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# ERGONOMIC APPROACH TO THE PREVENTION OF PESTICIDE EXPOSURES IN FRENCH VINYARD

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PREVEXPO

# AN ERGONOMIC APPROACH TO THE PREVENTION OF PESTICIDE EXPOSURES IN FRENCH VINYARD

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## Context

### USE OF PLANT-PROTECTION



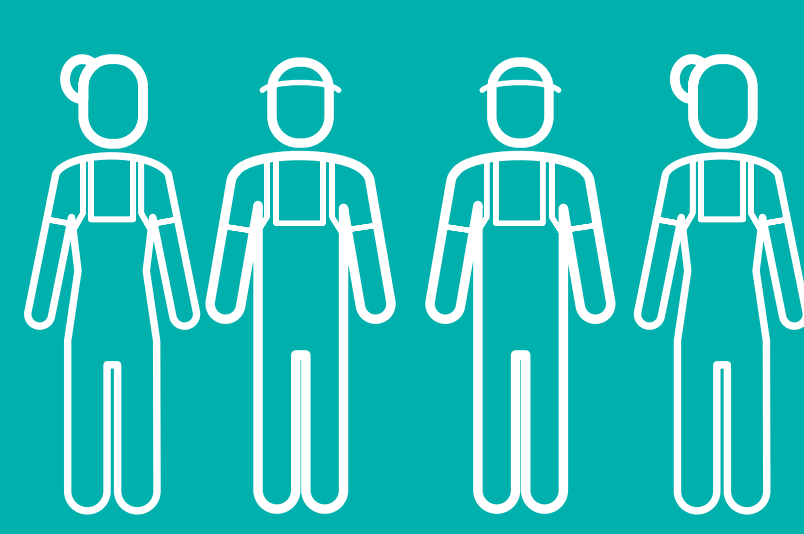
Load  
 Mix  
 Apply  
 Clean  
 Harvest  
 Repair

### OPERATOR



Exposures  
 Cutaneous  
 Ocular  
 Digestive  
 Respiratory

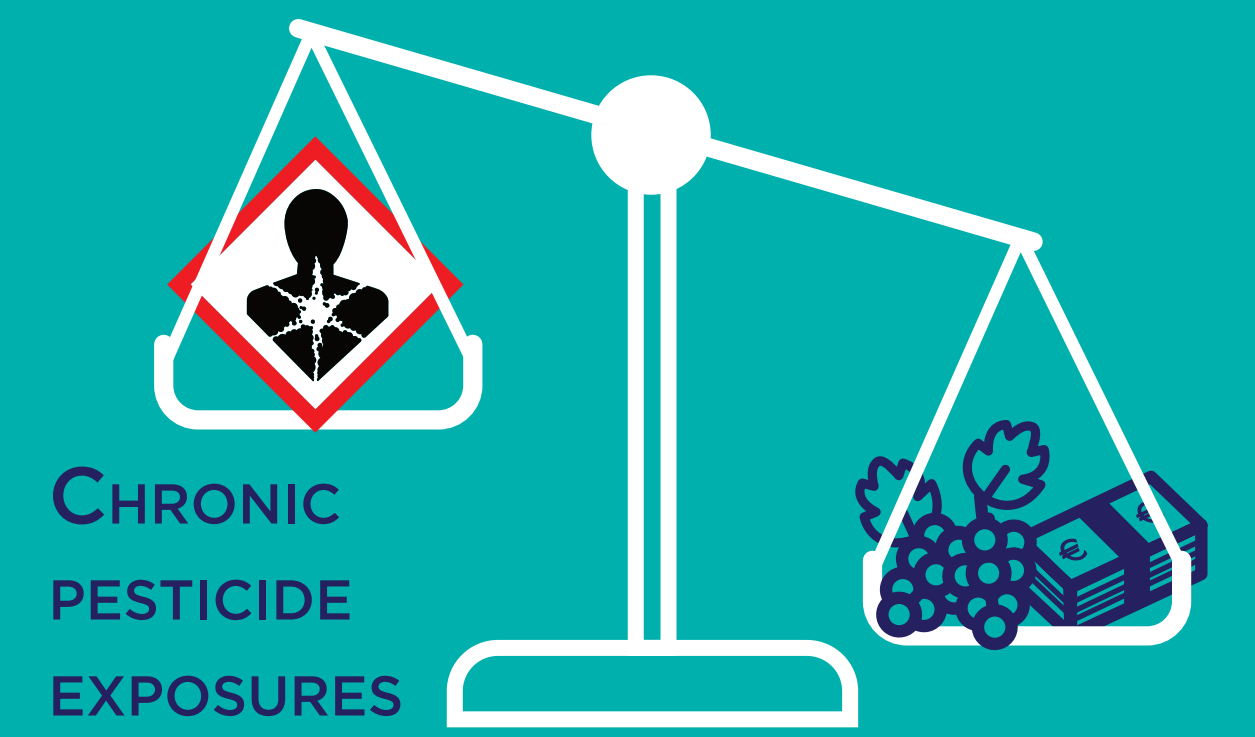
### WORKERS



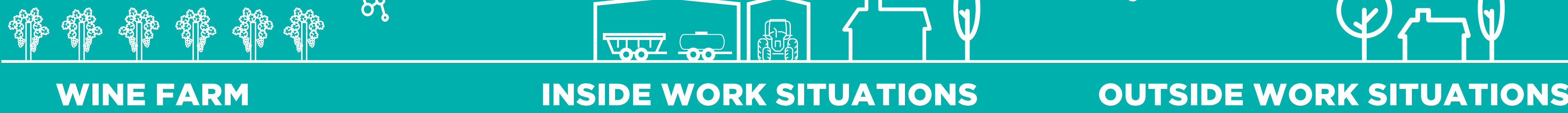
### RESIDENTS



### DIRECTS RISKS HIDE INDIRECTS AND LESS PERCEPTIBLE RISKS



### MOLECULE MIGRATION



## Objective

**TO DOCUMENT AND HIGHLIGHT INDIRECT EXPOSURE SITUATIONS With/for operators workers and residents**



## Method



### CONDITIONS OF HUMAN EXPOSURES

Ergonomics associated to Toxicology / Epidemiology / Public Health



### REAL LIFE AND WORK SITUATIONS AND ACTUAL USES OF PPPS

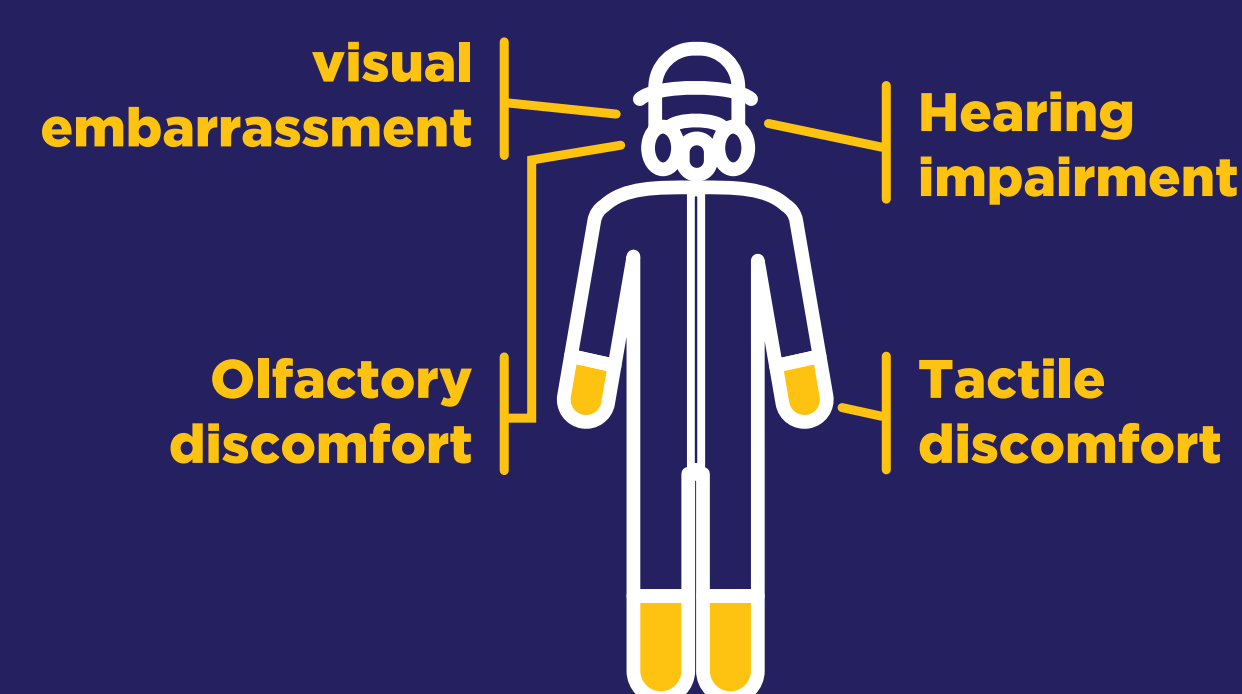
Organization of Spaces / Humans / Work / Tasks



### REGULATION

## Results

### Personal Protection Equipment is not a sustainable solution



## Is needed to Optimize plant-treatment mixtures with OPERATORS to reduce occupational and domestic exposures

Cross-learning have highlighted exposure situations relating to the real work and life situations of winegrowers:

- during the preparation of porridge (especially during the 2<sup>nd</sup>)
- depending on the equipment used, its design (its form, its technicality) and its maintenance (seperate or towed tank)
- depending on the products chosen, their shape and composition
- according to the spatial organization or the exploitation and the proximity between places of lie ans places of preparation (lunch break, drink washing body following hazards, etc.)
- according to the organization of the work (membership of a cella, forecasting of group purchases, distribution of tasks.

## Reducing the execution time is reducing the exposure time !:

Involve winegrowers in research-action dynamic through the collective construction of measures (measurement of pesticide exposuresforts of the operator in the accomplishment of the various tasks, in various situations) has made it possible to reduce the situation exposure workspaces and operating modes :

- to transform exposure situations, it's a question of supporting operators in the construction of safety situations (rather than in the capitalization of exposures situators asked that the preparation of slurry be quantified (duration, cost frequency) and qualified (gestures, postures, materials, choice, tensions, chemical, exposures, etc.)
- Developping practical knowledges enhance the transformation of exposures situations