



LIFE-FROSTDEFEND



LIFE₂₀ CCA/GR/001747

Newsletter, No 1

What is the LIFE-FROSTDEFEND project

Climate Change is among the most serious challenges to society, and the need for adaptation is acute, considering its impact on many communities and sectors that depend on natural resources. It is a common assumption that global warming will bring along a reduction in the frequency and severity of frost damage to plants. However, this does not reflect the current situation. Rising temperatures in late winter and early spring can trigger a false spring (early onset of plant anthesis and early leaf development), making crops extremely vulnerable to late frost in April or even May. Epiphytic bacteria play an important role in frost damage of crops, because they have the capacity to catalyze ice formation on plant tissues at temperatures a few degrees below 0 °C.

The LIFE-FROSTDEFEND project aims to develop and demonstrate the benefits of a novel monitoring and forecasting tool to predict the risk for frost damage on tree crops and to develop guidelines and best practices for sustainable actions to mitigate potential frost damage to these crops, by controlling the epiphytic population of ice nucleation active bacteria.



What LIFE-FROSTDEFEND will achieve

Incorporation of agronomic, microbiological and real-time air-quality and meteorological data into one tool, for timely and reliable frost warnings and alerts for mitigation actions

Demonstration of the best available techniques and environmental practices to reduce crop vulnerability and enhance resilience to frost

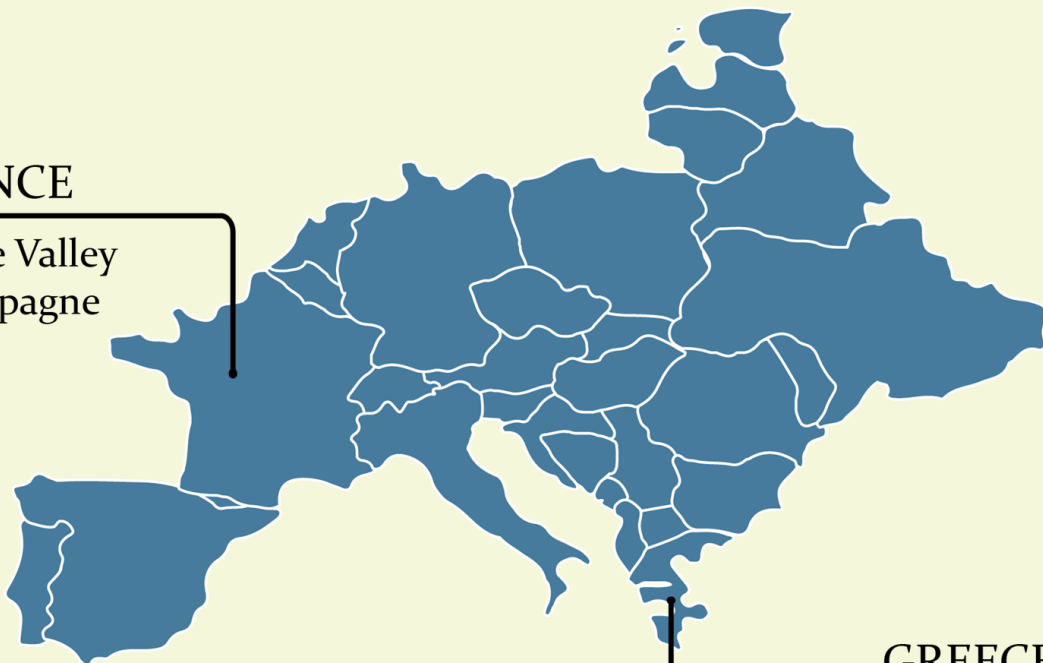
Capacity building and awareness raising among target groups and end-users to promote climate responsible attitudes

Pilot implementation of the LIFE-FROSTDEFEND tool

The LIFE-FROSTDEFEND tool will be implemented in selected fruit tree crops in Greece and France

FRANCE

Rhône Valley
Champagne



GREECE

Achaia
Laconia
Argolis

FROSTDEFEND news

The LIFE-FROSTDEFEND project was launched on September 2021, with the aim to design, develop and demonstrate the benefits of a novel monitoring and frost forecasting tool to mitigate frost injury in tree crops. The project is implemented in collaboration with the **NCSR "Demokritos"** (Project Coordinator), the **Agricultural University of Athens**, the **French National Research Institute for Agriculture, Food and the Environment (INRAE)**, the **Panagialeios Agricultural Cooperatives Union** and the company **MSENSIS**, a software and systems provider focusing on next generation Information and Communication technologies. The project has a total budget of € 1,972,230 and is co-financed by the LIFE Program of the European Union.



Kick-Off meeting






The kick-off meeting of the LIFE-FROSTDEFEND project took place at the premises of the Panagialeios Agricultural Cooperatives Union, on September 24, 2021. Consortium members from all of project partners participated in the meeting, either in person or virtually. During the meeting, an overview of the project's goals, expected results, deliverables and milestones was presented followed by a discussion about future activities foreseen for the next six months. After the end of the meeting, the participants visited selected lemon tree orchards in the area of Aighialeia, which will be used during the project for the development and pilot implementation of the FROSTDEFEND tool.

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