

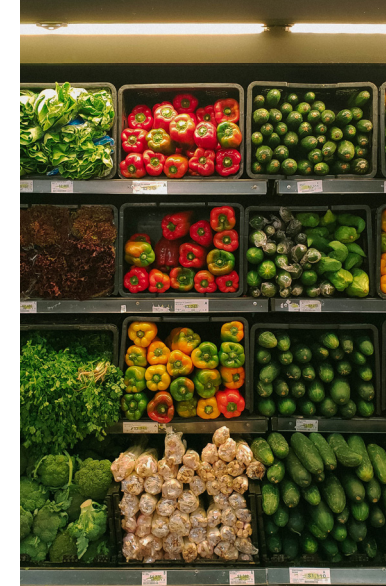
PARTNERS

The project is comprised of twenty partners across nine countries, all with different specialisations including organic farming, precision agriculture, biotechnology, innovation and entrepreneurship.

PestNu is coordinated by the Centre for Research and Technology Hellas (CERTH)



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Field testing and demonstration of Digital and Space-based technologies with Agro-ecological and Organic practices in systemic innovation.

PestNu Goals

- Reduce pesticide and fertiliser use by 50% by 2030
- Deliver full organic farming using precision agriculture tools and agro-ecology methods
- Improve food yield by 30%
- Use a multi-factor approach along Farm to Fork with more than 150 members on PestNu Industrial Advisory Board
- Reduction of production costs by at least 30%
- Deliver healthy, nutritious, safe and affordable food for all
- Decrease organic food prices by 20%
- Develop a new ecotox pesticide catalog and enrichment Okotox Index
- Communicate with more than 5,000 stakeholders



PestNu is a three – year project that aims to revolutionise technology and farming practice in order to reduce nutrient loss, pollution and increase food affordability for all.

The project uses systemic innovation novel Digital and Space-based technologies (DST) along with Agro-ecological and Organic practices (AOP), to systematically approach circular economy food production, aquaponics, closed/ semi-closed hydroponic greenhouses and open-field vegetable cultivation. PestNu works under varying conditions, soils and crops, including tomato, pepper and cucumber.

PestNu Technologies

- AI robotic traps for real time insect monitoring
- AI satellite imaging for agricultural anomalies monitoring using Copernicus data
- Autonomous self-navigated robots for pesticide monitoring and 3D spot spraying
- Real time digital nutrient analysers
- Automated circular economy system for agro-waste water treatment
- Microalgae based biofertiliser production from on-site production for agro-wasterwaters
- Biopesticide for fungal diseases with nutritional effect based on agro-food wastes
- Decision support farm systems for integrated pest and nutrient management
- AI models verification on-the-fly including blockchain and cybersecurity
- User interface with AI models verification and data analytics pipelines for decision support
- Develop nutritional programs for organic farming