SECURING AGAINST INTRUDERS AND OTHER THREATS
THROUGH A NFV-ENABLED ENVIRONMENT

[H2020- Grant Agreement No. 700199]

Deliverable D7.1

Project Management Handbook

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Executive Summary

The present document is a guide to the structures, procedures and available tools to be employed towards the management and implementation of the SHIELD project. Its purpose is to offer a brief yet thorough overview of the management and collaboration guidelines of the project towards its successful execution. It aims at complementing the CA/GA provisions.

The project management structures and bodies are named and identified, namely the Project Coordinator, the Technical Manager, the Innovation Manager, the General Assembly, the Technical and Innovation Boards. The General Assembly and Technical/Innovation Board members as well as the Work Package/Task leaders are explicitly named.

The internal communication tools/procedures of the project include: i) General Assembly meetings (F2F plenary meetings held three times a year) ii) periodic progress telcos and iii) asynchronous communication via the project wiki as well as via plenary and WP-specific mailing lists.

In addition, the procedures for producing, managing and reviewing internal documentation, such as Minutes of Meetings, Action Item List and Risk Register are defined.

Finally, towards standardizing the procedures associated with producing the project's external documentation (mostly deliverable documents), a template is proposed along with a naming convention, as well as a general schedule for the preparation of the deliverables.

The project team will use this document in order to maintain a common understanding of the procedures and rules to be followed for the day-to-day project management and execution.

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1. INTRODUCTION

The present document is a guide to the structures, procedures and available tools to be employed towards the management and implementation of the SHIELD project. Its purpose is to offer a brief yet thorough overview of the management and collaboration guidelines of the project towards its successful execution.

This deliverable is not a legally binding document. Its purpose is not to repeat the terms and conditions laid out in Grant Agreement (and its Annexes) as well as in the Consortium Agreement, but to complement the description of the management and cooperation procedures, providing practical information for day-to-day matters. In case of any accidental incompatibilities between this document and any CA/GA terms, the latter always prevail.

This document proceeds as follows: Chapter 2 briefly revises the project management structures and bodies, Chapter 3 describes the project communication tools and procedures and Chapter 4 overviews the guidelines for producing project-related documentation.

Last but not least, it must be noted that this document has been kept as concise as possible, in order to be easily readable by all project participants and reflect the effort of the coordinator to maintain the management overhead at a reasonable level, without sacrificing effectiveness or quality.

2. PROJECT MANAGEMENT STRUCTURE

The project management structures and governance procedures are described in the Annex to the GA ("Description of Action"), section 3.2 "Management structure and procedures". These structures and procedures are briefly overviewed here.

2.1. Project Coordinator

The Project Coordinator is responsible for the overall management, communication, and coordination of the entire research project. The Project Coordinator also chairs the General Assembly and serves as the only official channel that interacts with the European Commission, especially with regards to the submission of deliverables, aspects related to third parties and the consortium of SHIELD.

The Project Coordinator of SHIELD is Dr. Georgios Gardikis (SPH), ggar@space.gr

For contractual and financial aspects, the responsible officer on behalf of SPH is Mrs. Katerina Dalari (kdal@space.gr)

2.2. Technical Manager

The Project Technical Manager (TM) coordinates the technical activities of all partners in the project according to the work plan. He supervises the progress of work and ensures the coordination among work packages.

The Technical Manager of SHIELD is Dr. Jordi Ferrer Riera (i2CAT), jordi.ferrer@i2cat.net.

2.3. Innovation Manager

The project Innovation Manager (IM) coordinates the activities of all partners around the IPR and knowledge management, and the feasible innovations. Considering the importance of the Innovation within the SHIELD, the consortium has decided that two persons will chair the IB acting as Innovation Manager. Dr. Emmanouil Kafetzakis, CEO from ORION Innovations (mkafetz@orioninnovations.gr), and Dr. Ioannis Neokosmidis (i.neokosmidis@incites.eu), CEO from Incites.

2.4. General Assembly

The General Assembly (GA) is the ultimate decision-making body in SHIELD. It comprises one representative of each Partner. Each Partner has nominated a senior representative to the GA, as shown in Table 1, with budget responsibility, enabling to make consistent decisions and to represent organisation interests.

The role of the General Assembly is to ensure the follow-up of the project and to take the major decisions mainly on the following contractual aspects: i) ECGA and Consortium Agreement

amendment, ii) termination of the contract and actions against underperforming partners, iii) budget follow-up and transfers, and iv) conflict resolution.

On the administrative control of the project, the GA has the day-to-day responsibility and organisation for the overall project progress (objectives, schedule, milestones, etc.), and approves project deliverables. The GA also ensures the Quality and the Risk Management aspects of the project.

The GA is the ultimate decision-making body. Decisions will be taken by consensus whenever possible. In case of conflict, decision will be taken by voting; where each Partner will contribute with a single vote.

Table 1. Delegates to the General Assembly

Organisation	Name
SPH	Georgios Gardikis
I2CAT	Jordi Ferrer Riera
UBI	Ricardo Preto
POLITO	Antonio Lioy
INFILI	Antonis Litke
TID	Antonio Pastor
ORION	Emmanouil Kafetzakis
INCITES	Ioannis Neokosmidis
HPELB	Ludovic Jacquin
AGID	Mario Terranova
NCSRD	Anastasios Kourtis

2.5. Technical Board

The purpose of the TB is to steer and coordinate the technical work within the project.

The TB is composed of the Work Package Leaders (WPLs) (see Sec. 2.7) and the technical representatives (one from each partner) involved in the technical Work Packages. The delegates to the TB are listed in Table 2 below.

Decisions will be taken by consensus whenever possible. No voting will occur within the TB. In case of conflict, or for decisions beyond WP responsibilities, the WP leader shall refer to the GA, providing a description of the problem and its possible solution(s).

Table 2. Delegates to the Technical Board

Organisation	Name
SPH	Georgios Gardikis
I2CAT	Jordi Ferrer Riera
UBI	Tiago Batista
POLITO	Antonio Lioy
INFILI	Nikos Papadakis
TID	Antonio Pastor/Diego López
ORION	George Xylouris
INCITES	Theodoros Rokkas
HPELB	Ludovic Jacquin / Marco Casassa Mont
AGID	Mario Terranova
NCSRD	Eleni Trouva

2.6. Innovation Board

The role of the Innovation Board is to ensure that all the innovation activities within the project reach their target and maximize their impact. It is also in charge of studying and analysing both market and technical aspects, and bridging the project innovation achievements to a successful implementation and deployment in the real world

The IB ensures the management of foreground and IPR during the project lifetime, under the rules of the Consortium Agreement.

The Innovation Board (IB) comprises one representative of each Partner (see Table 3 below). Each Partner has appointed a senior representative, with technical background, enabling to make consistent decisions around IPR and knowledge and innovation management to represent organisation interests.

Decisions within IB will be taken by consensus whenever possible. No voting will occur within IB. In case of conflict or for decisions beyond IB's responsibilities, IB will refer to the GA.

Table 3. Delegates to the Innovation Board

Organisation	Name
SPH	Georgios Gardikis
I2CAT	Jordi Ferrer Riera
UBI	Tiago Batista
POLITO	Antonio Lioy
INFILI	Nikos Papadakis

TID	Antonio Pastor
ORION	Emmanouil Kafetzakis
INCITES	Dimitris Katsianis
HPELB	Yolanta Beresna
AGID	Mario Terranova
NCSRD	Eleni Trouva

2.7. Work Package and Task leaders

The Work Package and Task Leaders are responsible for managing their respective work package and task as a self-contained entity. The scope of their responsibilities includes amongst other things coordinating, monitoring, and assessing the progress of the work package mostly in terms of scope and schedule.

The WP and Task leaders of the project are listed in the table below.

Table 4. Work Package and Task leaders

WP/Task	Leader
WP1	**Socrates Costicoglou**
WP2	**Ludovic Jacquin**
T2.1	Jerónimo Núñez
T2.2	Marco Casassa Mont
T2.3	Dimitris Katsianis
WP3	**Carolina Fernández**
T3.1	Nena Davri
T3.2	Ludovic Jacquin
T3.3	Tiago Batista
T3.4	Carolina Fernández
T3.5	Tiago Batista
WP4	**Antonis Litke**
T4.1	Bernat Gastón
T4.2	Kostas Tzoulas
T4.3	Antonio Lioy
T4.4	Dimitris Papadopoulos
T4.5	Tiago Batista

WP5	George Xylouris
T5.1	Nena Davri
T5.2	Georgios Gardikis
WP6	**Dimitris Katsianis**
T6.1	Antonio Lioy
T6.2	Diego López
T6.3	Dimitris Katsianis
WP7	**Georgios Gardikis**
T7.1	Georgios Gardikis
T7.2	Georgios Gardikis
T7.3	Jordi Ferrer Riera

3. TOOLS AND PROCEDURES

3.1. Consortium Agreement

A Consortium Agreement (CA) document will be established, jointly accepted and signed by all partners before the start of the project and maintained throughout the project lifetime. In the CA, the detailed rules for composing the management bodies in the SHIELD project are described, including also their detailed decision-making procedures. In addition, the CA defines rights and obligations of the partners including, but not limited to, their liability and supplementing the provisions of the EC Grant Agreement (ECGA) concerning Access Rights.

3.2. General Assembly meetings

The SHIELD General Assembly will physically convene at least three times a year (i.e. eight times throughout the project, excluding project reviews). All GA meetings will normally cover two full working days (second day until 16.00), unless planned otherwise.

In each GA, the next two GAs to come will be scheduled (date, place and hosting partner).

3.3. Periodic progress meetings

In addition to the face-to-face meetings, the main project boards (GA, TB) hold a periodic telco to assess the progress of the project and update the short-term planning. This periodic telco is scheduled every two weeks on Monday at 13.00 CET (12.00 GMT / 14.00 EET) and lasts max. 1 hour. The PC will send each time in advance a telco invitation, also containing the agenda.

3.4. Project internal wiki

The main internal asynchronous collaboration tool of the project has been setup by SPH and is online at https://wiki.shield-h2020.eu, based on the MediaWiki platform. Apart from the file repository service, the tool allows easy, online text-based editing. The markup rules can be found under http://www.mediawiki.org/wiki/Help:Formatting

The wiki contains, among others:

- General project information
    - Contractual documents, scheduling, etc.
    - Calendar/Meetings
    - Minutes, Action Item List
    - Deliverables (finalised and under preparation)
- Per-WP technical information
    - Use cases, requirements
    - Architectures, Specifications
    - Details on technical modules/How-tos
    - Dissemination, communication, standardisation activities

        o   Etc.

The access to the wiki is intended to be strictly private to SHIELD consortium members. Access credentials have been assigned per-partner. Partners are responsible for keeping their credentials private.

G. Gardikis (ggar@space.gr) is the contact point for any technical assistance regarding the wiki.

3.5. Meeting minutes

Minutes are kept for all minutes (face-to-face and remote/telco) in compact, bulleted and easy-to-read form. Minutes are normally kept by the PC and/or TM. Alternatively, they may be kept by an appointed rapporteur when the PC/TM is absent or in the case of parallel meetings.

Minutes of F2F meetings are sent to the consortium (published in the wiki) within 3 working days after the meeting. All partners have 5 working days for comments/ amendments/ additions. After this period, the minutes are considered finalized and accepted by the entire consortium without any further explicit confirmation.

3.6. Action Item List

Action Items (AIs) are normally identified after each meeting (F2F or telco). After each meeting, project-wide AIs are assigned, numbered as AIX where X is the no. of the AI. The list of new Action Items are attached to the meeting minutes. Upon the finalization of Minutes, the AIs are considered accepted by the consortium and are in effect.

Each AI is associated with:

        o   Subject
        o   Appointed partner
        o   Deadline (Day/Month/Year)
        o   Status (Open/Closed)

The Action Item list is maintained by SPH in the team site at https://wiki.shield-h2020.eu/index.php/Action_Item_List. In addition to project-wide AIs, each WP leader may maintain a WP-specific AI list.

3.7. Risk management

Risk management in SHIELD is a part of WP7 and follows a formal approach. Risks can be identified at any point of the project by any participant or even third party, and will be communicated to the respective WP leader and then to the Project Coordinator. The latter will document the risk in the Risk Register and will work tightly with any involved partners in order to:

- Identify the probability and impact of the risk, using a 3-level scale (High/Medium/Low)
- Define mitigation plans (preventive actions) to prevent the risk from materializing and reduce its impact

- Define contingency plans (corrective actions), to be implemented in the event that the risk eventually materializes.

The Risk Register is maintained by the Project Coordinator and is updated regularly throughout the project. It will be overviewed by all partners during the plenary and technical meetings.

The risk register of the project is maintained at the wiki, at https://wiki.shield-h2020.eu/index.php/Risk_Register

The risk register contains the following information for each identified risk:

- Risk ID
- Description
- Relevant WP
- Risk owner (=responsible partner)
- Probability (Low/Medium/High)
- Impact (Low/Medium/High)
- Mitigation and Contingency (Response) plan

3.8. Mailing lists

The project uses a general, project-wide mailing list, as well as one list per WP. The lists are maintained by Carolina Fernández and Bernat Gastón (I2CAT)

3.9. Teleconference platform

The Cisco Webex platform (www.webex.com) is used for teleconferences, which are held over VoIP and feature desktop sharing and text chat.

SPH owns a hosted Webex platform, which is used for this purpose in the project. All partners wishing to initiate a teleconference are kindly requested to contact SPH in order to schedule the telco. In any case, the telco organiser sends out an e-mail with the meeting URL to all intended attendees well in advance.

G. Gardikis (ggar@space.gr) is the contact point for any telco arrangements.

3.10. Project public web site

The project public website is online at https://www.shield-h2020.eu/ and maintained by POLITO.

The website contains public information about the project, such as:

- Project overview
- Benefits/Use cases
- Consortium
- Public documents
- Papers
- Open-source releases

- Blog
- Links to social accounts

Partners are highly encouraged to submit content to be published to the site, such as news, updates etc. relevant to the project. Prof. Antonio Lioy (POLITO) is the website administrator.

3.11. Project reporting

Two (2) Reporting periods to the EC are contractually foreseen:

- RP1: from month 1 to month 12
- RP2: from month 13 to month 30

At the end of each reporting period a Periodic Report must be submitted within a period of 60 days.

- Technical Periodic Report
- Financial Periodic Report

At the end of project a Final Report must be submitted within a period of 60 days.

3.12. Internal reporting

Although quarterly progress reports to the EC are not foreseen, in order to keep track of the project progress and resource expenditures, all partners will report every six (6) months to the technical manager and to the project coordinator, information about:

- Progress of activities per WP (to be provided by WP leaders)
- Expenditures and resource utilisation
- Publications and dissemination activities

4. DELIVERABLES AND DOCUMENTATION

4.1. Document/Presentation templates and production

The documents and presentations to be produced within the project will be created and edited using MS Word/PowerPoint platforms, version 2007 or newer, or compatible.

Documents will be edited in docx format, while presentations will be produced in pptx format.

The document/deliverable and presentation templates are available at the wiki:

https://wiki.shield-h2020.eu/index.php/Templates_and_Logos

The partners acting as deliverable editors are asked to use the styles already provided in the templates for headings/captions and body text, yet further modifications or extensions are admissible where necessary (e.g. new cross-reference fields).

4.2. Document naming

The file name of the documents (especially the deliverables) will contain:

- the project acronym
- the deliverable number and title
- the version number
- the partner short name in case of intermediate/contribution version

in the format:

SHIELD_DX.Y_DeliverableName_v.A.B.docx

e.g. SHIELD_D7.1_Project Management Handbook_v.1.0.docx

for final versions, and

SHIELD_DX.Y_DeliverableName_v.A.B_PartnerName.docx

e.g. SHIELD_D7.1_Project Management Handbook_v.0.1_SPH.docx

for partner revisions/contributions.

4.3. Deliverable editing workflow

Each deliverable has been assigned a partner responsible for editing it. It has also been assigned a partner for reviewing it, as shown in the following table.

Deliverable	Due	Editor	Reviewer
D2.1. Requirements, KPIs, design and architecture	M6	HPELB	I2CAT
D2.2. Updated requirements, KPIs, design and architecture	M17	HPELB	ORION

D2.3. Business models evaluation	M18	TID	SPH
D3.1. Specifications, design and architecture for the vNSF ecosystem	M9	UBI	NCSRD
D3.2. Updated specifications, design and architecture for the vNSF ecosystem	M19	ORION	I2CAT
D3.3. vNSF framework ready for experiments (P)	M27	I2CAT	SPH
D4.1. Specifications, design and architecture for the usable information-driven engine	M9	I2CAT	INFILI
D4.2. Updated specifications, design and architecture for the usable information-driven engine	M19	UBI	SPH
D4.3. Information-driven engine ready for experiments (P)	M27	INFILI	I2CAT
D5.1. Integration results of SHIELD HW/ SW modules	M17	ORION	SPH
D5.2. Final demonstration, roadmap and validation results	M30	SPH	POLITO
D6.1. Project Dissemination and Communication Plan	M6	POLITO	INCITES
D6.2. Standardisation Plan	M8	TID	NCSRD
D6.3. Interim report on Exploitation Activities	M15	INCITES	SPH
D6.4. Final report on Exploitation Activities	M30	INCITES	SPH
D6.5. Project Management Handbook	M3	SPH	ALL

The final draft version of each deliverable is revised by the Technical Manager (or Project Coordinator, depending on the nature of the deliverable) before being delivered to the Commission.

The following time schedule is proposed for the preparation of the project deliverables:

Table 5. Schedule for editing deliverables

Stage	Schedule
ToC ready with indicated contributions	2 months before delivery date
Contributions due	1 month before delivery date
Draft ready for review	2 weeks before delivery date

Revision by a) appointed reviewer and b) PC/TM	5 days before delivery date
Final document	3 days before delivery date

4.4. Dissemination policy

All partners are urged to contribute to the dissemination process, especially in the field of scientific publications to conferences, journals and books.

The partners need to communicate their intention to publish project results to the Dissemination Manager well in advance.

If any publication involves background or foreground IPRs by other partners, the IP owners need to be notified at least 45 days before submission and provide their explicit approval. Unless this approval is given, the publication cannot be submitted.

The same policy also applies to white papers and all types of public documentation.

It is reminded that all papers need to acknowledge SHIELD, mentioning EC funding, project acronym and grant no. The EU emblem must also be used.

The following text is suggested:

The work described in this article is funded by the European Commission, in the frame of the H2020 project SHIELD, under Grant Agreement no. 700199.

4.4. Project logo

The project logo is available in both low and high resolution (two versions). The logo in raster format with transparency (PNG) can be found at the wiki at:

https://wiki.shield-h2020.eu/index.php/Templates_and_Logos

Figure 1. SHIELD project logo

5. CONCLUSIONS

This document provided guidance to the project team on the governance structure of the SHIELD project and presented the project boards, project tools for communication, planning and management, as well as the guidelines for producing and managing project-related documentation.

The project team will use this document in order to maintain a common understanding of the procedures and rules to be followed for the day-to-day project management and execution.