PROJECT RESULT 1

VET curriculum in agri-food sector

ENAIP Veneto (IT) & VET LOVES FOOD CONSORTIUM

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Table of contents

Purpose of this document 4

Introduction 5

The VET LOVES FOOD project 6

The Background 8

Research Methodology 10

New training content for new green skills 14

- Module 1: Energy saving 16
- Module 2: Waste management 17
- Module 3: Food culture and ethics 19
- Module 4: Managing a sustainable restaurant 21
- Module 5: Sustainable diets 23

Training methodology 25

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VET CURRICULUM IN AGRI-FOOD SECTOR
HOW TO MAKE IT GREENER

Purpose of this document

The present document represents the first result of the VET LOVES FOOD project. Its purpose is to offer an integration of green skills for training curricula of the agri-food sector and stems from the consideration that future food professionals need to have a solid, holistic basis of what sustainability means when working with food. Not only do the job market and customers require that, but also the evolution of contemporary cooking activity requires sustainability to be a constantly present, underlying theme.

This document offers:

- an introduction about the project result itself;
- an overview of the project contents and objectives;
- a section on the needs that gave rise to the initiative;
- the methodological background that led to the choice and design of the proposed competences;
- a didactical modules proposal with a set of learning outcomes aimed at integrating existing national or local curricula with the main green skills required by the market;
- a suitable training methodology.

Introduction

A proposal of integration with green skills for VET curricula of the agri-food sector represents the first result of the VET LOVES FOOD project, paving the way for the design and creation of the e-learning course that will be available in the VET LOVES FOOD Hub (which is to be developed during the project).

The document examines all of the factors which are crucial for an effective training in food service sector oriented towards sustainability and incorporating green skills, as the need analysis carried out during the drafting of the project highlighted that curricula in this field need to include these competences in order to respond to the challenges posed by the green transition.

Moreover, this document describes the possible training contents that can be elaborated and delivered to foster the acquisition of new skills, as well as the training methodology suggested and the available didactical resources developed by the project.

The VET LOVES FOOD proposal for an integrated green VET curriculum in agri-food sector has the following general objectives:

- Focus on green skills, especially those aiming at food waste prevention and reduction in restaurants;
- Represent a reference curriculum for VET providers, contributing to the adoption of green-driven and more sustainable approaches when training chefs-to-be;
- Provide teachers and trainers in VET with support for methodological work in the field of developing green skills in the catering sector;
- Foster the updating of trainers' knowledge on green skills and their application to the catering sector;
- Contribute with suggestions about contents, themes, and activities as common basis, allowing the adaptation of the curricular proposal to specific conditions of a training centre.

The VET LOVES FOOD project

VET LOVES FOOD – Rethink Reduce Reuse is a new project based on the broader framework of the LIFE FOSTER project and aims at supporting awareness-raising about the fight against food waste in the catering sector and in VET centres. It is co-funded by the Erasmus+ program, specifically in the context of Key Action 2 – VET, regarding cooperation partnership in vocational education and training, and it involves VET centres from Spain, Italy, and Portugal.

Food systems today have a huge impact on the environment. Unsustainable food production and consumption practices are leading to environmental degradation and exacerbate climate change. That's why it's time to change the approach and to foster a sustainable and resilient food system that can be healthier for both people and the planet.

VET LOVES FOOD embraces the "Rethink, Reduce, Reuse" mentality, with the aim of developing green skills competencies regarding food waste, developing green sectorial skills strategies and methodologies, as well as future-oriented curricula able to meet labour and community needs.

Addressed to VET learners - chefs-to-be-, trainers, staff, and authorities, VET LOVES FOOD is focused on developing the following results:

1. A VET Curriculum in the agri-food sector for the development of green skills oriented to food waste prevention and sustainable food production. In order to achieve this result, it has been carried out preliminary research on the new green skills required by the job market. In addition, a focus group with trainers and chefs, as well other food professionals, was organized per participant country.

2. A hands-on Manual for preventing food waste and valorizing traditional recipes and local products for professionals, trainers and private citizens.

3. A European HUB for food waste prevention and food waste management: it will be an online platform, serving as a repository of tools and resources such as an e-learning course, a community of trainers and students, and a digital learning environment.

4. VET LOVES FOOD Replication Path: final phase of research and adaptation of the VET LOVES FOOD training model to ensure its replicability and application in

other European countries, with related guidelines for external stakeholders, VET centres and VET Authorities.

It is expected to involve, during the project life span, at least 50 VET centres, and to reach at least 500 students. Other local stakeholders such as professionals, restaurants, and policymakers, will be involved by the model developed within the project in a complex and proactive action that can be adapted to different contexts and needs.

The broader objective is to engage local stakeholders and raise awareness in the challenge of reaching the Sustainable Development Goals. In this way, the project will contribute to the improvement of the quality of VET offers in Europe and will generate a real impact on the community.

The project partnership is composed as follows:

Coordinator:

Confederación Española de Centros de Enseñanza Asociación C.E.C.E. (Spain) - http://www.cece.es/

Partners:

Mentortec Serviços de apoio a projetos tecnologico SA (Portugal) - http://mentortec.eu/
CEPROF –Centro Escolares de Ensino Profissional Lda (Portugal) - http://www.espe.pt/
Holding Hostelería SA (Spain) - http://www.escuelahosteleria.com/
Learningdigital SRL (Italy) - http://www.learningdigital.eu/
ENAIP Veneto (Italy) - http://www.enaip.veneto.it/
EVTA – European Vocational Training Association (Belgium) - https://www.evta.eu/

The Background

Our food systems are no longer sustainable: they account for nearly one-third of global GHG emissions, consume large amounts of natural resources, cause biodiversity loss and negative health impacts, and do not guarantee fair economic returns and livelihoods for all actors, in particular for primary producers. Furthermore, about one-third of the food produced globally never gets eaten: each year 1.3 billion tons of food destined for human consumption is lost or wasted throughout the agri-food supply chain (FAO, 2011). In the EU, around 88 million tons of food waste are generated annually, with associated costs estimated to be 143 bn €. In fact, the food industry produces 10.5 million tons of food waste (equivalent to 21 kg per person) each year in Europe. Therefore, the food service sector contributes to 12% of the global food waste (FUSIONS, 2016).

In the last decades, the current economic model, based on the "take-make-dispose" paradigm, has been widely criticised for its unsustainability. Due to the overexploitation of resources and the degradation of the environment, this model has negative effects on the balance of ecosystems. The agri-food sector has been affected by problems such as resource scarcity, food loss and waste generation along the global supply chain, which, in 2019, amounted to approximately 1.3 bn tons/year at a cost of more than 1000 bn $/year. Poor resource and process management represent just one of the causes of these problems: also unsustainable consumption patterns are contributing significantly. (Towards Circular Economy in the Agri-food Sector - Benedetta Esposito et al.). According to a 2018 report by the BCG, global food waste will increase by a third to more than 2 bn tons/year by 2030 unless countermeasures are taken.

To tackle climate change United Nations set the 2030 Agenda with 17 Sustainable Development Goals (SDGs), an urgent global call for action underlining that human well-being is deeply intertwined with environmental degradation. Transforming our food and agricultural systems has the potential to generate real change related to the goals of several SDGs: in particular Goal 12 "*Ensure Sustainable consumption and production pattern*", target 3.1 "*Halve per capital global food waste at the retail and consumer level and reduce food losses along production and supply chains, including post-harvest losses*". By reducing food losses and waste it is possible to support the broader fight against climate change (food waste alone generates about 8% of Global Greenhouse Gas Emissions - FAO, 2015), save nutritious food for

redistribution to those in need, help to eradicate hunger and malnutrition (some 33 million people in the EU in 2018 could not afford a quality meal every second day, according to Eurostat), and save money for farmers, companies, and households.

Reducing food loss and waste has a positive impact on reducing pressure on land and water resources, but also on suppliers' profits and consumers' welfare. Food suppliers can increase their productivity by reducing food loss and waste, and can also improve their reputation. Consumers who reduce food waste save money that can be spent on other goods. (FAO, 2019.)

Among the many different figures involved in the food system or working with food, chefs and cooks have a crucial role in building a new food culture, putting sustainability at the centre, with benefits for people and the planet.

"***Chefs are at the heart of the global food system. They bridge the gap between farm and fork. They influence what we grow, what we put on our plates and how we think and talk about food. If chefs take a lead on food systems issues, diners, farmers, businesses, and even governments, will follow***."

(Chef's Manifesto of the SDG2 Advocacy Hub)

In this challenging context, the VET LOVES FOOD project is meant to act mainly on vocational education and training delivered to future professionals: chefs-to-be who need to develop new green skills oriented to food waste prevention and sustainable food production and consumption.

The motto to be followed is "Think globally, act locally": the VET LOVES FOOD project adopts a regional approach focusing on the peculiar gastronomic traditions, creates solutions based on cultural heritage and local products, and develops a framework, replicable in other regions, to tackle food waste.

The project sources of inspiration are the Farm to Fork Strategy, which sits at the heart of the European Green Deal, Slow Food Movement, Circular Economy, UN SDGs and the LIFE FOSTER project.

On this basis, the project aims at building up an internationally adaptable methodology in the field of food waste prevention, with the possibility of replicating the model in participating countries and beyond.

Research Methodology

The proposed training modules –and their related learning objectives- have been chosen as a result of the comparison of three different activities carried out by the VET LOVES FOOD partnership:

1. **Four focus groups** with trainers and catering sector professionals (3 at the national level in Spain, Portugal and Italy and 1 at the EU level).
2. **Three national preliminary desk researches** reporting the green skills found in the national curricula of the catering sector training course in Spain, Portugal and Italy.
3. **A matrix** combining the skills which have been found.

All of these activities aimed at highlighting those competences related to sustainability that are missing in these training paths and are increasingly required by the job market of the sector.

In detail, the analysis started with an identification and selection in each partner country of those professional profiles in the agri-food sector that need to be aligned with market needs in terms of green skills. The identification and description of green skills led to the development of a common matrix to be used and applied for a comparison according to each country's standards. The analysis phase ended with the organization of four focus groups (one conducted in Italy by ENAIP Veneto, one in Portugal by CEPROF, one in Spain by ESHBI, and one at European level by EVTA), engaging trainers and food sector professionals (26 people involved in total) to collect directly from their knowledge of the labour market the most required – and most missed - green skills.

The five thematic areas in which the proposed CV is organised have been elaborated on the basis of the common points strongly emerging from the activities, with a special focus on the experience of the professionals involved in the focus groups, integrating elements found in some of the national curricula with a view to harmonisation and completeness of the didactic proposal.

Finally, the five modules for the CV proposal are the result of further elaboration on the considerations of the quality of the model design and overall coherence of the proposal and, specifically, of the modules. As visible, some of the emerging points are connected with many notions and skills. In this regard, several points needed of a logical restructuring to approach the topics in a more comprehensive way.

Regarding the single sections more in detail:

Energy consumption: the issue of energy saving in the cooking restaurant managing activities emerges as the most crucial one throughout the analysed materials. Professionals spoke about consolidated bad habits in their jobs which need to be completely rethought by the new generation with a holistic, pervasive approach: "*There are many strategies and attitudes that can be taken to fight these [bad] habits and to minimize the kitchen's negative impact on the environment, for example, reduce and avoid food waste, try to reduce water, electricity, and gas usage to the necessary, and be extra cautious with storage, etc*". Not only should learners know and apply energy-saving cooking techniques, but they should also have a more general and complete knowledge of how their future professional activities can impact the environment on this profile. It's the small gestures that go a long way, in the words of the chefs: "*If we are aware that a dirty extractor, in addition to being a source of danger due to fire risk, consumes much more energy, or that an oven or a fryer that has the sensor a little affected, or that the gas tubes have an excessive regulation affects in a very noticeable way the consumption of all the appliances and there is an increase in the costs of the restaurants, future chefs can keep that in mind and review all the machinery*".

Waste disposal: complementary to the first profile, waste disposal is also identified as the most harmful aspect of the cooking activity. Also in this case is wished a deeper awareness on the trainees' side, in the hope that they can also help raising awareness in their future working environments. One significant example reported in this sense is the exhausted cooking oils disposal: once it was very common to just pour them in the sink, but now it is renowned as a tremendously polluting practice. Also in this case, a holistic approach to the subject is seen as desirable: future professionals need to know all of the different potential negative impacts, and know how to take them on in the most efficient way. "*Recycling and separation of garbage are key points: organic food trash can be placed in a compost so that to increase the soil quantity and quality*". Detergents are also seen as an important environmental hazard, one learners should be made well aware of: trainers underlined the link between cleaning products and water pollution, as well as to the dispersion of microplastics. Moreover, the theme of food waste prevention and

reduction, emerging here, is deeply interconnected with food sustainability and circularity: crucial points that will be seen in depth in other sections of the CV.

Food culture and ethics: this formula is meant to sum up all those particular skills that are related to sustainability but start from a deeper level of awareness. "Food culture" is indeed a sentence coming from one of the interviewed professionals, stressing the fact that, in order to treat food more sustainably, it is needed to know it in depth and to respect it: "*If students are taught to grow interest in learning more about the product and to respect it, they will be able to explore it in different ways and maximise its full potential*." In this, both trainers and professionals agreed: stimulating the sense of respect and responsibility of the learners is the key to have future professionals acting attentively and with care when in the kitchen or in the restaurant. Spreading the awareness that food is no generic commodity, but something with profound ethical and cultural implications, is the main way to reach a shift of perspective and sustainability: "*it is important to teach the learners food culture, this includes knowing what they are cooking/eating, where it comes from, how it was produced and what impact did it have, not only on the environment, but also its social and economic impact*." This is the core idea of the proposed module: seemingly abstract concepts such as culture and ethics have very direct, practical implication in the daily life of a catering activity. Knowing food and its relation with culture also means being aware of the surroundings: another common point emerging from the material is the relevance of recognizing and valuing seasonal, local products and traditional recipes and food habits, as a way to return to more sustainable food consumption. Another participant shared the opinion that: "*watching out for waste and making the best use out of everything feels like going back in time and refers back to something that seems to have been lost in the abundance society we live in today*."

Food culture and different sensitivities of the costumers go hand in hand: a modern food professional should be able to understand these choices and the reasons behind them, and acting accordingly: "*eating habits have changed compared to the past: nowadays, there is a widespread consciousness that having meat every day is not fair for the environment, preferring a more diversified diet. At the same time, restaurants should also dispose of a richer and diversified menu proposals when it comes to vegetarian and vegan dishes*".

Managing a restaurant: under this formula can be collected a series of crucial aspects in the management of a food service business which needs to be reinvented – or to be observed more carefully- in the view of an improved sustainability. In other words, aspects such as supply planning and storage, which are the basis in a restaurant's daily activity, if done correctly, are the key to food waste prevention, and, therefore, to sustainability. In order to do so, a general overview about global food supply chains is needed as a starting basis: "*Both from the side of the user/customer and that of businesses (restaurants etc), sometimes the import of non-seasonal food from foreign countries is impactful in terms of costs and harms. Apart from the costs, the extremely negative social impact must be considered: the food consumed in the global North is most of the time produced in the global South; however, the richness of that food is not exploited in the global South but rather in the North. For the latter, the food consumed by the population is not as good as local products*". Moreover, professionals working in the kitchen often need a better knowledge of the restaurant process, its phases and the roles that can cooperate to improve sustainable working phases. Communication is also one daily activity of a restaurant management that can prove crucial in a path to sustainability.

Sustainable diets: the theme of reimagining menus in a more sustainable way, and according to contemporary dietary requirements and sensitivity of the public, is a common point to all of the professionals involved. It has been stressed the importance of "*sustainable sourcing, where transgenic or genetically modified products or endangered species are not bought, where a local and seasonal product is sought, and if possible with Fair Trade certification, and where they ensure well the origin of the products through labeling*". But not only that: a good chef also knows how to use and combine ingredients keeping in mind their nutritional values, and how a completed and balanced diet should be composed. Finally, sustainability in cooking is strictly connected with the circular economy: treating (and preventing) food waste and scraps is pivotal to the sustainability of this sector, and it is strictly interconnected and unifying for all of the subjects present in this didactical proposal.

New training content for new green skills

The training content is designed for a wide audience including VET students in the field of catering, food professionals and trainers, and staff of VET centres. In general, training content can be modified and adjusted according to the type of learners, educational goals, practical needs of the considered professional sector or other factors (training environment, equipment used in learning processes, skills and experiences of the trainer…).

However, a rich reference for the training is the VET LOVES FOOD Hub, with open educational resources such as an e-learning course, a collection of successful practices, videos, reading materials, interactive playful activities, zero waste traditional recipes.

In order to reach a high interest and a successful performance, training materials should be in compliance with the definitions for the trainees' achievements (EQF – European Qualifications Framework definitions).

EQF – European Qualifications Framework definitions

Source: www.cedefop.europa.eu

Learning outcomes	Statements of what a learner knows, understands and is able to do on completion of a learning process and which are defined in terms of knowledge, skills and competence.
Knowledge	The outcome of the assimilation of information through learning. Knowledge is the body of facts, principles, theories and practices that is related to a field of work or study. In the context of the European Qualifications Framework, knowledge is described as theoretical and/or factual.
Skills	The ability to apply knowledge and use know-how to complete tasks and solve problems. In the context of the European Qualifications Framework, skills are described as cognitive (involving the use of logical, intuitive, and creative thinking) or practical (involving manual dexterity and the use of methods, materials, tools and instruments).
Competence	The proven ability to use knowledge, skills and personal, social and/or methodological abilities in work or study situations and in professional and personal development. In the context of the European Qualifications Framework, competence is described in terms of responsibility and autonomy.

Starting from the needs of the sector collected by VET LOVES FOOD partnership, the goal of developing new green skills for the chef-to-be students can be reached through a well-defined and specific set of Learning Outcomes.

To foster them, it has been developed several training contents organized in 5 modules, organized as following:

- Module 1: Energy saving;
- Module 2: Waste management;
- Module 3: Food culture and ethics;
- Module 4: Managing a sustainable restaurant;
- Module 5: Sustainable diets.

Some notions and skills are included in more than one module, either because they are related to several topics from different points of view, or because the learner could partially attend the course in which the project e-learning is structured.

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Module 1: Energy saving

Module 1 - Energy saving		
Learning outcomes	**The learner has knowledge about:**	Different energy sources and their impact; Clean and renewable energies; Environmental impact of food (Carbon footprint); Energetic impact of cooking processes and of the catering activity related ones (industry, farming, transport…); Kitchen appliances and their functioning; Energy saving cooking methods and tools.
	The learner is able to:	Keep the equipment clean and well-functioning; Choose the right location of the kitchen appliances; Use energy-efficient equipment; Recognise ingredients that have the highest and lowest environmental impacts; Reduce heat consumption whilst still meeting food and hygiene standards; Reduce water consumption; Recognise services and suppliers with the lowest environmental impact; Realise simple recipes saving energy.
	The learner is competent in:	**Setting up measures and procedures to reduce water and energy consumption and other environmental improvements in the kitchen, both in equipment and in cooking techniques.**
Possible training contents	1. Overview on energy sources, their environmental impact and the new clean and renewable energies. 2. Overview of the energetic impact of cooking processes, of a restaurant activity and of the catering activity related ones (industry, farming, transport…). 3. Overview on techniques for the reduction of energy use in the facilities of a professional kitchen/restaurant. 4. Basic notions on functioning and correct maintenance of kitchen appliances. 5. New cooking techniques and tools to reduce energy and water consumption.	

Module 2: Waste management

Module 2 - Waste management		
Learning outcomes	**The learner has knowledge about:**	Current regulations about waste sorting disposal at local and/or national context; Polluting activities and chemicals in the kitchen's daily life; Methods to manage waste (selective collection, anaerobic digestion, recycling techniques…); Efficient stock management systems and other strategies to reduce waste; Recipes for reusing leftovers.
	The learner is able to:	Sort the waste correctly, including special waste (such as used oils and others); Identify which processes and substances can create health and environmental harm and hazards; Use alternatives with a reduced impact on the environment, such as ecological detergents; Perform simple calculations/use digital tools for the quantification of waste; Recognise services and suppliers who help reducing waste (less packaging and, above all, that it is recyclable, reusable or compostable); Create recipes for leftovers to cut down on food waste.
	The learner is competent in:	**Taking measures to fight and prevent waste, both minimising kitchen food waste and managing other waste types generated, through the correct storage and disposal methods to reduce impact on the environment.**
Possible training contents	1. Most common kitchen waste types (food waste, plastic, glass, cardboard, knives, chemical waste, liquid waste, Waste from Electronic and Electrical Equipment - WEEE). 2. Waste sorting and disposal in current regulations. 3. New practice eco-friendly clean-up and materials for the kitchen.	

	4. Strategies to reduce waste in the kitchen daily work (efficient storage management, suppliers who care in reducing waste, minimising procurement volumes, etc…). 5. Recipes for cooking with leftover food in compliance with the hygienic and quality standards of a professional kitchen. 6. Measurement digital tools to calculate the waste generated in the kitchen and its reduction.

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Module 3: Food culture and ethics

Module 3 - Food culture and ethics		
Learning outcomes	**The learner has knowledge about:**	Global food supply chains and social-ethical implications; Agro-food products available on the territory; Seasonality of products; Local and traditional recipes and food habits; Main European certifications for food origin and quality; Special dietary requirements; New food habits and trends.
	The learner is able to:	Recognize where the product comes from, how it is produced, and what environmental and socio-economic impact it has; Identify the best ingredients available according to season and territorial proximity Recognize special dietary requirements and which recipes to propose accordingly; Adapt local/traditional recipes to modern cooking techniques and nutritional needs; Offer menu alternatives compatible with different dietary requirements; Use effectively local ingredients.
	The learner is competent in:	**Acting responsibly towards food in every phase of its transformation, knowing where ingredients come from, how culture and personal choices impact food habits, and how food habits are going to change cooking activities.**
Possible module contents	1. Global food supply chains: how food production and its transportation impact environment, producer and consumer, its ethical implications, and the main European-level certifications attesting the origin and quality of ingredients (organic, fair trade, PGI certification...). 2. Know your surroundings: how to spot the best ingredients available on the territory and their seasonality. 3. Know your history: general introduction to the reciprocal relation between food and culture, enhancing local food and culinary traditions as a way to return to a more sustainable food culture.	

	4. Special dietary requirements: health conditions, religion, or personal beliefs can lead people to choose different food consumption habits. Learn to recognise them and to respond accordingly. 5. New food habits: different generations have very different views on their grocery shopping, cooking, and food consumption. Learn more about the new tendencies and how the cooking activity will be impacted by them.

Module 4: Managing a sustainable restaurant

Module 4 - Managing a sustainable restaurant		
Learning outcomes	**The learner has knowledge about:**	Food supply chains and production and importation cost/impact; The restaurant process and its phases (supply plan, provision and purchase, storage, preparation, service, consumption, post-consumption); Professional roles in a restaurant and their relations; Solutions to improve sustainability in a catering business; Strategies to communicate sustainability values to the internal staff, customers and stakeholders.
	The learner is able to:	Understand the underlying dynamics in food production and distribution and recognise the local sustainable alternatives; Understand the factors that determine the choices of a restaurant manager and cooperate in making decisions; Recognise the solutions that can be applied to the restaurant phases to make the process more sustainable; Help the management in the provision and purchase of stock and in the menu engineering to encourage sustainable food choices; Engage the room staff about the value of food and cooperate with it to allocate functionally the food supply, guide customers in the food choice, customize portion sizes, offer take-home bags; Integration of communicating sustainability values and practices into the restaurant's daily life.
	The learner is competent in:	**Cooperating with the catering business management and with the staff to take more sustainable aligned decisions and measures, considering the different professional roles, working phases and tools, and communicating with the various stakeholders correctly.**

Possible module contents	1. General outline about food production and supply chain, with a focus on the environmental / socio-economic impact of the imports and on the local context and resources. 2. How a catering business runs: the different professional roles and their relations, the restaurant process and its phases, the links with the local community. 3. Overview on sustainable solutions for the catering business management in all the work phases (choice of local and ethical suppliers, food storage new technologies and management practices, menu management, customers' flow forecasting, just in time cooking…). 4. Effective communication at the workplace and storytelling for sustainable values through different tools available (menu, set up of the restaurant…).

Module 5: Sustainable diets

Module 5 - Sustainable diets		
Learning outcomes	**The learner has knowledge about:**	What makes a diet sustainable and healthy; Main aspects of circular cuisine Origins and nutritional aspects of raw ingredients; Sustainable cooking techniques and recipes; Food waste prevention and reduction; Plant-based preparations.
	The learner is able to:	Apply circularity to cooking and related activities (use all of the raw ingredient in multiple preparation, reusing scraps...); Identify the types and function of nutrients according to their sources in nature and implications for human consumption; Recognize and use the most sustainable cooking techniques and recipes, using scientifical fact and reliable sources; Apply correct food waste prevention practices by repurposing recipes and the use of what is commonly seen as scraps; Create alternative recipes considering the nutritional value and characteristics of food; Planning a sustainable menu, highlighting plant-based preparations.
	The learner is competent in:	**Applying a circular point of view to cooking and all of the restaurant management activities, knowing how to fully and efficiently exploit raw ingredients, and taking into account their nutritional values and the correlation between a healthy diet and environmental impact of food production and consumption.**

Possible module contents	1. What is a sustainable diet: correlation between human health, varied nutrition, and environmental and social sustainability. 2. General introduction to circular cuisine. 3. Elements of food science: nutritional principles and elements of general chemistry. 4. Sustainable cooking and food waste prevention (plant-based preparations, recipes for reusing ingredients and scraps, zero waste recipes). 5. Planning a complete sustainable menu, from the choice of ingredients and courses, to the communication and presentation aspects.

Training methodology

The main training method recommended within VET LOVES FOOD training activities is **blended learning**. This is due to the fact that the green competences described in this document, to be developed through the e-learning course, tools and resources available in the **European HUB for food waste prevention and food waste management** developed by the project (and described in the box here below), can be integrated into the traditional training foreseen by the CVs in the catering sector.

With this training methodology most of the course activities can be done online, although some face-to-face didactical activities (intensive face-to-face sessions, kitchen laboratories, class discussion or other in-person learning activities) can be put in place to fix and put in practice some contents and stimuli.

In other words, blended learning means meaningful didactic interconnection of traditional pedagogical methods and participatory approach with the use of e-learning, which in principle means combining the following three phases of the learning process into an optimally functioning unit:

1. Live training with practical sessions;
2. Workshops and exercises, computer-aided tests;
3. Self-study, also with digital support.

Blended learning offers vast advantages to students, as they benefit from the structured practices of the classroom while learning at their own pace, owing to the adaptive and personalized nature of online learning.

Each student has a range of different strengths and requirements, and a blended learning approach allows trainers to acknowledge this. When they are given the ability to use tools from both traditional and digital spheres, trainers can present the didactical materials in a range of different ways designed to suit the various learning styles of their students.

Moreover, in the participatory sessions the students and the trainer can interact in an environment of trust and respect, resolving all of the doubts that may arise during the use of e-learning.

The **VET LOVES FOOD European HUB for food waste prevention and food waste management** is an online platform developed by the project, serving as a repository of tools and resources such as an e-learning course, a community of trainers and students, and a digital learning environment for exchanges.

The training sessions foreseen by the e-learning course contain a wide range of didactical tools, according to the objective and the contents to be conveyed:

- Texts or lectures;
- Interactive presentations;
- Multiple choice quizzes;
- Video based training;
- Experiential learning with hands-on approach;
- Streaming lessons;
- Questionnaires for assessment;
- Links to external resources for further reading.

Link: www.vetlovesfood.eu

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