

**Project Acronym:** LIFE GAIA Sense  
**Grant Agreement number:** LIFE17 ENV/GR/000220  
**Project Title:** LIFE GAIA Sense: Innovative Smart Farming services supporting Circular Economy in Agriculture

## DELIVERABLE

### Project Management Plan & Tools

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Dissemination Level		
<b>P</b>	<b>Public</b>	
<b>C</b>	<b>Confidential, only for members of the consortium and the Commission Services</b>	<b>X</b>

As this report is confidential, the uploaded document does not contain all the information/content and all the chapters that were included at the “original” report.

## Executive Summary

The purpose of the deliverable Project Management Plan and Tools is to define the project organization, roles and responsibilities, describing how the project will execute its day-to-day activities, ensuring that their execution is continuously monitored and improved.

It defines the project's scope and objectives, its milestones and deliverables, as well as the project management approach. This deliverable sets the project baselines regarding the project's schedule and costs.

Furthermore, it defines all the necessary mechanisms and structures for the management and administrative coordination of the project with emphasis on the governance, change management, communication management, effort and cost management, procurement, project scope management as well as schedule management, defining the relevant responsibilities for all the partners.

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## Definitions, Acronyms and Abbreviations

Acronym/Term	Explanation
<b>AB</b>	Advisory Board
<b>AL</b>	Action Leader
<b>AsB</b>	Associated Beneficiary
<b>AUTH</b>	ARISTOTELIO PANEPISTIMIO THESSALONIKIS (Aristotle University of Thessaloniki – Special Account of Research Funds)
<b>BRM</b>	Business & Replicability Manager
<b>CE</b>	Circular Economy
<b>CONFAGRI</b>	Confederação Nacional das Cooperativas Agrícolas e do Crédito Agrícola de Portugal CCRL
<b>COSTEIRA</b>	VIÑA COSTEIRA SCG
<b>CR</b>	Change Request
<b>DL</b>	Deliverable Leader
<b>EASME</b>	Executive Agency for Small and Medium-sized Enterprises
<b>EB</b>	Executive Board
<b>EC</b>	European Commission
<b>EU</b>	European Union
<b>GAIA</b>	GAIA EPICHEIREIN ANONYMI ETAIREIA PSIFIAKON YPIRESION
<b>GA</b>	Grant Agreement
<b>MIRABELLO</b>	Agricultural Cooperative Partnership Mirabello Union S.A.
<b>NP</b>	NEUROPUBLIC AE PLIROFORIKIS & EPIKOINONION
<b>PA</b>	Partnership Agreement
<b>PB</b>	Project Board
<b>PC</b>	Project Coordinator
<b>POM</b>	Pilots and Outreach Manager
<b>SF</b>	Smart Farming
<b>SMEs</b>	Small and Medium-sized Enterprises
<b>TM</b>	Technical Manager
<b>VELVENTOS</b>	Agrotikos Synetairismos Epexergasias kai Poliseos Oporokipeftikon Proionton (ASEPOP) Velventou SYN.P.E
<b>WBS</b>	Work Breakdown Structure

## 1. Introduction

### 1.1. Project Summary

As described in Annex II of the GA, The main objective of the **LIFE GAIA Sense** project is to demonstrate GAIA Sense, an innovative “Smart Farming” (SF) solution that aims at reducing the consumption of natural resources, as a way to protect the environment and support Circular Economy (CE) models.

More specifically, this project will launch 18 demonstrators across Greece, Spain and Portugal covering 9 crops (olives, peaches, cotton, pistachio, potatoes, table tomatoes, industrial tomatoes, walnuts, kiwi) in various terrain and microclimatic conditions. They will demonstrate an innovative method, based on high-end technology, which is suitable for being replicated and will be accessible and affordable to Farmers either as individuals or collectively through Agricultural Cooperatives.

Moreover, LIFE GAIA Sense aims to promote resource efficiency practices in SMEs of the agricultural sector and eventually, contribute to the implementation of the Roadmap to a Resource Efficient Europe. This project will demonstrate a method on how the farmer will be able to decide either to use or avoid inputs (irrigation, fertilizers, pesticides etc.) in a most efficient way, without risking the annual production. The focus is on the resource consumption reduction side of CE, and the results will be both qualitatively and quantitatively, considering the resources’ efficiency in agricultural sector.

### 1.2. Document Scope

The purpose of this deliverable is to provide a single point of reference on the management of the project. It defines the project organisation, roles and responsibilities. It describes how the project will execute its day-to-day activities and presents all the necessary mechanisms and structures for the management and administrative coordination of the project capitalising on the governance, change management, communication plan, project calendar, stages, milestones, and reporting roles and responsibilities for all the partners.

## 2. Project Context

The project's main objective is to demonstrate GAIA Sense, an innovative "Smart Farming" (SF) solution that aims at reducing the consumption of natural resources, as a way to protect the environment and support Circular Economy (CE) models.

This main objective consists of the following sub-objectives:

**Table 1: LIFE GAIA Sense Objectives**

No.	Description
1	Setup and establish a large scale SF infrastructure for data collection and analysis and 18 demonstrators of GAIA Sense SF solution.
2	Establish a network of scientists and professionals and engage them in adapting the SF services and models to the specific needs of each demonstrator and each crop.
3	Apply the results to the field and measure the rate of decline of inputs on selected crops and correlate between the GAIA Sense results' and the targets set as policy by EU over the CE.
4	Measure the impact of GAIA Sense on soil, water and air quality.
5	Disseminate the project's results at national and EU level and build a robust business model to ensure their replicability and sustainability.
6	Form policy making proposals in order to implement efficient methods of managing resources in agriculture sector.
7	Starting from investing on the success of small scale demonstrators, the project intends to attract the interest of larger stakeholder groups, to achieve the scale needed for adaptation efforts that make real sense e.g. from local cooperatives to organizations like Copa Cogeca

The following table presents the project's milestones.

**Table 2 - Milestones**

Milestone	Action	Partner
Project management plan & tools ready	E1	NP
Advisory board formed	B1	GAIA
Dissemination plan and material, including project website ready	D1	GAIA
Training plan and material ready	B1	GAIA
Informative meetings completed, parcels selected and telemetric stations network deployment plan ready	A1	NP
Local events completed	D1	GAIA
First application design and mock-ups ready	A2	NP
Use cases documented and KPIs set	A1	NP



Telemetric stations network and data infrastructure deployed	B2	NP
Optimization of measurement siting	B7	AUTH
Final application design and mockups ready	A2	NP
Community support mechanism ready	B1	GAIA
Initial Smart Farming Application ready and validated	B3	NP
Traps network deployed	B2	NP
First Progress Report submitted	E1	NP
1st phase of training events complete	B1	GAIA
Final Smart Farming Application ready and validated	B3	NP
Initial specialised scientific models ready	B3	NP
New demonstrators deployed	B8	GAIA
Mid-term Report submitted	E1	NP
First round of applying the Smart Farming advice on the field completed	B4	GAIA
First round of applying the Smart Farming advice on the field completed	B5	COSTEIRA
First round of applying the Smart Farming advice on the field completed	B6	CONFAGRI
2nd phase of training events complete	B1	GAIA
Calculation of indicators after each pilot application	C1	AUTH
Completion of 1st measurement phase	B7	AUTH
Interim specialised scientific models ready	B3	NP
Initial business model, market analysis and initial marketing plan ready	B9	GAIA
Second Progress Report submitted	E1	NP
Collecting questionnaires from farmers and analysis of provided information after each pilot application	C1	AUTH
Policy uptake event at the GAIA Conference	D2	GAIA
Project workshop during GAIA's Panhellenic Congress	D1	GAIA
Final round of applying the Smart Farming advice on the field completed	B4	GAIA
Final round of applying the Smart Farming advice on the field completed	B5	COSTEIRA
Final round of applying the Smart Farming advice on the field completed	B6	CONFAGRI
3rd phase of training events complete	B1	GAIA
Completion of 2nd measurement phase	B7	AUTH
Final specialised scientific models ready	B3	NP

Event at the European Parliament	D2	GAIA
After-LIFE Plan including exploitation plan ready	E1	NP
Final marketing plan and final business model ready and validated	B9	GAIA
Final replicability and transferability plan validated and ready	B8	GAIA
Layman's report ready	D1	GAIA
Final Report submitted	E1	NP

The following table presents the project's deliverables including the reports to the EC.

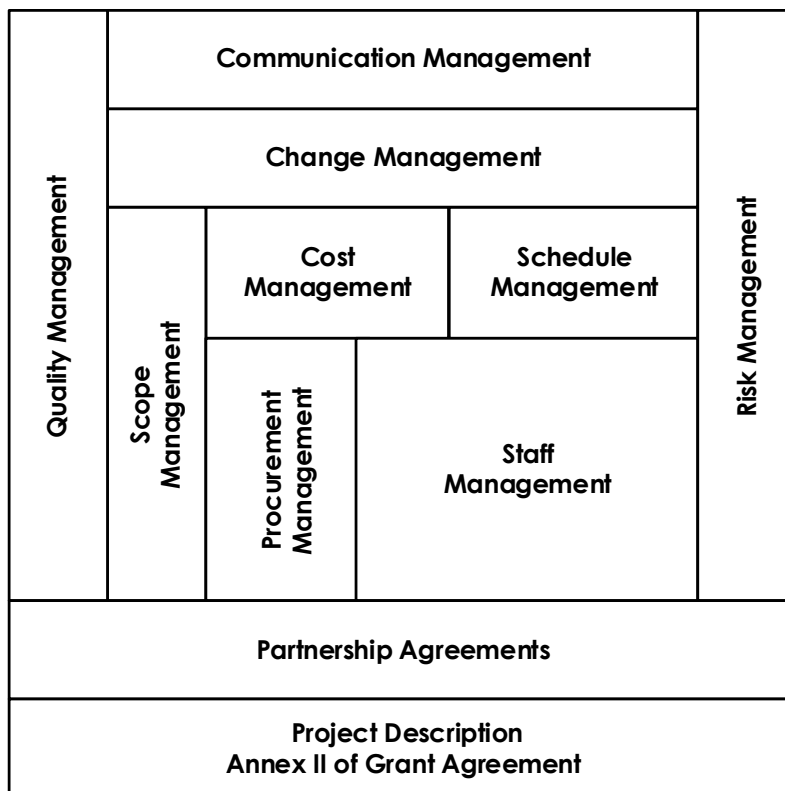
**Table 3: Project Deliverables**

Deliverable	Action	Partner
Project management plan & tools	E1	NP
Quality assurance & risk management plan	E1	NP
Dissemination plan and material	D1	GAIA
Training plan and material	B1	GAIA
Project website	D1	GAIA
Informative meetings report, including list of demonstration parcels and telemetric stations network deployment plan	A1	NP
Documentation of use case existing agricultural practices and restrains, requirements, needed interventions and KPIs	A1	NP
Traps placement study	B2	NP
Notice boards	D1	GAIA
Final application design and mockups	A2	NP
Report on the deployed networks of Telemetric stations and Traps	B2	NP
Initial Smart Farming Application	B3	NP
Initial business model	B9	GAIA
First Progress Report	E1	NP
Initial replicability and transferability plan	B8	GAIA
Final Smart Farming Application	B3	NP
Final technical testing and user validation report	B3	NP
Mid-term Report	E1	NP
First report from the application of the Smart Farming advice in Greece	B4	GAIA
First report from the application of the Smart Farming advice in Spain	B5	COSTEIRA
Report on the deployed networks of Telemetric stations and Traps	B2	NP
Initial Smart Farming Application	B3	NP

Initial business model	B9	GAIA
First Progress Report	E1	NP
Initial replicability and transferability plan	B8	GAIA
Final Smart Farming Application	B3	NP
Final technical testing and user validation report	B3	NP
Mid-term Report	E1	NP
First report from the application of the Smart Farming advice in Greece	B4	GAIA
First report from the application of the Smart Farming advice in Spain	B5	COSTEIRA
Final report from the application of the Smart Farming advice in Portugal	B6	CONFAGRI
Final training report	B1	GAIA
Data report	B2	NP
Final specialised scientific models	B3	NP
Report on soil and water samples collection and analysis	B7	AUTH
Reports on indicator values for environmental and socio-economic impact after each pilot application	C1	AUTH
Report of environmental simulation and impact assessment models	B7	AUTH
Report of guidelines for best management practices	B7	AUTH
Final replicability and transferability plan	B8	GAIA
Final business model	B9	GAIA
Final marketing plan	B9	GAIA
Report on Life Cycle Analysis	C1	AUTH
Layman's report	D1	GAIA
Final policy uptake activities report and material	D2	GAIA
After-LIFE Plan including exploitation plan	E1	NP
Final quality assurance & risk management report	E1	NP
Audit Report	E1	NP
Final Report	E1	NP

### 3. Project Management Approach

In the metaphor of project management being a building, the activities that bound project management for LIFE GAIA Sense as it is shown in the figure below:

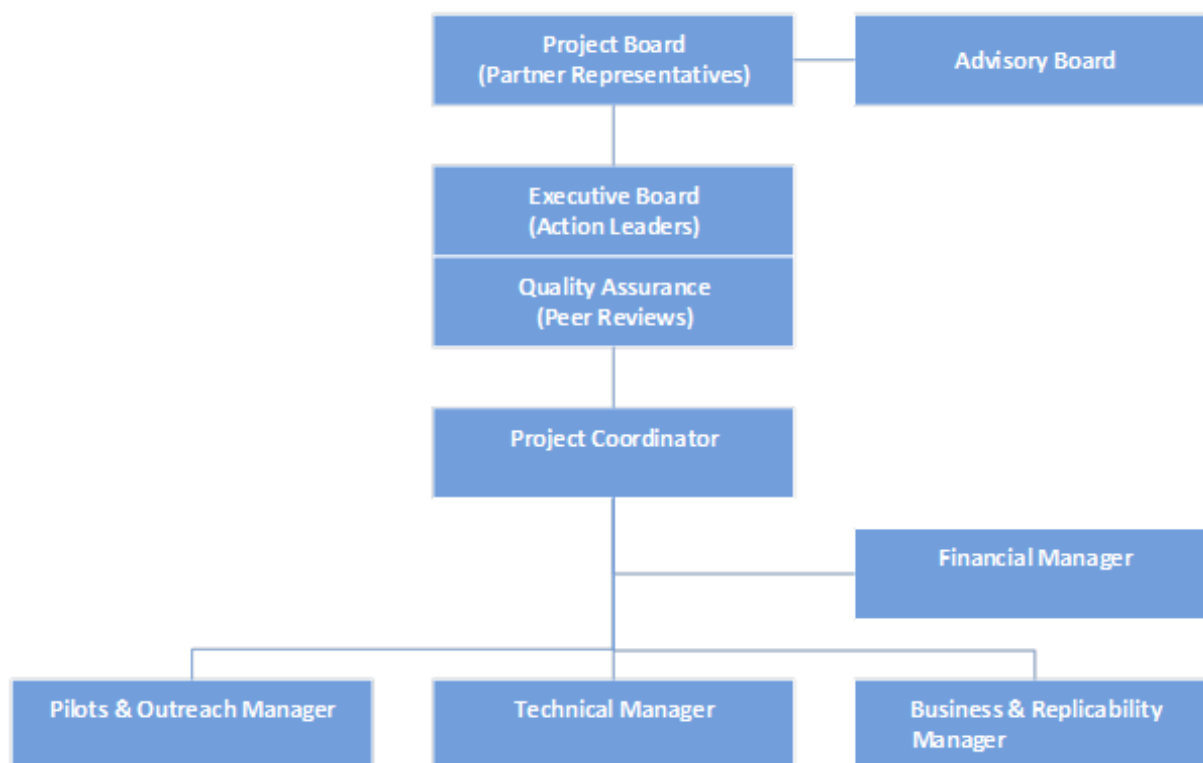


**Figure 1 - Project Management Architecture**

In this metaphor, Annex II of the GA is the foundation, whereas the Partnership Agreements are the skeleton. Quality and risk management (elaborated in deliverable “Quality Assurance and Risk Management Plan”) are the external walls. They permeate all activities of the project and act as safeguards. Quality is assured, and risks are assessed for both project products and project management practices. All activities end with the communication of decisions, changes and actions to consortium members and the European Commission. These are the activities that bound project management for LIFE GAIA Sense.

The core activities to ensure the project stays on track are the scope, cost and schedule management. Procurement management describes how to handle purchases needed to execute the project at a partner level, while staff management defines the needs in terms of people, their roles and who is going to fill those roles in terms of their expertise. The core activities of project management lead to decisions and changes in both the work of the project and its management but cannot impose practises or plans to the partners without their approval. Core activities are managed through change management, which feeds into communications management ensuring that information reaches all appropriate audiences. Quality management contributes in establishing the relevant to the project quality control and quality assurance activities for ensuring an efficient collaboration among the consortium partners and delivery of project results; whereas the risk management is necessary for providing the process and techniques for the evaluation and control of potential project risks, focusing on their precautionary diagnosis and handling.

NP is responsible for the coordination of the project and leading its QA activities, in the framework of Action E.1 Project Management. These activities will be managed by the following management hierarchy:



**Figure 2 - Project Management Hierarchy**

The **Project Board** (PB) is responsible for the supervision of the LIFE GAIA Sense project, as its formal decision-making body and its highest level of management.

An **Advisory Board** (AB) featuring experts representing both the industry and the respective research community, will provide support and insights to guide the PB to make the right decisions and achieve the maximum impact.

The **Executive Board** (EB) consists of all **Action Leaders** (ALs) who will manage the operational activities within their actions.

The **Project Coordinator** (PC) is responsible for the day-to-day running of the project and acts on behalf of the other decision-making bodies of the project.

The **Technical Manager** (TM) is responsible for the technical vision of the project, as well as, for monitoring the technical development and deployment of the GAIA Sense solution.

The **Pilots and Outreach Manager** (POM) is responsible for the efficient and successful outreach of LIFE GAIA Sense in all the relevant communities.

The **Business & Replicability Manager** (BRM) is responsible for designing the business model and the replicability strategy to ensure the sustainability of the project outcomes and the maximization of their impact after the end of the project.

**Project and quality management activities** will ensure the proper implementation of the project plan and the realization of its objectives.

## 4. Project baselines

The **project's baseline** is used to measure how performance deviates from the plan and it is defined as the original scope, cost and schedule and must be completely documented before the project execution and control activities are initiated

The **Timetable** presents the schedule baseline of the project

The **Costs Baseline** concerns the amount of money that the project is predicted to cost and when that money will be used throughout the project lifespan.

## 5. Change Management Plan

The **Change Management Plan** sets expectations on how changes will be managed, what defines a change, and the overall change management process. All consortium members are expected to submit or request changes to the LIFE GAIA Sense project in accordance with this Change Management Plan and all requests and submissions will follow a specific process.

## 6. Communication Management Plan

The **Communication Management Plan** sets the communication framework for LIFE GAIA Sense project. It will serve as a guide for communication throughout the life of the project and will be updated as communication requirements change. This plan identifies and defines the roles of LIFE GAIA Sense project partners as they pertain to communications. It also includes a communications matrix, which maps the communication requirements of this project, and communication conduct for meetings and other forms of communication. A project team directory is also included to provide contact information for all partners directly involved in the project.

**Meetings** will be organized using the Doodle online service (<http://www.doodle.com>) for determining the dates most partners are available. The meeting chair is responsible for initiating meeting organization. Meetings will be colocated when possible to minimize expenses and travel time of partners. The strategy is to hold fewer but larger meetings in order to reduce costs. All partners are required to be present to meetings either themselves or through substitute or proxy. Meeting minutes will be distributed within 10 calendar days following the meeting by the chair. The Chair Person is responsible for distributing the meeting agenda, facilitating the meeting and distributing the meeting minutes. The Chair Person will ensure that the meeting starts and ends on time and that all presenters adhere to their allocated timeframes. Budget for meetings has been allocated and can be found in Annex III of the GA.

The partners are expected to exchange several documents between them during the course of project work. In order to facilitate document identification and differentiation between multiple versions of the same document, a specific file naming convention should be used for the final version of the documents uploaded in Google Drive.

To support the project management of the project and facilitate the collaboration of the partners a number of tools have been provided.

## 7. Effort and Cost Management Plan

The PC with the support of the Financial Manager is responsible for **managing and reporting on the project's budget and effort consumption** at the project level to EASME acting under powers delegated by the EC throughout the duration of the project. During the internal semi-annual, interim and annual progress reports, the Project Coordinator collects, presents and reviews the project's effort and cost performance for the preceding period. Performance is measured comparing actual consumption against planned. The PC is responsible for accounting for cost and effort deviations and presenting the consortium with options for getting the project back on budget.

## 8. Project Scope Management Plan

The Scope Management Plan provides the scope framework for this project including the scope management approach, verification and control measures. Any project communication which pertains to the project's scope should adhere to the Communication Management Plan.

## 9. Schedule Management Plan

The **project schedule** is the roadmap for how the project will be executed. Schedules are an important part of any project as they provide the consortium with a clear picture of the project's status at any given time. The purpose of the schedule management plan is to define the approach to project schedule management including monitoring and controlling changes to the baseline. This includes identifying, analysing, documenting, prioritizing, approving or rejecting, and publishing all schedule-related changes.