

## ***Coordinated by AIMPLAS, the AZMUD Project is ready to validate new technologies to improve greenhouse efficiency in Spain, Jordan and Egypt***

*This Project, funded by the PRIMA Programme, has led to the development of innovative plastic materials, natural additives and new irrigation technologies that can reduce Mediterranean greenhouse production costs by 15%*

*Validation and scale-up of products developed by project consortium members were launched in the first quarter of the year and will last for four months*

**Valencia (30 January 2023).** In its last year, the European AZMUD Project, coordinated by AIMPLAS, has reached its final stage, which involves validating pilot greenhouses in Spain, Jordan and Egypt. New technologies developed by project consortium members will be applied to monitor crops for four months with the aim of improving performance and reducing production costs in the Mediterranean greenhouses by up to 15%.

The project consortium is made up of eight members from five different countries in the Mediterranean region: AIMPLAS, the project's technical coordinator, and IDAI NATURE, from Spain; the National Research Centre (NRC) and the Egyptian Russian Company for Advanced Agriculture Eco Farm (ECOFARM), from Egypt; SMARTWALL (SW), from France; Packing Industries Co. (PIC) and Methods for Irrigation and Agriculture (MIRRA), from Jordan; and TABIT, from Turkey.

At the most recent meeting of the consortium, which was held at the AIMPLAS facilities, the advances made by each member were presented. IDAI NATURE and AIMPLAS demonstrated new encapsulated biopesticides that are able to release 77% of the active ingredient over the course of three days, thus making it possible to reduce the amount of phytosanitary products applied to crops by up to 50%.

AIMPLAS also demonstrated the latest developments in Joule effect heating sheets to keep plant roots warm in hydroponic systems. In this case, a 1.5-meter sheet is heated up to 40°C in less than 30 minutes by applying 16 V of power.

PIC and AIMPLAS also developed the final formulation of biodegradable mulch films with optical properties and have defined the methodology for industrial scale-up. MIRRA demonstrated the dimensions of the pilot plant and the design of its system for low-energy drip irrigation.

In addition, NRC provided a demonstration of its water magnetization device, which can improve production by approximately 10%. Finally, TABIT presented the advances made in its control system, which provides crop humidity and temperature readings in real time, as well as other data, so that all these technologies can be used in synergy.

This project has received funding from the European Union's research and innovation programme Horizon 2020 under grant agreement No. 1914.

### About AIMPLAS

At AIMPLAS, the Plastics Technology Centre, we have a twofold mission: to provide added value to companies so they can create wealth, and to meet societal challenges to improve people's quality of life and ensure environmental sustainability.

We are a non-profit research association and member of REDIT (Network of Technological Institutes of the Valencia Region) offering enterprises in the plastics industry comprehensive and customized solutions, including development and innovation projects, training, competitive and strategic intelligence, and technological services such as analysis, testing and technical assistance.

We also support the 17 SDGs of the UN Global Compact when carrying out our work and corporate social responsibility activities.



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