



**inov3PT**  
SEED POTATO  
FOR THE FUTURE

# MonYvector

## Monitoring of Potato Virus Y vectors



### Summary

Virus Y is the virus that most frequently affects potato crops. It has a complex epidemiology; it is transmitted on the one hand by aphids (60 species dependent or not on cultivation) and by leafhoppers belonging to the typhlocibinae family. The use of certified seed potatoes and mineral oil-based treatments during vegetation are currently the most effective solutions for limiting the transmission of the virus. These treatments are triggered according to the vector pressure estimated on the basis of readings of chromatic insect traps. The objective of this project is to improve the monitoring of PVY vectors with innovative and connected sensors. The real-time definition of the flight dynamics of vectors (aphids and leafhoppers) could make it possible to better control the treatments according to the pressure of the latter and to guarantee the quality of the certified seed potatoes.

### Actions

- installation of sensors
- validation of sensor performance
- sensor settings (aphid and leafhopper recognition under controlled conditions)
- integration of sensors in a seed potato production scheme
- integration of data with Vigiculture (ACTA collaboration)



### TECHNICAL MEMO

*Project's holder:*



**inov3PT**  
SEED POTATO  
FOR THE FUTURE

*Duration of the project:* 36 months

*Beginning/end of the project:*

01/01/2022 – 31/12/2024

*Partners:*

- The 3 regional organisations of seed potato producers: Bretagne Plants, Comité Centre et Sud, Comité Nord (experimentation services and analysis laboratories)
- University Picardie Jules Verne (UPJV)
- FaunaPhotonics (Denmark)
- ACTA

*Financial support:*



*Project manager FN3PT/inov3PT:*  
Mounia Khelifa

*Project team:*

Yves Le Hingrat, Camille Mounier, Laurent Glais, Laura Demey, Christophe Dargier (FN3PT/inov3PT)

Philippe Laty (Comité Centre et Sud)

Sébastien Vast and Xavier Riquiez (Comité Nord)

June 2023