



Enhancing Copernicus Security Services – EU governmental crisis management hub for forced population displacement

Intermediate report on Risk Identification Management & Quality Assurance Plan, D1.4

WP1 – Project Management 1 - 1st period



Lead Contributor	Liza Panagiotopoulou (GSH)
Contributors	-
Reviewers	Javier López-Guzmán (MPL)

Due Date	28/02/2026
Delivery Date	25/02/2026
Type	R – Document, report
Dissemination Level	PU - Public
Keywords	Risk management, risk identification, quality assurance, Deliverable review, Consortium coordination, Security screening

Document History

Version	Date	Description	Author	Description/ Action	Validation
0.1	15/02/2026	First Draft	L. Panagiotopoulou (GSH)	First draft of the updated document	Consortium partners comments. Feedback is collected and incorporated into the document.
0.2	20/02/2026	Second Draft	L. Panagiotopoulou (GSH)	Internal Review process	Consortium partner MPL review. Feedback is collected and incorporated into the document.
0.3	23/02/2026	Final Draft	L. Panagiotopoulou (GSH)	Finalisation and final approval	SAB security check. Feedback is collected and incorporated into the document.
1.0	25/02/2026	Final version	L. Panagiotopoulou (GSH)	Submission to EC	



Legal Disclaimer

This document reflects only the views of the author(s). Neither the European Commission nor the Granting Authority (European Health and Digital Executive Agency) is in any way responsible for any use that may be made of the information it contains.

The information in this document is provided “as is”, and no guarantee or warranty is given that the information is fit for any particular purpose. The above referenced consortium members shall have no liability for damages of any kind including without limitation direct, special, indirect, or consequential damages that may result from the use of these materials subject to any liability which is mandatory due to applicable law.

This document and the information contained within may not be copied, used, or disclosed, entirely or partially, outside of the THEIA consortium without prior permission of the project partners in written form.

© 2024 by THEIA Consortium.



Contents

Executive Summary	6
List of Tables.....	7
List of Figures	7
List of Acronyms / Abbreviations.....	7
1. Introduction	8
1.1 Purpose and scope of the deliverable.....	8
1.2 Structure of the deliverable	9
1.3 References	9
2. THEIA Contractual Framework	10
2.1 Grant Agreement	10
2.2 Consortium Agreement.....	10
2.3 Amendment	11
3. THEIA Quality Assurance Plan.....	12
3.1 Quality Assurance in Project Management.....	12
3.2 Project Management Structure	13
3.2.1 Project Coordinator (PC).....	14
3.2.2 General Assembly (GAS)	16
3.2.3 Work Package Leaders (WPL)	17
3.2.4 Task Leaders (TL)	18
3.2.5 Work Package Leaders Group (WPLG).....	18
3.2.6 External Expert Advisory Board (EEAB) and Security Advisory Board (SAB).....	19
3.2.7 Quality Manager and the Quality Management Group	19
3.2.8 Procedures for Handling Internal Breaches of Quality Standards.....	20
3.3 Project Communication	20
3.3.1 Central Document Repository	20
3.3.2 Open communication	20
3.4 Project Progress Monitoring	20
3.4.1 Meetings.....	21
3.4.1.1 Plenary Consortium Meetings.....	21
3.4.1.2 WPLG Meetings	21
3.4.1.3 WP Monthly Meetings	21
3.4.1.4 General Assembly Meetings	22
3.4.1.5 Other Partners Meetings	22
3.4.2 Milestones	22
3.4.3 Progress Reporting	23
3.4.4 EC Reviews.....	24
3.5 Quality Assurance of Deliverables.....	24
3.5.1 THEIA Templates.....	24
3.5.2 Deliverables	25
3.5.2.1 Submission of Deliverables	25



3.5.2.2	Review of Deliverables	29
4	THEIA Risk Management Plan.....	32
4.1	Risk Management Procedure	32
4.2	THEIA Risk Register	33



Executive Summary

The current deliverable, D1.4 “Intermediate report on Risk Identification Management and Quality Assurance Plan”, corresponds to Task T1.2 – “Initiation of Quality Assurance and Risk Management Framework” under WP1 - “Project Management 1 - 1st period”, led by GSH the project coordinator. It is an updated document of the initial report on Risk identification and Quality Assurance Plan at M2.

This document provides a comprehensive overview and update of the THEIA project's quality assurance and risk management frameworks at the end of project's first period, M15. It outlines the contractual framework, management structure, quality assurance procedures and risk management strategies to ensure the project's successful implementation and alignment with its objectives.

The report is organised into four main sections: the *Introduction*, which outlines the purpose, scope and structure of the deliverable alongside relevant references, the *THEIA Contractual Framework*, summarising the agreements governing the project, including the Grant Agreement, Consortium Agreement and amendment processes, the *THEIA Quality Assurance Plan*, detailing strategies to maintain project quality through a defined management structure, communication mechanisms, progress monitoring and deliverables assurance and finally, the *THEIA Risk Management Plan*, which presents a systematic approach to identifying, assessing, and mitigating risks, supported by the THEIA Risk Register.

The deliverable establishes a robust framework for maintaining quality and mitigating risks, ensuring the project's objectives are achieved effectively and efficiently. It emphasises collaboration among consortium members, transparency in communication, and proactive risk management throughout the project lifecycle. This successful structure has been positively evaluated and will be applied in the second project period with minor adjustments. If necessary, and although not foreseen in the Grant Agreement, an interim version may be prepared as part of the project's systematic risk management process.



List of Tables

Table 1. List of Acronyms/Abbreviations	7
Table 2. THEIA WP Leaders.....	17
Table 3. THEIA Milestones.....	22
Table 4. THEIA Deliverables	26
Table 5. THEIA Deliverables review process	29
Table 6. THEIA Risk Registry at M13	34

List of Figures

Figure 1. Organisation of the THEIA project	14
Figure 2. Risk management procedure of the THEIA project	32

List of Acronyms / Abbreviations

Table 1. List of Acronyms/Abbreviations

Acronym / Abbreviation	Explanation
CA	Consortium Agreement
DESCA	Development of a Simplified Consortium Agreement
DoA	Description of the Action
EC	European Commission
EU	European Union
FRONTEX	European Border and Coast Guard Agency
GA	Grant Agreement
GAS	General Assembly
IPR	Intellectual Property Rights
MoM	Minutes of Meeting
NATO	North Atlantic Treaty Organisation
NDA	Non-Disclosure Agreement
PC	Project Coordinator
PO	Project Officer
PU	Public
QAP	Quality Assurance Plan
SATCEN	European Union Satellite Centre
SEN	Sensitive
ToC	Table of Contents
WP	Work Package
WPL	Work Package Leader



1. Introduction

Addressing critical challenges such as population displacement due to conflicts, exacerbated by factors like climate change, extreme weather events, food shortages, and poverty, remains paramount. The implementation of THEIA, integrating data fusion, processing, and analysis, particularly leveraging Geospatial Artificial Intelligence (GeoAI) and Machine Learning, is poised to enhance the efficacy of existing services significantly. Through the amalgamation of multi-temporal data and diverse datasets, THEIA empowers better decision-making and adapts to evolving policy and user needs. This technological advancement, bolstered by GeoAI, augments detection capabilities and ensures timely access to crucial information, bridging the gap between capabilities and stringent security demands.

By integrating non-space data and end-user intelligence, THEIA's supply chains add value not only at the operational level but also at regional and local levels, facilitating improved coordination. Furthermore, THEIA catalyses foster EU-independent capabilities and technologies, thereby bolstering the European space ecosystem's consolidation and ensuring the sustainable coexistence of legacy and New-Space solutions. Its services cater to a wide array of end-users, including EU entities such as SATCEN and Frontex, Member State Ministries of Defence, Intelligence Agencies, Police Forces, NATO and potentially Extra-EU National and Supranational Entities such as the United Nations.

This document is the report presenting an update of the THEIA project's quality assurance and risk management frameworks at the end of project's first period – M15.

WP1 consists of the following Tasks:

- Task 1.1: “1st-period project management and coordination towards objectives” [M1-M15]
- **Task 1.2: “Initiation of Quality Assurance and Risk Management Framework” [M1-M15]**
- Task 1.3: “Initial Data Management Plan” [M1-M15]

This document is one of the outputs of Task 1.2 and represents the fifth deliverable of WP1.

The following sub-sections present the scope and objectives, as well as the structure of the document.

1.1 Purpose and scope of the deliverable

The purpose of this document is to provide a comprehensive overview and update of the key frameworks and processes established to ensure the successful implementation, monitoring and quality assurance of the THEIA project. It serves as a reference guide for all project participants, detailing the contractual agreements, management structure, communication mechanisms, deliverables quality assurance procedures and risk management plan.



The scope of the document covers the essential components required to achieve the project's objectives, including governance structures, reporting procedures, risk management strategies and compliance with EC requirements.

1.2 Structure of the deliverable

This document consists of the following chapters:

- The executive summary of the deliverable.
- **Chapter 1** which includes a short description of THEIA objectives, purpose, scope and structure of the deliverable.
- **Chapter 2** which provides an overview of THEIA Contractual Framework.
- **Chapter 3** which elaborates THEIA Quality Assurance Plan.
- **Chapter 4** which outlines THEIA Risk Management Plan.

1.3 References

- Project GA No. 101190051
- THEIA Partners CA
- D1.1 – MoM of Kick-off Meeting
- PO presentation during the Kick-off Meeting
- D1.2 – Risk Identification Management & Quality Assurance Plan
- D1.6 – Initial Progress Report
- General Project Review Consolidated Report of the Interim Technical Review



2. THEIA Contractual Framework

THEIA project proposal submitted in the Call: HORIZON-CL4-2024-SPACE-01, under the Topic: HORIZON-CL4-2024-SPACE-01-36.

Two are the main documents which govern project implementation which are signed by all partners and presented below.

2.1 Grant Agreement

After the successful proposal evaluation, the GA is prepared by the Granting Authority of the EC in collaboration with consortium PC (in the case of collaborative projects as THEIA). This document is the formal contract between the project consortium and the Granting Authority, is based on the information provided by the proposal and describes in detail among other information the work that will be performed during project's life.

The GA is signed between the EC and the partners. It serves as the legal basis for the implementation of the project and comprises:

- i. Preamble
- ii. Terms and Conditions (including Data Sheet): The core contract outlining the key obligations.
- iii. Annex 1 Description of the Action (DoA)
- iv. Annex 2 Estimated budget for the action
- v. Annex 3 Accession forms
- vi. Annex 4 Model for the financial statements
- vii. Annex 5 Specific rules.

The GA Number for THEIA project is 101190051.

2.2 Consortium Agreement

The second basic document is the CA which specifies the rights and obligations of the project partners, specifically regarding:

- a. The organisation of the work among the partners and their responsibilities.
- b. Project management, including finances, decision-making and governance structure.
- c. Rights and obligations of the partners, especially concerning liability, access rights and dispute resolution.

The Template used for the construction of the CA was the DESCA Model Consortium Agreement.



The CA is signed among the partners and the signed THEIA CA is stored in the Document repository of the project.

2.3 Amendment

Amendments to the project must be initiated and submitted electronically through the Funding & Tenders Portal by the PC. Priority should be given to urgent matters that could significantly impact the project, such as the termination of beneficiaries, partial transfers of rights and obligations or the addition of linked third parties.

When requesting an amendment, it is essential to provide a clear and well-documented justification, supported by the DoA. This justification should address why the amendment is necessary for the project and its alignment with the established objectives, expected results, and overall funding. Additionally, the request should highlight the potential impact on the project's progress and ensure that any proposed changes will not compromise the delivery of planned outcomes.

From the first months of THEIA implementation, the need for an Amendment arose to address issues related mainly to deliverable and Task titles and descriptions, Task durations, submission dates and partner participation in specific WPs/Tasks. These changes aimed to ensure the optimal execution of the project and to correct elements that required adjustment.

The proposed modifications were presented in detail in D1.6 and the Interim Report, and the corresponding procedures started following the transmission of the review results to the consortium. Time was required for these changes to take their final form, while the approval and formalisation process by the European Commission is still ongoing.

It should be noted that, to mitigate the impact of these corrections on the project's workflow, they were considered in the deliverables submitted at the end of the first project period.



3. THEIA Quality Assurance Plan

3.1 Quality Assurance in Project Management

A Quality Assurance Plan (QAP) in project management establishes systematic processes and procedures to monitor and control the quality of a project. It provides a structured framework to ensure that all activities and outputs meet the desired quality standards, align with the project's objectives and adhere to timelines and budgets. Below is an analysis of the key components and actions included in a robust QAP:

1) Clear Management Structure

Assigning a transparent and well-defined management structure is crucial for ensuring the smooth execution of the project. This includes:

- Defining specific roles and responsibilities for each partner or body involved in the project.
- Communicating and ensuring understanding of these roles to align all team members with the project objectives.
- Financial management is an integral part of this structure to ensure the budget is utilised and tracked effectively.

2) Transparency and Communication

Maximising transparency and facilitating efficient communication among partners is essential. Actions include:

- Establishing a central Document repository where all project-related documents are stored and accessible to partners.
- Encouraging open communication through regular updates and accessible channels to foster collaboration and trust among team members.

3) Progress Monitoring and Tracking

Implementing procedures to monitor progress and track objectives against the timeline is vital for maintaining quality. This mainly involve:

- Scheduling regular project meetings to assess the status of workings and address issues.
- Using milestones for tracking important points of progress.
- Developing progress reports to document the achievement of milestones and identify delays or challenges.



4) Quality Control for Deliverables

Establishing processes to review and ensure the quality of deliverables is a cornerstone of any QAP. Key actions include:

- Developing Templates and guidelines for documenting progress and generating standardised reports.
- Establishing a review process where designated reviewers evaluate deliverables before submission.
- Maintaining detailed documentation and record-keeping practices to ensure accessibility and traceability.

5) Risk Management

Risk management techniques are essential for identifying and mitigating potential threats to project quality. This involves:

- Engaging all partners in identifying potential risks and developing contingency plans.
- Implementing mitigation measures to minimise the impact of identified risks on project outcomes.
- Regularly reviewing and updating the risk management plan to adapt to emerging challenges.

By adhering to these principles, a QAP fosters alignment, transparency and accountability among project partners, ensuring that the desired quality is achieved and maintained throughout the project lifecycle. This systematic approach ultimately contributes to the successful delivery of project objectives and outcomes.

English is the official language of the project. All documents, deliverables, reports, agendas and meeting Minutes must be prepared in English.

3.2 Project Management Structure

THEIA's organisational structure is designed to achieve the best possible outcomes during project execution, ensuring efficient management of time, deadlines and resources.

This successful structure has been positively evaluated and will be applied in the second project period with minor adjustments. If necessary, and although not foreseen in the GA, an interim version may be prepared as part of the project's systematic risk management process. After the release of D1.2, the Quality Management Group was activated, while the role of the Consulting Expert Group is fulfilled by the project's Advisory Board.



This structure which is illustrated in Figure 1 consists of the following bodies:

- The Project Officer (EC) & EC Reviewers- external
- The Project Coordinator (PC)
- The Work Package Leaders (WPL)
- The Task Leaders (TL)
- The General Assembly (GAS)
- The Work Package Leaders Group (WPLG)
- The External Expert Advisory Board/ Security Advisory Board
- The Quality Manager and the Quality Management Group

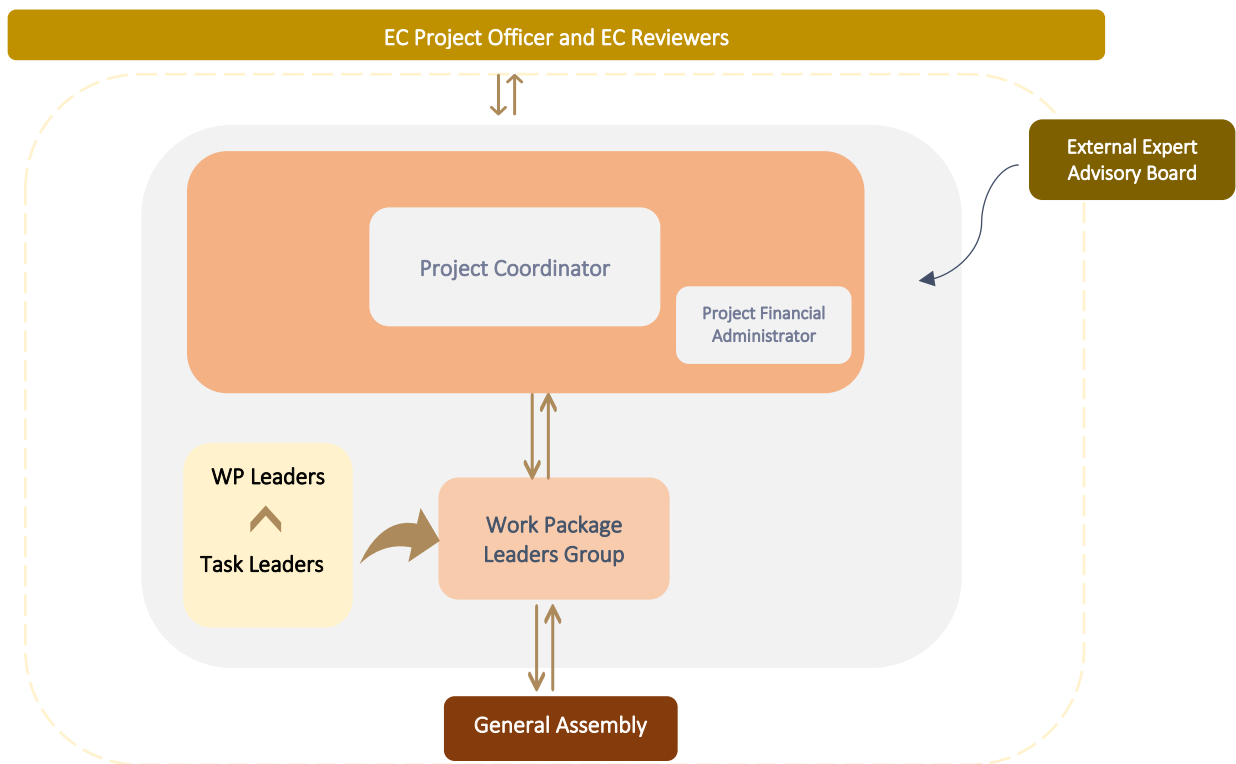


Figure 1. Organisation of the THEIA project

3.2.1 Project Coordinator (PC)

The PC serves as the intermediary between the Parties and the Granting Authority and carries out all tasks assigned in the GA and CA.

The Coordinator's responsibilities include:



- *Compliance Monitoring*: Ensuring the Parties fulfil their obligations under the CA and GA. Monitor the progress towards overall objectives against schedule and overall adherence to budget.
- *Documentation and Reporting*: Collecting, reviewing for consistency and submitting reports, deliverables and other required documents to the Granting Authority.
- *Meeting Management*: Preparing and proposing decisions for GAS meetings, preparing agendas for WPLG meetings, setting agendas for other meetings, chairing meetings, preparing Minutes, and monitoring decision implementation.
- *Communication*: Promptly transmitting documents and information related to the project to relevant Parties.
- *Financial Administration*: Managing the financial contributions from the Granting Authority and fulfilling related financial tasks as outlined in Section 7.2 of the CA.
- *Conflict Resolution*: Any event that could compromise the successful completion of the project must be reported to the Coordinator immediately. The PC will, if necessary, convene an emergency WPLG meeting to determine the appropriate steps for promptly resolving the issue.

If the Coordinator fails to perform its coordination duties, the GAS may propose to the Granting Authority to replace the Coordinator.

THEIA Project Coordinator is Ms. Liza Panagiotopoulou (GSH) who is in charge of project administrative and technical issues and has also the responsibilities of Quality Assurance, Risk Management and Data Management.

From a technical perspective, the Coordinator is responsible for overseeing and guiding all technical activities within the project. This includes continuously monitoring technical progress toward project objectives, ensuring the effective implementation of the work plan, and supervising the quality review process for all reports and deliverables produced by the Consortium. The Coordinator also supports WPL by facilitating coordination and exchanges between WPs.

The PC is supported in financial activities, starting from the Pre-financing Payment Process up to the final payment by the Financial Administrator who is Mrs. Mandy Patoulia (GSH).

THEIA project is funded under Lump sum scheme which simplifies financial management while requiring strict adherence to project objectives and deliverable-based funding allocation. This approach reduces administrative effort while emphasising performance and results, aligning financial management with the project's scientific and technical goals.



Grant payments are made based on regular reporting (both internal and to the EC) that assesses progress in the work. Partners are not contractually obligated to maintain financial records for the project, nor is there a requirement to report actual costs or resources. However, partners must comply with record-keeping and other legal obligations outside the lump sum grant agreement, if applicable (e.g., under national law or internal procedures). They must retain documentation demonstrating that the activities outlined in Annex 1 have been completed and identifying who carried them out. This requirement pertains to the same technical documentation as for other grants, with no additional documentation specific to lump sum grants. Financial issues related to this process are detailed in Chapter 7 “Financial provisions” of THEIA CA.

3.2.2 General Assembly (GAS)

The GAS is the consortium's decision-making body. Each partner has one representative and one vote.

Below are the key aspects of its operation:

- *Representation*: The General Assembly shall consist of one representative of each Party (Member). Members have the flexibility to attend meetings in person or appoint a substitute or proxy to represent them and vote on their behalf. For the better function of GAS a substitute is appointed for each partner, as is common in companies/ organisations for unexpected issues to arise, potentially preventing a member from attending a GAS meeting. Cooperative participation is essential, including timely responses to written meeting requests and contributions to discussions.
- *Voting Rules and Quorum*: Each partner has one vote. The GAS can deliberate and make valid decisions only if at least two-thirds (2/3) of its members are present or represented, establishing a quorum. Decisions are passed with a majority of two-thirds (2/3) of the votes cast, ensuring a robust consensus.
- *Commitment to Decisions*: All Parties commit to abiding by and implementing the decisions made by the GAS, fostering accountability and cohesion within the consortium.
- *Meetings*: GAS members can meet in either Ordinary Meetings which are held at least twice a year to review progress, address ongoing issues, and make strategic decisions or Extraordinary Meetings which are convened as needed, often in alignment with major events or Plenary sessions, to address urgent matters. These Extraordinary Meetings are initiated at any time upon written request of any Member. GAS meetings may occur in person or via teleconference, videoconference, or other communication means, offering flexibility in participation. The PC chairs all GAS meetings, providing leadership and facilitating discussions, unless the GAS decides otherwise.

The following decisions shall be taken by the GAS:



- Content, finances and IPR
- Evolution of the consortium
- Breach, defaulting party status and litigation
- Appointments

The CA of the project provides a detailed description of the functionalities and responsibilities of the GAS.

It should be noted that the composition of the project’s main bodies (e.g. GAS, WPLG) is subject to change and any updates will be documented in a subsequent version of Deliverable D1.2, as the document is considered a living document. As partner representation in the GAS changes, the table listing names and email addresses is regularly updated and maintained in the project Dropbox.

3.2.3 Work Package Leaders (WPL)

The WPL play a crucial role in the successful execution of the project since their responsibilities include:

- *Monitoring and Reporting*: Oversee progress within their respective WP. Ensure timely and adequate preparation and submission of deliverables.
- *Team Communication*: Facilitate emailing communication, regular teleconferencing among Task leaders/team members to ensure alignment and progress.
- *Workplan and Role Management*: Continuously monitor the workplan and partner roles to ensure efficient collaboration. Update the WP plan in Document repository as needed.
- *Engagement and Oversight*: Actively engage partners and monitor their day-to-day contributions to the WP.
- *Deadline Management*: Ensure that all project deadlines are met.
- *Coordination Board Updates*: Provide regular updates to the Coordination Boards on the status and progress of the WP.

Since partner appointments to WP leader roles can change throughout the project, the table of names and email addresses is continuously updated and maintained in the project Dropbox.

Table 2. THEIA WP Leaders

WP	PARTNER
WP1, 2	GSH
WP3, 4	MPL Brussels
WP5	GSH
WP6	OHB



WP	PARTNER
WP7	LUXSPACE SARL
WP8	ED LUXEMBOURG
WP9	CREO
WP10	AIT
WP11	GSH
WP12	SATCEN
WP13, 14	ICCS

3.2.4 Task Leaders (TL)

For each Task within a WP, a TL is allocated as well. Task Leaders are responsible for the proper execution of work within their Task and also for organising meetings of the corresponding task teams, whenever it appears to be necessary to discuss the further progressing of work in the specific WP.

3.2.5 Work Package Leaders Group (WPLG)

The WPLG is an assessment group of the consortium without formal decision-making power which plays a crucial role in overseeing the THEIA project's implementation. The Group comprises the PC, who is the chairperson for all meetings unless a majority of the group decides otherwise, and all WP Leaders and has the following main responsibilities:

- *Project Monitoring:* Oversee and track the implementation of the project to ensure alignment with objectives and timelines.
- *Task and Budget Evaluation:* Review and evaluate suggestions from WPLs concerning the reallocation of tasks or budget within their respective WPs.
- *WP Review:* Regularly review the status and completion of each WP to identify and address any challenges.
- *Periodic Reporting:* Assist in preparing Periodic reports for the WPs to maintain transparency and accountability.
- *Meetings:* WPLG members can meet in either Ordinary Meetings or Extraordinary Meetings which convened at any time if a member proposes such a meeting to address critical project implementation needs. WPLG meetings are typically conducted via telecommunication methods, including teleconference and videoconference.

The CA of the project provides a detailed description of the functionalities and responsibilities of the WPLG.



3.2.6 External Expert Advisory Board (EEAB) and Security Advisory Board (SAB)

The THEIA Advisory Board serves a dual function, acting as both the EEAB (as defined in the CA) and the SAB (as outlined in the GA). It provides strategic guidance to the project, supports decision-making by the GAS as Consulting Expert Group and conducts reviews, with a particular focus on security-related matters.

THEIA's SAB consisting of members having EU27/Iceland/Norway nationality has three (3) members in total, as security reviewers with strong expertise in the security challenges relevant to the project's research field while there are 2 other members with the previous ones consist the project's Advisory Board.

All SAB members hold the necessary security clearances. The primary responsibility of the SAB is to review the project deliverables throughout the project lifecycle, assess whether they contain any security-sensitive information, and recommend appropriate actions such as classification, declassification, and other timely measures to mitigate potential risks.

The Advisory Board main responsibilities are to:

- Offer advice to the project team and GAS.
- Conduct necessary reviews, when needed.
- Review and assess publications, focusing on documentation and information integrity.
- Attend the Consortium Plenary Meeting at least once per year.

The names of all Advisors, including SAB members, were revised in the Amendment, and the Table listing the updated members is maintained in the project Dropbox.

The PC ensures all Parties and Advisory Board members sign an NDA. The NDA must be executed within 30 days of a member's nomination or before sharing security-sensitive information, whichever is earlier. The NDA terms will be at least as strict as those in the CA.

The Advisory Board is managed by the PC who is also responsible for preparing and submitting Advisory Board meeting Minutes to the GAS. Additionally, Advisory Board members may attend GAS meetings upon invitation but will not have voting rights.

The GA and the CA of the project provide description of the functionalities and responsibilities of the Board.

3.2.7 Quality Manager and the Quality Management Group

After the release of D1.2 and in the middle of project's first period, the Quality Management Group was activated, while the role of the Consulting Expert Group is fulfilled by the project's Advisory Board.

The Quality Management Group, led by the Project Coordinator as Quality Manager, oversees the application of internal procedures, deliverable quality control and compliance with security



requirements and consists of one member of consortium partner ED, one member of consortium partner ICCS and one Security Reviewer.

Deliverables are reviewed by consortium partners following the process described in Section 3.5.2.2 and, where applicable, a Security Reviewer, ensuring independence and quality before submission.

3.2.8 Procedures for Handling Internal Breaches of Quality Standards

The following procedures will be applied in case of internal quality breach:

- **Report** any suspected breach to the WP leader and PC.
- **Assess** severity and impact on deliverables or project objectives.
- **Investigate** the breach and document findings.
- **Implement corrective actions** with assigned responsibilities and deadlines.
- **Prevent recurrence** by updating procedures and sharing lessons learned.
- **Escalate** to the WPLG if the breach poses major risks.

3.3 Project Communication

3.3.1 Central Document Repository

To maximise transparency and facilitate communication, a centralised Document repository is made available by the Coordinator. For the THEIA project, Dropbox is used as the central workspace, where all partners have rights to create, edit and review documents, news and other materials. Instructions for organising and managing the workspace have been provided by the Project Coordinator.

3.3.2 Open communication

The email is project's main communication mean while members/ mailing lists have been compiled by the PC.

Telephone communication is also used when necessary.

Finally, different meetings are conducted for which Minutes are taken and uploaded to the Document repository.

3.4 Project Progress Monitoring

The project's progress is effectively managed and controlled through a structured and systematic workflow, as outlined below:



- *Comprehensive Monitoring by the PC:* The PC holds primary responsibility for overseeing the optimal implementation of the project's scientific, administrative and technical activities, as described in the GA.
- *Focused Monitoring of WPs:* Each WP Leader is accountable for ensuring the successful execution of his respective WP, maintaining alignment with project objectives and timelines.
- *Detailed Monitoring of Tasks:* Task Leaders are tasked with the effective implementation and delivery of their assigned Tasks, contributing to the overall success of their WP.

This structured approach depends on effective collaboration among all project partners. Task Leaders are responsible for reporting progress and any challenges to their respective WP Leaders, who then communicate this information to the PC. This hierarchical system promotes accountability and ensures the efficient exchange of information, enabling smooth coordination and timely resolution of issues.

3.4.1 Meetings

As already presented in above sections regular meetings are organised by different THEIA Bodies as they facilitate direct communication among project partners, enabling the identification of key issues and opportunities for synergy, which are also listed below.

3.4.1.1 Plenary Consortium Meetings

The PC will arrange Plenary Consortium meetings at least twice a year. These meetings provide an opportunity to assess the project's progress, tackle any problems and outline the next steps to ensure the project's objectives are met effectively. When the need arises, an Extraordinary Meeting can be held either in person or via teleconference. Extraordinary Meetings can be initiated at any time upon written request by any Member, followed by an examination of the issue by the PC and initial discussion with the WPLG and if necessary, with the GAS.

3.4.1.2 WPLG Meetings

The PC convenes monthly WPLG meetings via teleconference. These meetings serve as a forum for all WP Leaders to engage with the PC and provide updates on their respective WPs, addressing topics such as progress, problems, achievements, deliverables and milestones. The PC is responsible for distributing the agenda in advance of each meeting and ensuring that MoM are shared with all WP Leaders and partners afterward, within a 7-day period and will be also uploaded to Document repository.

3.4.1.3 WP Monthly Meetings

Each WP Leader organises monthly teleconference meetings to ensure effective coordination and communication within their WP. Agendas are shared in advance, and the MoM are distributed afterward, within a 7-day period and stored in the Document repository. These meetings involve the WP Leader, Task Leaders, and partners contributing to the respective Tasks.



During the discussions, the WP Leader reviews the progress made, address any problems, propose solutions and ensure alignment with the project's timeline and objectives. THEIA PC also participates in these meetings.

3.4.1.4 General Assembly Meetings

The PC organises GAS meetings every six months or Extraordinary Meetings upon a written request from any partner. The PC is responsible for distributing the agenda prior to the meetings and sharing the MoM, within a 7-day period after their conclusion.

3.4.1.5 Other Partners Meetings

In addition to the meetings described above, any member of the consortium may organise and participate in meetings at any time to address specific issues or collaborate on particular aspects of the project.

The numbering scheme of the various types of meetings is the following:

For each type of meeting an abbreviation could be used based on the initials of its name followed by a two-digit sequential number. Relevant examples are given below: Plenary Consortium Meeting PCM-01, WPLG Meeting WPLGM-02, General Assembly Meeting GASM-03, WPx Monthly Meeting WPxM-04.

3.4.2 Milestones

The milestones are used to track key points of progress in a project, marking significant achievements or the completion of major tasks or deliverables.

The THEIA milestones are presented in the following Table and have been adjusted in accordance with the Amendment currently in progress.

Table 3. THEIA Milestones

No.	Milestone Name	WP	Leader	Means of Verification	Due Date (m)
1	Successful Initiation of the Project	WP1	GSH	The kick-off meeting was completed as expected. Successful implementation and submission of D1.1 "MoM of the Kick-off Meeting".	1
2	Website of THEIA operational	WP13	ICCS	Fully operational THEIA site launched. Submission of D13.1 "Website and Project Logo".	6
3	Specifications of the various THEIA components	WP5	GSH	Successful implementation and submission of deliverable D5.5 "THEIA Architecture Concept", specifications defined and agreed upon by all partners and end-users.	9
4	Successful data acquisition	WP7	LUXSPACE SARL	Successful implementation and submission of deliverable D7.1 "	15



No.	Milestone Name	WP	Leader	Means of Verification	Due Date (m)
				Assessment of current and planned EO (Optical & SAR) micro and pico-satellites and RF satellites mission".	
5	Successful integration of GeoAI module	WP10	ICCS	Operational module, according to the specs. Successful implementation and submission of D10.4.	20
6	THEIA platform integrated	WP11	GSH	Integration of THEIA platform according to specs. Successful implementation and submission of deliverable D11.1 "Deployment and Integration of the THEIA Platform".	26
7	Successful validation and testing of the THEIA platform	WP12	SATCEN	Completed pilot use of THEIA outputs and solutions on the pilot cases. Successful demonstration of the integrated satellite, UAV and other assets. Successful validation of results against selected scenarios. KR measures using respective KPIs. Successful implementation and submission of deliverable D12.4.	30

3.4.3 Progress Reporting

During the course of the project the following are foreseen:

- *Continuous reporting:* during the project, consortium is required to provide regular updates through the Continuous Reporting Module, accessible via a link provided at the project's start. The reporting includes progress on milestones, deliverables, updates to the publishable summary, responses to critical risks, publications, communication activities, IPRs and programme-specific monitoring information, if applicable. The module also facilitates reporting on critical risks, preparing the publishable summary, and providing programme-specific data on indicators such as training, gender, and open data.
- *Internal reporting:* during the course of the project the following Reports are foreseen:
 - ✓ Technical Progress Reports (Due M6, M22) providing detailed progress on each Partner's contributions within WPs and Tasks as outlined in the GA, including identifying and addressing any associated risks. A template will be provided by the PC.
 - ✓ Financial Progress Reports (Due M6, M22) reflecting resource usage based on planned person effort (in p/m) for the period. A template is provided by the PC.

These internal reports will trigger the transfer of installments from the pre-financing payment.



3.4.4 EC Reviews

EC reviews are planned at the end of each reporting period or when an additional technical assessment is deemed necessary. Whenever feasible, these reviews are combined with a project meeting to streamline efforts and enhance collaboration.

The primary objectives of these reviews are to present the work carried out, highlight key achievements and provide an overview of resource utilisation. Participation typically includes the PC and WP Leaders as a standard practice, with the involvement of other partners determined on a case-by-case basis.

The EC/ Granting Authority will be supported by external reviewers to ensure an independent and comprehensive assessment. To facilitate the review process, the relevant report and associated deliverables must be finalised and made available at least 2–3 weeks before the scheduled review meeting. This ensures adequate preparation time and contributes to a thorough evaluation of the project's progress.

EC reviews may also be conducted at any point during the project's duration, should the need arise.

Four reviews by the EC/ Granting Authority are scheduled:

- R1: On M6/7 the Interim Technical Review. This Review took place on 22/07/2025.
- R2: On M15 – End of 1st period following the submission of the Periodic Report, which covers the consortium's activities up to Month 15. This is planned for April 2026.
- R3: On M22/23 the 2nd Interim Review.
- R4: On M30 – End of 2nd period following the submission of the Final Report, which summarizes activities for the entire project duration.

3.5 Quality Assurance of Deliverables

3.5.1 THEIA Templates

One important measure to ensure the quality of deliverables is the development of Templates and guidelines for various reports, deliverables and standardised documents. These tools provide a clear structure and consistency, improving the quality and efficiency of the project's documentation. For example, Templates for the agenda, MoM and other project-related documents help communication and ensure all necessary information is presented in a consistent format.

For THEIA, the following Templates have been developed:

- Template for Deliverables



- Templates for Presentations
- Template for Meeting Agendas
- Templates for MoM
- Template for WP Status update meetings
- Templates for Review Reports

Additionally, a system for tracking the different versions of each deliverable, along with the associated review processes, is implemented and documented in the document history found on the second page of the document.

Finally, all project documents must be free from spelling errors, properly include references (if applicable) and ensure originality by avoiding plagiarism or duplication of content from other project deliverables.

The following file formats will be used throughout the project:

- Text/Word Processing: Microsoft Word files or compatible formats.
- Presentation: Microsoft PowerPoint files or compatible formats.
- Spreadsheet: Microsoft Excel files or compatible formats.

The naming convention for documents or files is illustrated in the following examples:

- Deliverable documents: THEIA^D1.1^NAME^v1.0.doc
- Reports: THEIA^Type of R^Date^Partner, v01 or final.doc
- Agenda of a meeting: THEIA^Meeting name^Agenda^Date, v01 or final.doc
- Minutes of meeting: THEIA^Meeting name^MoM^Date, v01 or final.doc
- Presentation: THEIA^Name of Event^Date^Partner, v0.1 or final.pptx

References and other sources of information used in writing should be appropriately cited.

It is recommended to use the following format for references: [Last name, First Initial. (Year published). Title. City: Publisher, Page(s)].

3.5.2 Deliverables

3.5.2.1 *Submission of Deliverables*

Deliverables are crucial for maintaining active engagement among consortium members throughout the project. As such, it is essential that each partner is assigned responsibility for at least one deliverable, or contributes to one. The amount of work required for each deliverable corresponds to the allocated person-months for each partner within the relevant WP.

The partners tasked with preparing and submitting deliverables, known as Deliverable Leaders, are designated as the "Lead Beneficiary" in the DoA (Annex 1 of the project GA). To complete the planned deliverables, Deliverable Leaders will gather input from Task Leaders and all partners



contributing to the relevant Task, with guidance and support provided by the respective WP Leader.

In the following Table, THEIA deliverables are presented and have been updated in accordance with the Amendment currently in progress.

Table 4. THEIA Deliverables

No	Title	Type		Dissemin. Level	Month	Due Date	Leader
D1.1	MoM of Kick-off Meeting	Deliverable	Report	SEN	M1	31/12/2024	GSH
D1.2	Risk identification Management & Quality assurance plan	Deliverable	Report	PU	M2	31/01/2025	GSH
D1.3	Initial Data Management Plan (DMP)	Deliverable	DMP	PU	M4	31/03/2025	GSH
D1.4	Intermediate report on Risk Identification Management & Quality Assurance Plan	Deliverable	Report	PU	M15	28/02/2026	GSH
D1.5	Intermediate Data Management Plan (DMP)	Deliverable	DMP	PU	M15	28/02/2026	GSH
D1.6	Initial Progress Report	Deliverable	Report	SEN	M6	31/05/2025	GSH
D2.1	Final report on Risk Identification Management & Quality Assurance Plan	Deliverable	Report	PU	M30	31/05/2027	GSH
D2.2	Final version of the Data Management Plan (DMP)	Deliverable	DMP	PU	M30	31/05/2027	GSH
D2.3	Progress Report	Deliverable	Report	SEN	M22	30/09/2026	GSH
D3.1	THEIA Ethics version 1 (1st period)	Deliverable	Report	PU	M3	28/02/2025	MPL Brussels
D3.2	THEIA Ethics version 2 (1st period)	Deliverable	Report	PU	M15	28/02/2026	MPL Brussels
D4.1	THEIA Ethics (2nd period)	Deliverable	Report	PU	M30	31/05/2027	MPL Brussels
D5.1	Stakeholders engagement plan, CSS Gap Analysis Report and User Feedback Summary	Deliverable	Report	SEN	M4	31/03/2025	GSH
D5.2	Enhanced Service Features	Deliverable	Report	SEN	M6	31/05/2025	AIT



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

No	Title	Type		Dissemin. Level	Month	Due Date	Leader
D5.3	Use Case Definition Report	Deliverable	Report	SEN	M6	31/05/2025	GSH
D5.4	EO Data Processing Pathway Selection Guide	Deliverable	Report	PU	M10	31/10/2025	C3I
D5.5	THEIA Architecture Concept	Deliverable	Report	SEN	M9	31/08/2025	GSH
D6.1	Delivery of the tailored Very-High-Resolution Earth Observation and Space-based Video Data Tools	Deliverable	Report	PU	M15	28/02/2026	OHB DS
D6.2	Selection and optimisation of the methodology of appropriate space data	Deliverable	Report	SEN	M22	30/09/2026	OHB DS
D7.1	Assessment of current and planned EO (Optical & SAR) micro and pico-satellites and RF satellites mission	Deliverable	Report	SEN	M15	28/02/2026	LUXSPACE SARL
D7.2	Comprehensive Assessment and Evaluation of Current and Planned EO/RF Missions Against Stakeholder Requirements and Identification of Gaps and Recommendations	Deliverable	Report	SEN	M15	28/02/2026	LUXSPACE SARL
D7.3	Assessment of UAS and Terrestrial Sensing	Deliverable	Report	PU	M15	28/02/2026	C3I
D8.1	Delivery of the crowdsourcing tool	Deliverable	Report	SEN	M15	28/02/2026	WTOC
D8.2	Compilation and Analysis of Statistical, Economic, and Demographic Data for AOIs	Deliverable	Report	SEN	M15	28/02/2026	ED LUXEMBOURG
D8.3	Delivery of high-velocity transnational data	Deliverable	Report	SEN	M15	28/02/2026	ED LUXEMBOURG
D9.1	Delivery of the data models and cyber-secure data exchange framework	DEM	DEM	SEN	M15	28/02/2026	ICCS
D9.2	Cyber-Secure Data Exchange Framework and Service for THEIA	Deliverable	Report	SEN	M20	31/07/2026	CREO
D9.3	Implementation of National Constellation Data Federation and Optimized API Access	Deliverable	Report	PU	M20	31/07/2026	CREO



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

No	Title	Type		Dissemin. Level	Month	Due Date	Leader
D10.1	Advanced ML Techniques for Satellite Image Processing and Georeferencing	Deliverable	Report	SEN	M20	31/07/2026	GSH
D10.2	AI-Based Processing and Georeferencing for UAS and Terrestrial Sensors	Deliverable	Report	SEN	M20	31/07/2026	AIT
D10.3	Intelligence Gathering and Georeferencing from Open and Closed Sources	Deliverable	Report	SEN	M20	31/07/2026	ED LUXEMBOURG
D10.4	Fusion and Geospatial AI (GeoAI) Module Development	Deliverable	Report	SEN	M20	31/07/2026	ICCS
D11.1	Deployment and Integration of the THEIA Platform	DEM	DEM	PU	M26	31/01/2027	GSH
D12.1	Report on THEIA Use Cases and Demonstration Requirements	Deliverable	Report	SEN	M18	31/05/2026	ED LUXEMBOURG
D12.2	Technology Validation Preparatory Report	Deliverable	Report	SEN	M24	30/11/2026	SATCEN
D12.3	Comprehensive Report on THEIA Demonstration Activities	Deliverable	Report	SEN	M29	30/04/2027	GSH
D12.4	Performance and Impact Assessment Report	Deliverable	Report	SEN	M29	30/04/2027	SATCEN
D13.1	Website and Project Logo	Deliverable	Report	PU	M2	31/01/2025	ICCS
D13.2	Dissemination and Communication Plan (Version 1/1st-period)	Deliverable	Report	PU	M6	31/05/2025	ICCS
D13.3	Exploitation plan (Version 1)	Deliverable	Report	PU	M6	31/05/2025	GSH
D13.4	Dissemination and Communication Report (Version 1/1st-period results)	Deliverable	Report	PU	M15	28/02/2026	ICCS
D13.5	Exploitation plan (Version 2)	Deliverable	Report	PU	M15	28/02/2026	GSH



No	Title	Type		Dissemin. Level	Month	Due Date	Leader
D14.1	Dissemination and Communication Plan (Version 2/2nd-period)	Deliverable	Report	PU	M20	31/07/2026	ICCS
D14.2	Exploitation plan (Version 3/2nd-period results)	Deliverable	Report	PU	M30	31/05/2027	GSH
D14.3	Dissemination and Communication Report (Version 2/2nd-period results)	Deliverable	Report	PU	M30	31/05/2027	ICCS
D15.1	OEI - Requirement No. 1	Deliverable	Report	SEN	M1	31/12/2024	MPL Brussels
PR1	Periodic report 1	Periodic Report	Report		M1-M15		GSH
PR2	Periodic report 2	Periodic Report	Report		M16-M32		GSH

Each deliverable is intended to be developed within a structured deliverable charter, collaboratively designed and approved by the Deliverable Leaders and contributing partners. This method ensures efficient organisation, defined roles and coordinated efforts, promoting the successful completion of each deliverable.

The changes to the deliverables made in the Amendment are presented in detail in the accompanying submission material.

3.5.2.2 Review of Deliverables

The deliverables go through an internal quality review process to guarantee the highest standard of results. This review has been updated during the last months of the first period of the project and consists of five steps, each requiring the involvement of various stakeholders for validation and adherence to a reasonable timeline which are presented in the following Table.

Table 5. THEIA Deliverables review process

Step	Version	Time before EC Submission	Description/ Action	Validation
1	Outline	8 Weeks	Outline, ToC, development of time schedule	<i>Deliverable Leader.</i> Feedback is collected and incorporated into the deliverable. Time: 1 week
2	First Draft	4 Weeks	First draft of the document	<i>Deliverable Leader & WP Leader.</i> Feedback is collected and incorporated into the deliverable. Time: <1 week



Step	Version	Time before EC Submission	Description/ Action	Validation
3	Second Draft	3 Weeks	Second draft of the document (incorporated comments of the previous step - Deliverable Leader, WP Leader)	<i>Consortium partners (if needed) & PC.</i> Feedback is collected and incorporated into the deliverable. Time: 1 week
4	Third Draft	2 Weeks	Third draft for Internal Review process (incorporated comments of the previous step - Consortium partners & PC)	<i>1 reviewer (consortium partner) per deliverable – completes the Deliverable Review document.</i> Feedback is collected and incorporated into the deliverable. Time: >1 week
5	Final Draft	1 Week	Finalisation and final approval	<i>PC final check & Security Advisory board (SAB) for PU deliverables.</i> Feedback is collected and incorporated into the deliverable. Time: 3 days
6	Final Version (Version 1.0)	2 days	Submission to the EC	

The assignment of the reviewer role within the consortium was carried out with an effort to adhere as closely as possible to the following criteria:

- The reviewer must be a member of the WP to which the deliverable pertains or have expertise related to the subject matter of the deliverable.
- Consideration is given to the person effort contributed by the partner.
- Efforts are made to avoid assigning the same reviewer for multiple deliverables with overlapping deadlines.
- Preference is given to partners who will later utilise the deliverable's content as input for their tasks.

The reviewer/assigned partner is responsible for reviewing the deliverable and completing the associated Review Template, ensuring a thorough and standardised evaluation process.

The Review Table includes the criteria for deliverable review, addressing several key aspects to ensure a comprehensive and thorough evaluation. These include clarity and readability of the deliverable, as well as consistency with the project's objectives and requirements. The accuracy of the technical, scientific and other content is assessed, along with the completeness of all required aspects as outlined in the GA. The deliverable's relevance to its scope and purpose, the quality of analysis in terms of methodology and depth and its timeliness in relation to the project schedule and milestones are also evaluated. Additionally, the review considers the deliverable's weaknesses and strengths, its overall quality and provides suggestions and recommendations for improvements where necessary.



To standardise the review process: a) the “Track Changes” feature should be enabled in the document editor to automatically log edits and ensure all modifications are visible for tracking from one version to the next, b) the “Comment” feature should be used to provide clear and actionable feedback, explaining the reasoning behind suggested changes. Once the review is finalised, the deliverable author should resolve comments, accept/reject changes, and finalise the deliverable. For key documents, the organisation of collaborative review sessions should be considered to address major changes before submission. This ensures a clear, transparent, and efficient review process.

The reviewers for each deliverable have already been selected and their list is available in the Document repository.

Finally, as mentioned above, Public project deliverables are evaluated by the Security Reviewer (a member of the Security Advisory Board) to identify any security-sensitive content. The reviewer completes the associated Security Review Template and provides recommendations to implement preventive measures against potential misuse.



4 THEIA Risk Management Plan

Considering the importance of risk management for the smooth and successful execution of the project in terms of both results and adherence to the timeline and budget, the processes for managing these risks began during the proposal writing phase for THEIA. This proactive approach laid the foundation for effective risk mitigation strategies. The initial approach, as outlined in the GA, serves as the basis for the project's implementation and ensures that all risks are addressed systematically and effectively.

4.1 Risk Management Procedure

The recommended stages of risk management, which typically include risk detection, risk analysis, risk assessment, and risk management and monitoring, were followed to create an initial Risk Registry containing this information. This systematic approach ensures a comprehensive understanding of potential risks and facilitates their effective mitigation throughout the project's lifecycle.

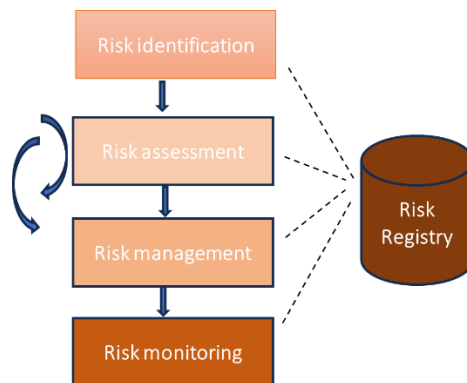


Figure 2. Risk management procedure of the THEIA project

This Risk Registry in the form of a table is the primary tool for risk management in THEIA, aims to ensure that detected risks are reported and a record is maintained. It is regularly updated by the PC, who is also responsible for overseeing risk management.

Essentially, the Risk Registry is a list of identified risks accompanied by potential mitigation measures and the responsible partner. A frequently updated registry is valuable for both the administrative and technical management of the project, ensuring proactive and effective handling of potential challenges.

The initial risk table, prepared during the proposal phase, has been regularly updated by all partners on almost a six-month basis.

The risk management process during THEIA's implementation follows these steps:



Step 1 – Risk identification: When a partner identifies a new risk or notices a change in its likelihood or impact, he must inform the WPL and discuss it during the WP monthly meeting. Risk discussion is also be a standing agenda item in all WP and WPLG meetings. The WPL then notifies the PC and update the Risk Registry, which is stored in the Document repository.

Step 2 – Risk assessment: The partner who identified the risk analyses and evaluate it, proposing mitigation measures. These measures are added to the Risk Registry to ensure proactive planning and appropriate responses.

Step 3 – Risk management: The identified risk is monitored by the responsible partner, with updates provided during monthly WP meetings if changes occur. Additionally, a quarterly checkpoint involves the distribution and updating of the Risk Registry table to WP Leaders. The WP Leaders collects information on existing risks and any new ones identified.

Step 4 – Risk monitoring: Every six months, the PC will initiate the process of collecting risk updates from all consortium partners and updating the Risk Registry. Partners are responsible for assessing risks related to their work and their responsibilities. While biannual updates are standard, risks should be reported as soon as they are detected. Early identification minimises potential impacts and ensures effective mitigation measures are implemented promptly.

This structured approach ensures a continuous and systematic assessment of risks, safeguarding the project's objectives, timeline and budget.

4.2 THEIA Risk Register

The Registry that is used in THEIA project has a number of columns under which each risk is analysed individually with the following information:

- **Risk identification number:** this is a simple serial number that corresponds to the associated Risk. The order of risks has been revised from the initial version, reflecting their grouping according to nature (see next bullet).
- **Nature:** this field indicates which type of category of risk is. When a risk is detected, it must be identified to which issue of the project it refers e.g. PM – Project management risk, TECH – Technical risk, ETH – Ethical risk, OPR – operational risk related to demonstrations, DATA – Related to data risk etc.
- **Description of the Risk:** the name and description of the risk.
- **WPs** affected by the risk.
- **Likelihood:** the probability of the occurrence of the risk. [L-Low, M-Medium, H-High]



- **Impact:** the severity of the impact the identified risk might have in case of occurrence. [L-Low, M-Medium, H-High]
- **Risk:** The overall level of risk resulting from the combination of likelihood and impact. [L-Low, M-Medium, H-High]
- **Proposed Mitigation Measures:** specific measures that should be taken to ensure the best minimisation of the critical risk in case of occurrence.
- **Responsible Partner:** a leader who oversees the management of the risk. This leader may be a WP or Task leader, or any other partner whose expertise or strategic position within the relevant scientific area makes them well-suited to handle the risk effectively.

The following Risk Registry reflects the version prepared at month 13 (M13) of the project.

Table 6. THEIA Risk Registry at M13

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
1	PM	Participants showed weak commitment to work plans and deadlines. Potential for serious delays as lack of progress in tasks may cause delays for linked tasks or projects.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11, WP12, WP9, WP6	M	L	L	Structured quality management including monthly WPs meetings for detailed planning, monitoring and corrective actions. Early directions for timely outputs and following evolving deliveries. Deliverable submission and review process.	GSH
2	PM	Possible delays in finalising the list of user requirements due to the need for input from all project partners and the iterative nature of the finalisation process.	WP5	H	M	H	Defining the UR list as a living document so that amendments can be made during the project for possible modification if necessary.	GSH
3	ETH	End user's privacy and security are insufficiently addressed.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11,	L	L	L	THEIA establishes a comprehensive Data Management Plan (DMP). Project partners have an excellent track record for dealing with privacy and ethical issues in previous security research projects.	MPL



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
			WP12, WP9					
4	ETH	Concerns about bias, privacy, security, and accountability issues manifested in the project's results.	WP4, WP11, WP5, WP2, WP10, WP3	M	M	M	THEIA consortium proactively works to ensure AI models are used in a fair, unbiased, and societally robust manner, and that they do not exacerbate existing inequalities. Raise awareness among all stakeholders about the risks and limitations of AI technologies and the importance of protecting data privacy and ensuring it is used only for its intended purpose. Make use of guidance from the (external) Ethics Advisor.	MPL
5	ETH/ OPR	Reluctance and organisational constraints of end users to data sharing and reuse.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP8, WP3, WP1, WP14, WP11, WP12, WP9, WP6	M	M	M	Build and enhance trust and transparency between consortium members towards data sharing starting already from the project negotiation phase by imposing a clear data governance framework, data security and privacy assurances and consortium-wide communication and awareness campaigns.	GSH, MPL, OHB DS, SATCEN, SPACE-SI, LXS, C3I, ED, WTOC, CREO, ICCS, C3I
6	OPR/ TECH	User needs are not adequately addressed in THEIA (architecture and components).	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11, WP12, WP9, WP6	L	H	M	THEIA solutions will adopt a user-centred design approach, leveraging detailed specifications analysis. An iterative method, including early component releases, facilitates user feedback integration.	GSH, AIT



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
7	OPR	Difficulties to involve all CSS Entrusted Entities during the definition of the users' requirements and identification of potential gaps.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11, WP12, WP9, WP6	M	H	H	Efforts have been and continue being made to contact and involve all CSS Entrusted Entities in the users' requirements definition. Surveys have been sent and some inputs were collected. The involvement of the CSS EE will be pursued along the project, with the aim of collecting their valuable input about the technologies and solutions to be developed.	GSH
8	OPR	User requirements extracted from the Annex III of the Strategic Research Agenda for the Copernicus Security Service may not be fully aligned with the use cases objectives as described in the Grant Agreement.	WP5, WP10, WP11, WP12	M	H	H	Define in D5.3 a common approach and assessment for each one of the requirement linking them to the respective use case. The probability to be implemented will also be evaluated, based on the continuous development of the technology modules along the project.	GSH, SATCEN
9	OPR	Low engagement of stakeholders during design, development and/or evaluation.	WP11, WP12, WP5, WP10, WP13	M	M	M	Improve stakeholder engagement by initiating early interactive activities, ensuring transparency, collaboration, and flexibility. Enable inclusive co-creation in all stages, employing cooperation methods and tools for consistent stakeholder feedback and updates.	GSH, ICCS
10	OPR	Delays or limited involvement from EMSA (the relevant Entrusted Entity) or other end-users may negatively impact project progress.	WP11, WP12, WP5, WP10, WP13	M	H	L	Ensure proactive engagement, maintain regular communication and provide structured support to EMSA and other end-users to facilitate timely involvement.	GSH
11	OPR	Low engagement & participation of end-users during the demo, evaluation, and validation phase.	WP12, WP13	M	H	H	Ensure proactive engagement with potential end-users to be invited to participate in the demo, evaluation and validation phase. Regularly sharing any advancement, publication or communication in relation to THEIA could support this measure to mitigate the identified risk.	SATCEN, ED, GSH
12	OPR	Insufficient interaction with end-users, despite the need to provide training on the THEIA platform	WP11, WP12, WP13	M	H	H	Ensure continuous communication and collaboration with end-users. Conduct structured training sessions supported by regular feedback and follow-up activities	GSH



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
13	OPR	Global disturbance (War in Ukraine etc.) affects development activities or field trials.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11, WP12, WP9, WP6	L	M	L	In case of significant disturbances affecting Europe or the field trial locations, the consortium shall develop and implement suitable methodological alternatives to ensure that the project does not cease to progress and will generate the envisioned outcomes.	SATCEN
14	OPR	Lack of connectivity in some cases.	WP6, WP7, WP8, WP9, WP10, WP11, WP12	L	H	M	THEIA proactively will define a backup plan for connectivity issues. In the worst-case scenario, alternative communication means (even of lower security standards) will also be examined as high-urgency solutions.	GSH, SATCEN
15	EXT	THEIA results are not likely to be valued or exploited after the project is finished.	WP14, WP12, WP13	L	H	M	Both the scientific and the industrial partners have high motivation to exploit the THEIA technology due to its benefits for their research, their products, and their business agendas. Established robust communication with domain actors with the partner's other projects. Make use of guidance from the (external) Advisory Board/external Stakeholders (Frontex, UN). Strong practitioner involvement in setting up THEIA requirements and testing	GSH
16	EXT	Business adoption of THEIA is not as expected.	WP14, WP12, WP13	L	M	L	WP12 will focus on guaranteeing maximum extraction of the business value of the selected use cases. WP13 and WP14 will monitor business adoption and provide a roadmap for the system and individual solutions marketization and exploitation in the future.	GSH
17	TECH	Low scientific and technical quality of outcomes or deliveries.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1,	L	H	M	THEIA consortium research and industry expertise on advanced surveillance system development mitigate the risk. Most partners have established excellent track records for scientific/technical quality in previous research projects.	OHB DS, LXS, AIT, ICCS, ED, GSH, WTOC, C3I



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
			WP14, WP11, WP12, WP9, WP6					
18	TECH	Complex or less interpretable AI models hinder understanding proposed predictions, troubleshooting, and debugging. If the model produces unexpected results.	WP11, WP12, WP10	M	L	L	When needed, simplify model architectures. Use pruning and quantisation to reduce the size and complexity of the model. Use explainability techniques saliency maps and other visualization techniques to understand how the model uses its inputs to make predictions. Perform counterfactual analysis to understand model predictions with varied inputs.	ICCS
19	TECH	AI models are vulnerable to security attacks (AI models are vulnerable to adversarial attacks, which are crafted inputs that are designed to fool the model into making incorrect predictions)	WP9, WP10, WP11	L	H	M	Use adversarial training to make the model more robust to adversarial attacks. Use input validation to detect and reject malicious inputs. Enhance THEIA's cyber security framework to safeguard data communication and prevent data spoofing. Deploy the model in a secure environment that is protected from unauthorised access.	GSH
20	TECH	Difficulty defining operational scenarios and use cases that adequately capture emerging challenges or may conflict with existing regulations requiring adjustments.	WP5	M	M	M	Participation of partner stakeholders to the definition of the use cases and the operational scenarios and establish review cycles to adjust scenarios based on new data or changes.	GSH



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
21	TECH	Ground segment data availability and accessibility	WP8	M	H	H	WP8 will focus on gathering, fusing and analyzing all available data sources that can provide relative and meaningful data to support project's goals. An extended AoI will be considered as possible area for data collection so to provide a more inclusive mapping and enhance the understanding of the displacement factors. Crowdsourcing tool relies on publicly available online data, which are vulnerable to frequent changes of conditions and legal terms of using them. In case such changes make some datasets unusable, mitigation to different platforms/sources is the appropriate answer.	ED
22	OPR/TECH	Lack of imagery and AIS/RF/OSINT data for particular events (at the time of the event).	WP6, WP7, WP8, WP9	L	H	M	Examine all other alternative sources of information and data. Widening of the time window around the event, research for alternative data, then use data before and after the event and simulate.	LXS, WTOC
23	TECH/PM	High project complexity due to the use of multiple cutting-edge technologies e.g., XR.	WP4, WP15, WP5, WP7, WP13, WP2, WP10, WP3, WP8, WP1, WP14, WP11, WP12, WP9, WP6	L	H	M	Project partners have a track record with cutting-edge tech and skilled personnel and have chosen proper adept personnel for execution. Utilisation of user-friendly devices. Produce and follow strict and adequate training activities.	GSH, AIT, C3I, OHB DS, LXS, SPACE-SI, CREO, ED, WTOC, ICCS
24	TECH	The high costs of acquiring data, such as VHR satellite or RF data and the limited availability of suitable annotated datasets for the defined objects and areas of interest could limit the quality and scope of the image analysis methods in development.	WP6, WP7, WP9, WP10, WP11, WP12	M	M	M	Freely available datasets are being screened for. Quota for selected suitable VHR CCM missions are being requested for relevant AOIs, led by GSH and SATCEN. Explore technological approaches to e.g. facilitate machine learning on limited datasets.	GSH, CREO, LXS, OHB DS, SPACE-SI, AIT, SATCEN



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
25	DATA or TECH	Limited data availability in several Aols and time frames	T8.1	M	L	L	Use alternative data sources, interpolate missing data, adjust project scope	WTOC
26	TECH	API access restrictions, including rate limits	T8.1	L/ M	M	L	Optimize request scheduling	WTOC
27	DATA	Data for the timeframe and AOIs might not be available	T8.2/ T8.3	M	M	M	Extend AOI and search criteria. Include extended list of sources	ED
28	DATA	Data availability does not guarantee fit-for-purpose. The spatial footprint (i.e. data granularity) might not be adequate for the project's purposes.	T8.2/ T8.3	M	M	M	Extend AOI and search criteria. Include extended list of sources	ED
29	DATA	The data should be sterilized from personalized information	T8.3	L	M	L	Focus on data trends while avoiding any personalized data collection.	ED
30	TECH	WP11 Interface Dependencies: Misalignment between SDX API interfaces and WP11 backend requirements could require rework of service contracts and data models.	WP9, WP11	L	M	L	Schedule technical coordination meeting with WP11 team	C3I, WP11 counterpart
31	TECH	Performance Under Load: System performance with real EO data volumes (GB-sized files, concurrent users) is untested. Database and API response times under production load are unknown.	WP9	M	M	Me	Conduct load testing in M12-M13 with realistic data scenarios	C3I



D1.4 – Intermediate report on Risk Identification Management & Quality Assurance Plan

NEW Risk No.	Nature	Risk	Affected WP	Likelihood	Impact	Risk	Proposed Mitigation Measures	Responsible Partner
32	TECH	The area of interest may be splinted between several images, which increases the need of storage.	WP9	M	M	M	The risk can be lowered out by collecting data that includes the complete area of interest. If that is not possible, then on later stages of possessing, an algorithm to merge the several parts of the image can be includes to merge the several DC products to one.	ICCS
33	TECH	Incompatibility with Geoserver if Data Cubes doesn't follow a specific template.	WP9	M	H	L	The Geoserver service follows a specific and strict format for data sharing. If this format is not followed, then the Geoserver will not be able to handle the data and share the necessary layers. To resolve this issue, the DC framework will respect and follow the necessary datasets' specifications for generating ready to use data that can be shared via Geoserver services.	ICCS



END OF DOCUMENT