

WP5 MOOC/VOOC modules in the training programmes where relevant and decided



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Introduction

In WP5, the partnership developed two digital training programmes in a MOOC format using the Canvas e-learning platform. They are complementary to the in-person training programmes developed in WP4.

The first step in developing the training programmes in WP4 was to find the relevant learning outcomes from the qualification matrices from WP2. When all of the learning outcomes were sorted into the 8 training programmes, we took out all of the learning outcomes related to “knowledge”. They would become the foundation for the MOOCs. This means that all “knowledge”-learning outcomes on EQF 3 and 4 related to biodiversity laid the foundation for the biodiversity module in Canvas. This approach was implemented for all 8 modules, which were sorted into two training programmes, one on EQF levels 3 and 4, and one on EQF levels 5 and 6.

The next step was to develop all of the content for each of the MOOCs. The content is a combination of desk research done by the partners, on-site experiences (with pictures to document), relevant videos from outside sources, and videos created by the partnership. When the content was completed, quizzes were created for each module. Then, the partners found appropriate testers, who went through the MOOCs and gave their feedback. After their feedback was analysed, and the appropriate changes implemented, all of the written content was translated into the partner languages. All of the language versions are now available on Canvas, and can be accessed using the links below.


The structure of the MOOCs:


- MOOC 1: Sustainable resource use in the Green Sector (EQF 3+4)
 - General introduction to EGREEN+ online courses
 - Biodiversity
 - Climate awareness
 - Recycling and composting
 - The problem of polymers (plastic)
- MOOC 2: Sustainable businesses in the Green Sector (EQF 5+6)
 - General introduction to EGREEN+ online courses
 - Being an informed worker/consumer
 - Supply chain management
 - Circular economy
 - Innovative business practices

The rest of the document is meant to illustrate the structure of the MOOCs, and give an idea of the content. To get a proper understanding of the MOOCs, it is suggested to instead click on the links and have a look at the actual MOOCs.


Screenshots of MOOCs

MOOC 1: Home page







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EGREEN+ 1 - Sustainable resource use in the Green Sector


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Image: Creative commons

This training program addresses key issues in sustainable resource use within the green sector. Participants will learn to take responsibility for their own s planet's already stretched economic and ecological resources. Topics include: working with location-specific environmental conditions, recycling and reusiir virgin production materials, tool maintenance and repair, building resilient social and ecological networks, and minimising the use of plastics (which is a pai also designed to build your knowledge base on sector-wide resource management, laying the foundation for further study in sustainable business manage

The main target group for this program is employees wanting to expand their competence in the field of sustainability at EQF levels 3 and 4.










Before you start, it is a good idea to get to know the background to the Egreen+ Mastery project, and how the course is set up. This information can be fo

The program is module-based, and consists of four sections:

- [Biodiversity](#)
- [Climate awareness](#)
- [Recycling and composting](#)
- [The problem of polymers \(plastic\)](#)


The modules are intertwined, but it is possible to take them separately based on your prerequisites or prior learning.


MOOC 1: Module overview




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
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
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

General introduction to EGREEN+ online courses



The Idea of EGREEN+



Sustainability in the Green Sector



How to use the EGREEN + resources



Diplomas and certificates



Guidelines for assessors and supervisors



Biodiversity


Biodiversity - introduction



Biodiversity - examples from the green sector



Biodiversity quiz
 13 pts | Score at least 12.0


Training task: Biodiversity



Want to find out more about biodiversity?

MOOC 1: Module on Biodiversity







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Biodiversity - introduction

Biodiversity is not only the sum of ecosystems, species, and genetic material. It also represents the variability within a conditions without which humans could not survive. Ecosystem services are the benefits provided by ecosystems. Th as recreation and aesthetic enjoyment; and supporting services such as soil formation, pollination, and nutrient cyclin

The green sector plays an important role in protecting local biodiversity. In recent years, biodiversity has moved to th an area. This course will teach you about the informed use of natural pesticides and fertilizers, soil remediation, and i




Image: Creative commons

























The main content in the module:

- Restorative designs for biodiversity
- Support biodiversity through purchasing practices
- Pesticides - risks and usefulness
- Invasive species

Biodiversity

What is biodiversity?

MOOC 1: Quiz on Biodiversity

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Question 11



What are the biodiversity threats shown in the picture?

[Select]




Question 12

Choose the steps to ensure biodiversity [1] (more answers possible)

- ☐ Restore degraded ecosystems
- ☐ Build dams to control the natural water flow
- ☐ Maximize your activities to create convenient environment for people
- ☐ Replace old materials with new ones
- ☐ Minimize the impacts which occur
- ☐ Avoid with your activities the impact to biodiversity from the outset
- ☐ Offset biodiversity impact where possible

MOOC 1: Training programme, biodiversity (excerpt)

Training program 1:
Sustainable resource use







Photo: Roger Brendhagen


Module: Biodiversity

| | | | | | |
|-----------------------|---|----------|--|-------------|---------|
| EQF level: | 3 and 4 | | | | |
| Green sector | X | Gardener | | Landscaping | Florist |
| Before doing the task | Go through the online resources about biodiversity and answer the quiz as a knowledge base for the task. Read the entire assignment text before you start solving the task. | | | | |
| Description | Biodiversity is crucial for the survival of the planet, and ecological systems cannot be seen in isolation. Animals, plants, and natural processes all influence each other, so protecting and increasing levels of biodiversity in the constructed environment is an important way for you to play a part in strengthening resilience. Your decisions matter, both how you conduct your work and what materials you purchase. | | | | |
| Task | Level 3 and 4 Find out the main ways your company influences biodiversity through work tasks and projects, either for better or worse. Does your company have a biodiversity strategy? How does it reflect what you found out in the first part of the task? Present your findings of the current situation and suggestions for strengthening biodiversity practices in your workflow. Consider the tasks that you can undertake alone, with a team, or by leading a team. Approx. time: 20 hours | | | | |


MOOC 2: Home page




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
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EGREEN+ 2 - Sustainable businesses in the green sector



Green wall by Torbjörn Akesson

This training program deals with questions on how to run a sustainable green business and to support the continuous development of employees and innovative thinking and acting as well as knowledge about laws and regulations and the use of technology to minimize ecological footprints. use and recycle materials and secure the use of sustainable tools and transport. Making visible signs of sustainability through labelling and trackir program.


The main target groups for this program are managers and supervisors (EQF level 5 and 6).


Before you start, it is a good idea to get to know some of the background to the Egreen+ Mastery project, and how the course is set up. This info


The program is module-based:


- [Being an informed worker/consumer](#)
- [Circular economy](#)
- [Green supply chain management](#)
- [Innovative business practices](#)


MOOC 2: Module overview






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☰ ▶ General introduction to EGREEN+ online courses


☰ ▶ Being an informed worker/consumer

☰ ▶ Supply chain management


☰ ▶ Circular economy

☰ ▶ Innovative business practices


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
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Question 5



Fill in the missing chain links:

supplier -> procurement -> [Select] -> product -> inventory -> dis

Question 6



What does green product design support? (there may be multiple answers)

☐ Individuation of products
☐ Recycling of products
☐ Reusing of products
☐ Remanufacturing of products
☐ Single use of products

Question 7

Green packing solutions often include and mater

MOOC 2: Training programme, supply chain management (excerpt)

| Training program 2 Sustainable businesses in the green sector | |  EGREEN+ European Green Mastery | | | | |
|--|---|--|--|-------------|--|---------|
| Module: Green Supply Chain Management | |  | | | | |
| Image: creative commons | | | | | | |
| EQF level: | | 5 and 6 | | | | |
| Green sector | X | Gardener | | Landscaping | | Florist |
| Before doing the task | | Go through the online resources about green supply chain management and answer the quiz as a knowledge base for the task. Read the entire assignment text before you start solving the task. | | | | |
| Description | | A central aspect to ensuring the longevity of a sustainable business is to have a green supply chain. This involves the management of resources in and out of your company, also in cooperation with your suppliers and service providers. | | | | |
| Task | | Level 5 and 6 Review the company's current purchasing and supply practices, and resource management together with the team. Create a logistics plan for deliveries and operational routes based on an evaluation of the economic, social, and environmental disadvantages and benefits. Give an example of a concrete change in the company, and possible business practice consequences. Approx. time: 30 hours | | | | |

Annex I

Planned development process of EGREEN MOOCs to be adapted to the specific thematic examples and selections

(Version 2021-06-17)

0. Vignette. Graphic design. Templates look and feel of videos and presentations.
 Responsibility: **VEA, NTI-MMM, EUROMASC**

1. **General introduction to the MOOCs (responsibility: EUROMASC and OsloMet)**
 - a. 2 mins oral *presentation* of the EGREEN+ idea (aims and policies) mixed with text, charts, pictures... **EUROMASC & NTI-MMM**
 - b. 2 mins presentation of: What do we mean by sustainability in the green sector? Either pictures from the trades or a video *commented* by someone from the team. **OsloMet**
 - c. 2 mins *conversation* on the different perspectives on sustainability in the green sector (why we have chosen the modules) **OsloMet and EUROMASC**
 - d. 2 mins introduction: How to use the MOOCs as part of the training programs or/and RPL... Practical guide **OsloMet**

2. **Biodiversity module EQF 3-4 (responsibility: Yebisu, EML and ELCA)**
 - a. Introduction/visual presentation of the *core concepts*. (can be part of b.) Pictures/charts/... with explanations of
 - Biodiversity
 - Ecological systems
 - Resilience

 - b. Max 5 mins Video-clips (with voice over comments and can be part of a.) showing *core work tasks* as
 - Restorative designs for biodiversity
 - Pesticides - risks and usefulness
 - Support biodiversity through purchasing practices
 - Invasive species

Why is biodiversity important?
 Introduction to ecological principles as: plant reproduction, pollination, soil health, biomes
 How do our activities in the green sector affect biodiversity?
 What practices can we use to influence our impact on local environment?
 Examples from floristry, gardening and/or landscaping (**input from other partners**)

 -

 - c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**. Examples:
 - drag and drop to sort invasive from sustainable species
 - pick the right pesticides to reduce impact on... (pictures)
 - what do you prefer to buy....

▪ ...

3. Climate awareness EQF 3-4 (Responsibility: **WIAB, SBG and OsloMet**)

- a. Explanation of the *core concepts* can be part of the interview /bullet b. :
 - Climate changes
 - Ecological footprints
- b. Max 5 mins interview mixed with pictures, charts etc covering *core work tasks* as
 - Water management
 - Compiling environmental management plans
 - Practicing ethical and critical thinking in decision-making
 - Mitigating and adapting to climate changes
 - Supporting local production of plant material

Introduction to climate change – its effects on how we go about our daily lives
 The causes of climate change (that are relevant to the green sector – level 4)
 How the consequences of climate change are realised at a concrete local (and global?) level (climate justice)
 Introduction to measuring our impact on the climate through ecological footprints
 Utilising resources in ways that minimise environmental impact
- c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

4. Recycling and composting EQF 3-4 (Responsibility: **VEA and VHG/Van Senten**)

- a. Introduction to the *core concepts*. (can be integrated in b.) Pictures/charts/... with explanations of
 - Reusable resources
 - Recycling
 - Composting
 - Circular way of thinking (including basic introduction to Circular economy, Ecological footprint and Circular resource management)
- b. Max 5 mins Video-clips from the different trades (with voice over comments/explanations) showing *core work tasks* as
 - Reuse and recycle materials and products
 - Improve composting
 - Maintain and repair tools
 - Choose suppliers with green composting policies (level 4-5)
 - Apply circular way of thinking and acting in own practice
- c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

5. The problem of plastic EQF 3-4 (Responsibility: **SBG, ELCA and EML**)

- a. Introduction to the *core concepts*. Can be part of b. Pictures/charts/... with explanations of
 - Types of plastic
 - Plastic waste impact
 - Plastic disposal
- b. Max 5 mins Video-clips or picture collage from the different trades (with voice over comments and/or text explanation) showing *core work tasks* as
 - Reduce risk of plastic and microplastic pollution
 - Reduce plastic consumption in packaging

Awareness of plastic pollution and use of plastics and microplastics in your work
Conscious ways of handling plastic materials
Reduce risk of plastic and microplastic pollution
Reduce plastic consumption in packaging
Manage plastic resources in a circular way of thinking in your own work.

- c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

6. Being an informed worker/consumer EQF 5-6 (Responsibility: **ADLAS and VHG/Van Senten**)

- a. Introduction to the *core concepts*. ((can be part of b.) Pictures/charts/... with explanations of
 - Environmental impact of materials, products and machinery
 - Labelling
 - Legislation
- b. Max 5 mins Video-clips from the different trades with customer and consumer interviews or conversations on topics like:
 - Environmental impacts of materials, tools, production and products (e.g., hazards and toxicity)
 - Sustainable consumption patterns (e.g., conscious and sustainable choices)
 - Fair-trade production, labelling and tracking
- c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

7. Supply Chain management EQF 5-6 (Responsibility: **ELCA, Yebisu and EML**)

- a. Introduction to the *core concepts*. (can be part of b.) Pictures/charts/... with explanations of

Green supply chain:

- Purchases and suppliers
- Resource management
- Sustainable logistics
- Ethical considerations

Global impact of supply chains

b. 5-7 mins introduction (a manager voice supported by pictures, charts, presentations) that explain how to improve

- Business ethics, manufacturing and production
- Products and manufacturing
- Product lifecycle
- Cost-benefit analysis of products
- Sustainable logistics and transport solutions
- Biodegradable products and their use
- Impact of global supply chains
- Use of materials and goods

c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

8. Circular economy EQF 5-6 (Responsibility: **ADLAS and NTI-MMM)**

a. Introduction to the *core concepts*. (can be part of b.) Pictures/charts/... with explanations of

- Systemic approach to economic development
- From wasting and disposing to recycling, reusing and redesigning.

b. Max 5 mins interviews with managers on how they work to secure company policies and practices on *core work tasks* as

- Apply principles of circular economy in own practice/company; reduce consumption, recycle and/or reduce waste
- Cooperate with suppliers and customers in developing circular economy-based solutions
- Develop circular economy concepts for returning and renewing, renting out, reusing, licensing and sharing

c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

9. Innovative business practices EQF 5-6 (Responsibility: **VEA and ELCA**)

a. Three best-practice stories, one from each vocation and from different countries - showing *initiatives on*

- Develop innovative, sustainable business processes and practices
- Stimulate and mentor staff towards environmental and entrepreneurial behaviour
- Use technology to develop more sustainable and innovative businesses (AR/VR)
- Find investments and financing to secure sustainable green business innovations

b. Short presentation/Summing up with explanations of *core concepts* (can be part of a.)

Innovative business culture:

- Involvement and cooperation

Innovative sustainable practices and solutions:

- Implementation of technological developments
- Environmental impact
- Ethical choices

c. Quiz-development – please give input to relevant questions. Will be further developed by **EUROMASC, NTI-MMM and OsloMet**

Transversal guidelines for development according to partner discussions and feedback 2021-06-17

- I. Clarification of “tasks” vs “content”. Main target to show practical situations – necessary to have the overarching conceptual understanding.
- II. A general approach Independent from direct sectoral links to gardening/horticulture, floristry and landscaping
- III. Organise the elements in a hierarchy according to the overarching understanding. Integrative approach across gardening/horticulture, floristry and landscaping.
- IV. Broader concepts with additional elements to be covered in the MOOC. Transition of core tasks into pedagogical/didactical units as MOOC content.

The four bullet points above are mirroring the diversity between occupations and also alternative ways how to clarify and manage what may be called tasks/content /input etc. in the MOOCs and corresponding elements in the training programmes.