

COST Action no. FA1303

# Sustainable control of grapevine trunk diseases (ManaGTD)

2013 | 2017

## Objectives

- GTD are among the most important diseases in vineyards; they are due to a complex of pathogens that can biosynthesize a variety of metabolites. Pathogens infect grapevine propagation material in nurseries, in newly planted vines and in mature established vineyards.
- Control of GTD is problematic, no cultivar is known to be resistant to GTD and there are no highly effective treatments available as fungicides with potential to control GTD have been banned.
- The main objective of the Action is to improve the management and control of GTD by acquiring knowledge on the occurrence of pathogens, vine-pathogens interaction, ecology of micro-organisms, to develop effective and sustainable management protocols, and to extend these to end users, i.e. vineyard operators and nurserymen.

## Main Achievements

- Create a network of multidisciplinary scientific institutes and companies, to improve understanding of GTD by increasing disease data collection and developing standardized methodologies.
- Develop management strategies to decrease the impact of GTD through interaction among researchers and the industry operatives.
- Establish a platform for scientists to communicate new information about the extend of and control of GTD.

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**Food and Agriculture (FA)**

## Participating countries

AT, BG, CH, CZ, DE, ES, FR, GR, HR, HU, IL, IT, MT, NL, PL, PT, RO, SI, SE, UK

## Contact details

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Image caption: wood necrosis (P. Larignon-IFV), symptomatic vine (C. Bertsch-UHA), nursery (P. Bloy-IFV), fungi (A. Spagnolo-URCA)



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## Working Group activities

### Working Group 1 (Pathogen characterization, detection & epidemiology)

- Create an inventory of pathogens and of cultures held in EU labs; develop a set of diagnostic protocols for the identification/detection of GTD; characterization of their life cycle
- Develop standard test conditions to determine the virulence of individual GTD
- Assess the frequency of GTD and their evolution on EU countries to evaluate the global health status of the vineyards; develop and test new prediction models

### Working Group 2 (Microbial ecology)

- Inventory of microbial communities outside and inside the wood of asymptomatic and symptomatic plants in nursery and in vineyard
- Understand the interactions between microorganisms and their influence on the plant susceptibility
- Identify beneficial microorganisms

### Working Group 3 (Host-pathogen & fungus-fungus competitive interactions)

- Characterize pathogen infections
- Identify and understand phytotoxin activities
- Clarify plant defense reactions involved in affected vines to stimulate vine immunity
- Standardize and validate a simplified model for symptoms development and to test solutions

### Working Group 4 (Disease management)

- Harmonize experiments evaluating new environment friendly and sustainable strategies to manage GTD in the EU
- Promote new approaches to control GTD in both nurseries and vineyards
- Propose new recommendations to limit the progression of grapevine decline to European end-users

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## Industry participation

### Pépinières Mercier

Vix, France,  
[www.mercier-groupe.com](http://www.mercier-groupe.com)



### Agrauxine

Angers, France  
[www.agrauxine.com](http://www.agrauxine.com)



### Biovitis

Saint-Etienne-de-Comeil, France  
[www.laboratoire-biovitis.fr](http://www.laboratoire-biovitis.fr)



### Isagro

Italy  
[www.isagro.com](http://www.isagro.com)



### Bayer CropScience

Monheim am Rhein, Germany  
[www.bayercropscience.com](http://www.bayercropscience.com)



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