







# The innovative **gaiasense** by NEUROPUBLIC smart farming system in the olive sector: The example of LIFE GAIA Sense project Vasilis Pyrgiotis



















Second B2B event in Jordan on Multifunctional Olive Systems Amman - March 14<sup>th</sup>, 2023



# NEUROPUBLIC

- An innovative Informatics and Technology company founded in 2003 in Piraeus, Greece
- Specializing in the development of Web- and Cloud-based integrated information systems & applications.
- Being the first and only large-scale Internet of Things infrastructure in Greece, serving the Agriculture sector.



















Amman - March 14th, 2023





# NEUROPUBLIC

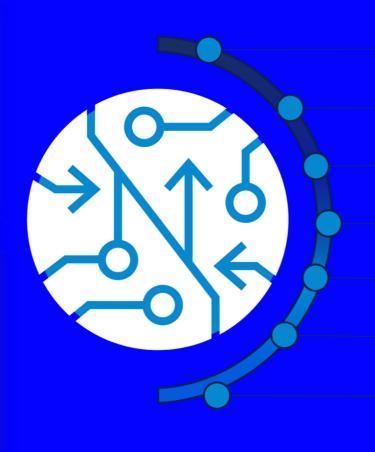




















in-house earth observation platform and department

largest ground-truthing 6 network for remote sensing

15 years experience in digital services for CAP















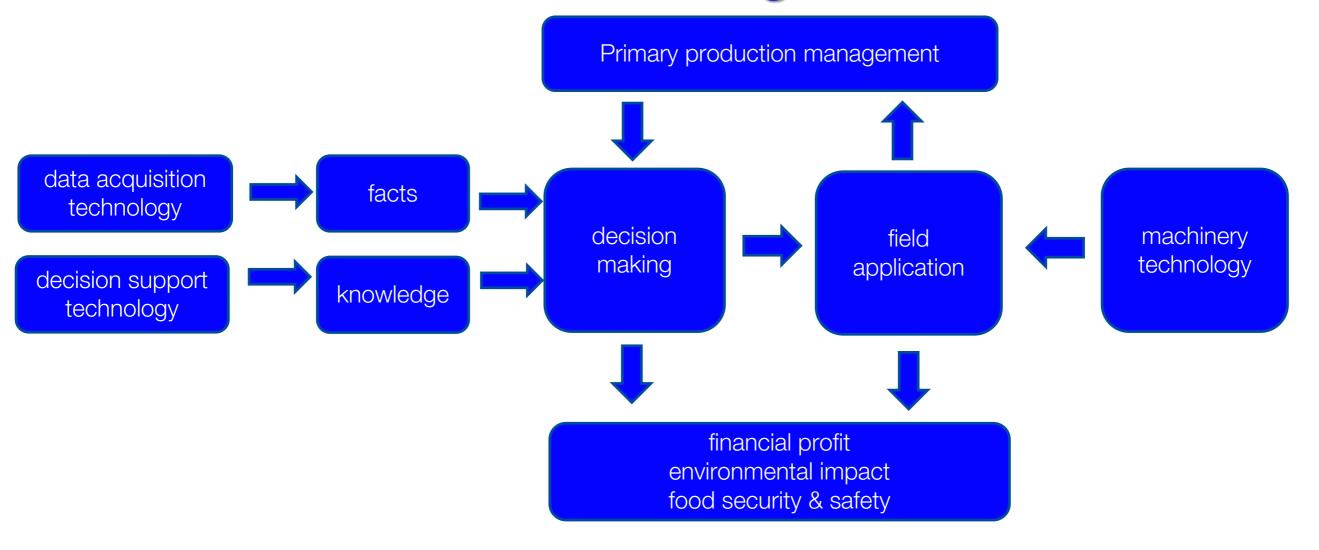




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#### What smart farming is all about?





















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### Benefits of smart farming services

## Production cost

fertilizer

water - energy

pesticides

#### **Product quality**

residuality

organoleptic

fruit size

preservability

## Environmental risks

desertification

drought

Biological imbalance

# Financial benefit

1

## Production risks

parasitic diseases

non-parasitic

post-harvesting

#### **Product value**

traceability

environmental footprint

#### **Yield**

# **Environmental** benefits



















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THE FOUR DIMENSIONS



















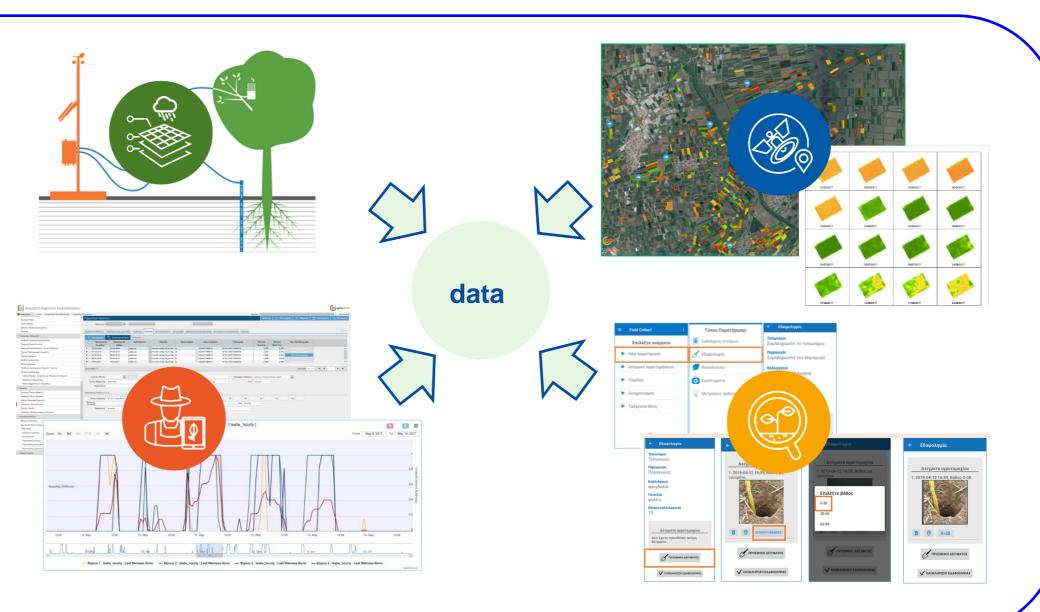


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DATA
COLLECTION
FROM THE
FOUR
DIMENSIONS



















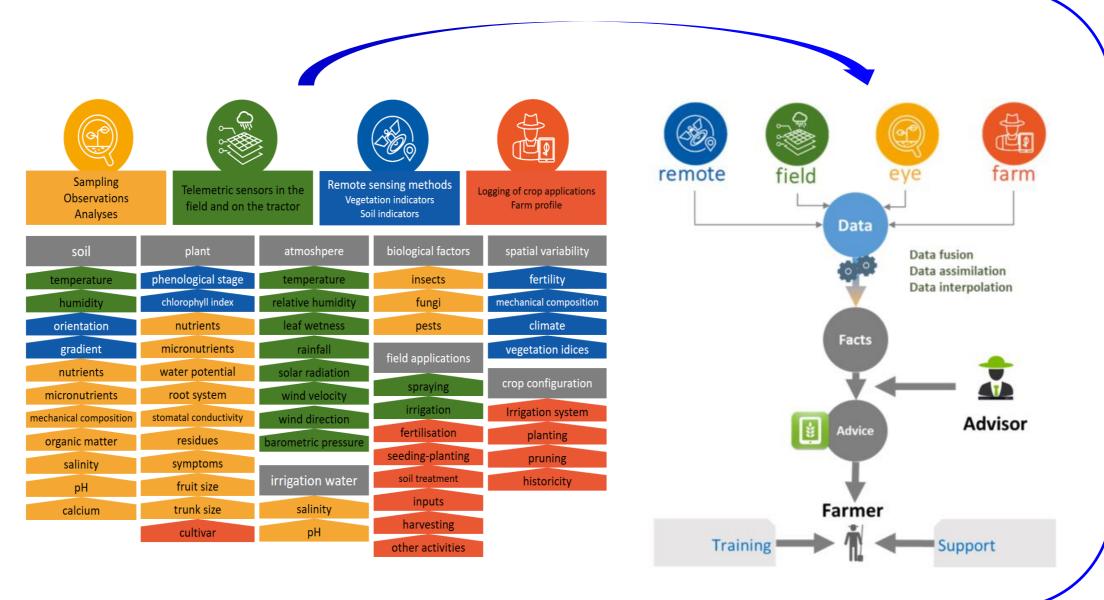


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FROM DATA
COLLECTION
TO SMART
FARMING
SERVICES





















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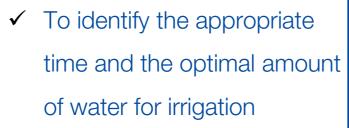












Calculation of the optimal irrigation dose



#### **Crop management SF** advice

- ✓ Agricultural warnings
- ✓ Diagnosis of diseases and recognition of entomological infections
- ✓ Pest control



#### **Fertilization SF advice**

✓ Accurate determination of plant's nutrient needs



✓ Avoidance of overfertilization & underfertilization



















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video



















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#### **Objectives**

Demonstrate gaiasense, a smart farming solution in order to

- ✓ reduce natural resources
- ✓ protect the environment and
- ✓ support Circular Economy models.

Demonstrate an innovative technology-based method, affordable to every single Agri - Cooperative no mater the size of it

Demonstrate
how the producer will be able to
decide either to use or avoid
inputs in a most efficient way,
without risking the annual

#### The consortium

#### **NEUROPUBLIC**













#### **Duration**

01 July 2018 30 June 2022

(48 months)

#### Funded by

LIFE Programme
of the European Union
under contract
number LIFE17
ENV/GR000220

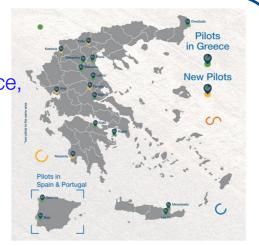


**Total Budget** 

€2.979.291

#### The deployment

- √ 18 demonstrators
- ✓ 3 countries: Greece, Spain & Portugal
- ✓ 9 crops in various terrain and microclimatic conditions





lifegaiasense

THE

**PROJECT** 

AT A

**GLANCE** 



production













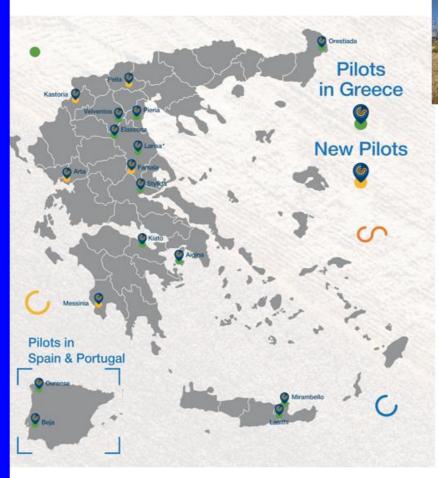


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## **LIVINGAGRO**



THE
SMART
FARMING
DEPLOYMENT
OF THE
PROJECT











Spain



















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#### QuantiFarm "Assessing the impact of digital technology solutions in agriculture in real-life conditions"

Total budget: 7,723,539 EUR € & Total funding: 7,397,382.50 € Duration: 01 July 2022 – 31 December 2025 (42 months) Consortium: A total of 32 partners from 20 countries!

#### **QuantiFarm Main Objective**

- ✓ to support the further deployment of DATs as key enablers for enhancing the sustainability (economic, environmental and social) performance and competitiveness of the agricultural sector, by
- establishing an assessment framework for assessing the impact and effectiveness of DATs in agriculture and
- developing innovative tools, services and recommendations for farmers, advisors and policy makers.

Having established gaiasense in 2 different crops in Greece and Cyprus (olive and potato) and providing advice on fertilisation, pest management and irrigation, the project will assess the benefits, costs and environmental impact of the smart farming service.



#### Ploutos "Data-driven sustainable agri-food value chains"

Total budget: 8.518.950,00 € & Total funding: 6.998.523,75 € Duration: 01 October 2020 – 30 September 2023 (36 months) Consortium: A total of 33 partners from 10 countries!

#### **Ploutos Main Objective**

✓ Help rebalance the agri-food value chain and enhance its
sustainability (economic, environmental and social) by
establishing a Sustainable Innovation Framework that is
powered by an innovative combination of behaviour change,
collaborative business model innovation and data driven
technological services

In the context of Sustainable Innovation Pilot No1 (SIP1) gaiasense, has been established in the area of Proodos (a Farmers Union), helping the farmers to reduce the application of inputs (water, fertilisers, pesticides), thus reducing costs, improving the fruit quality, while reducing the smaller environmental footprint of the production.

Furthermore, connecting the gaiasense and the systems of Alterra, processing industry, with the Ploutos traceability solution that will help in collecting all the needed data/proof to secure certification and sustainability related labels.



















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## Gaiasense geographical and Sectorial coverage







#### **Existing figures**

>70 active projects
> 450 stations
6 countries
40 crops
>150.000 hectares











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