



# Upskilling Wineries Staff Responding to the Challenges of Climate Change Green Vineyards Case Study

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# Wineries Staff Environmental Competence Framework

## Overall knowledge about climate change



### Climate change awareness

To understand the effects of climate change in the wine sector and viceversa, and to reflect on its impacts and potential consequences for future generations.

### Climate change adaptation

To take action to prepare for and adjust to both the current effects of climate change and the predicted impacts in the future.

## Environmental management focused on climate change



### Water management

To make efficient use of the resource, by reducing the water footprint and protecting its quality.

### Soil management

To support the proper use and management of agricultural soils and implement measures to protect soils, improve their fertility and contribute to the natural sequestration of CO<sub>2</sub>.

### Waste management

To understand that waste must be sustainably handled and disposed of.

### Biodiversity

To have a broad understanding of agricultural ecosystems to protect them and build resilience to current and future threats.

### Emissions reduction

To understand the impact of emissions, while implementing energy-efficient solutions to reduce the carbon footprint.

### Energy efficiency

To have a broad understanding of energy sources and their impact.

## Wine culture and society from a climate change perspective



### Local & historical knowledge

To acknowledge the historical importance of wine culture and its benefits for the local environment, society, and the economy.

### Sustainable production

To identify sustainable wine production practices and implement strategies to achieve it.

## GreenComp competences relevant to the sector



### Valuing sustainability

To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.

### Systems thinking

To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.

### Critical thinking

To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.

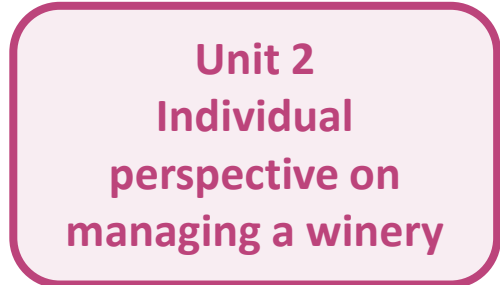
### Problem framing

To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time and geographical scope.

### Futures literacy

To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.

# Wineries Staff Environmental Competence Framework





# Unit 1: Valuing Sustainability







- Strong emphasis on **valuing sustainability**.
- Participants will gain a deep appreciation for the importance of sustainability in the wine industry, not only from an environmental perspective but also from a **social and economic standpoint**.
- Learn how sustainable practices can contribute to **long-term success**, resilience, and reputation.
- Importance of reliable actions and the danger from **green washing**.





# Unit 1: Valuing Sustainability

Valuing sustainability	
 <b>Descriptor</b>	To reflect on personal values; identify and explain how values vary among people and over time, while critically evaluating how they align with sustainability values.
 <b>Knowledge</b>	<ol style="list-style-type: none"><li>1. Knows the main views on sustainability: anthropocentrism (human-centric), technocentrism (technological solutions to ecological problems) and ecocentrism (nature-centred), along with how they influence assumptions and arguments.</li><li>2. Knows that values and principles influence action that can damage, does not harm, restores or regenerates the environment.</li></ol>
 <b>Skills</b>	<ol style="list-style-type: none"><li>1. Can evaluate issues and action based on sustainability values and principles.</li><li>2. Can bring personal choices and action in line with sustainability values and principles.</li><li>3. Can articulate and negotiate sustainability values, principles and objectives while recognizing different viewpoints.</li></ol>
 <b>Attitudes</b>	<ol style="list-style-type: none"><li>1. Is prone to acting in line with values and principles for sustainability.</li></ol>



# Unit 2: Individual Perspective on Managing a Winery



- **Critical thinking** will be at the core of our module. Learners will be encouraged to question existing practices, challenge assumptions, and explore innovative solutions.
- This unit will cultivate **futures literacy** among participants. In a rapidly changing world, it is crucial to develop an understanding of potential future scenarios and their implications.
- Case study addressing the **individual perspective** of a person managing a winery will also be explored.



# Unit 2: Individual Perspective on Managing a Winery

## Critical Thinking



### Descriptor

To assess information and arguments, identify assumptions, challenge the status quo, and reflect on how personal, social and cultural backgrounds influence thinking and conclusions.



### Knowledge

1. Knows that sustainability claims without robust evidence are often mere communication strategies, also known as 'greenwashing'.



### Skills

1. Can analyse and assess arguments, ideas, actions and scenarios to determine whether they are in line with evidence and values in terms of sustainability.
2. Can look at various sources of evidence and assess their reliability to form opinions about sustainability.



### Attitudes

1. Is curious and inquisitive about the links between the environment, human action, and sustainability.
2. Trusts science even when lacking some of the knowledge required to fully understand scientific claims.
3. Takes an evidence-based perspective and is ready to revise it when new data emerges.





# Unit 2: Individual Perspective on Managing a Winery

## Futures literacy



### Descriptor

To envision alternative sustainable futures by imagining and developing alternative scenarios and identifying the steps needed to achieve a preferred sustainable future.



### Knowledge

1. Knows the difference between short-, medium- and long-term approaches and their implications for sustainability scenarios.
2. Knows that effects caused by humans play a major role when mapping alternative and preferred future scenarios.



### Skills

1. Can analyse and evaluate futures and their opportunities, limitations and risks.
2. Can identify actions and initiatives that lead to a preferred future.



### Attitudes

1. Is concerned about the impact of one's own actions on the future.
2. Is aware that the projected consequences on themselves and community may influence preferences for certain scenarios above others.
3. Seeks to combine rigorous methods for thinking about the future with creative and participatory approaches.





# Unit 3: Addressing Modern Challenges in the Wine Sector







- The wine industry operates within a complex web of interconnected factors. By adopting a **systems thinking** approach, participants will learn to perceive the interdependencies within the industry and develop holistic understanding for sustainable winery management.
- **Problem framing** - Participants will learn how to identify and define the core issues faced by wineries, by utilizing design thinking and enabling them to formulate effective solutions.
- A case study addressing the **modern challenges** which wineries are faced with will be explored.



# Unit 3: Addressing Modern Challenges in the Wine Sector

## Systems thinking

 <b>Descriptor</b>	To approach a sustainability problem from all sides; to consider time, space and context in order to understand how elements interact within and between systems.
 <b>Knowledge</b>	<ol style="list-style-type: none"><li>1. Knows that every human action has environmental, social, cultural and economic impacts.</li><li>2. Knows that human action influences outcomes across time and space, leading to positive, neutral or negative results.</li><li>3. Knows about life cycle thinking and its relevance for sustainable production and consumption.</li></ol>
 <b>Skills</b>	<ol style="list-style-type: none"><li>1. Can describe sustainability as a holistic concept that includes environmental, economic, social, and cultural issues.</li><li>2. Can use life cycle thinking to analyse the risks and benefits of human action.</li><li>3. Can assess interactions between environmental, economic, social, and cultural aspects of sustainability action, events and crises (e.g., migration caused by climate change or wars caused by resource scarcity).</li><li>4. Can assess how humans and nature interact across space and time.</li></ol>
 <b>Attitudes</b>	<ol style="list-style-type: none"><li>1. Acknowledges the root causes of unsustainability for which humans are responsible, such as climate change.</li><li>2. Is concerned about the short- and long-term impacts of personal actions on others and the planet.</li></ol>





# Unit 3: Addressing Modern Challenges in the Wine Sector

## Problem framing



### Descriptor

To formulate current or potential challenges as a sustainability problem in terms of difficulty, people involved, time, and geographical scope, in order to identify suitable approaches to anticipating and preventing problems, as well as to mitigating and adapting to already existing problems.



### Knowledge

1. Knows that sustainability to range from relatively simple to complex problems and that establishing their type helps find suitable approaches.



### Skills

1. Can establish a transdisciplinary approach to framing current and potential sustainability challenges.
2. Can identify appropriate approaches to mitigate, adapt and potentially solve sustainability problems.



### Attitudes

1. Listens actively and shows empathy when collaborating with others to frame current and potential sustainability challenges.



# Learning outcomes

- Assess information based on **personal, social, and cultural backgrounds**, applying critical thinking skills to challenge the status quo and propose alternative perspectives.
- Demonstrate the following **critical thinking skills**: envisioning alternative sustainable futures, developing alternative scenarios, and identifying the steps needed to achieve a preferred **sustainable future**.
- Understand the difference between short-, medium-and long-term approaches and their implications for **sustainability scenarios**.
- Reflect on personal values and its alignment with **sustainability values** relevant to the wine sector.
- Apply the **framework of solving complex** sustainability problems using the project-based learning methodology in proposing sustainable solutions to their work conditions.





# Conclusion



By providing learners with these competencies we aim to empower individuals to navigate the complex challenges faced by wineries today.

We invite all relevant stakeholders to get informed of our work, provide us feedback and follow our activities on the webpage <https://greenvineyards.eu/>.

**Together, we can create a future where sustainability and the wine industry go hand in hand, ensuring that our wines not only delight our palates but also protect our planet for generations to come.**





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