

3.1.2 Decision making process

The basic approach for the decision-making process is to locate the decision as close as possible to the level responsible for the execution (from task level to general assembly level). Effort for discussion and decision-making shall be kept at the lowest necessary level.

When a decision is needed and based on the available information, possible alternatives and paths of action must be analysed in terms of associated risks, scope, quality and costs implications. In any case all necessary steps will be supported by the communication process, so that information is spread throughout all the decision-making groups and project organisations.
Decisions are managed in project meetings, either on-site or by teleconference. Decisions can be also managed by consultation. If voting is needed, the agenda should clearly indicate it. Quorum and voting

rules are defined in the Consortium Agreement. Decisions are binding once the meeting minutes has been accepted.
Any changes to the project plan and scope must be reviewed and approved by all levels of project management, before proposing these changes to the General Assembly and any modification will be considered rejected, after rejection on any of these involved levels.

3.1.2.1 Conflict resolution

One of the goals of the consortium is to avoid any unnecessary conflicts. Nevertheless, should they arise, a conflict resolution and escalation process will be ready to be put in place to deal with them accordingly. The conflict resolution and escalation process requires each conflict to be intermediated, solved or decided at the lowest level possible. Attempts to solve issues within the consortium will be carried out in increasing order of authority by means of dialogue and mutual concession, first at Task level, WP level, and then following the management bodies until the General Assembly.

If necessary, the Executive Board will organise a conflict resolution meeting following the reception of a written request transmitted by any partner or body of the project. In the following section we describe this process.

In the following section we describe the decision making/conflict resolution process. Further information can be found in the I-SEAMORE Consortium Agreement

3.1.2.2 Notice of a meeting

A meeting notice shall be issued in proper advance with respect to the event, in order to allow participants to manage the preparation and if it is necessary logistic issues. The agenda item requiring a decision by the members of the General Assembly must be identified as such on the agenda.

In case of online meetings the agenda and meeting notice should be sent by the chairperson of the consortium body, at least ten calendar days preceding the meeting, in the case of ordinary meetings, and seven calendar days in case of extraordinary meetings.

The Project Coordinator is the chairperson of the General Assembly.

3.1.2.3 Voting rules and quorum

The General Assembly shall not deliberate and decide validly unless two-thirds (2/3) of its members are present or represented (quorum). If the quorum is not reached, the chairperson of the consortium body shall convene another ordinary meeting within 15 calendar days.

Each partner organisation present or represented in the meeting shall have one vote

Decisions shall be taken by a majority of two-thirds (2/3) of the votes cast, excluding abstentions.

3.1.2.4 Minutes of the meeting

The Project Coordinator shall produce written minutes of each meeting which shall be the formal record of all decisions taken. He shall send the draft minutes to all members within 10 calendar days of the meeting.

The minutes shall be considered as accepted if, within 15 calendar days from sending, no member has sent an objection in writing to the Project Coordinator with respect to the accuracy of the draft of the minutes.

The periods specified in this section could be adjusted if unanimously agreed by all members of the board.

3.1.2.5 Written consultation

For General Assembly decisions the PC may also decide, instead of holding a meeting, to proceed to a written consultation, under the following conditions:

- the Project Coordinator shall send a document with the list of items to be voted on together with a voting form regarding each of the decisions upon which the members of a consortium shall vote

- the Project Coordinator shall set a date before which it shall receive all voting forms from the members of the consortium (the “Last Voting Date”).

No later than the day immediately following the Last Voting Date, the coordinator shall communicate to all the members of General Assembly the results of the votes and / or the exercise of veto rights (if it is the case) with respect to each decision submitted in the context of the written consultation, together with the definitive minutes of the decisions.

The rules regarding quorum and majority contemplated in 3.1.2.3 shall apply.

3.2 Internal communication and collaboration tools

The internal communication goal is to ensure that all consortium members and working teams within the project have access to all the information they require to make informed decisions and capitalize on their output. A good internal communication is an important asset to achieve the project expectations and objectives.

The internal communication seeks the following objectives:

- All consortium members are aware of the project’s vision and objectives.
- All project decisions are communicated effectively to consortium members.
- All consortium members understand and know how to follow all policies and procedures related to their participation in the project.
- All consortium members are familiar with the resources available and the project results.
- All consortium members can provide feedback to management through formal channels.

Communication is managed by implementing some rules, concerning in particular:

- Organisation of official meetings
- Rules for meetings organisation, according to the needs of the project, and requiring an agenda and meeting minutes, for comments and approval of the attendees.
- Rules for providing and maintaining information at all project levels.
- Information sharing by means of an online repository accessible to the consortium members.
- Project mailing lists.
- The use of standard documents templates to ensure uniformity of information and identification of the documents.

3.2.1 Personal data protection

To properly carry out coordination tasks, administrative and general management issues in the framework of the I-SEAMORE project ATOS needs to collect and use partners’ personal data.

ATOS processes personal data according to the principles and rules of the General Data Protection Regulation (GDPR). A privacy notice is sent to the consortium members informing of the processing of their personal data: the purpose of the data processing, retention period, rights of data subjects etc.

Regarding the security of the collected data, data is subject to the Atos Information Security Policy, aiming at safeguarding the confidentiality, integrity, availability, authenticity and non-repudiation of information and information systems. It is based on an internationally accepted security standard (ISO27002 -, Code of Practice for Information Security [3])

3.2.2 Contacts list

This list compiles the project participants names, organisations and professional email addresses.

This list will be regularly updated, and it is uploaded to the project repository for partners consultation.

3.2.3 Emails and emailing lists

Mailing lists are the principal mean of interpersonal communication in the project. The objectives of the mailing lists are to provide an easy and fast way of communication among the project members,

keeping track record of communication and archives of the information exchanged. Appropriate uses of mailing lists include scheduling meetings, forwarding documents or other information, and general questions and answers.

The project has a general-purpose mailing list to which all the consortium members are subscribed (i-seamore@lists.atosresearch.eu) Ad-hoc mailing lists can be created for specific purposes upon request of the project partners.

3.2.3.1 Management

The mailing lists are hosted and managed by ATOS, responsible for the project internal communication infrastructure.

Every partner is accountable to notify the coordination team about any change in the list: inclusion of new members, modification of existing details, or the removal of included names.

For a suitable use of the mailing lists, these rules are to be followed by all partners:

- When addressing an email to a mailing list, people subscribed to the list must not be added in cc, that might cause the rejection of the email by the email server in case of too many repeated recipients.
- To avoid spam, given the high number of I-SEAMORE consortium members, is recommended to select email recipients on a need-to-know basis.
- Make sure to add the I-SEAMORE word in the subject line, to identify the communication followed by the real subject.
- Try to avoid big attachments as much as possible in your emails, using a link to the project repository instead.

3.2.4 Teleconferences

Teleconferences are the preferred mean of communication when several partners need to clarify or discuss technical issues and for the periodical project checkpoints. In case of on-line meetings, the meeting chair can use any conferencing system at his disposal, otherwise, ATOS can act as host. ATOS conferencing system is Microsoft Teams.

3.2.5 Post

The consortium will send documents by mail (or packages by courier), to exchange hardcopy information, usually signed. These documents would mainly be of a legal or financial matter.

3.2.6 Project repository

A document repository in OwnCloud [6] has been set up for the I-SEAMORE project by ATOS. It is not a collaborative editing tool. It is a repository to keep the project information.

All the relevant information for the project will be stored in this repository, including contractual documents (GA, CA), amendments, review-related documentation, reporting documentation, contact details, templates, working documents, agendas, minutes, etc. Moreover, final versions of all deliverables are to be uploaded there.

3.2.6.1 Access to the project repository

Accounts to access the repository have been created for each project member. Each user has its own user ID and password. When new members join the project, they must request their account details to the Project Coordinator who will send them a privacy notice in compliance with the GDPR.

Consortium members can access the repository through this link:

https://newrepository.atosresearch.eu/index.php/login

3.2.6.2 Structure

The internal structure of the project repository was designed aiming at facilitating the consortium work. Four main folders have been created:

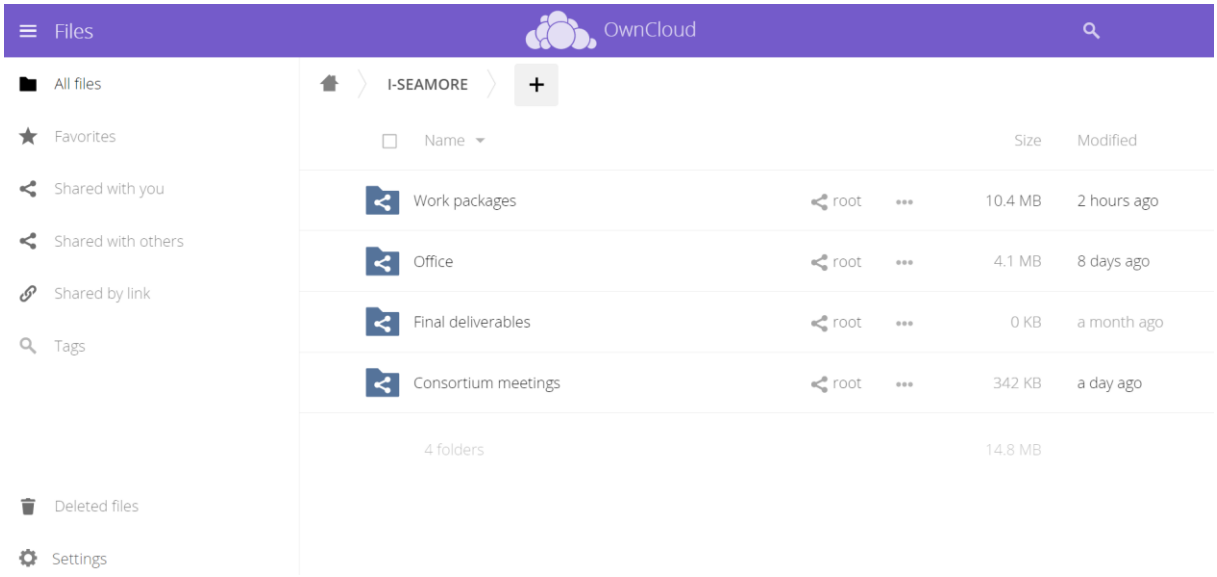

Figure 3: Project repository structure

Work packages: This folder contains subfolders for each project work package. WP leaders can create the folders structure of their respective WPs.

Office: This folder contains basic and generic tools to be used by consortium members irrespective of the tasks or activities they are involved in. For instance, project reference list with contact details of the persons working in the project, documents templates, legal documents etc.

Final deliverables: This folder contains the final deliverables submitted to the European Commission.

Consortium meetings: This folder contains the agenda, presentations and minutes of each relevant meeting organised in the project.

3.2.6.3 Management and maintenance

ATOS is responsible for the general maintenance of the project repository. Work Package Leaders oversee the folders' organisation related to their respective WPs. Deliverable editors are responsible for keeping updated versions of the corresponding deliverable. All partners are responsible for supporting the documentation management process.

3.2.6.4 Information security

With regards to the security procedure, the project repository is subject to the ATOS Information Security Policy, aiming at safeguarding the confidentiality, integrity, availability, authenticity and non-repudiation of information and information systems. It is based on an internationally accepted security standard (ISO27002 -, Code of Practice for Information Security Management [3]).

The policy applies to all intellectual and physical forms of information assets, whether owned, used or held in custody by ATOS. This policy is mandatory for the security of ATOS internal and external business processes and applies to all staff, contractors and consultants within the ATOS organisation.

3.2.7 Meetings and procedures

Meetings are used to report and certify the status of the project or the work packages, debating special project issues, as well as for decision making. E-mail and teleconferences shall be used as main options for solving issues on an operative day-to-day basis.

3.2.7.1 Rules for meeting organisation

The rules for the implementation of meetings must be the following:

- A meeting notice shall be issued in proper advance with respect to the event, in order to allow participants to manage the preparation and, if it is necessary, logistic issues.
- Modality (face to face meetings or conference calls), duration and venue of the meetings shall be proposed by the convener and communicated in advance. Dates and locations need to be agreed by the meeting chair and participants in advance to leverage the team availability and to reduce travel costs.
- The notice shall include a draft agenda of items to be discussed, giving an overview of any proposed decision. Upon agreement among the participants, decisions can be made in relation to any matter not mentioned in the agenda.
- Minutes of the meeting shall be produced by the chairperson of the meeting (PC, TIM, or WP leaders depending on the meeting level) and transmitted to the attendees not later than ten (10) calendar days after the meeting. The minutes shall be considered as accepted, if within ten (10) calendar days there are no objections in a written form. The minutes must at least contain:
  - The attendance list of the meeting.
  - The agenda.
  - Decisions taken and an action list containing a responsible and deadline for each action.
- Minutes must be stored by the chairperson in the project repository.

The periods specified in this section could be adjusted if unanimously agreed by all members of the given body.

3.2.7.2 General Assembly meetings

The General Assembly meetings must be chaired by the project coordinator and should cover all major issues (technical and non-technical) where a position of the consortium is expected. The Project Coordinator will only summon dedicated General Assembly meetings in case this is considered necessary. A consortium partner can send more than one representative to a General Assembly meeting but multiple delegates of a consortium partner vote on behalf of their organisation according to the rules defined by the consortium.

The General Assembly will meet at least twice per year being at least one of those meetings physical and if possible, combined with other project meetings in order to limit travelling costs to partners.

3.2.7.3 Executive Board meetings

The Executive Board meetings must be chaired by the Project Coordinator. These meetings should be used to exchange technical information, prepare semi-annual reporting and reviews, and report the project progress.

The Executive Board will meet monthly by teleconference.

3.2.7.4 Subproject meetings

Subproject meetings are usually technical meetings including the Work Package Leader, Task Leaders. deliverable editors and any other partner required in the related topic of the meeting.

The frequency of the meetings is decided by the Work Package Leader but at least one monthly meeting will be hold, preferably via conference call. WP meetings are chaired by WPLs.

The minutes of the meeting should be produced within 3 days after the meeting and contain decisions taken and an actions list.

3.3 Project monitoring

The main goal of this process is to oversee the tasks and metrics needed to ensure that the project is within scope, on time and on budget. The Project Coordinator is responsible for this process, with the support of the Executive Board.

The monitoring will be performed against the project work plan, described in the project DoA and in the section 2.4 of this document, in which the project work breakdown structure (scope), the project roadmap (time) and the effort allocated to each work package are stated.

The following key performance indicators (KPI) were defined to control the project execution against the three main project restraints (scope, time, budget).

Table 5: Project management KPIs

KPI	Purpose
Deviation of planned cost (%)	To monitor and control cost consumption against plan
Deviation of planned effort (PM) (%)	To monitor and control effort consumption against plan
Number of milestones missed	To monitor and control ability to meet schedule
Number of late deliverables	To monitor and control ability to meet schedule. This parameter can be identified by WP.
The number of days the review of a deliverable is late	To monitor and control the degree of lateness
Number of meetings	To monitor and control internal communication and decisions. This indicator can be split into the different WPs.
Number of raised disputes	To monitor and control internal conflict

3.4 Technical monitoring

The main goal of this process is to oversee all the tasks and metrics needed to ensure that the technical goals of the project have been achieved. The Technical and Innovation Manager is in charge of this process, with the support of the Executive Board.

Each WPs defines (operational) goals complemented with (quantified when possible) measures for measuring the progress towards technical goals realization, which is to be understood as a measurement of the progress towards the achievements and, when applicable, corrective actions taken.

The project technical monitoring approach will carry out the following tasks to support achieving project objectives and milestones:

- Facilitate technical and engineering tasks are carried out in line with the project plan
- Develop technical breakdown structure in line with project plan and scope
- Support project milestone review and assessment
- Foster that the envisaged technical innovations are in line project goals

3.5 Administrative and Financial reporting

3.5.1 Reporting to the EC

According to I-SEAMORE Grant Agreement the following reports must be submitted to the participants' portal:

Periodic reports: within 60 days from the end of each reporting period (including the last one). In I-SEAMORE there are 2 reporting periods (RP)

- RP1: from month 1 (January 2023) to month 18 (June 2024).
- RP2: from month 19 (July 2024) to month 30 (June 2025)

These periodic reports should include *a technical report* incorporating:

- An overview of the progress towards the objectives of the action, including milestones and deliverables, resources and deviations if any.
- An explanation of the work carried out by task.
- A summary for publication by the EC.
- The answers to the EC portal 'questionnaire', covering issues related to the action implementation and the economic and societal impact, notably in the context of the Horizon Europe key performance indicators.

A financial report incorporating:

- An individual financial statement (drafted in euros) from each beneficiary and linked third party, for the reporting period concerned.
- An explanation of the use of resources, costs of subcontracting and the use of in-kind contributions from third parties.

A final report within 60 days after the end of the project. The final report should include:

A summary for publication containing: an overview of the results and their exploitation and dissemination; the conclusions on the action; and its socio-economic impact.

A certificate on the financial statements (CFS) for each beneficiary and for each linked third party requiring a total EU contribution of EUR 430.000 or more.

3.5.2 Interim Activity Reports (IAR)

According to the CA internal controls will be periodically done in order to assure the proper development of the project, both in terms of activity and use of resources. These reports are intended for internal use, therefore, they won't be delivered to the EC.

An internal interim activity report will be prepared at the end of every six months, in between EC reporting. These reports will include explanations on partners' activities in each active work package.

Each report should inform about:

- Main activities and main achievements.
- Risks status
- The resources (efforts) consumed in each WP during the considered period.

These reports would be cumulative, so the information provided in a given period should be updated in the next periods. These reports will also be used to feed into the periodic reports for the EC.

The Project Coordinator will compile inputs from Work Package Leaders, who should in turn collect and verify the information sent by Task Leaders and generate the report. This control action will help to understand the project situation (by comparing with the work plan) and apply corrective measures when necessary.

ATOS, as coordinator, will prepare a template for interim activity reports of compulsory use. There will be three interim reports in M7 (July 2023), M13 (January 2024) and M25 (January 2025)

3.5.2.1 How to prepare interim activity reports

Producing the reports will take 1 month, from the request for contributions to the final delivery. Interim reports are produced every six months. The report covering M1-M6 should be ready by the end of M7. Same logic applies for the rest of periods.

The project manager sends the template and request contributions once the reporting period has ended. (e.g., beginning of M7 for the first report).

WP leaders coordinate with partners and provide a summary of the activities and main achievements for the WP, as well as detected deviations and risks.

All partners provide an estimation of the persons/month spent to WP leaders and/or Project Coordinator.

The Project Coordinator collects inputs from Work Package Leaders and partners, review the information and integrates all the data in the interim report.

The Project Coordinator uploads the report to the project repository.

Table 6: Timeline for internal interim activity reports

M7	Day 1	Day 10	Day 20	Day 30
M1-M6 report	**PM** request inputs	**Partners** send contributions in terms of efforts and activities to WP leaders	**WP leaders** check and consolidate the information. Send the information to the PC	**PM** produces and integrated version

3.5.3 Budget & Payments

The Project Coordinator receives from the EC the funds aimed at covering the grant amount to all partners for the performance of the project tasks as stated in the Grant Agreement (GA).

According to the GA Art. 5.1, the maximum financial contribution of the European Commission to the project is 6.481.677,32 €. From this amount, the consortium received at the beginning of the project a prefinancing payment of 4.861.257,99€ that are distributed according to the payment scheme agreed in the CA (Article 7.2).

Moreover, there would be 1 interim payment and a final payment, associated to the EC acceptance of the financial statements:

Table 7: EC Payments

What	When	Due Date
Prefinancing	At the beginning of the project	December 2022
1st interim payment	Upon EC acceptance of RP1 financial statements (January 2023 – June 2024)	Around M23 (November 2024)
Final payment	Upon EC acceptance of RP2 financial statements (July 2024 – June 2025)	Around M35 (November 2025)

The Project Coordinator keeps project funds in a bank account and keeps records of the balance of available project funds (called “Spot Balance”) at all times. The spot balance shall be incremented by any transfer from the EC or with funds recovered by the Project Coordinator from any partner, and decremented by the transfers made by the Project Coordinator to any partner.

Payment	Amount	When
Prefinancing 1st instalment	45% of the prefinancing.	Around M1 (January 2023)

Prefinancing 2nd instalment	25% of the prefinancing.	Around M9. (September 2023)
Prefinancing 3rd instalment	30% of the prefinancing.	Around M14 (February 2023)
1st interim payment	Subject to the RP1 approved costs	Once received from the funding authority
Final payment	Subject to the RP2 approved costs	Once received from the funding authority

4 Quality Assurance

The following section describes the mechanisms that will be used throughout the project in order to ensure the quality level of project outcomes: the contractual deliverables.

4.1 Document Management Process

4.1.1 Documents language

English is the official language in Horizon Europe projects, therefore all the documents must be written in British English, using the appropriate grammar rules and a formal language. Some dissemination material (such as press releases, newsletters, fliers, etc.) can be considered as an exception for this rule and can be translated to other relevant languages for the project.

4.1.2 Documents storage

The project-related shareable documentation will be stored in the I-SEAMORE documents repository (see section 3.2.5). ATOS is responsible for the general maintenance of the project repository.

Work Package Leaders are responsible for the document organisation of their corresponding work packages. Deliverables' leaders are responsible for the maintenance of the WP documents. All partners contributing to a document are responsible for the maintenance of the document according to the guidelines included in this handbook and the instructions given by the deliverable leader

4.1.3 Documents nomenclature

The deliverable leader should name all the deliverables of the project previous to the final version according to the following nomenclature:

I-SEAMORE_Dx.y_Name_vm.n_[suffix]

Where:

- Dx.y: is the deliverable number as defined in the DoA, being **x** the number of the work package and **y** the deliverable number within the work package.
- Name: The name should match exactly the name of the deliverable as defined in the DoA.
- vm.nn:
  - m: 0 for the draft versions, 1 for the final version (delivered to the EC).
  - n: consecutive number from 0 to 9. Can be extended to several digits if necessary.
- Suffix (optional): can be used to identify intermediate versions or contributions from partners to a draft version (never in a final version) and could include dates, short name of partners, etc.

4.1.4 Documents templates

Project documents should be based in the following templates, which should be available in the project online repository:

- I-SEAMORE_Agenda_template.docx: agenda template in MS Word.
- I-SEAMORE_Minutes_template.docx: meeting minutes template in MS Word.
- I-SEAMORE_Deliverable_template.docx: feliverable template in MS Word.
- I-SEAMORE_Presentation_template.pptx: presentation template in MS Power Point.

Other templates can be produced if necessary.

4.2 Quality guidelines on deliverables production

All deliverables content produced in I-SEAMORE should follow these guidelines [7] [8]:

4.2.1 Legibility

- When writing, **stick to the format** provided by the template of the project, respecting fonts, sizes and styles for each text level, line spaces, indent style, margins, and layout.
- Respect the **graphical identity** of the project.
- The widespread use of capital letters is not recommended.
- Consideration should be given to using **different heading levels** to enable key information to stand out and to facilitate navigation in the text.
- Include a reference list at the end of the document with the sources of the information used. Insert **cross-references** to the list in the appropriate sections of the document.
- Ensure there are **no broken links** after finalizing the writing, by searching "Error" through the whole document.
- **Deliverable leaders**: at the moment of producing the final pdf, check text legibility and positioning of pictures by quick scanning it. On some occasions the pictures could be moved.

4.2.2 Readability

- **Long sentences should be avoided.** It is better to use a couple of sentences rather than one longer, complicated sentence, especially for new information. Especially avoid compound sentences with many subordinate clauses and conjunctions.
- **Long paragraphs can confuse readers.** Chunking text can help solve this problem, by adding necessary white space for improved text readability, while paragraphs give structure to your written work.
- **Use connectives** to unify your writing between and within paragraph. Examples of connectives: "Nonetheless," "Besides," "However," "Furthermore," and "Alternatively".
- **Abbreviations and acronyms should be avoided** in general unless these are appropriate. When first used in the text, the meaning should be spelled out in full.
- Mainly write in the **active voice**.
- Use **text levels** to separate the content.
- **Use bullet points and numbered lists** to catch attention, create structure content, and help reader in the consumption of information. But where possible, no more than five or six bullet points in a list are recommended.
- **Avoid text wraps.** Wrapping text around figures, blocks, or other elements can cause text to break inelegantly. This disturbs a reader's rhythmic eye movement and interferes with an individual's scanning speed. For the same reason, do not justify text in tables.
- **Time references.** Do not use relative time references (i.e. next month, last year) Use only absolute time references (i.e. June 2017, M24)

4.2.3 Comprehension

- Use **terms familiar** to the audience of the deliverables in order to ease content comprehension.
- Use an "**inverted-pyramid writing style**" [9], starting with the conclusion or an overview of the main point.
- **Pictures and diagrams** can sometimes explain things better than large amounts of words.
- Ensure that all sections relate to the main goal of the document and among themselves.
- Keep the document **short**, concise and to the point.
- **Avoid unnecessary texts as repetitions** from other deliverables from this project, instead just add a reference to them

4.3 Deliverables' review

All project deliverables must follow an internal review process before their official delivery to the EC to improve the overall quality of work. The objective of this review process is to ensure that the project deliverables follow the general quality guidelines and are aligned with the DoA, meaning:

- Are aligned with the DoA

- Keep consistency with other project deliverables
- Follow the project guidelines and standards
- Are useful inside and outside the project
- Achieve customer satisfaction, minimising the risk of being rejected by the EC.

4.3.1 Internal review planning

The document lists all the project deliverables and appoints two organisations as peer reviewers for the deliverable based, if possible, in the following criteria:

- The number of deliverables assigned to an organisation should be proportional to the workload of the organisation within the project.
- The organisations in charge of the deliverable review should not be directly involved in the specific task and deliverable but having enough knowledge of the area in which the deliverable was based.
- The persons within the organisation reviewing the document should have at least basic knowledge about the project, ideally being persons working in the project but not involved in the development of the task and deliverable.

4.3.2 Roles and responsibilities

The roles and responsibilities of the deliverable review process are described in the following table:

Table 8: Roles and responsibilities on deliverable review

Role	Responsibilities
Project Coordinator (PC)	• Evaluation of the final version of the document after the deliverable review process. • Formal approval of the version to be sent to the European Commission.
Quality Manager (QM)	• Supervision of the deliverable review process from start to end, establishing the review process dates. • Support the peer reviewers and DL during the deliverable review process. • Perform a final format review and produce the final version to be sent to the PC for the formal approval and release to the EC.
Technical and Innovation Manager (TIM) Work Package Leader (WPL)	• Read the table of contents and check if the technical content is aligned with the general objectives of the project and the WP • Support the DL with advice if required to proper address the PR comments.
Deliverable Leader (DL)	• Lead the team of contributors during the development of the deliverable. • Contact the persons reviewing the deliverable and coordinate the review team during the process. • Send the final version to the QM for format revision.
Deliverable Team (DT)	• Produce and contribute to the draft version following the DL instructions. • Support the DL addressing the changes needed in the deliverable.
Peer reviewer (PR)	• Evaluate the content and format of the deliverable • Can require assistance from the TIM in case of doubts.
Security Advisory Board (SAB)	• Review the project deliverables that raise security concerns., to assess whether they include any security sensitive information and to propose timely measures for preventing the misuse of such information, according to I-SEAMORE security scrutiny report.

4.3.3 Deliverable review process

The deliverable review process is designed to improve the quality of the project outputs and minimise the risk of rejections by the EC.

The deliverable review process is represented graphically in the following figure:

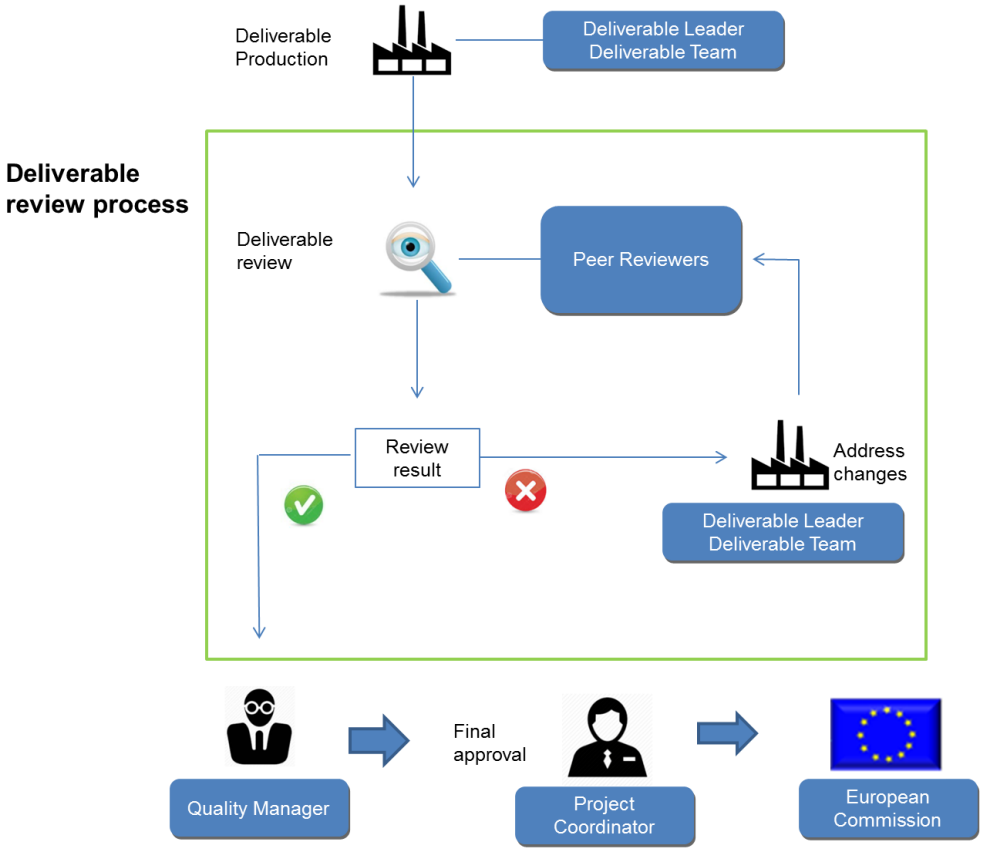

Figure 4: Deliverable review process

As previous steps to the deliverable review process, the Deliverable leader must create a draft following the next (informal) steps:

- **At least three months before the delivery date** the deliverable main editor must produce a table of content and assign the different document sections to the deliverable's contributors. The Work Package Leader, the technical and Project Coordinator should check that the table of content is aligned with the project scope and objectives.
- The deliverable leader coordinates the production of the deliverable and the Work Package Leader oversees the production.
- Once the final draft is ready, the deliverable review process is initiated. The deliverable review process should be initiated **at least one month before the official submission date,** so the reviewers have time to evaluate the deliverable, and the deliverable leader and the deliverable team have time to integrate their feedback.

The following table shows the steps of the process along with the estimated time (in working days) for each step:

Table 9: Review process steps

Step	Responsible	Description
1	DL	• Contact the peer reviewers with instructions about the evaluation (QM must be in Cc) and send them the final draft

2	PR	• PRs review the final draft producing commented/edited version of the draft.
3	DL	• According to the PRs decision: - Send the final deliverable to the QM. - If necessary, reactivates the DT in order to implement the comments of the reviewers and send the new draft to the PR, accompanied by a report about the implementation of the changes (text in the email body is accepted). - If necessary, consult the WPL and/or TIM for further advice, giving them one working day to reply.
4	QM	• Receive the final version of the document from the DL, **at least one week before the deliverable due date**, and decide and communicate the next action either submission or format refinement
5	QM	• In case of format refinement, the QM will implement minor format changes and if needed ask the DL to perform major format changes • Once the format is accepted by the QM, the document can be submitted
6	PC	• Carry out a final check of the document • Although it should not happen, the PC could ask for changes in the deliverable. In this case, the DL will set-up a calendar, including any steps from R1 to R5 above, remaining within the maximum duration of the deliverable review process.
7	QM	• Convert the file to PDF and deliver it to the EC services

4.3.4 I-SEAMORE deliverables reviewers

The table below lists all the project deliverables and appoints two organisations as peer reviewers for each deliverable. The selection of reviewers has tried to follow the following criteria:

- The number of deliverables assigned to an organisation should be proportional to the workload of the organisation within the project.
- The organisations in charge of the deliverable review should not be directly involved in the specific task and deliverable but having enough knowledge of the area in which the deliverable was based.
- The persons within the organisation reviewing the document should have at least basic knowledge about the project, ideally being persons working in the project but not involved in the development of the task and deliverable.

Table 10: Deliverables' reviewers

ID	Title	Due date	Owner	Reviewer	Reviewer
D1.1	Project management plan	M1	ATOS	TNO	ISIG
D1.2	Data management plan	M3	ISIG	ATOS	PUD
D1.3	Data management plan M15	M15	ISIG	ECA	F6S
D2.1	Periodic report on SELP concerns	M8	ISIG	INOV	TS

D2.2	Analysis of citizens' awareness and acceptance of EU maritime security system	M12	ISIG	F6S	INI
D2.3	Periodic report on SELP concerns M15	M15	ISIG	ATOS	MPT
D2.4	Analysis of citizens' awareness and acceptance of EU maritime security system M24	M24	ISIG	INI	AEAT
D2.5	Periodic report on SELP concerns M30	M30	ISIG	VTX	HyS
D2.6	Standard Operating Procedures & Policy Recommendations	M30	RBP	MPT	UKBF
D2.7	Monitoring and Evaluation/Validation Framework	M14	ISIG	TS	RBP
D2.8	Monitoring and Evaluation/Validation Framework M30	M30	ISIG	MPT	HyS
D3.1	Model based State-of-the-art	M6	INOV	ATOS	ISIG
D3.2	Plan for Co-Design and Co-Creation Processes Implementation	M6	INOV	ISIG	RBP
D3.3	Operational concepts, KPIs and User Requirements	M6	MPT	CS group	AEAT
D3.4	I-SEAMORE Architecture & Technical Requirements	M9	ATOS IT	HyS	TNL
D3.5	Operational concepts, KPIs and User Requirements M24	M24	MPT	INOV	PUD
D4.1	Assessment of I-SEAMORE UxVs and Payloads Capabilities	M6	ECA	TS	INOV
D4.2	Preliminary Data Sets from UxVs & Copernicus	M9	TS	ATOS	TNO
D4.3	Operational and Processing Capabilities Enhancement for I-SEAMORE UxVs and Payloads	M18	PUD	ATOS	MPT
D5.1	I-SEAMORE Interoperability Layer	M15	TS	TNO	PUD
D5.2	I-SEAMORE Orchestration Platform & Testing Environment	M18	TNO	TNL	ECA
D5.3	I-SEAMORE Services & Tools	M23	ATOS	ECA	INOV
D5.4	I-SEAMORE Data Fusion Modules	M23	TNL	ATOS	HyS
D6.1	Preliminary Testing Cycles & End-users Validation	M18	MPT	INI	F6S
D6.2	Integration Actions and Preliminary Deployment of I-SEAMORE Ecosystem	M27	VTX	MPT	CS GROUP
D6.3	Technical Verification & Validation Activities	M28	TNO	VTX	INOV

D6.4	Preliminary testing cycles & end-users validation M28	M28	MPT	RBP	UKBF
D7.1	I-SEAMORE Final Demonstrations	M30	MPT	VTX	ATOS
D7.2	I-SEAMORE Final Evaluation and Future Uptake	M30	RBP	INOV	TNO
D8.1	First version of PDCER	M3	F6S	RBP	MPT
D8.2	Revised PDCER	M15	F6S	INOV	INI
D8.3	Business modelling	M18	INI	ECA	ATOS
D8.4	Business and sustainability plan	M30	INI	TS	INOV
D8.5	IP Management Suite	M30	INI	VTX	PUD
D8.6	Final PDCER	M30	F6S	ISIG	ATOS
D9.1	POPD - Requirement No. 1	M6	ATOS	MPT	FS6
D9.2	AI - Requirement No. 2	M6	ATOS	ATOS	MPT

5 Risk management

Risk management is a critical and continuous process that must be implemented and controlled in any project throughout its whole lifecycle. It aims at anticipating any situation that could affect the achievement of the project objectives in scope, time, resources and cost with the expected quality.

Identifying risks that could possibly lead to deviations beforehand will provide the consortium with enough information to act and take decisions accordingly and minimise the impact of the risks identified.

The Risk Management methodology presented in this guide follows the PMI (Project Management Institute) guidelines as presented in the PMBOK® Guide [4]

5.1 Risk management processes

Risk management will be implemented in the I-SEAMORE project through five processes, in a continuous improvement approach during the project lifetime:

- Plan risk management
- Identify risks
- Risk analysis
- Plan risk responses
- Control risks

Figure 5: Risk management processes cycle

5.2 Plan risk management

As depicted in the figure above, the first process to implement is planning the risk management.

At this stage, all the processes needed to properly manage project risks are designed. As a preliminary step some concepts and terms used through the risk management process will be explained in the context of the project: risk categories, roles and responsibilities, and level of risk.

5.2.1 Risk categories

The following categories of risks have been defined at this stage of the project:

- Management
- Technical
- Exploitation

Any new category identified through the course of the project will be incorporated to the risk management process.

5.2.2 Roles and responsibilities

The Project Coordinator will lead and supervise the risk management activities in coordination with the Executive Board. However, risk management is close to all the project tasks and activities and the whole project team is involved in risk management, anticipating risks and deviations and implementing contingency plans at its level.

If a task leader is not able to manage a certain risk, it will be raised to the Work Package Leader. In turn if the Work Package Leader cannot mitigate or eliminate the risk, it should escalate the risk to the Project Coordinator or the technical coordinator who will study how to minimise the risk with the support of the Executive Board.

To successfully accomplish the risk management process, the cooperation of project partners is crucial. Project partners participates in risk management by identifying any issue that might have negative impacts on the success of the project and by implementing mitigation activities.

Risks involving any interdependency between two work packages will be managed by the Project Coordinator or the technical coordinator (technical risks).

The next Risk Assessment Matrix (RAM) summarises the roles and responsibilities within the project, according to the RASCI model [5]

Table 11: Roles and responsibilities – Risk management

RASCI CHART	ROLES				
	PC	TIM	WPL	TL	PARTNER
Plan Risk Management	R	C	C	C	S
Identify Risks	A	C	R	R	S
Risk Analysis	A	C	R	R	S
Plan Risk responses	A	C	R	R	S
Control Risks	A	C	R	R	S

- **Responsible (R):** the person who owns the problem and does the work, although others can be delegated to assist in the work
- **Accountable (A):** the ultimate responsible for the completion of the work, the one to whom "R" is accountable and approves the work the responsible provides
- **Supportive (S):** the people who participate in the work or have a supporting role
- **Consulted (C):** the people who provide information and/or expertise necessary to complete the task
- **Informed (I**): the people who need to be kept informed on the work progress

As it can be seen in the RASCI table, Work Package Leaders and Task Leaders are the main responsible for the identification of new risks, as well as for its analysis and classification, at their corresponding level. They will have the support of the partners participating in the work package.

Once the risks are identified and analysed, and a response plan is designed, they will inform the Project Coordinator as main responsible for the management of all risks identified during the project.

5.2.3 Level of risk

Risk will be classified based on two criteria: probability and impact. The probability of the risk will occur and the impact it will have on the project if it materialises.

A qualitative analysis of risk levels can be implemented by simply applying a certain scale to each criterion, assigning numerical values to each scale value will provide a quantitative analysis of risks.

By multiplying numerical values for probability and impact the overall risk rating will be established.

The following scales will be used to rate risks probability:

Table 12: Risks probability assessment

Scale for probability			
Rating	1	2	3
Scale	Low	Medium	High

Table 13: Examples for risks impact assessment

Scale for impact		
Interpretation	**Rating**	
Delay of 2months on DoA deadlines (deliverables, milestones) One main project objective not achieved A work package objective not fully achieved. Overspending	3	High
Delay of 1 month on DoA deadlines Tasks' objectives not fully achieved	2	Medium
Delays on internal deliverables Delays on tasks that don't not have impact on other tasks	1	Low

5.2.4 Risk register

The risk register is the main result of the risk management process. It compiles in a single document the results of the risk identification and risk analysis processes as well as the status of the mitigation actions put in place. It's a powerful tool that provides at a glance information on risk management to the Project Coordinator and the Executive Board and may assist on decision making tasks.

This document will be filled through various iterations, having the Project Coordinator as the main responsible for its management. The risk register follows a table format with the following fields:

Table 14: I-SEAMORE risk register fields

Item	**Description**
Risk ID	The identification for each risk per category. i.e. RM1, RT1 etc.
Risk Description	Short description of the risk and the effect it causes on the project.
Risk Category	Categorisation of risks by area of project affected. (Management, technical, exploitation)
WP related	WP number from which the risk belongs
Probability	The likelihood that a risk will occur
Impact	The impact of the risk on the project if the risk occurs

Risk Score	Determined by multiplying probability and impact
Risk Response	The action which is to be taken if this risk occurs
Risk Owner	The person who manages the risk response if the risk occurs.
Risk Materialized (Y/N)	Information if the risk has already happened.
Overall Status (Open/Closed)	All risks after inserted in the risk register will have the overall status “open”. In case a risk no longer can occur, its status will be changed to “closed”.

5.3 Identify risks

The main output of this process is the list of risks identified by the consortium. Work Package Leaders should provide the Project Coordinator the following information in this process:

- Risk ID
- Risk description
- Risk category
- WP related

The project will use as starting point the risks identified in the DoA.

This is an iterative process that will take place throughout the project lifetime. All WP leaders are responsible for a regular follow-up of risks. When a new risk is detected it should be immediately communicated to the Project Coordinator.

The Project Coordinator will ensure that a regular communication channel will be open for this aim through teleconferences and e-mails.

5.4 Risk analysis

Before planning any response for the identified risks, a previous classification must be carried out. The person who identified the risk (or the WP leader) will assess the risk and assign a level of impact and probability. Check sub-section 5.2.3 for further details.

As results of the risk analysis the following columns of the risk register will be filled out:

- Probability
- Impact
- Risk Score

5.5 Plan risks response

Once the risk analysis has been performed, the consortium can plan the response. It is time to decide the strategy to follow, basically to eliminate the threats before they happen (avoidance actions) or, decrease the probability and/or impact of threats (mitigation actions).

As results of the planning the following columns of the risk register will be filled out:

- Risk Response (Avoid / Mitigation)
- Risk owner (person responsible for the implementation of the risk response)

5.6 Control risks

The Project Coordinator will start this process after the project produced a full risk register, with all risks identified, their impact and probability assigned and all planned responses described.

The main goal of the control risks process is to ensure that all risks identified are properly handled by the consortium, as well as to ensure that any new identified risks are updated in the risk register.

The Project Coordinator, Work Package Leaders and risk owners should monitor the risk triggers and the status of all risks. Any new identified risks should be analysed and the process described in this plan followed (e.g. identification, analysis, plan risks responses, etc.).

As results of the risk monitoring the following columns of the risk register will be filled out:

- Risk materialized (Y/N)
- Overall status (Open/Closed)

Finally, this is an iterative process that should be present in the day-to-day life of the project. In Executive Board meetings (physical or remote) risks status will be monitored.

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