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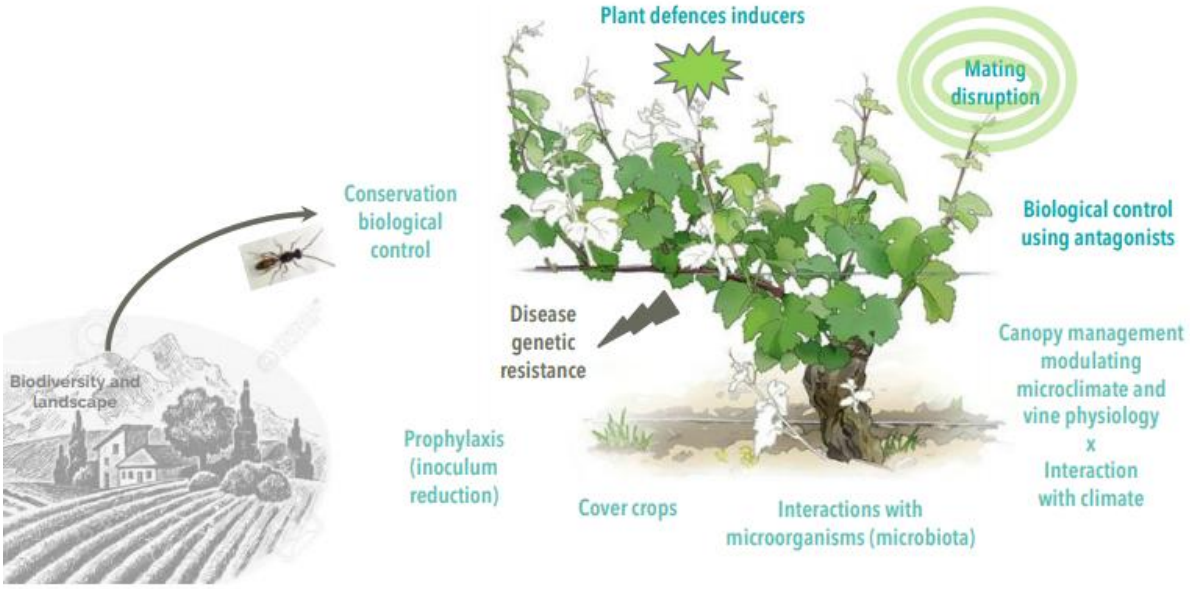
INRAE

Press release – September 24, 2020

# Winegrowing without pesticides: launch of the VITAE project

**The VITAE project is one of 10 winners of the call for proposals presented on September 23, 2020 by the Agence nationale de la recherche (ANR) as part of the Growing and Protecting Crops Differently priority research programme. With a budget of €3 million over six years, VITAE is an interdisciplinary project that addresses underexplored scientific frontiers while questioning the extent of the social changes necessary to promote this agroecological breakthrough. Coordinated by INRAE, it is singular in its focus on one specific sector, which guarantees the relevance of interdisciplinary research while also covering all the French wine regions. For the first time, it will bring together the national research community on the issue of pesticide use in the vine and wine sector. VITAE is based on the production of new knowledge and its transfer, in particular through training and proximity to the actors concerned. VITAE also incorporates foresight work to propose scenarios for the elimination of pesticide use at the sector and regional levels.**

Winegrowing without pesticides is a big challenge for this emblematic crop. Moving away from pesticides requires multiple management solutions – biological regulation, immunity stimulation, genetic resistance, for example – each of which yields only partial effects. The goal is to move from a curative approach to an agroecological approach based on prophylaxis, monitoring and better resilience of winegrowing systems. Because these control methods are partially effective, they must be integrated into new protection strategies that maximize their combined effects while adapting them to local climates, socio-economic contexts, and market issues.



**Towards agroecological wine-producing socio-ecosystems**

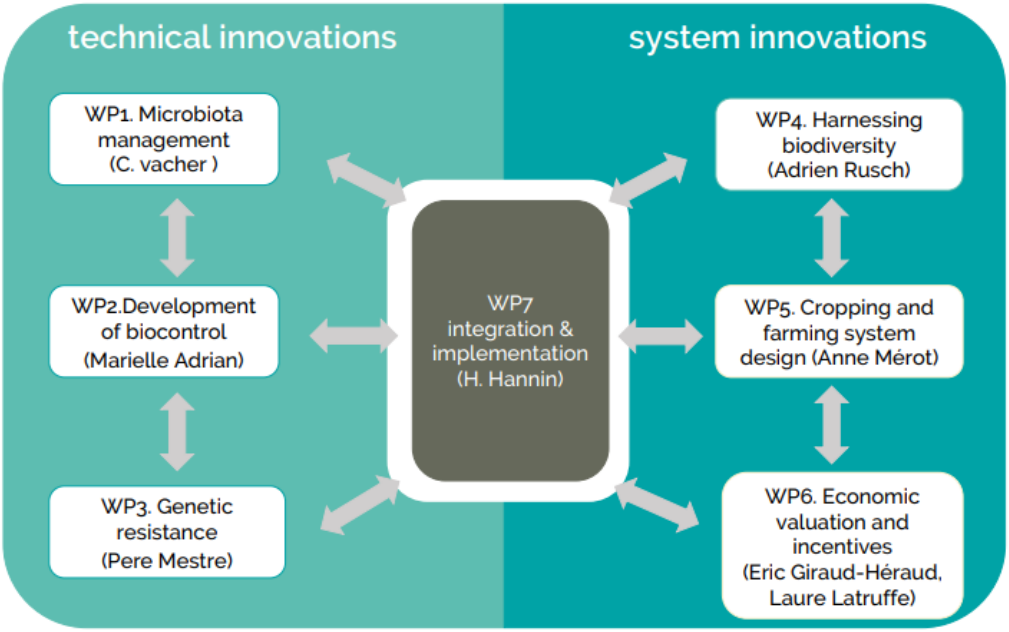
Genetic resistance in vines is an essential lever to achieving zero-pesticide winegrowing. The use of disease-resistant grape varieties nevertheless raises crucial questions about the durability of resistance, the adaptation of new grape varieties to climate change, the quality of wines and their acceptance by consumers. All these questions are addressed by VITAE.

Regarding biocontrol, VITAE will seek to identify microbial consortia (bacteria, fungi, mycoviruses) that are antagonistic to vine diseases. The project will stimulate research on biocontrol products with original methods of action (activation/suppression of vine defenses, disruption of pathogen reproduction). Their interaction with plant physiology will be evaluated to better apply these solutions in the vineyard. Biocontrol solutions will address the full life cycle of pathogens including sexual reproduction.

This combination of pest management solutions is at the heart of VITAE. The aim is to empirically explore the combined field-to-landscape effects of solutions on trophic networks by incorporating the unintended effects on biodiversity. The performance of pesticide-free systems, from grape production (agronomic performance) to wine making (oenological and economic performance) will also be studied.

Lastly, VITAE addresses the determining factors of transition by identifying obstacles to the implementation of pesticide-free systems and structural change. Indeed, winegrowing without pesticides may lead to changes in regulations and to the information and labeling systems offered on the markets. VITAE will study the actual expectations of consumers regarding the elimination of pesticides, as well as the structural alternatives and economic and regulatory incentives that could support the transition. Interdisciplinary and integrative prospective work will be carried out with stakeholders to generate scenarios for the elimination of pesticide use at the sector and regional levels. These scenarios will help organizations and policy makers implement pesticide exit strategies with appropriate incentive programmes.

**VITAE - "Cultivating the grapevine without pesticides: towards agroecological wine-producing socio-ecosystems"** is a project involving 118 permanent staff, including 66 researchers from INRAE, the Université de Bordeaux, the Université de Bourgogne-Franche-Comté, Bordeaux Science Agro and Montpellier SupAgro. The Institut des Sciences de la Vigne et du Vin (ISVV) in Bordeaux, The Institut des Hautes Etudes de la Vigne et du Vin (IHEV) in Montpellier and the Institut Jules Guyot in Dijon constitute the multidisciplinary centres of the VITAE project.



**Learn more about the "Growing and Protecting Crops Differently" priority research programme**
https://www6.inrae.fr/cultiver-proteger-autrement/
https://anr.fr/fr/detail/call/cultiver-et-proteger-autrement-appel-a-projets/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**About INRAE**
Created on January 1, 2020, the French National Research Institute for Agriculture, Food, and Environment (INRAE) is a major player in research and innovation. INRAE carries out targeted research and resulted from the merger of INRA and IRSTEA. It is a community of 12,000 people with 268 research, experimental research, and support units located in 18 regional centres throughout France. Internationally, INRAE is among the top research organisations in the agricultural and food sciences, plant and animal sciences, as well as in ecology and environmental science. It is the world's leading research organisation specialising in agriculture, food and the environment. INRAE's goal is to be a key player in the transitions necessary to address major global challenges.
Faced with a growing world population, climate change, resource scarcity, and declining biodiversity, the institute is developing solutions that involve multiperformance agriculture, high-quality food, and the sustainable management of resources and ecosystems.