

# Concept Note Plant Epidemiosurveillance

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### ABSTRACT

Epidemiosurveillance networks are only starting to be developed in France for emerging plant diseases. We propose to share and coordinate the scientific expertise of 10 teams in our four research units on various plant-pathogen models in the fields of epidemiology, population genetics, metagenomics, phylogeny, network building, database construction, and diagnostics. Four workpackages aim at sharing competences on 1) techniques to reconstruct past emergences, 2) determinants of emergence and descriptors that help understanding them, 3) innovative approaches to anticipate epidemics and evaluate the emergence potential of a pathogen in a given environment, 4) optimization of existing or planned epidemiosurveillance networks. The project will benefit from the variety of scientific approaches, biological models, environmental/human contexts, and interactions with already established networks. These aspects will be shared to improve each team's skills and the outputs will be transferred to partners involved in the surveillance of plant pathogens.

**Keywords :** Epidemiosurveillance, Monitoring, Diagnostic, Inference, Population genetics, Metagenomics, Epidemiology, Plant pathogens

**Year :** 2014

**Project number :** 1405-007

**Type of funding :** AAI

**Project type :** AAP

**Research units in the network :** BIOAGRESSEURS-PHIM IPME-PHIM PVBMT

**Start date :** 2014-12-10

**End date :** 2015-04-17

**Flagship project :** no

**Project leader :** Claire Neema

**Project leader's institution :** InstitutAgro

**Project leader's RU :** BGPI-PHIM

**Budget allocated :** 10000 €

**Total budget allocated ( including co-financing ) :** 10000 €

**Funding :** Labex