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► **To cite this version:**

Norman Daurelle, Anne Quillévéré-Hamard, Olivier Cotto, Gaël Thébaud. Efficiency of anti-sharka control strategies. International Congress of Plant Pathology, Aug 2023, LYON, France. Poster. anses-04417173

**HAL Id: anses-04417173**

**<https://anses.hal.science/anses-04417173>**

Submitted on 25 Jan 2024

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norman.daurelle@inrae.fr

# Efficiency of anti-sharka control strategies

Norman Daurelle<sup>1,2</sup>, Anne Quillévéré-Hamard<sup>2</sup>, Olivier Cotto<sup>1</sup> and Gaël Thébaud<sup>1</sup>

<sup>1</sup>UMR PHIM Plant Health Institute, INRAE, Univ Montpellier, CIRAD, Institut Agro, IRD, Campus international de Baillarguet, 34398 Montpellier, France.  
<sup>2</sup>ANSES, Unité EAS (Epidémiologie et Appui à la Surveillance), 31 av. Tony Garnier, 69007 Lyon, France

## What is sharka?

Sharka, caused by the plum pox virus (PPV), is a disease affecting *Prunus* trees. It is transmitted in a non-persistent manner by aphids, and long-distance dispersal is mainly due to human transport of infected plant material. The symptoms include distorted leaves, yellow rings on fruit stones, alteration of fruit shape and chemical content, as well as premature fruit drop in some cases. The costs associated with sharka management have been estimated at 10 billion euros between 1975 and 2005.<sup>1</sup>

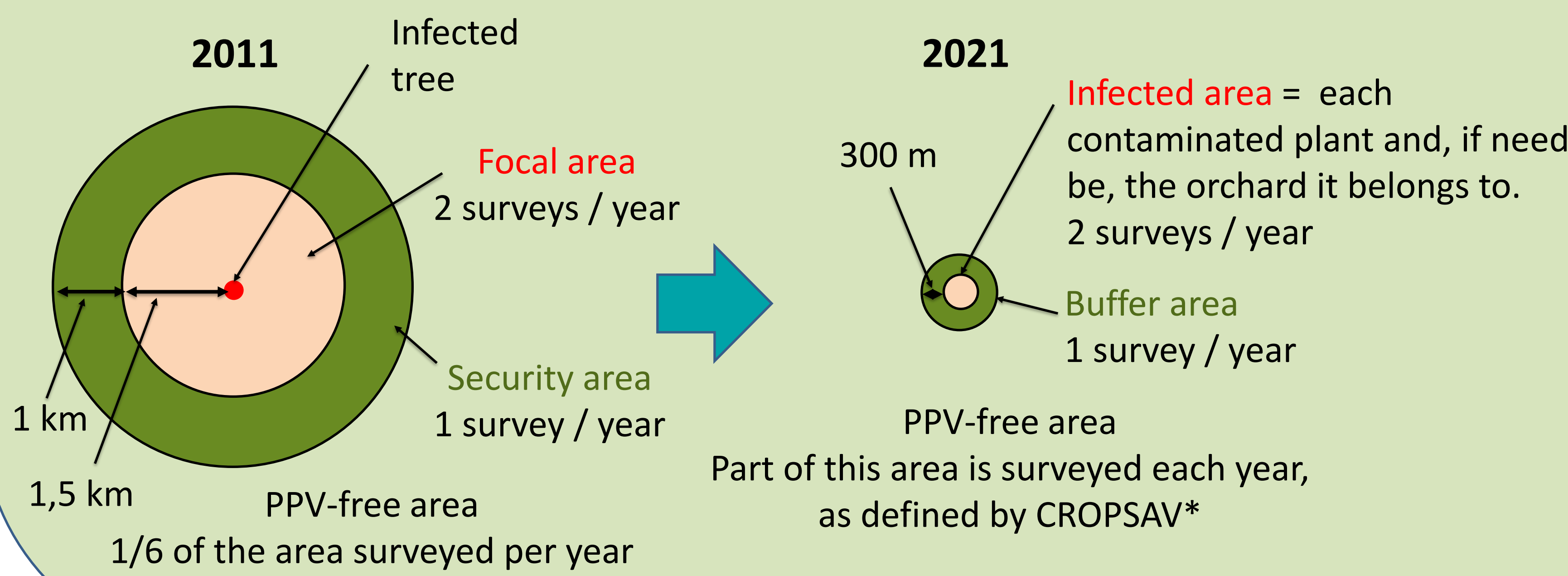


Symptoms of sharka on apricot (top) and plum tree leaf (bottom)

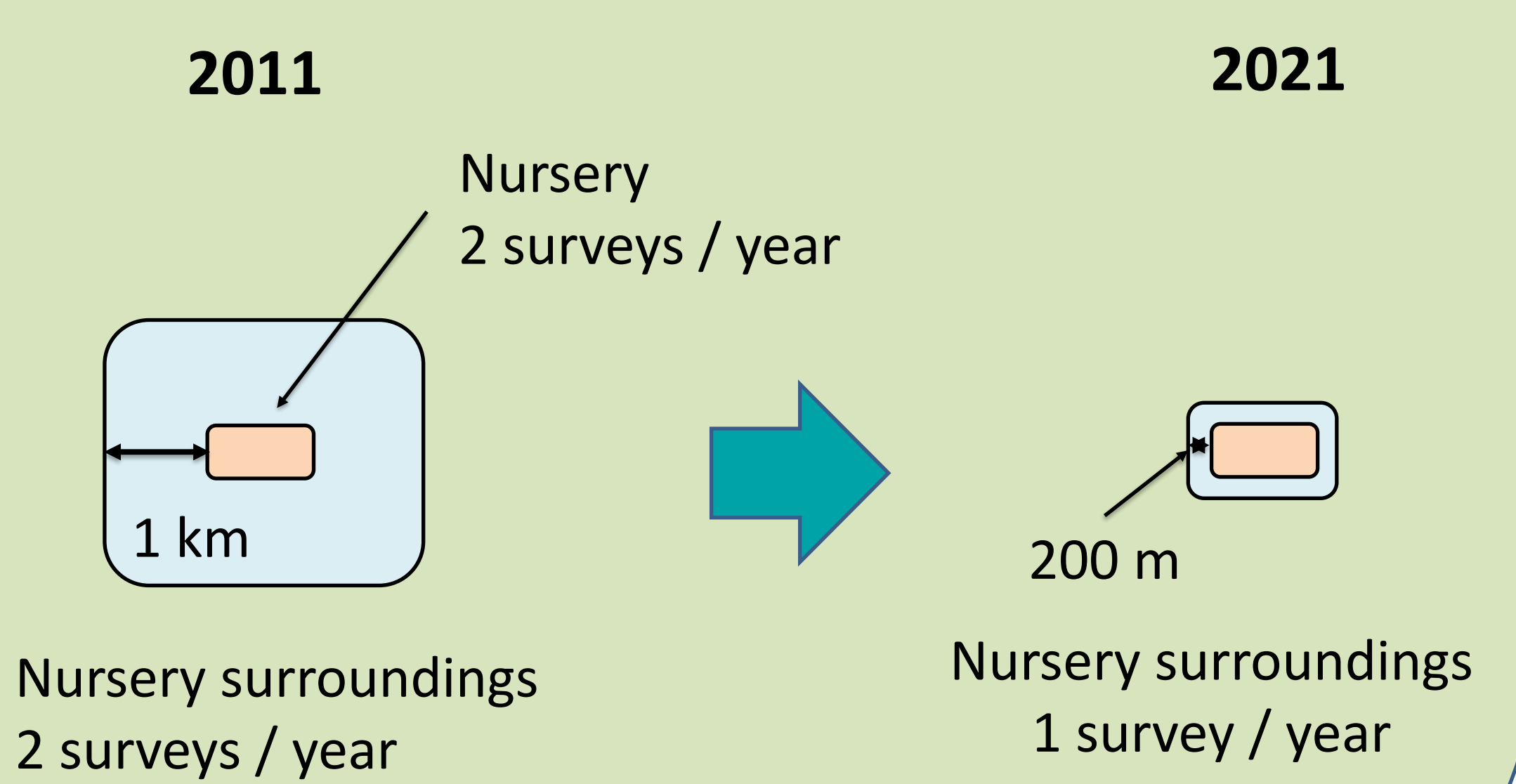
## Recent changes in surveillance:

- In 2019 PPV has changed status from Quarantine Pest to Regulated Non-Quarantine Pest.<sup>2</sup>
- The state aims to transfer the responsibility and cost of surveillance to growers.

### Orchards



### Nurseries

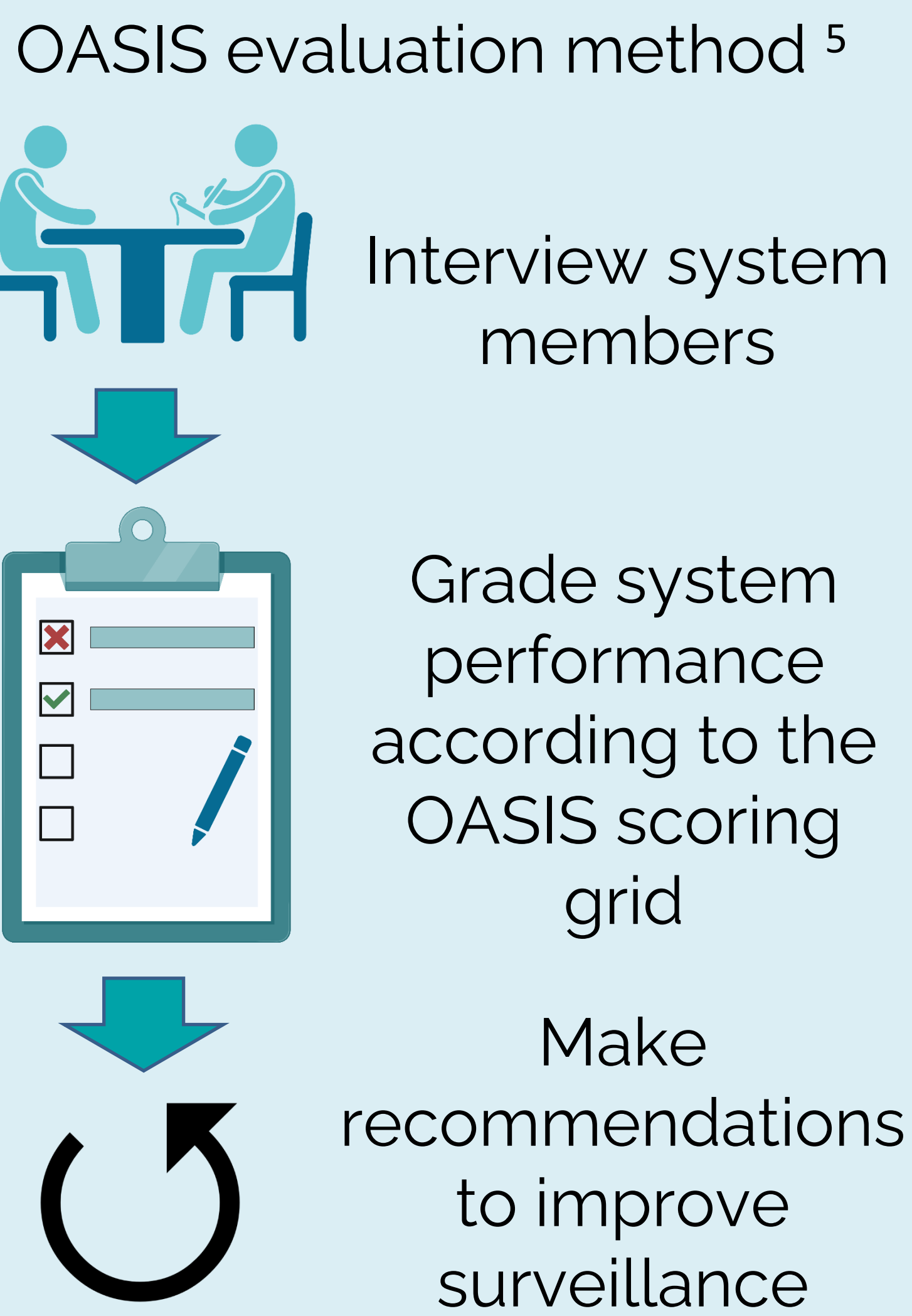


Surveillance areas defined by ministerial decree<sup>3,4</sup>

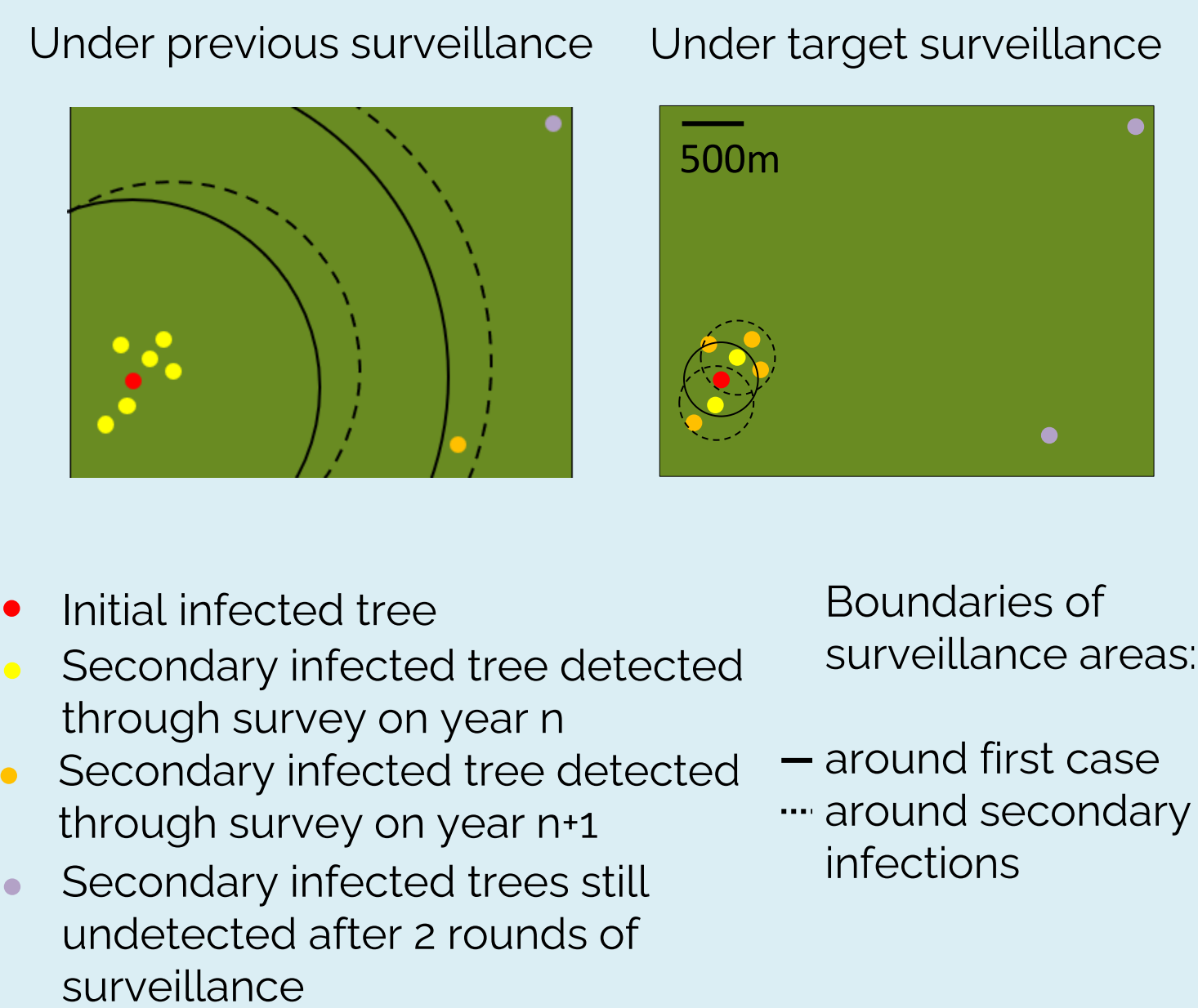
Transfer of surveillance responsibility + Changes in size of surveillance area and frequency

## How are these changes going to impact the efficiency of disease management?

### I/ How performant is the surveillance system? And in the future?

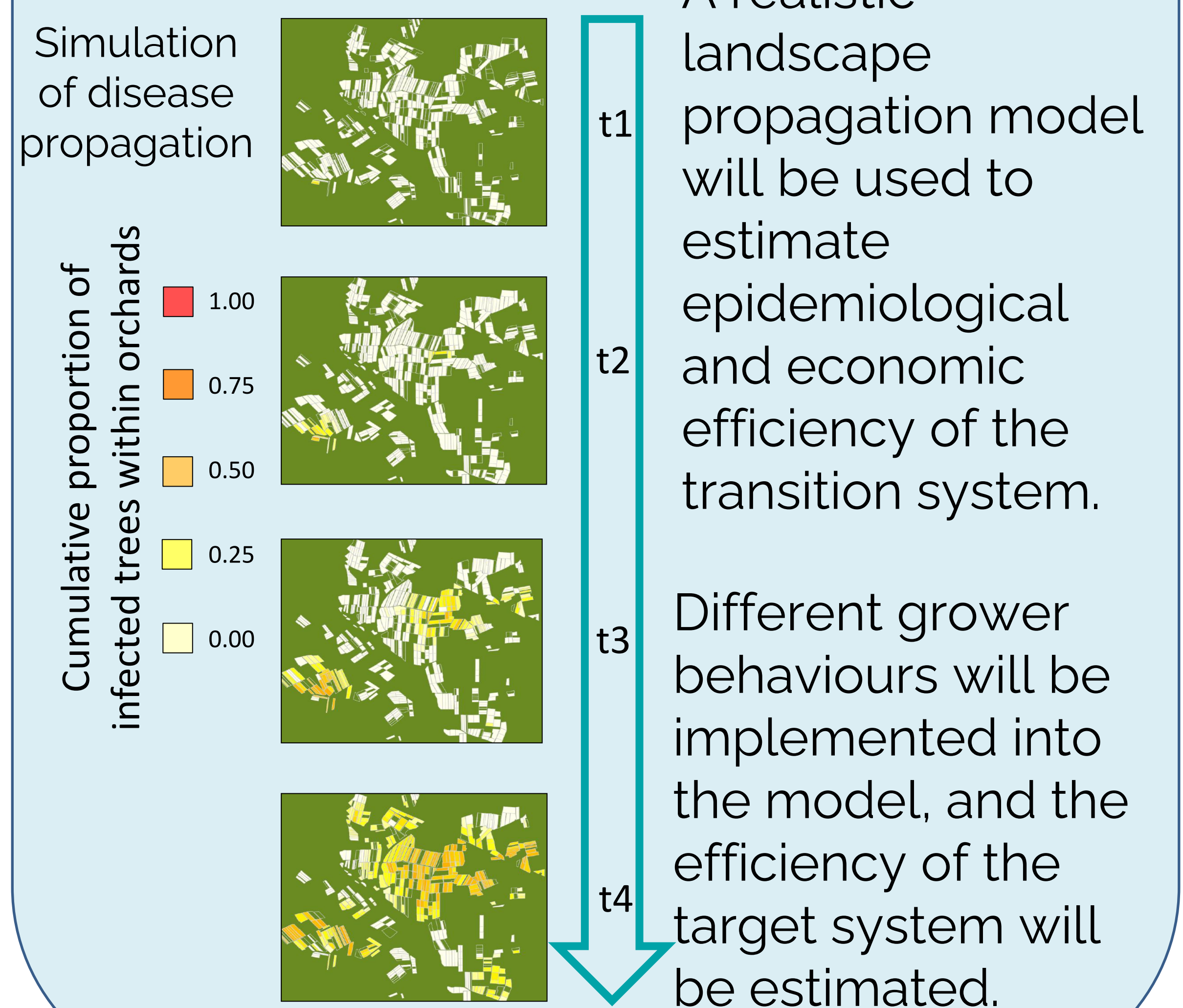


### II/ Metrics for measuring control success



We will define metrics that allow comparison of surveillance before and after changes.

### III/ Epidemiological and economic efficiency of surveillance



This work should provide i) insight into the efficiency of the different surveillance strategies, and ii) tools for detecting possible limits of the target strategy.

\* CROPSAV = Conseils Régionaux d'Orientation de la Politique Sanitaire Animale et Végétale

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3 - Arrêté du 17 mars 2011 relatif à la lutte contre le Plum Pox Virus, agent causal de la maladie de la Sharka, sur les végétaux sensibles du genre Prunus, JORF n°0067 du 20 mars 2011  
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