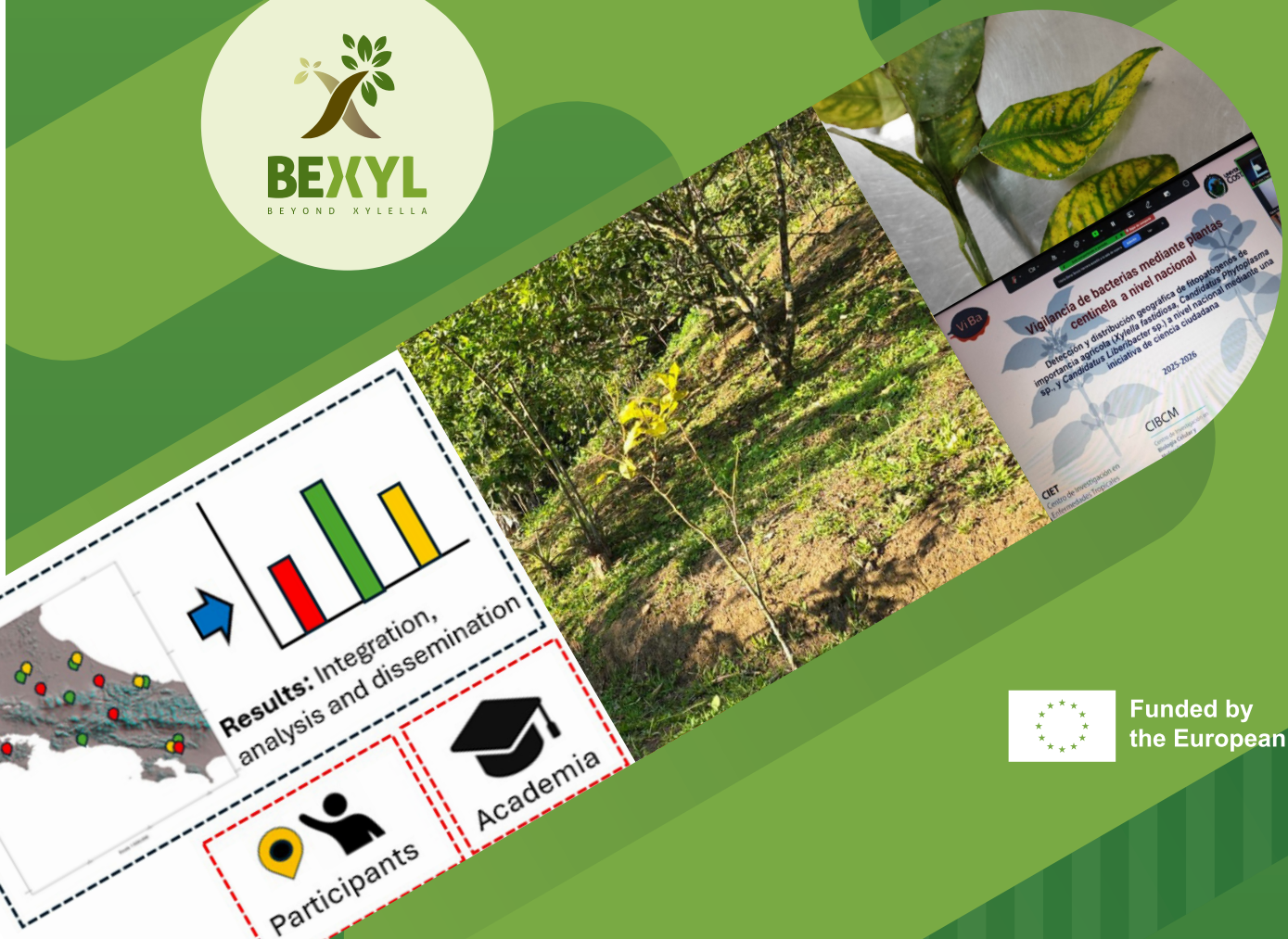
Beyond *Xylella*, Integrated Management Strategies for Mitigating *Xylella fastidiosa* impact in Europe

Practice abstract 10 - Extended Version

Educating and raising awareness about *Xylella fastidiosa* and other plant pathogens through a citizen science approach in Costa Rica



Funded by the European Union

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An important component of the **BeXyl** project is education and outreach, promoting collaboration among scientists, citizens and end-users. For that, the **BeXyl** and ViBa projects are working together on a citizen science initiative to educate and raise awareness and update the geographical distribution of plant pathogens including ***Xylella fastidiosa*** (***Xf***), ***Candidatus Phytoplasma spp***., and ***Candidatus Liberibacter spp.*** in Costa Rica. The project focuses on locations where plants show symptoms potentially associated with these bacteria, while also expanding surveillance through the participation of citizens.

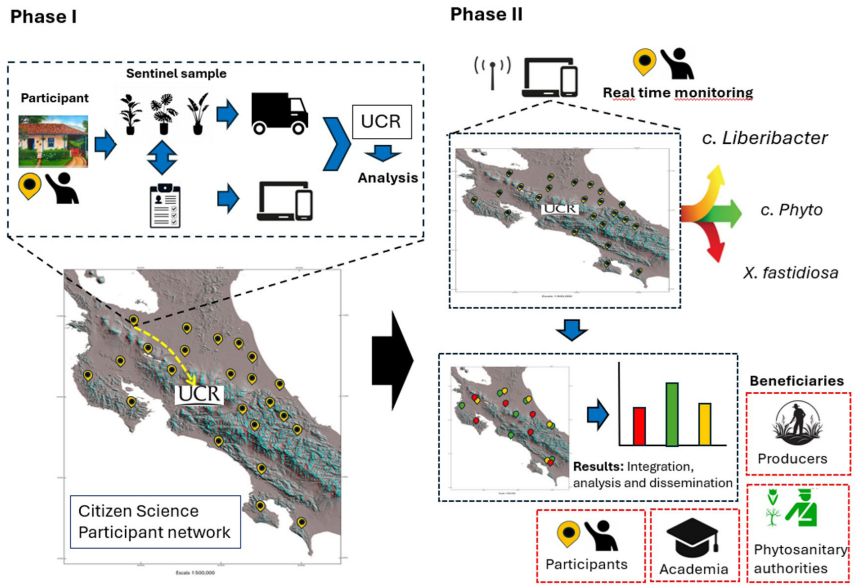


Fig. 1. Phases of the dissemination proccess.

Participants receive basic training on these plant pathogens and on activities such as data and sample collection. The initiative uses a sentinel plant approach based on species such as coffee, citrus, oleander and vinca which are widely distributed in the country and can host these pathogens, often without clear symptoms. This strategy allows broader surveillance and supports the detection of plant pathogens across diverse environments. The project has already organized several virtual sessions to recruit participants and provide information on ***Xf*** and related pathogens.

The results generated will be shared through an open-access web interface with a real-time interactive map, expected to be launched in March 2026. This platform will allow visualization of pathogen distribution and provide links to additional information resources.

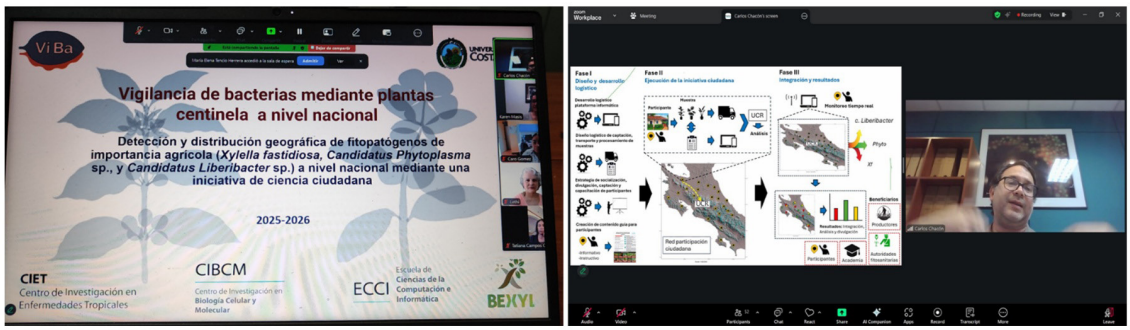


Fig.2. A virtual session was held on February 16 2026, for information, promotion and recruitment of participants to the citizen science project.

How will BeXyl make a difference?

Raising awareness: The initiative increases public awareness of plant pathogens and their potential impacts on agriculture.

Improved surveillance and distribution mapping: Citizen participation enables broader sampling and contributes to updating the distribution of these pathogens across Costa Rica.

Open access to information: Data generated through the project will be publicly available through an interactive online platform, supporting transparency, education and early detection efforts.

Aggregate biological information acquired under a wide range of latitudes/ conditions to i) identify critical environmental drivers favouring *Xf* establishment and spread, considering climate change scenarios, and ii) secure information on the resilience of crops exposed under a wide range of different inoculum/management/climatic conditions;

Create a ***multi-stakeholder community***, from end- users to policy makers, which is the core of the project, deciding on which disease management solutions to converge major efforts, while promoting their full adoption and implementation;

Developing and validating ***solutions*** for improving plant health at ***nursery, farm and landscape level*** including ***a wide range of plant species*** (crops, ornamental and forestry species) for conventional and organic sectors;

Broad dissemination of solutions from the diagnostic laboratory, to nurseries and farms, thanks to different types of research tasks, including IPM decision support systems and guidelines tailored to infected and noninfected areas;

Validate ***optimized statistical designs for surveillance of Xf and its vectors*** to improve EU prevention and preparedness.