



GREENATHON IN VET

Greenathon in VET Training Material Methodology

WP3 - A1: Development of training methodology

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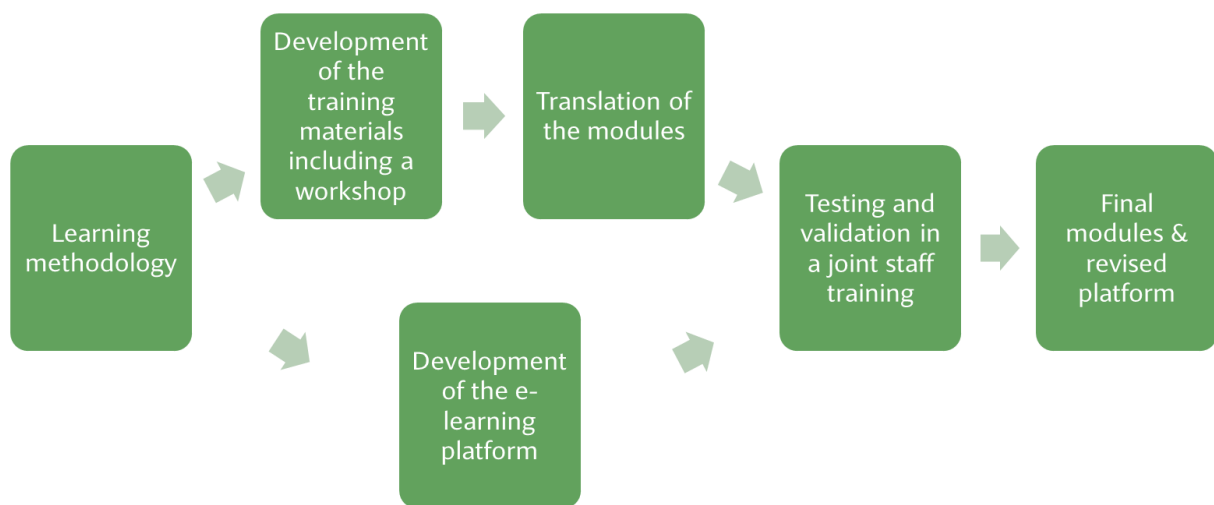
1) Background

Studies suggest that integrating sustainability principles into entrepreneurship education, thereby improving the green entrepreneurial skills of VET students, can help foster environmentally conscious business practices and innovation in the long term. Therefore, the ultimate goal of the 'Greenathon in VET' project is to **encourage VET students to develop their own green ideas and prepare them for participating in green ideathons** to be able to contribute to a greener, more sustainable and climate-neutral future in their industry as professionals, also equipping their teachers. Green ideathons are typically events or competitions where participants (i.e. VET students) come together to generate innovative (business) ideas and solutions aimed at addressing environmental challenges or promoting sustainability. These events typically involve brainstorming sessions, workshops, and presentations focused on developing ideas that have the potential to have a positive impact on the environment and on businesses.

PROJECT FULL TITLE:	Greenathon in VET - Encouraging green entrepreneurial skills of VET students for a sustainable business culture
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COORDINATOR:	Taliansko - Slovenská obchodná komora
PROJECT WEBSITE:	https://greenathon.eu/

WP3: Green entrepreneurship training materials is one of the professional work packages (WP) of the project. This WP focuses on preparing green entrepreneurship training materials and presenting them accurately and efficiently to VET instructors and VET students. WP3 enhances the green entrepreneurial skills of VET students to be able to develop their own ideas and prepare them for participating in green ideathons; and equipping VET teachers and trainers with supporting materials. The work package consists of four activities that are built upon each other:

- WP3-A1: Development of training methodology.
 - Activity leader: CORK ETB
- WP3-A2: Development of training materials.
 - Activity leader: CAM
- WP3-A3: Development of training platform.
 - Activity leader: EDUJI
- WP3-A4: Testing and validation.
 - Activity leader: CSO



1 - 'Greenathon in VET' Work Package 3 structure

2) Purpose of the document and the used methodology

The first activity of Work Package 3 is the “Development of training material methodology” where the partnership defines the learning objectives, and the structure of the training material, and creates a basic guideline for the partnership’s work in WP3 by establishing the methodology for developing training materials. The ultimate goal is to attract the attention of students, meet their needs, and enable VET teachers to reach new generation VET students by developing training methodology for green entrepreneurship.

In line with the project proposal, the methodology contains a syllabus table defining the duration of the training, the contents (topics to be included in the programme), and the definition of the assessment methodology. When developing the training material methodology, partners kept in mind what the training materials should achieve.

What do we expect from the materials?

- ☐ Students to gain skills such as creativity, financial literacy, managing ambiguity, managing resources, planning, creating green business ideas and models, and awareness about sustainability that the labour market needs.
- ☐ Also, to get knowledge about green businesses, products and services and green strategies for production.
- ☐ This way, they can support the development of a sustainable, economical, and environmental labour market and society.
- ☐ The structure of the modules will follow (integrate) the GreenComp skills framework, provide theoretical background about sustainable business models and climate change related knowledge to some extent, but the focus will be on a practical approach: how to implement these priorities in reality and how to integrate them at a workplace.

In order to define a complex training material methodology meeting the identified needs and achieving the project objectives, VET partners firstly conducted research primarily in their organisations in December 2023/January 2024. The questionnaire, created as a common effort coordinated by CETB, aimed to collect inputs from VET teachers on their preferences, experiences and perceived deficiencies regarding teaching green entrepreneurship. It was also important for improving stakeholder engagement in the project and involving directly teachers and trainers who might conduct the piloting activities later in the project.

Results of the research

53 responses were received primarily from Ireland, Portugal and Romania, but also from Turkey and other countries. Concerning the field of education, most respondents (around 25%) teach environment-related subjects like Environmental Sustainability Awareness, Horticulture or Geography. 7-7-7 respondents teach in Tourism and Hospitality, Arts and general subjects. 6 teachers are active in healthcare education, while the survey also reached 4 teachers who are involved in business education. Other respondents were from IT, English, Construction, and Transport and Logistics.

The participating teachers, who mostly had 10< years of teaching experience, can reach all the different age groups of VET sector from 14-17 years to even 23< VET learners, and they were all interested in training themselves and their students in enterprise skills for the Green Economy. According to the section where the partnership asked about the awareness of their students, VET students heard about or were even very aware of the main challenges related to climate change and sustainability.

	Climate Change and its negative impact on your country/your region	Loss of biodiversity and its dangers for human survival	Over-dependence on fossil fuels for most needs of our industrial society	Food security issues, loss of soil fertility and topsoil through industrial agriculture	Dangers of plastic (and other) waste, environmental pollution	Health issues in connection with all the above challenges
Completely unaware	0,00%	7,55%	3,77%	13,21%	1,89%	20,75%
Heard about it	28,30%	37,74%	30,19%	45,28%	20,75%	41,51%
Very aware	47,17%	30,19%	45,28%	22,64%	43,40%	18,87%
Extremely aware and actively engaged in solutions	22,64%	16,98%	16,98%	13,21%	30,19%	13,21%
I don't know, I'm uncertain	1,89%	7,55%	3,77%	5,66%	3,77%	5,66%

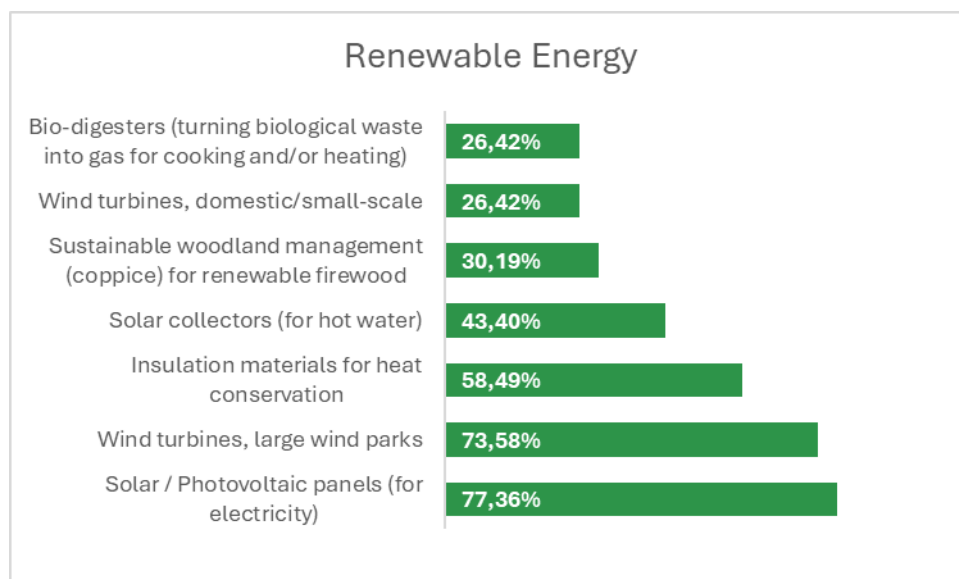
2 - The awareness of VET students in green topics according to respondents

Respondents also provided information on which challenges are mostly referred to in the teaching materials they use, and which topics should be addressed more often. The majority of the participants replied that the topics are not included in the syllabus of their courses. Those who have something related mentioned **mostly waste and plastic, climate change, biodiversity and fossil fuels, both in general and also connected to their sector.**

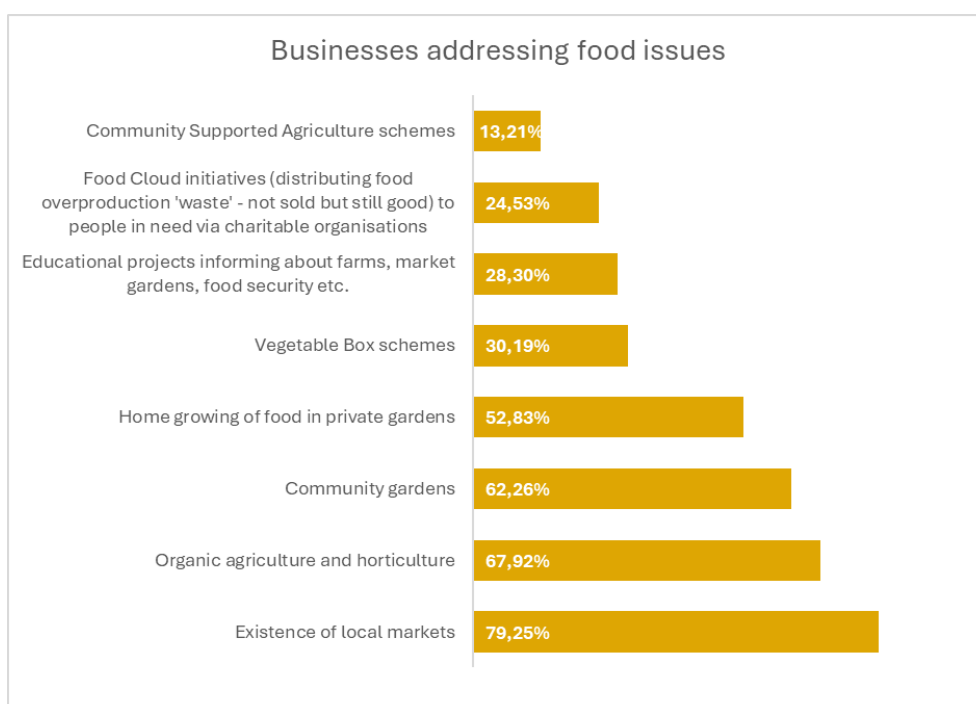
The topics to which the respondents particularly would like to see more materials are the following:

Climate change and its negative impact	<ul style="list-style-type: none"> - Climate Justice, optimism and balance need more emphasis if we want to empower people to act rather than just despair.
Loss of biodiversity and its dangers for human survival	<ul style="list-style-type: none"> - The biodiversity and food security and health issues connected should be given more priority. - Conservation and regeneration of the environment; the responsibility of the individual/group in actions on the environment.
Over-dependence on fossil fuels	<ul style="list-style-type: none"> - Over-reliance on file-sharing and data storage (related to over-dependence on fossil fuels). - There's a high interest in green energy topics (solar, wind and water as energy sources)
Food security issues	<ul style="list-style-type: none"> - Food waste and Food security issues need to be addressed.
Dangers of plastic (and other) waste, environmental pollution	<ul style="list-style-type: none"> - In Arts-related subjects: new materials, the impact of art and waste should be addressed. - Personal actions to carry out at home and in the community in waste management, water conservation and food waste. - The problem of waste and the importance of waste reduction should be addressed more often, this includes the reduction of plastic.
Health issues	<ul style="list-style-type: none"> - Pesticides and plastics due to residues and the mounting evidence of endocrine disruption. - More needs to be taught on the health consequences especially 'climate doom' depression etc. - Health issues are most relevant for my students. It would be great to see more teaching aids and resources focused on this.
Horizontal recommendations	<ul style="list-style-type: none"> - Although students are aware of the above issues, they need to be encouraged and educated in a more open, non-judgemental capacity. - In fashion-related sectors, the sustainable and ethical fashion topic is lacking, and there are no current modules on the idea of circularity. - Social sustainability and wealth distribution should be taught too. - Leadership within peer groups and community. - What students can do individually. - Dangers of plastic, fossil fuels, climate change and loss of biodiversity should continue being focused on as they are important. - Related to the Construction sector: underline the importance of natural materials such as wood and mudbrick and their construction systems. - Challenges to be addressed: Critical Thinking Skills, Objective Analysis of Information

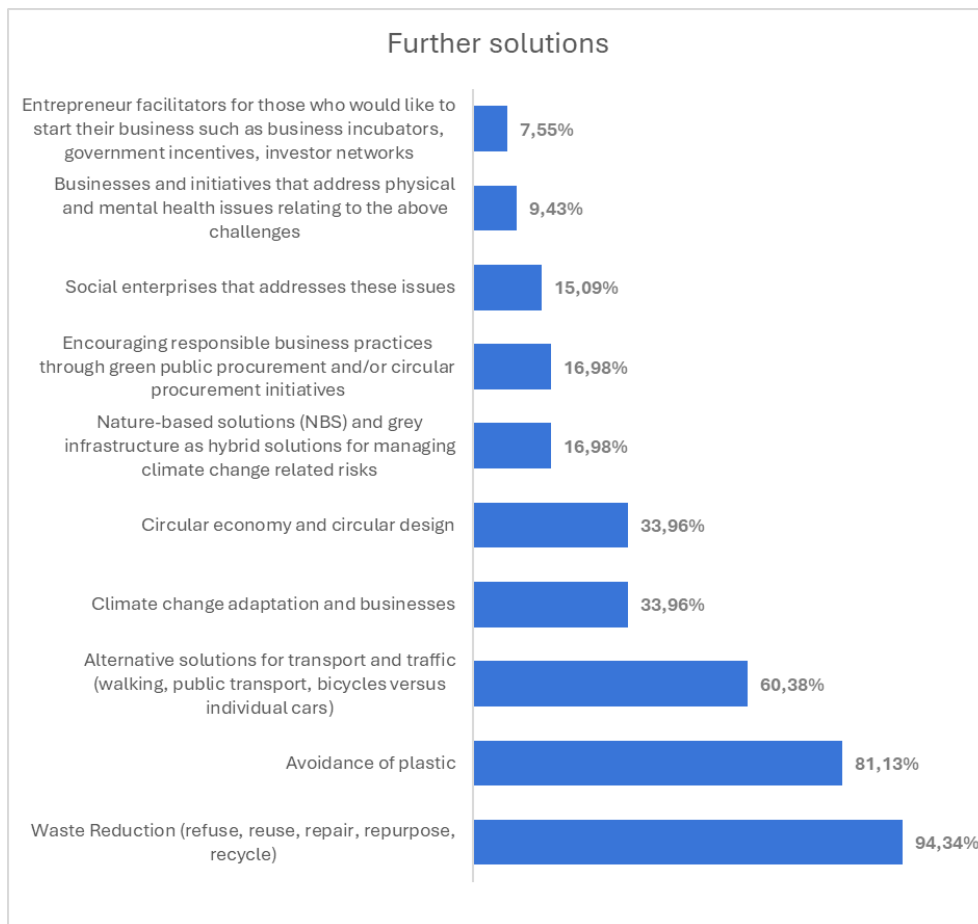
Regarding the possible solutions and tools addressing these challenges, respondents selected the topics that their VET students are familiar with. The graphs below show the respondents' perceptions.



3 - Results for the question 'How would you describe your students' awareness of the following topics related to different solutions? Please, tick all the items that you believe your students are currently familiar with.' Category: Renewable Energy



4 - Results for the question 'How would you describe your students' awareness of the following topics related to different solutions? Please, tick all the items that you believe your students are currently familiar with.' Category: Business addressing food issues



5 - Results for the question 'How would you describe your students' awareness of the following topics related to different solutions? Please, tick all the items that you believe your students are currently familiar with.' Category: Further solutions

On a scale of 1-5, the average score for respondents describing their students' awareness of communication, conflict resolution skills and citizenship was 2,8. In addition, 60% of the respondents said that they were aware of business incubators, government incentives, grants, investors and such facilitators for those who would like to start their business. According to their responses, only a few of them have some of these solutions in their curricula, mostly **waste reduction, circular economy, local markets, organic agriculture and climate change adaptation**. Almost every respondent believes that their students would or might benefit from learning specific skills for starting their own business. Respondents provided examples of the materials they already use in their teaching:

- “My main area is computer applications. I find that using Microsoft Excel is a valuable tool for the workplace and indeed when starting your own business. I always use vocationally related topics and exercises to illustrate key concepts in class. This gives my learners a more practical hands-on approach to the subject.”
- <https://worldchefs.org/sustainability-education-for-culinary-professional/>
- “Students learn how to write a business plan in Level 6 (2nd Year) in Communications module. Both Level 5 and 6 classes have carried out their work experience making upcycled items to sell at a market. Educational materials are self-drafted by fashion teachers. Recently there was a past student who spoke about how she set up her business, this was very helpful.”
- Business plan, SWOT; Funding

Regarding the teaching format, 47% of the respondents would recommend teaching about these topics as an **addition to a subject**, for example, custom care, production management, green living, sustainability, citizenship, horticulture, biology, business or maybe as part of work experience. 42% suggested teaching these topics as an **extra-curricular course in the afternoon**, and 19% chose the “intensive summer course” option. Only 9-9% would recommend involving the training material in evening classes or other formats (as a mandatory module, standalone course or summer workshops).

Regarding the duration, 43% of the respondents chose “**90 minutes per week over 6 weeks**”. 23% chose “90 minutes per week for an entire school year”, and 21% would prefer an hour per day for 3 weeks. Other suggestions (19%) consisted of

- only in the Transition year which is not available in all countries,
- standalone short course, for example, 2-4 hours a week over 6-12 weeks,
- 90 minutes per week over 4 weeks,
- 50 minutes/ week would be the duration of a class, for 36 weeks, which is the entire school year,
- 8 hours, 3 days a week during the spring semester.

Further topics were also recommended by the respondents:

- Maintaining Biodiversity
- Horticulture/organic food production/permaculture
- Natural anti-pollution techniques.
- Food loss
- Food preservation methods
- Composting
- Heat island and its effects (because green solutions are the part of it)
- Energy efficiency with computers and phones
- Energy Loss
- Alternatives to fossil fuels to power vehicles and examine how transport systems in the future will work and how to promote change in this area.
- Supply chain sustainability
- New materials, eco-materials
- Repurposing furniture, circular economy
- Eco-art
- Where to source, scrap from Industrial production for use in craft and art class.
- How to link creative and artistic methodologies to green enterprise.
- Sourcing sustainable ingredients / managing food waste / using carbon-neutral packaging for a food business
- Network and meet like-minded businesses and people with the intent to develop work experience placements and/or future job prospects.
- Local businesses and how sustainability works for them
- Legislation and government incentives for businesses and homes and how to access funding for it
- Individual responsibility
- Sustainable Consumption
- If there is a way that these topics can be made child-friendly so that they can be used in early years
- Active Global Citizenship

- Specific laws to encourage sustainable businesses, advocacy
- Good practice implemented in other countries.

Regarding the assessment method, more than half of the respondents (53%) would prefer an **informal course (not an assessed, certificate of attendance only)**. 40% of respondents liked the idea of using a learner journal, and 34% liked the video pitch formula for presenting a business idea. The marketing plan was supported by 15% of the participants, while only 4 of them chose the exam as their response. Other ideas for assessment were:

- multiple choice test,
- hands-on workshops,
- inclusion in a youth worker mobility summer camp.

Besides the conducted survey, the following strategic documents were considered during the development of the present methodology:

GreenComp – The European sustainability competence framework	The development of a European sustainability competence framework is one of the policy actions set out in the European Green Deal as a catalyst to promote learning on environmental sustainability in the European Union. GreenComp identifies a set of sustainability competences to feed into education programmes to help learners develop knowledge, skills and attitudes that promote ways to think, plan and act with empathy, responsibility, and care for our planet and public health.
EntreComp – The European Entrepreneurship Competence Framework	EntreComp offers a comprehensive description of the knowledge, skills and attitudes that people need to be entrepreneurial and create financial, cultural or social value for others. EntreComp is a common reference framework that identifies 15 competences in three key areas that describe what it means to be entrepreneurial.
LifeComp – The European Framework for personal, social and learning to learn key competence	The LifeComp framework provides a common language to describe this Key Competence, which applies to all spheres of life; and can be acquired through formal, informal and non-formal education in order to help citizens thrive in the 21st century. LifeComp is a conceptual and non-prescriptive framework that describes nine competences in three areas (Personal, Social and Learning to Learn).

While the GREENCOMP, ENTRECOMP, and LIFECOMP frameworks each focus on distinct areas, they can be interrelated in fostering competencies relevant to sustainability, entrepreneurship, and lifelong learning. Integrating elements from all three frameworks can contribute to holistic competency development. Individuals who possess a combination of green, entrepreneurial, and lifelong learning competencies are better equipped to navigate complex societal challenges, contribute to sustainable economic growth, and adapt to evolving environmental and market conditions.

GREENCOMP and ENTRECOMP can intersect particularly well in the context of sustainable entrepreneurship. For example, an entrepreneur with green competencies could apply their knowledge of environmental impacts to innovate sustainable solutions within their business ventures.

LIFECOMP on the other hand encompasses a broader spectrum of competencies for lifelong learning. Lifelong learners may engage in activities related to sustainability, such as staying informed about climate change, adopting eco-friendly behaviour, and advocating for environmental protection (responsible citizenship).

Integration of these frameworks into a holistic teaching methodology as outlined in the following table can support individuals in addressing environmental concerns, promoting innovation, and embracing continuous personal and professional growth.

3) Greenathon in VET training material structure and links to competence frameworks

Expected Content	Competences to improve		
	GreenComp	EntreComp	LifeComp
Module 1: Major Challenges of Sustainability and Climate Change			
<ul style="list-style-type: none"> Understanding key environmental issues and challenges: <ul style="list-style-type: none"> Climate change including climate justice, Loss of biodiversity and its dangers for human survival including health issues, the conservation and regeneration of the environment; and the responsibility of the individual/group in actions on the environment, Over-dependence on fossil fuels including IT-related energy consumption, Food security issues including food waste, Water Quality, micro-plastics and marine life Waste and environmental pollution including individual actions, Social Acceptance and conflicts among players as a challenge to sustainability and climate change action. 	1.1 Valuing sustainability 1.2 Supporting fairness 1.3 Promoting nature 2.1 Systems thinking 2.2 Critical thinking	1.4 Valuing ideas 1.5 Ethical & sustainable thinking	Empathy Critical thinking
Module 2: Main Green Solutions			
<ul style="list-style-type: none"> Understanding the major solutions and tools contributing to sustainability and tackling climate change. <ul style="list-style-type: none"> Renewable energy sources, Energy efficiency, Solutions addressing food and water issues (maintaining biodiversity, horticulture/organic food production/permaculture, preservation methods, natural anti-pollution techniques, packaging), Nature-based solutions, Circular economy, 	1.1 Valuing sustainability 1.2 Supporting fairness 1.3 Promoting nature 2.2 Critical thinking 2.3 Problem framing 3.1 Futures literacy 3.2 Adaptability 4.2 Collective action	1.3 Vision 1.4 Valuing ideas 1.5 Ethical & sustainable thinking	Wellbeing Critical thinking

<ul style="list-style-type: none"> ○ Climate change mitigation and adaptation, ○ Alternative transport solutions, ○ Ethical considerations, ○ Public Participation, stakeholder engagement. 			
Module 3: Introduction to Green Entrepreneurship			
<ul style="list-style-type: none"> • Overview of the connection between entrepreneurship and environmental and sustainability challenges. (triple bottom line approach), • Introduction to the concept of green entrepreneurship and its significance in promoting sustainability, • Understanding the importance of sustainable supply chains. • Strategies for sourcing eco-friendly materials, reducing waste, and optimizing logistics, • Introduction of social enterprises and businesses addressing physical and mental health issues related to these challenges, • Exploring facilitators and funding opportunities for green solutions and startups (e.g. impact investing, incubators, grants, and other funding mechanisms). 	1.1 Valuing sustainability 1.2 Supporting fairness 1.3 Promoting nature 2.1 Systems thinking 2.2 Critical thinking 3.1 Futures literacy 3.2 Adaptability 3.3 Exploratory thinking 4.3 Individual initiative	1.1 Spotting opportunities 1.3 Vision 1.4 Valuing ideas 1.5 Ethical & sustainable thinking	Empathy Critical thinking
Module 4: Basics for Green Idea Development			
<ul style="list-style-type: none"> • Identifying gaps and potential areas for innovation and entrepreneurship, • Principles of eco-design and sustainable product development, • Introduction to the Sustainable Business Model Canvas framework, • Introduction to design thinking principles and methodologies, • Promoting networking with local businesses and national sustainability agencies, • Promoting networking with local NGO's,community organisations and voluntary groups. 	1.1 Valuing sustainability 1.2 Supporting fairness 1.3 Promoting nature 2.1 Systems thinking 2.2 Critical thinking 2.3 Problem framing 3.1 Futures literacy 3.2 Adaptability 3.3 Exploratory thinking 4.3 Individual initiative	1.1 Spotting opportunities 1.2 Creativity 1.3 Vision 1.4 Valuing ideas 1.5 Ethical & sustainable thinking 2.1 Self-awareness & self-efficacy 2.2 Motivation & perseverance	Flexibility Communication Collaboration Growth mindset Critical thinking

		2.3 Mobilising resources 2.4 Financial & economic literacy 2.5 Mobilising others 3.1 Taking the initiative 3.2 Planning & management 3.3 Coping with uncertainty, ambiguity & risk 3.4 Working with others 3.5 Learning through experience	
Module 5: Preparation for Greenathons			
<ul style="list-style-type: none"> Understanding the concept of green ideathons and hackathons, Principles for crafting compelling pitches for green business ideas, Tutorial: tools and tips for pitching and presenting ideas – with examples, Tips for effective teamwork, collaboration, and rapid idea generation. 	2.1 Systems thinking 2.2 Critical thinking 2.3 Problem framing 3.1 Futures literacy 3.2 Adaptability 3.3 Exploratory thinking	1.2 Creativity 1.3 Vision 1.4 Valuing ideas 1.5 Ethical & sustainable thinking 2.1 Self-awareness & self-efficacy 2.2 Motivation & perseverance 2.3 Mobilising resources 2.4 Financial & economic literacy 3.1 Taking the initiative 3.2 Planning & management	Flexibility Communication Collaboration Growth mindset Critical thinking

		3.3 Coping with uncertainty, ambiguity & risk 3.4 Working with others 3.5 Learning through experience	
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4) Syllabus

The first objective of the 'Greenathon in VET' training materials is to provide **transparent background knowledge** in the complex area of climate and sustainability-related challenges and solutions, not only in general but also focusing on the role of businesses. Many topics are already included in different subjects; therefore, our modules do not wish to repeat already existing materials or go into detail in each subtopic, but rather provide a clear overview of these multidisciplinary and interconnected issues, their casual links and their impact on humans, economy and each other. A list of external resources (training materials, studies, activities etc.) will support VET teachers' preparation, especially if they would like to focus on specific topics not taught in other subjects.

In addition, the second objective of the 'Greenathon in VET' training materials is to provide **practical knowledge regarding idea development and presentation**. The modules cover tools and techniques that can support the improvement of soft skills. These guidelines will be essential for participation in the planned Greenathons but also useful in the future jobs of the VET students.

In line with the most popular option chosen in the conducted survey, the 'Greenathon in VET' training materials will be optimised for the schedule of 90 minutes per week over 6 weeks. The training materials consist of 5 modules (one module per week), while Week 6 can be used for test presentations and further practice.

Module 1: Major Challenges of Sustainability and Climate Change	Workload in hours: 1,5
<p><i>Although the global climate has always been changing, the current and severe climate phenomena and conditions are due to human activities and behaviour. The changing average temperature, extreme weather conditions, melting icecaps and glaciers, and rising sea levels all have an impact on our daily lives. Biodiversity, food security, fossil fuel dependency and waste are also among today's challenges. This module will summarise and explain these issues and their impact on us.</i></p>	
<p>Goal of the module</p> <ul style="list-style-type: none"> • To summarise the main concept of climate change and sustainability. • Understand the need for the adoption of adaptation measures to cope with the risks and impacts resulting from climate change. • Gain the necessary knowledge to understand barriers on an economic, social, institutional, and ecological level. • To raise awareness about the global, regional and local effects of climate change and the concept of climate justice. • To highlight the different dangers deriving from the loss of biodiversity, including food security threats. • To introduce the significance of energy consumption and our dependence on fossil fuels. • To highlight the importance of Water Quality, be aware of causes of water pollution and impact on life. • To explain the effects of waste and environmental pollution. • To highlight individual and collective responsibility. 	
<p>Learning outcomes in terms of knowledge and skills</p>	
<p>Knowledge</p> <ul style="list-style-type: none"> • Concept of climate change. • Concept of sustainability. • Global and local impacts of climate change. • Concept of climate justice. • Concept and significance of biodiversity. • Energy consumption trends and the definition of energy mix. • Effects and challenges of fossil fuels. • Main food security challenges and their possible impact. • Major waste types and pollutants, and their effect on the environment, water, climate and humans. 	<p>Skills</p> <ol style="list-style-type: none"> 1) Demonstrate an understanding of climate change and sustainability. 2) Identify the impact of climate change. 3) Demonstrate an understanding of the need to protect biodiversity. 4) Identify the challenges related to energy consumption. 5) Acknowledge the complexity of food security challenges. 6) Distinguish between the different waste types and pollutants.

Module 2: Main Green Solutions	Workload in hours: 1,5
<p><i>After understanding the major challenges we face related to climate, environment and sustainability, Module 2 will introduce how society and economy try to tackle these issues. The module will provide an overview of the currently available solutions and tools, their concept, benefits and challenges. Local/national/European examples and best practices will support a better understanding of these solutions.</i></p>	
<p>Goal of the module</p> <ul style="list-style-type: none"> ● To introduce renewable energy sources and their possible application as well as advantages/disadvantages of their use. ● To highlight the importance of energy efficiency. ● To discuss different solutions addressing food challenges. ● To explain nature-based solutions and further methods related to the environment. ● To introduce circular economy and compare circular design principles to linear method. ● To explore alternative transport modes and solutions. ● To explain the difference between climate change mitigation and adaptation. ● To raise awareness about ethical considerations and active citizenship. ● To explain issues arising from social acceptance of proposed solutions. 	
<p>Learning outcomes in terms of knowledge and skills</p>	
<p>Knowledge</p> <ul style="list-style-type: none"> ● Concept of different renewable energy-based technologies. ● Methods to increase energy efficiency. ● Concept of food and nature-related solutions. ● Definition and elements of circular design. ● Benefits and challenges of solutions for climate change mitigation and adaptation. ● Scenarios for alternative transport modes. ● Challenges of ethical consideration and social justice. 	<p>Skills</p> <ol style="list-style-type: none"> 1) Identify the possible use of renewable energy sources. 2) Understand and apply measures to improve energy efficiency. 3) Explain the food and nature-related solutions and their benefits. 4) Acknowledge circular methods and products. 5) Identify solutions for climate change mitigation and adaptation. 6) Quantify the different alternative transport modes, their benefits and challenges. 7) Act with consideration of ethical and social justice questions. 8) Identify and describe the various players involved in climate change mitigation/adaptation and their conflicts.

Module 3: Introduction to Green Entrepreneurship	Workload in hours: 1,5
<p><i>Module 3 will be a bridge between green and sustainability challenges, and entrepreneurship. This module will highlight the responsibilities of the businesses, and also the potential benefits market actors can achieve with measures tackling the main challenges. Local/national/European examples and best practices will support a better understanding of green entrepreneurship.</i></p>	
<p>Goal of the module</p> <ul style="list-style-type: none"> • To clarify the connection between entrepreneurship and environmental and sustainability challenges. • To raise awareness of greenwashing. • To introduce the concept of green entrepreneurship. • To explain the possible climate change mitigation measures a business can implement. • To explain the measures a business can implement to adapt to the effects of climate change. • To highlight the significance of sustainable measures and approaches in the working environment. • To highlight the importance of materials, waste and optimised logistics. • To introduce the role of facilitators and funding opportunities. • To raise awareness about social enterprises and businesses addressing physical and mental health issues. 	
<p>Learning outcomes in terms of knowledge and skills</p>	
<p>Knowledge</p> <ul style="list-style-type: none"> • Concept of green entrepreneurship and greenwashing. • Responsibilities of businesses in climate change and sustainability. • Benefits and challenges of climate change mitigation measures on businesses. • Benefits and challenges of climate change adaptation measures on businesses. • Benefits and challenges of sustainability measures on businesses. • Strategies for sourcing eco-friendly materials, reducing waste, and optimizing logistics. • Definition of sustainable supply chains. • Benefits and challenges of social enterprises and businesses addressing physical and mental health issues. • Green opportunities for companies and green startups. 	<p>Skills</p> <ol style="list-style-type: none"> 1) Identify the responsibilities of businesses in climate change and sustainability. 2) Recognise greenwashing methods. 3) Understand and apply measures to mitigate the impact of a business on climate change. 4) Understand and apply measures to adapt a business to the effects of climate change. 5) Design a sustainability integration plan to promote awareness in a business or a working environment. 6) Acknowledge the benefits and challenges of these above measures. 7) Define elements for making a supply chain more sustainable. 8) Demonstrate an understanding of the concept of social enterprises. 9) Engage with funding opportunities.

Module 4: Basics for Green Idea Development	Workload in hours: 1,5
<p><i>Module 4 will support students in generating and refining environmentally sustainable business ideas. This module will explore the principles, methodologies, and techniques essential for creating innovative solutions that address pressing environmental challenges while also meeting market demands. The ability to develop compelling green business ideas is a crucial skill for aspiring entrepreneurs and all professionals. Such ideas can range from creating state-of-the-art innovations to introducing a new sustainable approach to the existing working method. The module will teach learners how to think critically, ask the right questions, and brainstorm effectively to generate promising green business concepts.</i></p>	
<p>Goal of the module</p> <ul style="list-style-type: none"> • To explain the process of problem-framing and identifying challenges. • To introduce tools and methods that support problem-framing. • To introduce tools and methods that support finding solutions to challenges and introducing sustainability methods and approaches. • To highlight the necessity to explore the complexity of an idea. • To highlight the importance of evaluating the ideas. • To explain the role and elements of the implementation/action plans connected to the ideas. • To raise awareness of the importance of networking. 	
Learning outcomes in terms of knowledge and skills	
<p>Knowledge</p> <ul style="list-style-type: none"> • The process of problem-framing and identifying challenges (e.g. design thinking). • Practical knowledge of tools and methods that support problem-framing. (e.g. problem tree, SWOT analysis) • Practical knowledge of tools and methods that support finding solutions to challenges and introducing sustainability methods and approaches. (e.g. Sustainable Business Model Canvas) • Complex evaluation methods and tools of the idea. • Elements of the implementation/action plans connected to the ideas. 	<p>Skills</p> <ol style="list-style-type: none"> 1) Identify challenges and problems related to sustainability and climate. 2) Use tools and methods to frame a problem and find solutions for it. 3) Demonstrate an understanding of the process of design thinking. 4) Evaluate the ideas in a complex and multidisciplinary way. 5) Draft an implementation/action plan. 6) Acknowledge the benefits of networking with local businesses, community, voluntary groups and professionals.

Module 5: Preparation for Greenathons	Workload in hours: 1,5
<p><i>Module 5 will provide a step-by-step guideline to help students prepare for green ideathons. The practical tips will cover the main principles of these competitions, the possible tools to use to pitch an idea and also the soft skills students will need for their successful participation. With this module, students will be able to formulate and present an idea for the green ideathon, and also in the future in a real ideathon or working environment.</i></p>	
<p>Goal of the module</p> <ul style="list-style-type: none"> • To introduce the concept of green ideathons. • To explain the principles of presenting green business ideas. • To introduce digital tools and further methods that can support their presentation. • To highlight the significance of the appearance and visualisations of their presentations. • To raise awareness of soft skills important for participating successfully in the green ideathons. • To highlight the importance of creativity, presentation and teamwork skills. 	
<p>Learning outcomes in terms of knowledge and skills</p>	
<p>Knowledge</p> <ul style="list-style-type: none"> • The concept of green ideathons. • Principles of a successful idea presentation. • Practical knowledge of tools and methods that support the presentation of their ideas. (including story-telling methods) • Complex evaluation methods and tools of the idea. 	<p>Skills</p> <ol style="list-style-type: none"> 1) Create an idea pitch. 2) Use efficiently tools and methods for presenting an idea. 3) Make a presentation to introduce an idea.

5) Assessment methodology

Each module will have questions and activities to assess the understanding of the students. Quantitative assessment can be done with the test questions. For the proposed further practical activities that help demonstrate the practical application of knowledge and skills, we recommend giving only qualitative assessments as these classroom activities intend to help the preparation of the students. Therefore, students should be encouraged and provided with direct instructions on how to improve their ideas or presentations.

MODULE	ASSESSMENT METHOD
Module 1: Major Challenges of Sustainability and Climate Change	15-20 theoretical test questions (e.g. multiple choice, true or false, fill in the missing word etc.)
Module 2: Main Green Solutions	15-20 theoretical test questions (e.g. multiple choice, true or false, fill in the missing word etc.)
Module 3: Introduction to Green Entrepreneurship	15-20 practical test questions (e.g. multiple choice, true or false, sorting game etc.)
Module 4: Basics for Green Idea Development	15-20 practical activities (e.g. “novel ideas” activity from LifeComp, journaling, anonymous peer reviewing)
Module 5: Preparation for Greenathons	15-20 practical activities (e.g. video pitch, classroom activities to improve soft skills)

Regarding the **timing of the assessment**, practical activities are recommended to be conducted during the relevant module. Test questions, however, can be asked not only after each module but even only once in an aggregated way, for example, after Module 3 (before the modules on more practical knowledge).

Test questions will be available on the e-learning platform where immediate results can be achieved. Furthermore, the questions will be available for download and print. For the practical activities, we recommend VET teachers give **immediate feedback** to the students on how to improve their performance. We would also encourage teachers to ask students to peer review each other's performance when possible.