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Project acronym: LIFE GAIA Sense

Project full title: Innovative Smart Farming services supporting Circular Economy in Agriculture

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End date: 30/06/2022

Project Coordinator: NEUROPUBLIC AE PLIROFORIKIS & EPIKOINONION

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**Innovative
Smart Farming services
supporting Circular Economy
in Agriculture**



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Description & Main Objectives

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, almonds, 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.

The project is multi-objective and intends to

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

Smart Farming in 4 Dimensions



Remote



Field



Eye



Farm

Through 4 dimension LIFE GAIA Sense:

- Collects remote, processes and exploits information for every part of the parcel.
- Offers valuable information by recording, analyzing and interpreting atmospheric and soil data at specific points within the fields every time it passes, uninterruptedly.
- Allows information to be recorded by agricultural consultants and producers in the field.
- Records the actions that the producer takes in his field and crop.

Consortium

Project Coordinator



NEUROPUBLIC AE PLIROFORIKIS & EPIKOINONION



GAIA EPICHEIREIN
ANONYMI ETAIREIA
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Aristotle University
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Agricultural Cooperative
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