

## MONTPELLIER VINE & WINE SCIENCES (M-WineS)

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### Abstract:

**Context and purpose of the study** – The Occitanie Region is the first vine-growing area in France: 270 000 hectares of vineyard and an annual production of 15 million hectoliters. Its annual income reaches 1 900 million euros, of which 900 million euros in export. The vine and wine sector is facing many issues: inputs reduction, adaptation to climate change, maintaining the production competitiveness, digital tools integration in production and transformation processes, and the production of quality wines meeting the consumer demand.

**Objectives** – Montpellier Vine & Wine Sciences aims to develop the Montpellier research-education-innovation cluster in the vine and wine sector. The goal is to bring Montpellier research and education actors all together in order to ease exchanges among research subjects: French Institute of Agronomic Research, University of Montpellier, Montpellier SupAgro, National Research Institute of Sciences and Technology for Environment and Agriculture. There is an involvement of 15 research structures in M-WineS, among them 150 scientists, 13 research labs and 2 experimental units. The M-WineS collective offers higher education and welcomes 400 students each year. The purpose of M-WineS is to better answer the vine & wine sector issues – environmental footprint reduction, adaptation to climate change, quality construction for the market, digital transition - and to strengthen the site's visibility and attractiveness. M-WineS works with doctoral schools and community tools, and has already several links with the vine and wine sector's stakeholders: industrial clusters, competitiveness hub, Vine and Wine cooperatives, Regional and Departmental Chambers of Agriculture, Vine inter-professions. M-WineS will also reinforce its links with international Universities.

### Some representative projects

- *A panel of 279 accessions of Vitis vinifera vine to develop integrated projects from gene to glass*

The aim is to have a representation panel of the Vitis vinifera genetic diversity with 279 cultivars, to identify the genetic basis of the vine's traits of interest by Genome-Wide Association Study. Exploring genetic basis and eco-physiology of the plants, linked with wine characteristics, will allow scientists to select and create grape varieties consuming less inputs, more adapted to constraining climates, and meeting the consumers demand if quality wine.

- *The production competitiveness observatory*

The engagement of all the concerned research structures is an indispensable asset to build an observatory of different situations, evolutions, analysis tools of the factors determining industrial competitiveness, and action-levers allowing a rising competitiveness in the short term.

This observatory will reinforce partnership with industrials and institutional stakeholders of the sector.

- *A Vine & Wine Sciences researchers school*

This event aims at encouraging PhD students and young scientists to learn about other fields of study. This will allow them to know more about other approaches to deal with the key issues in various fields.

- *MOOC "vine&wine sciences"*

The aim is implement a MOOC dedicated to introduce to vine and wine sciences with an extension of available languages, queez, videos...

**Keywords:** Vine and wine sector, scientists, partnership, research, education, innovation, industrial transfer, Montpellier, international attractiveness

### 1. Introduction.

## Montpellier Vine & Wine Sciences (M-WineS)

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### The vine and wine sector in Occitanie Region, France

first vine-growing area in France ⇒ 270 000 vineyards hectares  
⇒ 15 million hectoliters  
Annual income ⇒ 1 900 million euros of which 900 million euros in export

#### Research & education actors

- INRA
- University of Montpellier
- Montpellier SupAgro
- IRSTEA

#### Partnerships

- Industrial clusters
- Competitiveness hub
- Doctoral schools
- Vine & wine cooperatives and inter-professions
- Institutional stakeholders
- International Universities

« Strengthen the site's visibility and attractiveness »

« Bring Montpellier research and education actors all together »



« Growing Montpellier research-education-innovation network and developing programs »

**15 research groups**  
**150 scientists**  
**400 students each year**

#### The vine & wine sector issues

- Environmental footprint reduction
- Adaptation to climate change
- Quality construction for the markets
- Digital transition

#### The production competitiveness observatory

Building an observatory of different situations from factors determining industrial competitiveness, setting action-levers allowing a rising competitiveness. Reinforcing the partnerships.

#### MOOC Vine & Wine Sciences

Introducing to the vine & wine sciences with an extension of different languages, quizz, and videos

#### Some representative projects

#### Vine & Wine Sciences researchers school

Encouraging PhD students and young scientists to learn about other fields of study. Research scientists better dealing with the sector's key issues

#### The panel of 279 accessions of Vitis vinifera

Developing integrated projects from gene to glass — Genome-Wide Association Study — eco-physiology, selection and creation of grape varieties answering to the sector's issues

