Proposal for a European Curriculum for Viticulture and Oenology

Winegrowers deal mostly with the laying out of vineyards and with the regular cultivation of the vines and therefore shape the landscape of the European wine regions. In the cellar they vinify and look after the wines, take on tasks concerning quality standards and food hygienic and carry out required laboratory analyses.
Referring to the EQF level 4 standard, they are responsible for the full cycle of doing tasks, do their work autonomously and reflect the working process and its results. They are able to adapt their behaviour and work processes. They can adjust and improve working procedures as well as apply them in slightly changed situations as long as knowledge and skills as described below are concerned.
Winegrowers can communicate in the national language and basically in English and keep contacts in their working environment. They do the planning within the range of months and are able to schedule and combine tasks. Winegrowers are attentive and show interest and responsibility for natural resources, technical facilities, the social environment and their own person.

For following their profession winegrowers and winemakers have the following competences:

1. Winegrowers can produce grapes for a specific, defined quality image independently and on one's own responsibility. Doing so, they meet legal, economic and ecological requirements, take working procedures into account and are oriented towards quality standards and market requirements.
   Skilled workers for viticulture and oenology can:
   - Inform others about the history, the extent and the economic significance of the wine industry in their region and their country;
   - take soil samples and interpret the results, describe the type of soil and its fertility, handle soil management and maintain a sustainable fertility, conserve the soil and if necessary correct deficiencies and restore the fertility;
   - perform the grafting of the vines;
   - by using knowledge of varieties and rootstocks and of advantages and disadvantages of different training systems and with taking account of ecological, technical, economic and legal foundations and by using current technological facilities, plan (including calculation of costs) and implement a new vineyard according to the required wine quality and the terroir (soil and climatic conditions)
   - by using knowledge of the biology of the vine and taking into account the next 3 years of the vines, carry out the pruning,
   - with taking account of ecological, technical, economic and legal foundations and by using all technological possibilities, carry out or organise all cultivation measures in vineyards in order to fulfil a defined quality profile of the grapes.

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This includes canopy management, handling different training systems and leaf and grape management.

- Carry out all plant protection and plant nutrition measures according to ecological, technical and economic considerations independently and in a responsible manner. This includes pests, diseases and herbs management and requires recognising symptoms, knowledge of natural predators and differentiating between beneficial insects and pests, calculation, timing and application of plant protection measures and knowledge of safety requirements.
- assess the physiological maturity of the grapes and determine the optimum time of harvest for the desired wine quality, plan and carry out the grape harvest with technological assistance independently as well as conduct methods to ensure the required quality.

2. Winemakers can process grapes to defined products independently and on one's own responsibility. Doing so, they meet legal, economic and ecological requirements and take working procedures into account.
   Skilled workers for viticulture and oenology can:
   - assess the grape material and perform grape analyses (especially sugar content, acid content, colour index, sensory exams), prepare the grape processing and process the grapes on the basis of analysis independently for achieving a defined wine quality, thereby taking necessary measures for keeping the products in a healthy state and using current technology;
   - produce must from grapes, thereby using cellar technology and equipment which is state of the art, analyse must and set necessary measures for maintaining and supporting wine quality;
   - induce, monitor and control fermentation;
   - analyse wine and control the process of wine production and finalisation and if necessary find and apply solutions to wrong developments that might occur. This requires knowledge and detection of wine faults and wine diseases and of methods of avoiding those in the first place;
   - undertake wine treatments and wine stabilisation processes depending on the specific product requirements (including e.g. organic production or sulphites level);
   - decide the right time and conditions for proper aging and bottling as well as carrying out these processes;
   - Carry out necessary transports of grapes, must or wine in a protective and conserve way, thereby using current technological facilities;
   - Know and apply quality management systems including hygienic measures and legal requirements;
   - Keep record of legally compulsory data;
   - Promote and present the final product using the language and communication skills in the native language and in English

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All skills and competences describe above are applied to level 4 of the EQF, which is described in the table below (outcome of EQUFAS project):

		1	2	3	4	5	6	7	8
responsibility	**Responsibility**	carries out tasks under supervision	responsible for the tasks	responsible for its own actions + preparing, carrying out and closing	responsible for the full cycle of doing tasks, including reflection	responsible for the full cycle of doing tasks, including reflection on the tasks done by others	responsible for a team or a project	responsible for one or more teams, projects or a company	responsible for the strategy, vision and coordination of programmes
	Autonomy	carries out tasks under supervision after clear explanation	carries out tasks under supervision after clear explanation	carries out tasks autonomously after directed explanation * fully responsible for carrying tasks and shows initiative	carries out tasks autonomously in deliberation	has a mandate to carry out tasks autonomously and shows initiative	independent in the way they think and act * carries out tasks autonomously, entrepreneurial	independent in the way they think and act	fully responsible for carrying tasks and shows initiative
range	**Public**	small group of colleagues	colleagues	colleagues and customers	all contacts in the working environment	colleagues, customers and employees of a company	divers people in tactical – strategically level from layman to specialists	all employees and regional contacts of the company	employees, national contacts of the company, critical customers, government and NGO's
	Timeline	Hours	Days	Weeks	Months	Months	1 to 5 years	5 to 10 years	next generation, 10 to 30 years, historical awareness and being able to deal with the short term and longer term constraint
complexity	**Tasks**	simple sub-tasks	simple tasks	several tasks in the same time	schedules - combination of tasks	combines and coordinates tasks	is able to analyze the work that has to be done in several tasks	has an overview of the consequences of his own work and the work of others	has an overview and understands the complexity and diversity of tasks

	Procedures	routine production	apply standard procedures	is able to adjust standard procedures	is able to adjust and improve standard procedures	to able to adjust and improve standard and tactical procedures	develop new procedures	methodically and systematic analyzing	to innovate is a basic strategy
	Knowledge and understanding	knows functional facts	knows facts and is able to understand simple explanations	knows facts and methods and can give a simple explanation	knowledge of facts and methods; applies knowledge in concrete situations	knows facts and methods and is able to explain; knows facts and methods and is able to apply knowledge in practical situations	knows facts, methods and principles, is able to form arguments to analyze and to deliberate and is able to transfer special knowledge	combine facts, methods and principles and is able to integrate different disciplines to formulate arguments, to analyze and to deliberate,…	develops new theories, concepts and models
transfer	**Ambiguity**	transfer in steady context	transfer related context s	transfer in situations with limited changing factor	transfer in situations with several changing factors	transfer in complex and hard to predict factors	transfer in continuously changing context	transfer in continuously changing context	integrates different contexts, making use of temporary,… and social-cultural aspects
	Change	changes under supervision	changes after instruction	is able to adjust oneself	is able to adjust the task in changing situations	is able to manage changes and to complete changes	is able to direct changes, to initiate changes, to come with new ideas for changes from practice	is proactive, comes first with new ideas, is able to design changes	is able to develop new concepts and takes the lead in realising changes
	Range	is able to transfer within the tasks	is able to transfer within the area of tasks	is able to transfer within the profession	is able to transfer within the sector	is able to transfer in related sectors	is able to transfer between the sector	able to integrate different disciplines	develops from another discipline

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