WINETWORK is a European collaborative project for the exchange and transfer of innovative knowledge between European wine-growing regions to increase the productivity and sustainability of the sector. For 3 years, 11 partners of 7 European countries will exchange knowledge on two important diseases in vineyard: Grapevine Trunk Diseases and Flavesence dorée. These diseases are well-known in many vineyards and have been extending for several years in different European countries, and having big economic importance for the European wine industry. As many winegrowers are testing innovative and sustainable approaches to fight against these diseases, it is very beneficial to capture these ideas and to share them between European countries.

AN INNOVATIVE METHODOLOGY

Project WINETWORK is developing the innovation-driven methodology, which promotes the exchange of knowledge between science and practice. This network is implemented in ten winegrowing regions, within seven European countries. The methodology is built on a network of winegrowers and regional experts gathered in regional Technical Working Groups, Scientific Working Groups (one for each disease), and ten regional Facilitator Agents that stimulate their interaction.

Bottom-up approach applied in WINETWORK includes surveys, conducted and synthesized by Facilitator Agents, to identify winegrower’s innovative practices, while scientists revise scientific data and adapt it to dissemination and practical use.

This participatory approach will allow transferring results from science and practical knowledge to materials adapted to end-users. This network will promote interactions between scientists and practitioners to gather and share experiences and knowledge of different actors from the main wine producing European regions.

THE KNOWLEDGE RESERVOIR

Collected knowledge will be gathered in the knowledge reservoir, and will serve as a basis for Facilitator Agents in collaboration with Technical Working Groups and Scientific Working Groups to co-create original material adapted to innovation support services and to winegrowers. The knowledge reservoir is a participative tool having the ambition to host all existing knowledge on the topics, both developed by research or derived from practical experience. Those stakeholders—such as scientists, advisors or winegrowers—who would like to share their documented knowledge can contribute to this webarchive by uploading videos, images and documents. All the created material will be available for the European wine sector and will allow, for example, winegrowers to recognize diseases symptoms and to better understand their management.

EXAMPLES OF INNOVATIVE CONTROL STRATEGIES

For Flavesence Dorée, control strategies are based on vector monitoring, insecticide application and removal of infected vines, and secondary hosts. Hot water treatment (HWT) is a technique applied in nursery to suppress potential phytoplasma from planting material. In field, insecticides treatments are used by winegrowers to limit Scaphoideus titanus population. Alternatives in organic viticulture are existing such as based natural pyrethrin product and spraying of chauline or orange oil/extract on foliage to reduce plant attractiveness.

Grapevine Trunk Diseases gather three main diseases: Esca, Botryosphaeria dieback and Eutypa dieback. These diseases are widely spread and cause large damages in European vineyards. Depending on grape variety, symptoms are expressed with variable intensity. Foliar symptoms and internal symptoms are typical of grapevine trunk diseases.

Control strategies for Grapevine Trunk diseases are based on preventive techniques which minimize news infections. Scientific Working Group identified the most efficient chemicals and bio-control agents regarding one or two diseases. Then, they provided recommendations for nursery and vineyard management. In field, most European winegrowers are using pruning techniques and protection of pruning wounds to limit pathogens infection (Guyot Poussard, Simonot and Sirch, bio-control agent spraying, trunk cleaning and a combination of practices insuring a good vineyard health status.