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DELIVERABLE

Initial replicability and transferability plan

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Executive Summary

The LIFE GAIA Sense Initial replicability and transferability plan has been designed to support the LIFE GAIA Sense key objectives by implementing a focused initial replicability and transferability plan.

It's a fact that, significant growth often requires more from an innovative product – it requires exploitation in the form of replication in order to maximize value. Specifically, the replication strategy refers, to the innovator firm's learning about and refining its (new) business model, by choosing the necessary components to replicate that model in suitable geographical locations, by developing capabilities to routinize knowledge transfer, and by maintaining the model in operation once it has been replicated.

Replication is not merely repeated application of a simple new business model formula or recipe or exploitation of a good idea. Rather, the replication strategy involves effortful investments in discovering and learning about what those complex, interdependent, and partly tacit routines, productive processes, and customer-valued aspects of the new business model actually are that are replicable and worth replicating.

This plan entails a clear and sound plan supported by project activities that would allow market replication to other sectors, such as Greenhouses, livestock, etc. Lastly, this Initial replicability and transferability plan propose a realistic strategy and action plan for sustainability and replication, including funding and provisions. Concrete actions to facilitate replication to other sectors, entities, regions and countries during and/or after its duration.

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Definitions, Acronyms and Abbreviations

Acronym/Term	Explanation
CE	Circular Economy
EU	European Union
GAIA	GAIA EPICHEIREIN ANONYMI ETAIREIA PSIFIAKON YPIRESION
NP	Neuropublic Ae Pliroforikis & Epikoinonion

1. Introduction

1.1. Project summary

The main objective of the LIFE GAIA Sense project is to demonstrate gaiasense, 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 whether to use or avoid inputs (irrigation, fertilizers, pesticides etc.) and more specifically how to apply them 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

This **summary of the aforementioned deliverable** presents the _Initial replicability and transferability plan_ for LIFE GAIA Sense project. Replicability Strategy is designed with principal objective will be the transfer of technical knowledge, results obtained in the project, problems encountered and lessons learned during (and after the end) of the project. It is the aim that this Strategy will be a multiplier of the impact of the project, offering solutions, which can be applied to other places, both at a European as well as at a global level.

2. Initial replicability and transferability plan - Summary

Given the current state of the economy, having a well-defined target market is more important than ever. Targeting a specific market allows gaiasense to focus its marketing and message on a specific market.

In general gaiasense target market consist of people or sectors who are connected in agriculture and rural activity, such as farmers, Farmers' cooperatives, and agronomist- agricultural advisors.

After evaluating the local, peripheral results of project's application in Greece, Portugal & Spain, new potential markets will be explored. Starting from the succeeded investment on the small scale, the project intends to be expanded in potential markets inside EU. Initially, the first countries to be targeted will be those that have some kind of similarity with Greece.
Others sectors that gaiasense could be replicated is greenhouses, Livestock Farming and Indoor farming

Market/Competitor analysis is absolutely essential in order to identify competitive market in agriculture. Smart farming market is facing immense competition affecting margins and sales. Thus there are some critical steps to be followed to outperform the competition. According to a market intelligence report by BIS Research[1], the global smart farming market is expected to reach $23.14 billion by 2022, rising at a compound annual growth rate (CAGR) of 19.3% from 2017 to 2022. In terms of share, the hardware components captured around 50% in the global smart farming solution market share and are expected to behold this growth over the forecast period. The market growth is primarily attributed to the increasing demand for higher crop yield, the growing penetration of information and communication technology (ICT) in farming, and the increasing need for climate-smart agriculture.

In the coming years, smart farming is expected to create a massive impact on the agricultural economy by bridging the gap between small and large-scale businesses. The trend is not only pertinent in developed countries but developing countries have also realized its immense importance as well.

Key players operating in this market have ramped up their product launch activities over recent years to generate public awareness about their existing and new products and technologies and compete with their competitors' product portfolio.

To evolve action plans, it is important to have an assessment of the existing services in selected areas. Knowledge of the distribution of services and their deficiencies will help to prepare the structure of the need based action plan and to clarify the type of required information. These assessments will also help in identifying appropriate technologies, requirements and approaches.

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[1] *https://www.marketresearch.com/BIS-Research-v4011/Global-Smart-Farming-Focus-Solution-11775724/?progid=90956*

3. Conclusions

The new demand for sustainable agricultural practices led the agricultural industry to a massive transformation concerning cultivation practices and crop management, introducing precision farming and smart farming methods.

Furthermore, global population and income growth resulted in high concerns of food security and environmental sustainability. To satisfy the increasing needs, the development of innovative agricultural technology such as smart farming solutions and relevant machinery equipment emerged.

The purpose of the replicability and transferability plan is to transfer at national and European level the results and services of the LIFE GAIA Sense project -that answer to the aforementioned needs -to the different stakeholders, in order to make the best practices developed in the project replicable. Moreover, Initial replicability and transferability plan's principal objective is the transfer of technical knowledge, results obtained in the project, problems encountered and lessons learned during and after the end of the project. The transferability and replicability of the project results and solutions will be supported by specific and clearly defined activities.