

Dear Sir/Madam,

The international VitiSkills Project Consortium including partners from Italy, Poland, Greece, Belgium, Spain and Portugal would like to propose an updated blueprint for the ESCO profiles regarding the occupational descriptions of two occupations in the field of **Viticulture**, which we analyzed and researched, as part of the Erasmus+ co-funded project **VitiSkills** (*project nr. 2022-1-IT01-KA220-VET-000089352*), and

After conducting deep research on those topics, the Consortium noticed the need of updating the requirements regarding the **vineyard worker** and **vineyard supervisor**. Further details on our proposed update in relation to skills, competences and knowledge in these two occupations are below the introduction. The main goal of our proposal is to define a clear blueprint for present and future training developments in order to include the most necessary and inevitable aspects of digitalization, regenerative viticulture and use of sustainable technologies.

Best regards,

The VitiSkills Consortium

What is VitiSkills?

Climate change is stressing wine production in the EU. Adverse weather conditions and resulting vine diseases push its volume and extent to decrease. As the EU has prioritised the promotion of sustainable agriculture, viticulture stands to benefit from precise and smart farming practices. As a group of partners working in VITISKILLS, we support the introduction of these practices by means of education.

Aim of this blueprint

Here we aim to address common training needs and deliver solutions shareable and applicable to the viticulture sector across the EU, by creating a blueprint adequate for vineyard staff training, focused on vineyard workers and vineyard supervisors.

Methodology

The 2 chapters below entitled “Vineyard workers” and “Vineyard Supervisors”, outline the recommendations for training of both profiles. These recommendations are organized with the following subtitles:

Levels: Considered as classes or categories inside each profile. From the simplest to the most educated.

Modules: Content in the vitiskills course that pertains to the changes recommended to the ESCO profiles

Module contents: Contents of the modules that are most relevant

Optional content: Additional content that can be revisited periodically by the students

Learning Paths: How the skills and knowledge can be attained.

Certification: Evaluation strategies for certification

Skill requirements: Pre-requisites

Specs for training providers: Characteristics of training providers to ensure the validity of the knowledge transferred

Quality assurance: Overall strategies to validate blueprint results.

Vineyard workers

Proposed update

2022-1-IT01-KA220-VET-000089352

After conducting detailed research among vineyard workers, vineyard supervisors and many other stakeholders in the field of viticulture, the international consortium of the Vitiskills project agreed to update the job description of a **vineyard worker** by adding the following skills, competences and knowledge areas:

ESCO code	9211.2
Essential Skills and Competences	Execute fertilization, harvest grapes, manage canopy, participate in vine maintenance, perform hand pruning, perform trellis repairs, plant vine yards, tend vines, digital skills, data management, sustainable maintenance
Optional Skills and Competences	Assign duties to agriculture workers, assist bottling, execute disease and pest control activities, grow plants, maintain tanks for viticulture, operate wine pumps, present the farm facilities, propagate plants, provide agri-touristic services, sanitise winery area, tend press operation, define climate change challenges
Optional Knowledge	Agronomy, fertilisation principles, integrated pest management, organic farming, regenerative viticulture, Viticulture 4.0, data management, fair and enabling working conditions, personal protective equipment regulations

In order to achieve the additional skills and competences in the suggested domains we suggest the following:

Levels for vineyard workers

1. Basic Viticulture (Level 1)
2. Advanced Viticulture (Level 2)
3. Occupational Health and Safety (Level 2)

Modules

The following modules are ordered by priority and are also the recommended pre-requisites for each vineyard supervisor level.

Regenerative viticulture (level 1)

New Challenges and Technologies, Business and vineyard management (level 2)

Data management (level 3)

Module Content Summary

The module contents are indicative and can be exchange by similar modules as long as the underlying topics, skills, competences and knowledge remain. The boldened topic is considered the main focus of each module and has the highest priority within the module.

Regenerative viticulture

- Biodiversity protection
- **Soil management**
- Water and energy management
- Pest and disease management
- Organic and biodynamic vine growing

Viticulture 4.0

- **Vine Growing and Processing Technologies: Smart irrigation, Fertilisers distribution, Dosing/Nutrition solutions**
- Smart Monitoring Technologies: Geolocation, Remote Sensing, Satellite Imagery
- Biosensor Technologies for pathogen detection
- Characterization and detection of grapevine diseases
- Phytosanitary products and application machinery

Data management

- Data Management Software (user's perspective)
- Integration with precision agriculture technologies in viticulture
- **Data collection through smartphone use in E-Agriculture**
- Decision Support Systems
- Intelligent methods for application of Plant Protection Products

Fair and enabling working conditions

- **Labour Law and workers 'rights**
- Health & Safety Standards
- People Management & Development
- Change Management & Communication
- **Health and environmental risks**

New Challenges and Technologies, Business and vineyard management

- Sustainable vineyard management, holistic and ecosystem management
- Business guidelines, marketing and sales strategies
- New methods, products and technologies

- **Climate change adaptations for increased crop security**

Optional content recycling

1. Planting and Vineyard Setup
2. Pruning and Training Systems
3. Viticultural Environment
4. Green Operations
5. Water Relations and Irrigation
6. Motor and Tractor Basics
7. Basic emergency procedures

Possible Learning Paths

- On-the-job training
- Apprenticeships
- Short courses and workshops
- Certified Vineyard Worker programs

Certification Procedure

- Completion of required training
- Demonstration of practical skills
- Assessment by supervisors or trainers
- Registration with industry bodies (e.g., SAWIPB)

Knowledge/Skill Requirements

- Viticulture Practices
- Vineyard Installation and Management
- Workforce and Regulatory Compliance

Specs for training providers

- Qualified instructors with practical vineyard experience
- Access to vineyard sites for hands-on training

- Up-to-date technology and equipment
- Partnerships with local wineries for real-world exposure (optional)
- Curriculum aligned with industry standards and sustainability certifications
- Regular updates to course content based on new research and industry developments

Quality assurance methods

- Regular self-assessment of training programs
- External evaluations by industry experts
- Student feedback and satisfaction surveys
- Tracking graduate employment rates and career progression
- Alignment with European Quality Assurance Reference Framework for VET (EQAVET)
- Continuous improvement based on industry feedback and technological advancements
- Benchmarking against international best practices in sustainable viticulture

Vineyard supervisor

Proposed update

After conducting detailed research among vineyard workers, vineyard supervisors and many other stakeholders in the field of viticulture, the international consortium of the Vitiskills project agreed to update the job description of a **vineyard supervisor** by adding the following skills, competences and knowledge areas:

ESCO code	6112.2.1
Essential Skills and Competences	Develop grape growing techniques, drive agricultural machines, evaluate employees work, evaluate vineyard problems, evaluate vineyard quality, harvest grapes, maintain plant health, maintain plant soil nutrition, maintain vineyard machinery, manage grape harvest, manage pest and weed control, manage teamwork, monitor daily work, monitor grapes, monitor winemaking process, oversee vineyard floor activities, plant vine yards, supervise hygiene procedures in agricultural settings, digital skills, data management, sustainable maintenance
Essential Knowledge	Environmental legislation in agriculture and forestry, fertilization principles, health and safety regulations, pest control in plants, plant disease control, plant harvest methods, variety of grapes, regenerative viticulture, Viticulture 4.0, data management, fair and enabling working conditions
Optional Skills and Competences	Execute disease and pest control activities, manage agricultural staff, manage agritourism activities, operate agricultural machinery, provide agri-touristic services, introduce sustainable and regenerative technologies, provide and maintain personal protective equipment
Optional Knowledge	Agronomy, e-agriculture, organic farming, fair and enabling working conditions

Levels for Vineyard Supervisors

Level 1 = Basic Vineyard Supervisor

Level 2 = Intermediate Vineyard Supervisor

Level 3 = Advanced Vineyard Supervisor

The level shall be denoted by proven qualifications or equivalent professional experience, in compliance with VET regulatory requirements.

Modules

The following modules are ordered by priority and are also the recommended pre-requisites for each vineyard supervisor level.

Regenerative viticulture (level 1)

Fair and enabling working conditions (level 1)

Viticulture 4.0 (level 2)

New Challenges and Technologies, Business and vineyard management (level 2)

Data management (level 3)

Module Content Summary

The module contents are indicative and can be exchange by similar modules as long as the underlying topics, skills, competences and knowledge remain. The boldened topic is considered the main focus of each module and has the highest priority within the module.

Regenerative viticulture

- Biodiversity protection
- **Soil management**
- Water and energy management
- Pest and disease management
- Organic and biodynamic vine growing

Viticulture 4.0

- **Vine Growing and Processing Technologies: Smart irrigation, Fertilisers distribution, Dosing/Nutrition solutions**
- Smart Monitoring Technologies: Geolocation, Remote Sensing, Satellite Imagery
- Biosensor Technologies for pathogen detection
- Characterization and detection of grapevine diseases
- Phytosanitary products and application machinery

Data management

- Data Management Software (user's perspective)
- Integration with precision agriculture technologies in viticulture
- **Data collection through smartphone use in E-Agriculture**
- Decision Support Systems
- Intelligent methods for application of Plant Protection Products

Fair and enabling working conditions

- **Labour Law and workers' rights**
- Health & Safety Standards

- People Management & Development
- Change Management & Communication
- **Health and environmental risks**

New Challenges and Technologies, Business and vineyard management

- **Sustainable vineyard management, holistic and ecosystem management**
- Business guidelines, marketing and sales strategies
- New methods, products and technologies
- **Climate change adaptations for increased crop security**

Optional content recycling

- Soil and Land Management
- Planting and Vineyard Setup
- Pruning and Training Systems
- Viticultural Environment
- Vine Ecophysiology
- Green Operations
- Water Relations and Irrigation
- Motor and Tractor Basics
- Geographic Information Systems (GIS) and Remote Sensing
- Basic emergency aid

Possible Learning Paths

- School-based learning: Theoretical courses at agricultural colleges or universities
- Work-based learning: On-site training in vineyards
- Apprenticeships: Combining classroom instruction with practical experience
- Online courses: For continuous professional development
- Workshops and seminars: For specific topics like GIS technologies or new legislation

Certification procedure

- Theoretical assessments: Written exams on viticulture knowledge
- Practical assessments: Field-based evaluations of skills
- Project work: Demonstrating ability to apply knowledge in real-world scenarios
- Portfolio development: Documenting experiences and achievements

- Final comprehensive exam: Covering all aspects of vineyard supervision

Knowledge/skills requirements

General knowledge of the following topics is an advantage:

1. Sustainable Viticulture Practices

Climate change adaptation strategies

Soil health management and biodiversity conservation

Integrated pest management and reduced chemical use

Water conservation techniques

2. Data Collection and management

Accurately collect data from the field, using smartphone or similar technology.

GIS fundamentals: coordinates, georeferencing

3. Vineyard Installation and Management

4. Viticultural Environment and Ecophysiology

5. Climate impact on vine growth

6. Irrigation and Plant Nutrition

7. Precision Viticulture

Tools and technologies for vineyard management

Data-driven decision-making processes

8. Workforce and Regulatory Compliance

Fair labor practices and management

Relevant legislation and certification schemes

Specs for training providers

- Qualified instructors with practical vineyard experience
- Access to vineyard sites for hands-on training
- Up-to-date technology and equipment
- Partnerships with local wineries for real-world exposure (optional)

- Curriculum aligned with industry standards and sustainability certifications
- Regular updates to course content based on new research and industry developments

Quality assurance methods

- Regular self-assessment of training programs
- External evaluations by industry experts
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- Alignment with European Quality Assurance Reference Framework for VET (EQAVET)
- Continuous improvement based on industry feedback and technological advancements
- Benchmarking against international best practices in sustainable viticulture

The project consortium is determined to ensure the best possible outcome of our project results, including a complete and up to date description of the addressed occupations. Therefore we would like to introduce these updates according to our research and experience of vineyard workers, managers and supervisors. We kindly ask you to favorably consider our proposal.

