NEWSLETTER

December 2024

# THE PURPEST PROJECT

## NEWS

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## COLLABORATION, CROSS-PROMOTION, AND STAKEHOLDER ENGAGEMENT

**Martin Pettersson** from NIBIO collecting VOCs from *Phytophthora*-infected larch

As the **PurPest project** moves into the final stretch of 2024, marking month 24 of project progress, our focus has been on fostering collaborations and cross-promotion among European research initiatives. The past few months have been a period of dynamic activity, characterized by participation in international conferences, forming partnerships, developing strategies for effective stakeholder engagement, and launching new social platforms to enhance outreach. This newsletter highlights our recent efforts to expand our network, engage stakeholders, and leverage collaborative opportunities to ensure the successful exploitation of PurPest technologies and their lasting impact.

Co-funded by the European Union

# PurPest autumn activities

During the autumn of 2024 **the PurPest project** was presented at:

- the **EuroSensors XXXVI** in Debrecen, Hungary;
- the cycle of **internal webinars for INIAV researchers** in Oeiras, Portugal;
- the **Wageningen School of Social Sciences PhD Day** in Netherlands.

Furthermore, this autumn season additional activities include:

- Partners promoting the PurPest project in the **European Researchers' Night**.
- PurPest consortium members publishing a review paper in **Frontiers in Horticulture**.
- The PurPest project was featured on German talk show ***Planet Wissen***.
- The PurPest **Project Review Meeting (PRW)**, held on 24th of September, gave us an opportunity to review the project progress, strategies, deliverables and milestones.
- **Stakeholder Advisory Board (SAB) Meeting** was held on 24th of October to develop the best strategies for implementing project results.

**Favaro R., Berka M., Pettersson M., Thöming G., Arce C.C.M., Inácio M.L., Turlings T.C.J., Faria J.M.S., Jung T., Bazin D., Pozzebon A., Angeli S. and Cappellin L. 2024.** "The use of volatile organic compounds in preventing and managing invasive plant pests and pathogens". ***Frontiers in Horticulture***, 3:1379997. **doi: 10.3389/fhort.2024.1379997**

# Cross-promoting and colaborations

NIBIO has initiated a strategic effort to compile a list of international initiatives relevant to the PurPest project to foster cross-promotion. Several key projects - **REACT**, **BeXyl**, and **SafeWax** - share common goals with PurPest, all focusing on plant pest and pathogen management with an emphasis on sustainable, environmentally friendly solutions. By linking their webpages with the **PurPest official website**, a broader and more integrated communication network is being established, significantly increasing the visibility and reach of all the projects.

In addition, a network of major European Horizon projects - PurPest, **RATION**, **BrightSpace**, and **GeneBEcon** - has joined forces to produce a collaborative paper. This paper will focus on how new regulations and techniques could impact the objectives of the EU's Farm-2-Fork strategy. This joint endeavor underscores the importance of cross-promotion among projects and strengthening the collective impact of European research initiatives.

For more detailed information, please visit the official websites of the projects.

# EU CAP Network

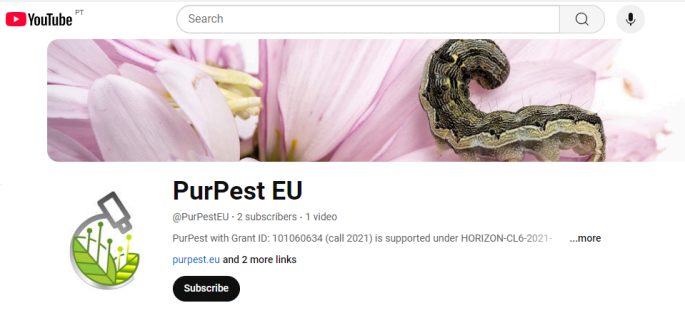
PurPest is now featured on the **EU CAP Network website** under the **EPIP-AGRI** project database. This new addition allows stakeholders and the public to access all relevant information about the project, including its objectives, progress, and outcomes. This connection enhances PurPest visibility and increases networking opportunity.

# Stakeholder Advisory Board (SAB) meeting - innovation and implementation strategies -

On the 24th of October, the PurPest project convened its Stakeholder Advisory Board (SAB) meeting to provide updates on the project's progress and discuss strategies for implementing its results. Representatives from key organizations, including research centers, government institutions, nursery associations, and industry partners, reviewed advancements across work packages, with a particular focus on developing the **Sensor System Prototype (SSP)**. The SAB addressed critical improvements, such as extending battery life and tailoring SSPs to detect specific pests, with the first prototype anticipated for testing in April 2025.

The meeting also underscored the importance of securing certification from the European and Mediterranean Plant Protection Organization (EPPO) to establish the SSP as a standard monitoring tool. Stakeholders emphasized the need for active engagement with nursery industries, plant importers, and policymakers to highlight the ecological and economic benefits of enhanced plant material inspections. Plans for webinars and demonstration activities were also discussed to showcase PurPest technologies. The next SAB meeting is scheduled for April 29, 2025, to review progress and further refine stakeholder tasks, ensuring the effective dissemination and implementation of project outcomes.

# Watch, Learn, and Subscribe




We are excited to announce the official launch of the PurPest **YouTube channel**! This new platform will feature informative and engaging videos to reach a broad audience, sharing the goals, tasks, and progress of the PurPest project.

In our first video, Andrea Ficke introduces the PurPest concept and explains the importance of using volatile organic compounds to detect economically significant pests and pathogens. These innovative technologies aim to protect food security and forest ecosystems by preventing pest establishment in the field.


Don't miss out on the latest insights and updates from the PurPest team. Subscribe to our channel and hit the like button to stay informed and support our mission!

**youtube.com/@PurPestEU**


The PurPest project has also joined **BlueSky** as an alternative platform to **X**, enhancing accessibility and engagement with its audience.

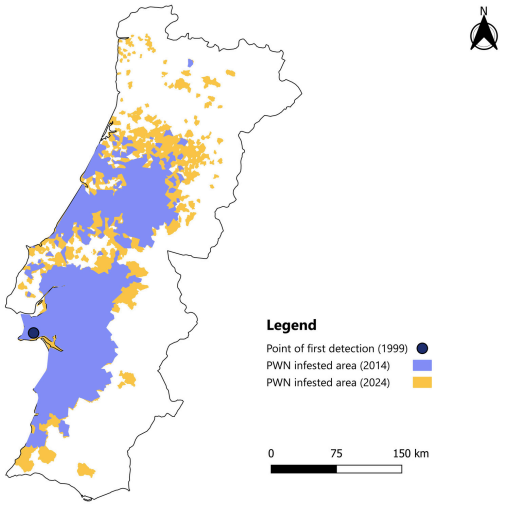
Rest assured, PurPest remains active across all social media channels.

Follow us for the latest updates on project progress, news, and valuable insights—and don't forget to like and subscribe!


**@purpest-eu.bsky.social**

# Modeling the potential economic impact

**Work Package 5 (WP5 - Analyze the impact and implementation of PurPest)** is using modeling to assess the potential economic impact caused by five major plant pests.



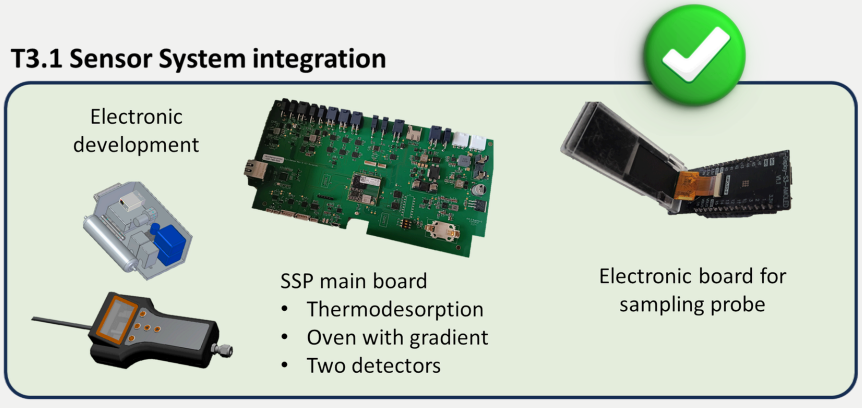

*The area currently affected by **Pine Wilt Disease** in continental Portugal.*

The pinewood nematode (*Bursaphelenchus xylophilus*), first detected in Portugal in 1999, is an invasive pest from North America that threatens European forestry, particularly in Mediterranean regions. Spread by pine sawyer beetles, it causes pine wilt disease, leading to tree mortality, ecological degradation, and biodiversity loss. The economic impact is significant, with timber industries facing reduced resources and production. Climate change may exacerbate the spread of the nematode into Central and Northern Europe, resulting in higher economic losses and environmental challenges. Urgent action, including strengthened monitoring, detection, and pest management, is necessary to protect Europe's forests and economies.

# Technology development progress

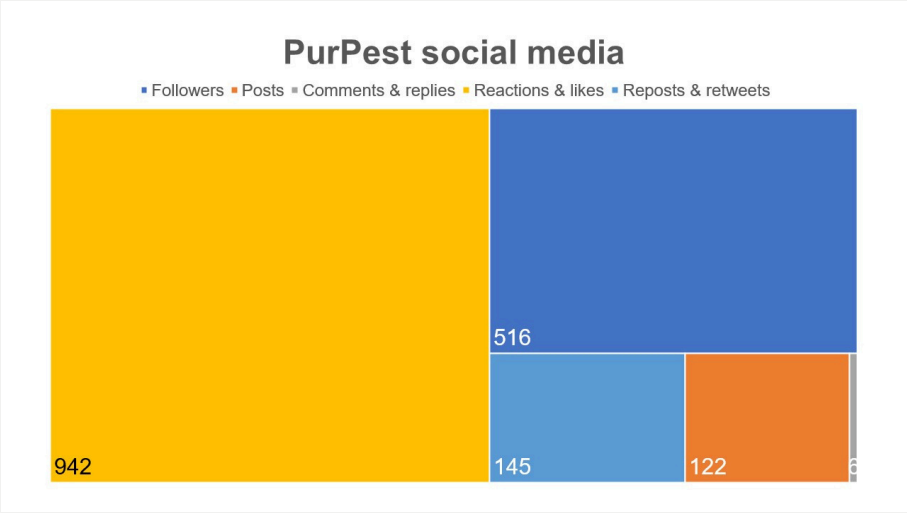
Progress has been made in **WP2 Sensor development and optimization** and **WP3 Sensor integration and testing**.

WP2 advancements include optimized pre-concentrators, improved signal resolution, and successful coating deposition, and addressed challenges such as uneven coatings and baseline fluctuations. Micro-GC technology has progressed with 3D-printed components and refined signal differentiation, while efforts enhance detection reliability are underway.



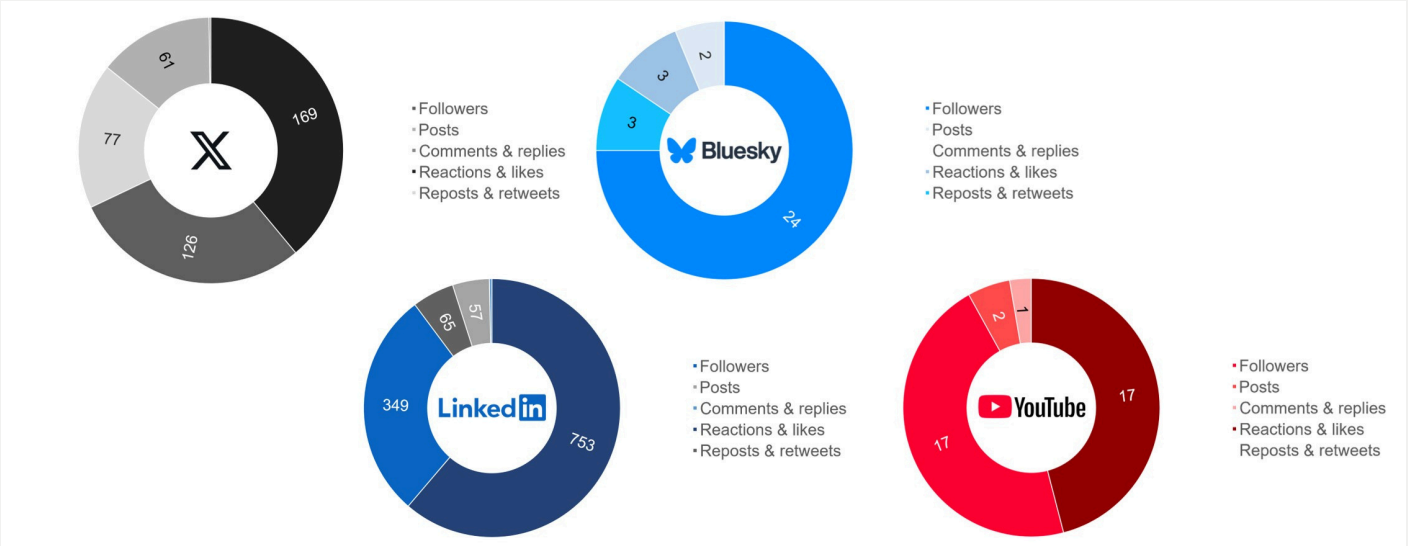

In WP3, sensor integration has demonstrated efficient system prototyping, optimized installation processes, and reliable battery performance. Collaborative efforts among partners have ensured progress in open-air sampling, VOC benchmarking, and system testing. These developments are a solid foundation for deploying effective and reliable **Sensor System Prototype (SSP)** in the following stages.

# Strong social media engagement and growing follower base




The overall increase in activity and engagement across multiple platforms reflects the project's successful outreach and expansion of its online presence over the last six months. New social media accounts were established for the project: **BlueSky** as an alternative to X and the official PurPest **YouTube channel**.

Over the last six months, the PurPest project's social media presence has seen significant growth across multiple platforms. On **LinkedIn**, followers increased by 21.60%, comments and replies doubled, reposts became more frequent, and reactions and likes rose by 32.34%. On **X**, followers grew by 8.62%, retweets increased by 50.98%, and reactions and likes grew by 34.13%.
The newly established platforms, BlueSky and YouTube, also contributed to the project's digital presence, with **BlueSky** gaining 24 followers and the **YouTube** channel gaining 17 subscribers, adding to the project's successful increase in follower engagement and online activity.

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