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# TERRA PROJECT

## TOWARDS AN OPEN BADGE SYSTEM AS TRAINING ENABLERS TO REACH REGENERATIVE AGRICULTURE

### WP3 Training programme testbed

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#### PARTNERS:



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## PROJECT DESCRIPTION

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- Centro Italiano Opere Femminili Salesiane – Formazione Professionale Piemonte ETS (CIOFS), Italy [partner code: BE003]
- Fondazione Ecomuseo della Pietra da Cantoni (FEPC), Italy [partner code: BE004]
- International Academy of Applied Sciences (IAAS), Poland [partner code: BE005]
- Polish Farm Advisory and Training Centre (PAF) [partner code: BE006]
- Agora Paraggon Biologikon Proionton – BioFarmers, Greece (BF) [partner code: BE007]
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- European Foundation for Competence CERTification, (EFCOCERT) France [partner code: BE009]
- La Unión de Pequeños Agricultores y Ganaderos (UPA), Spain, [partner code: BE010]

## DELIVERABLE DESCRIPTION

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Title:	Report eLearning platform with TERRA learning components.
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Reviewers:	All consortium partners

## SUMMARY

The challenge of this Deliverable was to define and implement the TERRA Learning Components: training units, a self-diagnosis tool to generate personalised educational itineraries and a game for helping user in its introduction in Regenerative Agriculture. These components aim to support upskilling and entrepreneurship in the green transition, providing flexible and modular learning paths. The courses, developed by all partners, cover technical and entrepreneurial aspects of Regenerative Agriculture and are now integrated into the TERRA e-learning platform, ready to be tested and validated in the pilot phase (WP4).

## Acknowledgement:

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## 1. EXECUTIVE SUMMARY

Regenerative agriculture requires not only awareness and motivation, but also structured learning opportunities that allow farmers, workers and entrepreneurs to acquire concrete skills in a flexible and progressive way. In response to the skills gaps identified in the previous phase of the TERRA project, micro-credentials and modular learning pathways represent an effective solution to support upskilling, reskilling and professional transition towards greener agricultural practices.

Deliverable D3.1, “Definition of TERRA Learning Components: self-diagnosis, educational itineraries and catalogue of 21 short-term courses”, is developed within Work Package 3 (WP3) and builds directly on the results of WP2. Its main objective is to define, design and implement the core training components of the TERRA educational model, transforming identified skills needs into concrete learning units delivered through an e-learning platform.

This deliverable presents the development of three integrated learning components: a self-diagnosis tool to assess learners’ starting competence level, a mechanism for generating personalised educational itineraries to enhance employability, and a catalogue of 24 short-term training units in Regenerative Agriculture. These learning units cover both technical aspects of regenerative farming practices and transversal entrepreneurial competences, and are aligned with EQF level 4 and micro-credentials principles.

The document describes the methodological approach adopted, including the creation of a multidisciplinary team composed of academic experts and practitioners, the collaborative development of learning content by project partners, and the quality assurance processes applied during content production and platform integration. The deliverable concludes by presenting the integration of the learning components into the TERRA e-learning platform and outlining the next steps towards pilot testing and validation in real-life contexts under WP4.

## **2. INTRODUCTION**

The TERRA project aims to support the transition towards regenerative agriculture by designing a flexible, accessible and practical educational model based on micro-credentials. Following the identification of skill gaps and training needs in WP2, the next logical step is to create a complete learning system that can empower individuals, farmers, workers and entrepreneurs, to build relevant competences through short-term, certified learning pathways.

This objective is addressed in Work Package 3 (WP3), which focuses on the design and implementation of the TERRA Learning Components. These components include a self-diagnosis tool to assess individual knowledge, a mechanism for generating personalised educational itineraries, and a full catalogue of 21 short-term training units on key topics in Regenerative Agriculture.

Each unit is designed to be concise, practical and modular, following the standards of EQF level 4 and the principles of open digital micro-credentials. The training programme is delivered through an e-learning platform, allowing learners to access content, take assessments, and receive micro-credentials linked to their name and achievements. The content has been co-designed by a multidisciplinary team and developed collaboratively by all project partners, ensuring pedagogical quality and relevance to local contexts.

This deliverable presents the result of that process and lays the foundation for the pilot testing and validation phase to be implemented under WP4.

## **3. METHODOLOGY AND WORKING PROCESS**

### **3.1. Creation of the multidisciplinary team**

In order to ensure the quality, coherence and relevance of the TERRA Learning Components, a Multidisciplinary Team was created at the beginning of WP3. This team played a key role in shaping the pedagogical and technical foundations of the educational model and was composed of both academic and non-academic experts from different fields relevant to regenerative agriculture and vocational training.

The team included professionals with backgrounds in ecology, soil science, agroecology, digital learning, social economy, law, entrepreneurship, communication and labour rights. These complementary perspectives allowed for the development of a curriculum that integrates technical expertise with social and economic dimensions, as well as alignment with European frameworks such as EQF and Europass.

More than 8 experts from consortium partners participated actively in the team, ensuring gender balance and representation from the four project countries (Spain, Italy, Poland and Greece). The multidisciplinary approach was crucial to reflect the complexity of the regenerative agriculture model, which requires both technical and transversal competences.

The team also included contributions for the micro-credentials and certification strategy, and for the integration of social and labour rights into the training content.

### **3.2. Task coordination and workflow**

The coordination of WP3 and the development of the learning components followed a collaborative and structured workflow, agreed upon by all partners. The process was divided into several stages:

- Initial planning and distribution of tasks, based on the expertise of each partner.
- Definition of common pedagogical and technical standards, including the structure of each learning unit (presentation, self-assessment, video), the format of quizzes, and language requirements.
- Collaborative content development, where each partner was responsible for 2 to 3 learning units, ensuring coverage of both technical and entrepreneurial topics.
- Ongoing communication, facilitated through regular online meetings, shared drives and dedicated working groups.
- Peer review and revision, where each unit was reviewed by experts and other partners to ensure quality, consistency and alignment with project objectives.

The coordination was led by Centro Italiano Opere Femminili Salesiane – Formazione Professionale Piemonte ETS (CIOFS), Italy [partner code: BE003], with support from all consortium members. A centralised document ("Subdivision of Training Units") was used to track responsibilities and progress, supported by shared evaluation templates.

### **3.3. Quality assurance and peer-review mechanisms**

A quality assurance process was embedded throughout WP3 to ensure the educational value, coherence, and usability of all TERRA Learning Components. The process included:

- Internal peer review of each training unit by at least one partner other than the author.
- Expert and learner evaluation, where selected learning units were reviewed by external experts in regenerative agriculture and by learners representing the target audience.
- Platform oversight, including a review of the uploaded content (video/audio quality, quiz structure, assessment flow).

- Checklist validation, where each unit was verified against predefined criteria: number of quiz questions, passing thresholds, accessibility features, clarity of learning outcomes, and alignment with EQF level 4.

The feedback collected during the review process was recorded in a central document ("Platform Oversight with Evaluation Answers") and was used to improve the content iteratively. Specific units with pending improvements were flagged, and responsible partners were given deadlines to complete revisions before the pilot phase in WP4.

This multi-step approach helped ensure consistency across all units, while maintaining enough flexibility to reflect each partner's specific expertise and pedagogical style.

All tools, templates and internal documents developed during WP3 have been collected and documented. These include the subdivision of Training Units sheet, implementation plan, Peer Review Forms, and the platform oversight with evaluation answers. These tools ensured process transparency, traceability and consistent quality control throughout the development phase. A selection of internal tools and templates used during WP3 has been included in Annex 1, providing visual evidence of the processes described above

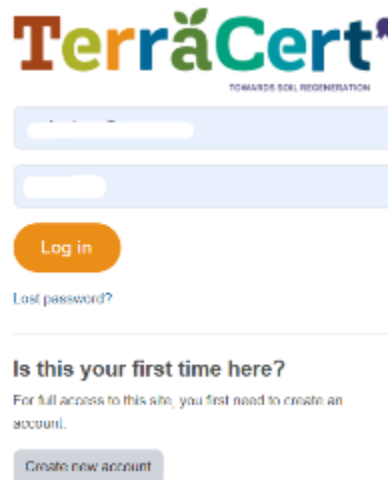
## **4. TERRA LEARNING COMPONENTS**

### **4.1. Terra eLearning platform**

The TERRA Learning Components are hosted on a dedicated Moodle-based eLearning platform specifically developed to support the training objectives of the project. The platform provides a structured, modular and user-friendly environment where learners can access the training units, complete self-assessment quizzes, interact with multimedia content and receive micro-credentials upon completion.

Access to the platform is available via the main TERRA website, which acts as the public-facing portal of the project. From the homepage, users are redirected to the eLearning environment through the following link, <https://app.terracert.eu/> where they can register using a simple registration form:





The platform has been customised to reflect the pedagogical model of the project and to ensure accessibility across different user profiles, including adult learners, farmers, and students. It integrates the training catalogue, gamified elements, and self-diagnosis tools in a unified and consistent learning space.

The user interface provides two main access points:

- A course catalogue view where users can explore and enrol in the currently available training units.
- A personal dashboard displaying all courses in which the learner is enrolled, allowing direct access to ongoing modules and progress tracking.

The following images illustrate the user interface described above, including both the course catalogue view and the personal dashboard available within the TERRA eLearning platform.



**MODULE 1**

**Foundations of regenerative agriculture: soil, water, and microbial dynamics in regenerative agriculture and its climate benefits**

5 courses



### Introduction to Regenerative Agriculture: practices, benefits and principles

This unit explores regenerative agriculture, emphasizing soil health as the foundation for sustainable farming. It covers key principles like organic matter, biodiversity, and nutrient cycles to enhance productivity and resilience.

**TerraCert** Home Dashboard My courses

Introduction

Presentation

FAQs about Regenerative...

Lesson 1: Definition and...

Lesson 2: Soil ecosyste...

Lesson 3: Water conserv...

Lesson 4: Regenerative ...

Lesson 5: Fair labor pra...

Final Evaluation

EN Glossary

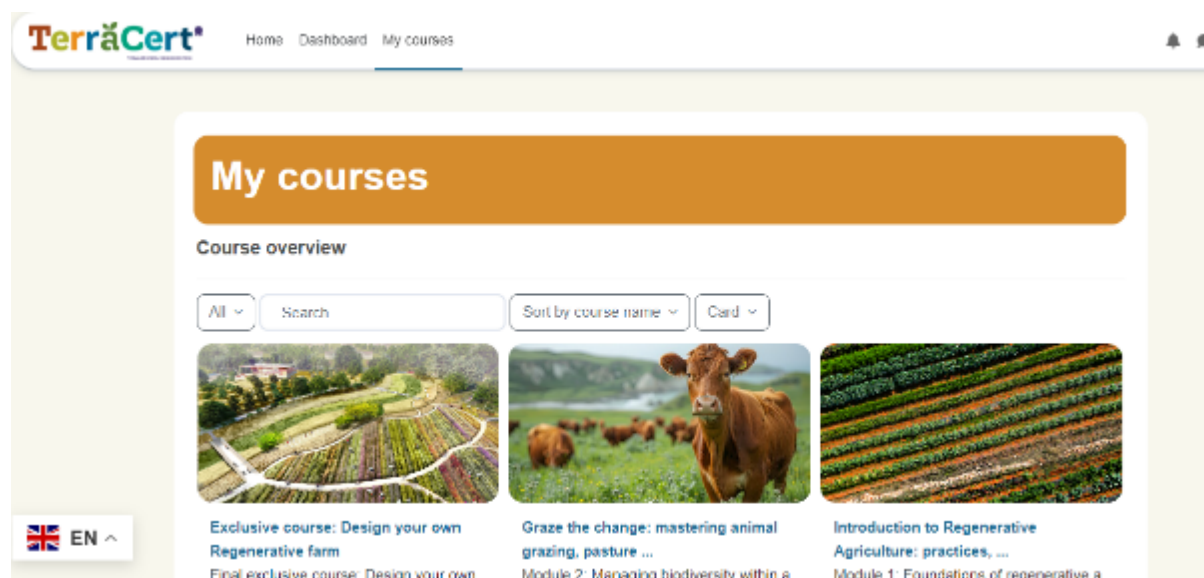
**Introduction to Regenerative Agriculture: practices, benefits and principles**

Course Participants Grades Competencies More >

**Introduction** Collapse all

**Intro**

This introductory unit dives into the world of regenerative agriculture, its practices and the importance of soil health as a foundation for sustainable farming. It offers practical and useful information on the key principles of soil health, including the role of organic matter, soil biodiversity, and nutrient cycles in maintaining and enhancing the productivity and resilience of agricultural systems.



#### 4.2. Learning units, thematic areas and microcredential process

The core output of WP3 is the catalogue of 21 short-term training units in Regenerative Agriculture, designed as modular learning components aligned with EQF level 4 and micro-credentials principles. These units translate the skills and competence needs identified in WP2 into concrete, practice-oriented learning content.

The training units are organised into four thematic modules, ensuring a progressive learning pathway from foundational knowledge to farm operations and business management:

- Module 1. Foundations of Regenerative Agriculture: Soil, Water and Microbial Dynamics. This module introduces the fundamental ecological principles of Regenerative Agriculture, focusing on soil health, microbiology, water systems and climate resilience.

##### 5 Training Units (TU) Module1:

TU1. Introduction to Regenerative Agriculture: practices, benefits and principles  
This unit explores regenerative agriculture, emphasizing soil health as the foundation for sustainable farming. It covers key principles like organic matter, biodiversity, and nutrient cycles to enhance productivity and resilience.

TU2. Soil: the world beneath our feet. This course explores soil as the foundation of ecosystems, covering its physical, chemical, and biological properties. Participants will learn soil classification, key health indicators, and regeneration

techniques, gaining skills to analyze and enhance soil health in diverse agricultural settings.

TU3. Microbiological allies: harnessing the power of microbiology- This course teaches participants to assess microbial diversity in soil and its impact on crop health. They'll evaluate farming practices, explore microbial inoculants, and learn to create custom solutions for sustainable soil management and resilient agriculture.

TU4. Cultivating resilience: water use and system design. This course explores sustainable water management in regenerative agriculture, covering the water cycle, soil-water relationships, and conservation techniques. Participants will learn to assess water resources, improve efficiency, and design irrigation systems for long-term sustainability.

TU5. Soil Carbon Sequestration and Climate Resilience. This course examines how farming impacts CO2 levels, focusing on soil carbon sequestration and agricultural techniques that affect the carbon balance. It also introduces the carbon market and its role in climate-friendly agriculture.

- Module 2. Managing Biodiversity within a Regenerative Farm. This module addresses biodiversity as a core asset of regenerative systems, including livestock management, agroforestry, pollinators, and integrated pest and disease control.

#### 6 Training Units (TU) Module 2:

TU6. Graze the change: mastering animal grazing, pasture and forage management.

This course will equip students with the knowledge and tools to restore ecosystems, build soil health, and improve farm resilience through managed grazing systems.

TU7. The Vegetable Garden: how to design a regenerative garden. This course covers sustainable garden design, focusing on plant selection, seasonal planning, and techniques like crop rotation, succession planting, and intercropping. Participants will learn seed saving and plant propagation to create biodiverse, self-sustaining gardens.

TU8. Syntropic symphony: discovering design principles for thriving successional agroforestry systems. Participants will learn to optimize productivity through plant physiology, multi-strata systems, and sustainable management practices like pruning and tool selection.

TU9. Buzzing with life: harnessing pollinator power for Regenerative farms  
This course explores the role of pollinators in ecosystems and regenerative agriculture. Participants will learn to design pollinator habitats, address conservation challenges, and adopt pollinator-friendly practices that support biodiversity and sustainable farming

TU10. Unlocking the power of mushrooms and truffles: production techniques and Regenerative Agriculture benefits. This course covers mushroom and truffle cultivation within regenerative agriculture, focusing on their role in soil health, biodiversity, and carbon sequestration, along with practical techniques for integration into sustainable farming systems.

TU11. Integrated pest and disease control within Regenerative Agriculture  
This course covers Integrated Pest Management (IPM) in regenerative agriculture, focusing on sustainable approaches to pest and disease control. Participants will learn to manage pests effectively, using eco-friendly practices and emerging technologies to promote healthier ecosystems and resilient farming.

- Module 3. Regenerative Farm Operations: Building Resilient and Prosperous Agricultural Systems. The focus of this module is on operational efficiency, digital tools, circular systems, innovation and ethical labour practices within regenerative farms.

#### 5 Training Units (TU) Module 3:

TU12. Efficient project management and time-structuring tools for Regen Ag professionals. This course covers efficient project management in regenerative farming, focusing on leadership, management, and technical skills. Participants will develop decision-making abilities, business acumen, and practical techniques to successfully manage sustainable farm projects.

TU13. Farming in the digital age: leveraging technology for efficient and sustainable farm management. This course covers digital agriculture in

regenerative farming, focusing on technologies like precision farming, IoT, and AI. Participants will learn how these tools optimize resources, improve soil health, and address challenges such as data privacy and access for small farmers. TU14. Circular farming: innovative systems for waste reduction and business integration. This course explores circular and zero-waste practices in regenerative agriculture, focusing on resource management and waste reduction. Participants will learn to optimize waste flows, implement composting and biogas systems, and design integrated solutions for sustainability and profitability.

TU15. Innovative machinery and technologies for implementing Regen Agriculture practices. This course explores innovative machinery and technologies in regenerative farming, focusing on smart farming, automation, and precision tools. Participants will learn about equipment for soil health, advanced harvesting, and planting technologies that improve sustainability and productivity.

TU16. Ethical labor practices in Regen Ag: ensuring fairness and social responsibility. Participants will learn strategies for strengthening local communities, promoting worker well-being, and utilizing social sustainability certifications to support ethical practices and long-term success.

- Module 4. Running a Successful Regenerative Business. This module supports entrepreneurial capacity, covering business planning, financial management, branding, cooperation models and EU regulatory frameworks.

#### 5 Training Units (TU) Module 4:

TU17. Sowing success: crafting business plans for Regenerative Agriculture enterprises. This course covers business plan essentials for regenerative agriculture, including financials, marketing, and sustainable models. Participants will learn financial principles, market research, and risk management to build successful agricultural enterprises.

TU18. Cultivating financial success: mastering agricultural accounting and financial fundamentals. This course covers the basics of economics in regenerative agriculture, including supply and demand, cost-benefit analysis, and sustainable farming drivers. Participants will learn agricultural accounting,

inventory management, and how to prepare and interpret balance sheets for better decision-making.

TU19. Growing your brand: crafting effective communication and branding strategies

This course covers brand development for regenerative agriculture, focusing on storytelling, multi-channel marketing, and consumer engagement. Participants will learn to communicate a farm's mission, build customer loyalty, and use digital tools like Canva and Google Analytics for effective marketing.

TU20. Building prosperity through collaboration: strengthening farming associations for economic success. This course covers agricultural cooperatives in regenerative agriculture, focusing on membership, collaboration, and sustainable farming practices. Participants will learn to assess the success of regenerative techniques within cooperative frameworks to drive continuous improvement.

TU21. Unlocking EU support for Regenerative and Organic Farming: mastering CAP, subsidies, and regulatory compliance. This course explores the Common Agricultural Policy (CAP) and its role in promoting sustainable farming in Europe. Participants will learn about the CAP's evolution, key environmental instruments like the European Green Deal, and their impact on regenerative agriculture and conservation.

Together, these four modules provide a comprehensive and coherent learning offer that supports both technical competence development and entrepreneurial sustainability in Regenerative Agriculture.

#### **4.2.1. Structure and format of each unit**

Each of the 22 training units follows a standardised pedagogical and technical structure to ensure consistency, quality and certification readiness across the catalogue. The structure has been designed in accordance with micro-credentials and open badge requirements and includes the following elements:

- Introductory description, outlining the relevance of the topic and its learning objectives.
- Short video lesson (maximum 3 minutes), produced following common quality guidelines and including English audio and subtitles.

- Supporting presentation material (slides or PDF), reinforcing key concepts and practical examples.
- Self-assessment quiz, designed to validate learning outcomes and structured as follows:
  - Multiple-choice questions (one correct answer)
  - 20 questions per unit, with 10 randomly selected per attempt
  - Maximum of 2 attempts
  - Time-limited questions (30–60 seconds per question)
  - Minimum pass score: 70%
  - Feedback visible after the second attempt
- Defined learning outcomes, aligned with EQF level 4 and covering knowledge, skills and competences.

This common structure enables autonomous learning, comparability between units, and seamless integration into the TERRA e-learning platform, while supporting the issuance of micro-credentials upon successful completion.

#### **4.2.2. Partner distribution and course teachers**

The development of the 21 training units was distributed among project partners according to their expertise and institutional profiles. Each partner was responsible for content creation, production of learning materials and upload to the e-learning platform, while also participating in peer review and quality assurance activities.

The agreed distribution of training units (TU) and teachers is as follows:

##### **Module 1. Foundations of Regenerative Agriculture**

- TU1. Introduction to Regenerative Agriculture: practices, benefits and principles (UIB)
- TU2. Soil: the world beneath our feet (UPA)
- TU3. Microbiological allies: harnessing the power of microbiology in Regenerative Agriculture (UIB)
- TU4. Cultivating resilience: water use and system design in Regenerative Agriculture (UIB)
- TU5. Soil Carbon Sequestration and Climate Resilience in Regenerative Agriculture (UPA)

##### **Module 2 . Managing Biodiversity within a Regenerative Farm**

- TU6. Graze the change: animal grazing and pasture management (TVI)
- TU7. The vegetable garden: how to design a regenerative garden (UIB & A Milpa do Salnés)
- TU8. Syntropic symphony: agroforestry design principles (TVI)
- TU9. Buzzing with Life: pollinators in regenerative farms (BF)



- TU10.Unlocking the power of mushrooms and truffles: production techniques and Regenerative Agriculture benefits (BF)
- TU11. Integrated pest and disease control (PFA)

#### Module 3 – Regenerative Farm Operations

- TU12. Efficient project management and time-structuring tools (ECOMUSEO)
- TU13. Farming in the digital age: technology for sustainable farm management (PFA)
- TU14. Circular farming and waste reduction systems (CIOFS)
- TU15. Innovative machinery and technologies for Regenerative Agriculture (MANS)
- TU16. Ethical labour practices and social responsibility (CIOFS)

#### Module 4 – Running a Successful Regenerative Business

- TU17. Sowing success: business plans for Regenerative Agriculture enterprises (MANS)
- TU18. Cultivating financial success: agricultural accounting and finance (KAT)
- TU19. Growing your brand: communication and branding strategies (CIOFS)
- TU20. Building prosperity through collaboration and farming associations (KAT)
- TU21. Unlocking EU support: CAP, subsidies and regulatory compliance (UPA)

#### **4.2.3. Micro-credentials issuing process**

The TERRA training programme is designed to issue micro-credentials for each completed unit, in line with the European Digital Credentials for Learning (EDCL) and the Open Badges 2.0 standards. These micro-credentials provide formal recognition of the knowledge, skills and competences acquired by learners and are aligned with EQF level 4 descriptors.

The issuance process is intentionally simple and decentralised, to ensure broad usability among project partners and training providers. Once a learner successfully completes a training unit within the Moodle-based platform, having passed the quiz and fulfilled all learning activities, TERRA platform managers as course administrators proceed to generate the micro-credential using the TERRA Micro-Credentials Kit, which is described in detail in Deliverable D3.2.

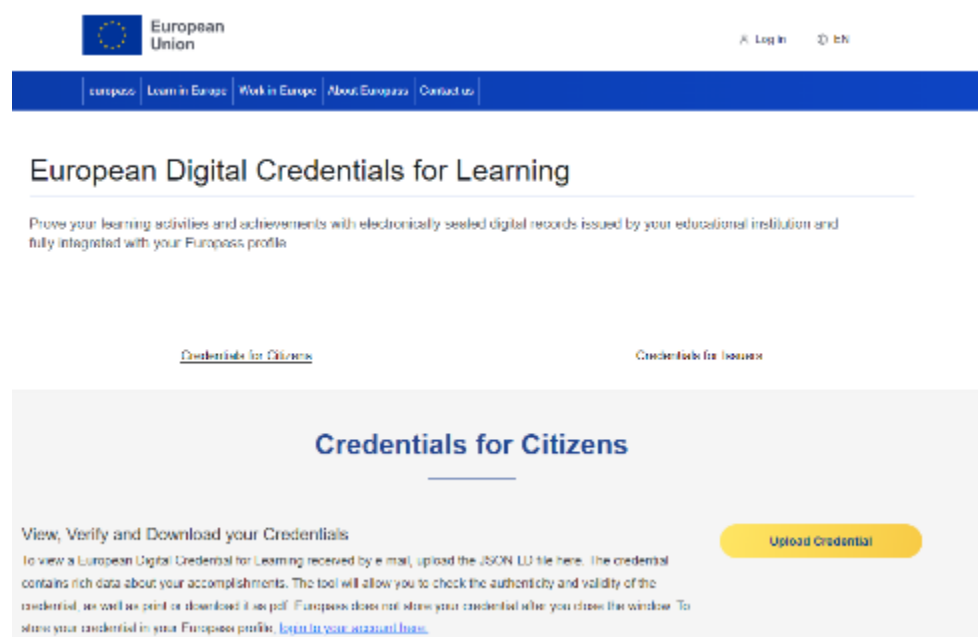
The credential is generated as a JSON-LD file containing all relevant metadata, including:

- Learner identity (name, email)
- Issuer organisation (partner institution)
- Title and description of the course
- Learning outcomes, skills, achievements, competences (aligned with EQF Level 4)
- Date of issue
- Unique badge ID and verification information

This JSON-LD file is then sent directly to the learner, together with a short guide explaining how to upload and validate it using the Europass Digital Credentials Wallet (at <https://europa.eu/europass/digital-credentials/viewer/#/home>, see image below). Once validated, the credential becomes part of the learner's Europass CV library and can be shared, verified, and reused across educational or employment contexts in Europe.

At the time of writing this report (December 2025), the Europass Wallet platform is undergoing updates following a verification issue identified in the JSON-LD validation service. The European Commission has acknowledged this issue and is actively working on a technical solution. Meanwhile, credentials remain valid and will be fully interoperable once the service is restored.

This micro-credential issuing workflow ensures transparency, portability, and formal recognition of learning achievements within the TERRA framework, contributing to the broader adoption of open digital certification across the vocational education and training sector.



#### 4.3. Applied game: "TERRA Escape Rooms"

As part of Task T3.2, an applied serious game was developed under the title "TERRA Escape Rooms". The game represents an innovative and engaging method for learners to reinforce knowledge acquired through the training units in regenerative agriculture, while fostering motivation and retention through interactive learning strategies.

The game was developed by Polish Farm Advisory (PFA) with inputs from the rest of the consortium, following a centralized development approach. This ensured consistency, visual

coherence, and optimal resource allocation in line with the scope and budget foreseen in the project proposal.

#### **4.3.1. Objectives and rationale**

The objective of the game is to introduce learners to core principles of regenerative agriculture through a scenario-based quiz system, where learners interact with daily farm tasks, challenges and decision-making moments in a gamified environment. The game also aligns with the microlearning model of the TERRA platform, acting as a transversal resource that complements all training modules.

Initially conceptualized as an “escape room”, the game was later expanded with a second version, a simplified visual quiz, using the same design style to enhance accessibility and replayability.

#### **4.3.2. Structure and gameplay**

The final game consists of two complementary formats:

##### TERRA Escape Rooms

An interactive experience available online via Genially. Learners move through 4 rooms representing different challenges and scenarios on a regenerative farm. Each room contains tasks that test the player's understanding of sustainability practices, decision-making in farm management, and environmental awareness. Tasks include visual puzzles, selection-based questions and logic problems.

Link to the Escape Room Game: [TERRA Escape Rooms – Interactive Educational Game](#)

##### TERRA Farm Quiz

A simplified version of the game built using the same visual language and structure. It consists of a set of quiz-based missions where learners collect eggs by answering questions correctly. It focuses on factual recall and reinforcement of concepts covered in the training units.

Link to the Quiz Game: [TERRA Farm Quiz – Gamified Knowledge Review](#)

#### **4.3.3. Design process and partner involvement**

The initial concept was discussed and validated by the consortium, and development was entirely carried out by the team at PFA. Once a prototype was available, partners were invited to:

- Test the prototype and provide feedback on usability, language, accuracy, and accessibility.
- Propose questions related to their own training units for inclusion in the game.

- Validate the alignment between the game content and the learning objectives of WP3.

While technical constraints recommended the development to a single transversal game (as opposed to one per unit), the resulting tool has been positively evaluated by all partners and is considered an effective complementary component to the e-learning platform.

#### **4.3.4. Integration into the learning path**

Game is proposed to learners as a part of their initial immersion into the world of Regenerative Agriculture. It is designed to stimulate interest, foster engagement, and support the consolidation of key concepts in an accessible and interactive way.

The game is placed in the Terracert homepage and will serve as:

- An introductory activity to familiarise users with the core principles and language of Regenerative Agriculture.
- A reinforcement tool to consolidate knowledge after completing specific training modules.
- A formative assessment method in informal and non-formal learning settings, enhancing retention through gamified experiences.

Both versions of the game are available online and embedded within the TERRA homepage to ensure broad accessibility and ease of use. Their intuitive, user-friendly design makes them suitable for a wide audience, including low-skilled learners, young students, and adult farmers, thereby contributing to the inclusivity and outreach objectives of the project.

#### **4.3.5. Visual documentation**

To illustrate the experience, the following screenshots are included as figures:

- Game entry screen. TERRA Escape Rooms interface with illustrated farm and "Start" button.



- Main game hub. Room selection screen: 4 farm environments with missions.



- Quiz interface example. Sample question about IoT sensor use in soil moisture management, with visual feedback (chickens as points).



#### 4.4. Self-diagnosis tool to configure personal educational itineraries

As part of the TERRA Learning Components, a self-diagnosis tool was developed to offer learners a personalised pathway into Regenerative Agriculture training, based on their initial knowledge, interest and self-perceived competence levels. This interactive digital tool guides users through a short assessment that results in a customised educational itinerary aligned with EQF Level 4 and micro-credential certification.

##### 4.4.1. Purpose and pedagogical rationale

The tool was created to:

- Support self-awareness in the learner's current level of knowledge and skills.
- Facilitate targeted and relevant learning journeys.
- Ensure accessibility and flexibility for diverse user profiles, including new entrants, professionals seeking upskilling, and adult learners in rural areas.


It serves as an entry point into the TERRA e-learning platform and reinforces the learner-centred, modular structure of the training system.

##### 4.4.2. Functional description

The self-diagnosis tool is accessible online via the TERRA platform at [learning offer](#) , by clicking in [self – assessment](#) button.





Home Learning offer +Info  English ▾

At Terracert, we have designed this **self-assessment** to help you identify the courses that best match your goals and to plan your personalized learning path.

SELF-ASSESSMENT

and offers an intuitive interface that guides users through the following steps:

- **Profile Selection:** Learners select one of four learning profiles that best match their interests:
  - Technical / Field-based learning
  - Management & Business Development
  - Integral / Systemic Understanding
  - Thematic / Specific Interest
- **Self-Assessment:** Based on the selected profile, the tool dynamically generates a set of modules and associated training units. For each unit, the user is asked to rate their current level of competence (basic, intermediate, advanced) via dropdown menus.
- **Itinerary Generation:** Upon submission, the tool processes the responses and generates a tailored training itinerary, structured by module and course. This result page includes:
  - A personalised learner profile title.
  - A narrative description of the learner's path.
  - Estimated study hours.
  - Number of micro-credentials to be earned.
  - A list of recommended modules and units.
- **PDF Export:** Learners can download their customised learning itinerary as a PDF document for offline reference or institutional use.

The tool is implemented using HTML, JavaScript and client-side PDF generation libraries (jsPDF), ensuring compatibility and ease of use across devices and browsers.

The self-diagnosis tool is designed with a user-friendly interface that guides the learner through the configuration of their personalised training itinerary. The interface includes:

- A profile selection screen, where learners choose the approach that best fits their learning goals (technical, managerial, integral or thematic).
- An interactive module view, where learners self-assess their knowledge per unit using a simple dropdown menu.





- A result page, which displays the generated learning itinerary, including a detailed module structure, estimated hours, and number of micro-credentials.

The following images illustrate key stages of this interface and the user experience within the TERRA self-diagnosis tool.


The screenshot shows a web interface titled "Discover Your Regenerative Agriculture Path" with a green plant icon. Below the title, a subtitle reads: "This self-diagnosis tool helps you understand your current level in Regenerative Agriculture and generates a personalised learning itinerary based on your answers." A question is posed: "Before starting, what best describes your current interest?". There are four rounded rectangular buttons arranged in a 2x2 grid, each with an icon and text:

- Technical / Field-based learning** (green plant icon): Soil, water, biodiversity, farm practices
- Management & Business Development** (briefcase icon): Planning, finance, CAP, scaling projects
- Integral / Systemic Understanding** (brain icon): Complete RA vision and full certification
- Specific Thematic Interest** (magnifying glass icon): Soils, biodiversity, digitalisation, EU policies



 <b>Technical / Field-based learning</b> Soil, water, biodiversity, farm practices	 <b>Management &amp; Business Development</b> Planning, finance, CAP, scaling projects
 <b>Integral / Systemic Understanding</b> Complete RA vision and full certification	 <b>Specific Thematic Interest</b> Soils, biodiversity, digitalisation, EU policies

 **Module 1: Foundations of Regenerative Agriculture**

Introduction to Regenerative Agriculture


Soil: the world beneath our feet

Microbiological allies

Water use and system design

Soil Carbon Sequestration

 **Module 2: Managing Biodiversity**

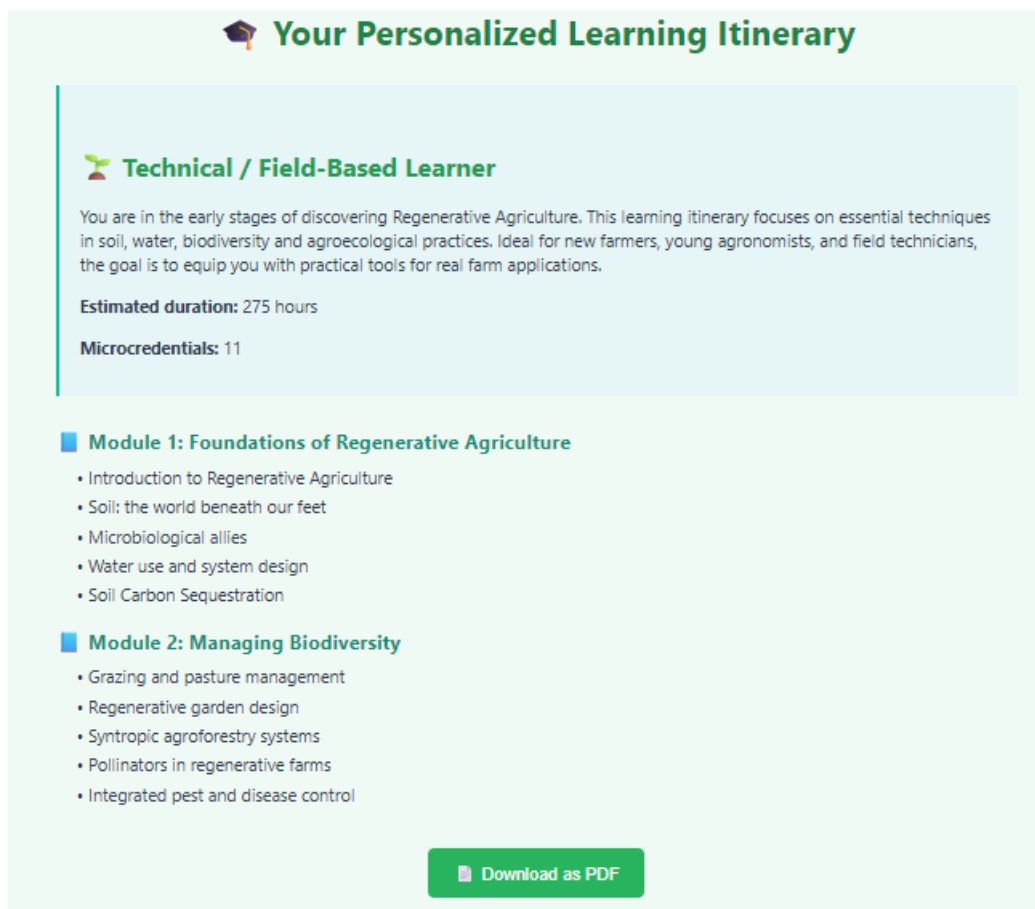
Grazing and pasture management

Regenerative garden design

Syntropic agroforestry systems

Pollinators in regenerative farms

Integrated pest and disease control



The screenshot shows a web interface titled "Your Personalized Learning Itinerary" with a graduation cap icon. Below the title, there is a section for "Technical / Field-Based Learner" with a plant icon. The text describes the learning focus on regenerative agriculture techniques. It lists an estimated duration of 275 hours and 11 microcredentials. Two modules are detailed: "Module 1: Foundations of Regenerative Agriculture" and "Module 2: Managing Biodiversity", each with a list of topics. A green button at the bottom right says "Download as PDF".

**Your Personalized Learning Itinerary**

**Technical / Field-Based Learner**

You are in the early stages of discovering Regenerative Agriculture. This learning itinerary focuses on essential techniques in soil, water, biodiversity and agroecological practices. Ideal for new farmers, young agronomists, and field technicians, the goal is to equip you with practical tools for real farm applications.

**Estimated duration:** 275 hours

**Microcredentials:** 11

**Module 1: Foundations of Regenerative Agriculture**

- Introduction to Regenerative Agriculture
- Soil: the world beneath our feet
- Microbiological allies
- Water use and system design
- Soil Carbon Sequestration

**Module 2: Managing Biodiversity**

- Grazing and pasture management
- Regenerative garden design
- Syntropic agroforestry systems
- Pollinators in regenerative farms
- Integrated pest and disease control

[Download as PDF](#)

#### 4.4.3. Profiles and pathways

The tool automatically classifies users into one of four profiles based on their self-assessment:

- Integral / Systemic Learner: Engages with the full curriculum across all four modules. Ideal for future leaders or full certification seekers (550 hours, 22 micro-credentials).
- Managerial / Strategic Learner: Focused on innovation, business, and policy (250 hours, 10 micro-credentials).
- Technical / Field-Based Learner: Focused on practical farm-level knowledge (275 hours, 11 micro-credentials).
- Thematic / Selective Learner: Focused on specific domains such as soil, biodiversity or EU policy (150 hours, 8 micro-credentials).

Each pathway offers a pedagogically coherent progression and ensures alignment with the training units developed under WP3.

#### 4.4.4. Integration and accessibility

The self-diagnosis tool is:

- Embedded within the TERRA homepage
- Freely accessible without registration.
- Designed for accessibility and ease of use for non-expert digital users.
- Fully integrated into the training platform as a guidance mechanism prior to course enrolment.

## 5. Annex 1. Internal working tools and templates used in WP3

The following screenshots and working document extracts illustrate the main internal tools used by the consortium to ensure quality, coordination and compliance throughout the development of the TERRA Learning Components.

- **Peer Review implementation plan**

### Overview

The TERRA project has developed a complete educational system on agricultural regeneration, structured in 4 main modules plus a final exclusive course, for a total of 21 training units. All training units have already been uploaded and made available on the Moodle platform by the respective partners responsible for their creation.

It is now necessary to implement a systematic and rigorous peer review process to ensure the quality, accessibility and educational effectiveness of all content and resources. This process will not only ensure high standards for teaching materials, but will also facilitate the exchange of knowledge and best practices among the consortium partners.

The rating system was designed to capture two complementary but essential perspectives: that of the subject matter expert, who can evaluate the technical accuracy and depth of the content, and that of the student/learner, who can judge the accessibility, clarity, and overall learning experience. This dual perspective is essential because content can be technically accurate but ineffective from an educational perspective, or conversely easily understandable but superficial from a scientific perspective.

### Partner organizations

The TERRA consortium is composed of 10 partner organizations, each with specific and complementary expertise in the field of regenerative agriculture.

This diversity of backgrounds is a valuable resource for the final peer review process, as it allows for assessments from different perspectives: academic, practical, technological, educational and economic.

### Assignment proposal

The peer review assignment strategy is a proposal developed to optimize the distribution of the workload and maximize the quality of the evaluations. It is important to underline that this is a proposal that can be adapted according to the actual availability and specific competences/requests of the partners.

### Guiding principles for assignment

- Thematic competence: each training unit is assigned to partners with expertise in the specific sector. For example, units on microbiology are reviewed by partners with a scientific background, while those on business management are entrusted to organizations with economic-managerial expertise.
- Diversification of perspectives: we tried to “mix” the partners, between those who had already approached a training unit and those who were evaluating it for the first time, to ensure fresh perspectives and diversified approaches.
- Load balancing: the distribution takes into account the available budget and the fact that each partner must manage both its own training units to be created/improved and those to be reviewed.

#### The challenge of the role "student"

One of the biggest challenges in implementing this system is assigning the role of “student/without prior knowledge”. The consortium partners are all, by definition, experts in their respective fields and have developed in-depth expertise in regenerative agriculture over time. Asking an expert to step into the shoes of a “student” is a little tricky, but the partnership recognizes its usefulness.

Proposed solutions for the student role:

- Pedagogical perspective: the "student" reviewer should not feign ignorance, but focus on pedagogical and accessibility aspects. The key question becomes: "If I were a beginner, would this content be clear and engaging to me?"
- Focus on different levels of expertise: even among experts there are different degrees of specialization. A partner experienced in business management can take on the role of "student" for technical content of soil microbiology.
- Involvement of junior staff: where possible, involve younger or less experienced members of partner staff for ‘student’ reviews.

Cross-disciplinary perspective: an agronomist can be a "student" for marketing content and vice versa a business expert can take this perspective for scientific content.

The distinction between "expert" and "student" should therefore be interpreted more as "domain specialist" vs. "evaluator of the learning experience" rather than as "expert" vs. "ignorant".

#### Implementation timeline

The timetable for implementing the peer review process is structured in successive phases, with precise deadlines to ensure completion within the project timeframe.

- Phase 1: Preparation and Start-up (6-9 June 2025)

June 6-11, 2025:

Finalizing assignments with partners

#### Distribution of evaluation questionnaires in digital format

- Phase 2: Intensive Review

June 12-30, 2025:

Training unit reviews

Completing the evaluation questionnaires

June 30, 2025: this deadline is mandatory as it is necessary to respect the subsequent phases of the project. Partners will have to plan their activities to ensure compliance with this deadline, also considering any summer holidays of the staff.

- Phase 3: Analysis and Reporting

By July 11, 2025 - Peer Review Report Submission: the final peer review report must be completed and distributed to all partners. This document represents the synthesis of all evaluation work and includes:

- Quantitative analysis of ratings for each training unit
- Qualitative synthesis of comments and suggestions
- Identifying priority areas for improvement
- Specific recommendations for each training unit

11-31 July 2025 - Implementation Changes: this period is dedicated to the implementation of changes and additions to Moodle content based on the peer review results.

By July 31, 2025 - Finalization: all changes and additions must be completed and operational on the Moodle platform. This represents the conclusion of the peer review process and the starting point for the end-user testing phase.

This ambitious but realistic timetable ensures that the peer review process effectively contributes to improving the educational quality of the TERRA project, while respecting the project's time constraints.

- Courses syllabus



### TerraCert course syllabus (including partner review)

#### Our objective

Micro-credentials in regenerative agriculture offer a dynamic approach to skill-building that is tailored to the unique demands of this field. By focusing on practical and essential competencies, these flexible learning programs empower individuals to rapidly acquire knowledge and stay current with emerging trends and best practices. This agility enables learners to effectively adapt and contribute to the ongoing evolution of regenerative agriculture. Moreover, micro-credentials demonstrate a commitment to continuous learning and professional growth, enhancing employability and fostering a network of passionate, knowledgeable practitioners dedicated to advancing climate protection, environmental action, and responsible stewardship of the planet's resources.

#### Proposed learning courses:

#### MODULE 1 – FOUNDATIONS OF REGENERATIVE AGRICULTURE: SOIL, WATER, AND MICROBIAL DYNAMICS IN REGENERATIVE AGRICULTURE AND ITS CLIMATE BENEFITS– 125h

1. Introduction to Regenerative Agriculture: practices, benefits and principles – 25h
2. Soil: The world beneath our feet – 25h
3. The role of fungi within regenerative agriculture – 25h
4. Cultivating Resilience: Water Use and System Design in Regenerative Agriculture - 25h
5. Soil Carbon Sequestration and Climate Resilience in Regenerative Agriculture -25h

Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
1	<p><b>TITLE</b> Introduction to Regenerative Agriculture: practices, benefits and principles</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> This introductory unit dives into the world of regenerative agriculture, its practices and the importance of soil health as a foundation for sustainable farming. It offers practical and useful information on the key principles of soil health, including the role of organic matter, soil biodiversity, and nutrient cycles in maintaining and enhancing the productivity and resilience of agricultural systems.</p> <p>It also presents the key regenerative techniques from no till management, cover cropping, animal grazing to promoting radicular life. Participants will learn how to design a multi-faceted polyfarm by incorporating diverse crops, livestock, and agroforestry elements, promoting ecological balance, and optimizing resource utilization.</p> <p><i>This is an introductory course, for more advanced understanding on the received competencies, specialized themes must be studied.</i></p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p>

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Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
		<ol style="list-style-type: none"> <li><b>1. Understanding regenerative agriculture:</b> Students will gain a comprehensive understanding of what regenerative agriculture is, its key principles, and how it differs from conventional agriculture. This includes basic understanding on soil health, water management, biodiversity, and ecosystem restoration.</li> <li><b>2. Soil health and fertility management:</b> Students will learn the importance of maintaining healthy soils and how to improve soil fertility through techniques like cover cropping, no-till or reduced tilling, crop rotations, and composting.</li> <li><b>3. Carbon sequestration and climate change mitigation:</b> This competency involves learning how regenerative agriculture practices can help reduce greenhouse gas emissions and sequester carbon in the soil.</li> <li><b>4. Agroecology and biodiversity:</b> This competency focuses on understanding the relationships between plants, animals, and their environment, and how to design agricultural systems that promote biodiversity and ecological balance.</li> <li><b>5. Holistic management and decision-making:</b> Students will learn how to apply a holistic approach to farm management, considering the interconnectedness of various elements within the agricultural system, and how to make informed decisions that support long-term sustainability.</li> <li><b>6. Social and economic aspects of regenerative agriculture:</b> This competency introduces the role of regenerative agriculture in building resilient communities, supporting local economies, and promoting fair labor practices.</li> <li><b>7. Implementation and transition strategies:</b> Students will learn practical steps for transitioning from conventional to regenerative agriculture, including assessing current practices, designing a regenerative plan, and monitoring progress.</li> </ol>
2	<p><b>TITLE:</b> Soil: The world beneath our feet</p> <p><b>Target group</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> This unit provides basic knowledge on soil structure and the role of soil microbiology in regenerative agriculture. It covers soil composition, the importance of soil microorganisms, and how they contribute to soil fertility and plant health. Participants will learn how to assess soil quality and interpret results to make informed decisions in regenerative farming. This course explores the application and production of organic soil inputs, such as compost, biofertilizers, and biochar, within the context of regenerative agriculture. Participants will learn how to develop these sustainable resources onsite while discovering their benefits and practical uses while being able to analyze their soil through simple onsite tests.</p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>1. Soil fundamentals:</b> Acquire a comprehensive understanding of soil composition, formation processes, and the driving factors behind soil development. This includes learning about the physical, chemical, and biological properties of soil and their interactions within the soil ecosystem.</li> <li><b>2. Soil variation and classification:</b> Develop a deeper knowledge of the underlying reasons for soil variability within landscapes, including the</li> </ol>

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Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
		<p>identification and interpretation of key diagnostic horizons and major soil classes.</p> <ol style="list-style-type: none"> <li><b>Field assessment and interpretation:</b> Acquire the ability to consistently describe and interpret soil profiles and their horizons in the field, including assessing critical attributes such as organic matter type, soil texture, stoniness, color, structure, porosity, lime content, and water regime.</li> <li><b>Mycorrhizae:</b> Understand the importance of mycorrhizae in regenerative agriculture systems, focusing on their contributions to soil structure, nutrient cycling, and plant resilience.</li> <li><b>Soil health assessment and management:</b> Gain an understanding of soil health indicators and learn how to evaluate and monitor soil health to inform management decisions that promote soil fertility, structure, and biological activity.</li> <li><b>Nutrient cycling and availability:</b> Develop knowledge of nutrient cycling processes in regenerative agriculture systems and understand the factors that influence nutrient availability to plants, including the role of soil organisms in nutrient transformation and exchange.</li> <li><b>Soil-plant-water relationships:</b> Learn about the interconnectedness of soil, plants, and water, and how regenerative agriculture practices can optimize water availability, infiltration, and retention, ultimately enhancing plant growth and productivity.</li> <li><b>Soil laboratory analysis and data-driven decision-making:</b> Develop the ability to interpret soil laboratory analyses and understand their implications for soil health and fertility. Students will learn how to make informed decisions on regenerative agricultural practices based on soil test results, including adjustments to nutrient management plans, cover crop selection, and other soil-improving strategies.</li> </ol>
3	<p><b>TITLE</b> Microbiological Allies: Harnessing the Power of microbiology in Regen Agriculture</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> This course provides an in-depth understanding of fungi's roles and benefits in regenerative agriculture, with a focus on cultivation techniques and practical applications. Participants will learn about the basics of fungi, strategies for incorporating fungi into agricultural systems, and the wide-ranging advantages of leveraging fungi in regenerative practices, including soil health improvements, enhanced nutrient cycling, and innovative solutions like solid-state fermentation for animal feed.</p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>Fungi fundamentals:</b> Understand the basic biology, ecology, and life cycles of fungi, with a focus on their roles in soil health, nutrient cycling, and plant-fungal interactions.</li> <li><b>Microbial functions in soil:</b> Learn about the key roles that bacteria play in soil processes, such as nutrient cycling, decomposition, and soil structure formation.</li> <li><b>Cultivation techniques:</b> Gain knowledge and skills in various methods for</li> </ol>

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Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
		<p>cultivating fungi, including substrate preparation, inoculation, and incubation processes, as well as strategies for maintaining optimal growing conditions.</p> <p><b>4. Applications of fungi and bacteria in regenerative agriculture:</b> Explore the diverse applications of fungi and bacteria in farming systems, including mycorrhizal relationships, biocontrol agents, and solid-state fermentation for animal feed. Including also microbial inoculants and bio-fertilizers in agriculture, including their potential benefits, formulation, and use in crop production systems.</p> <p><b>5. Benefits of fungi and bacteria incorporation:</b> Understand the numerous advantages of integrating fungi and bacteria in regenerative agriculture, including improvements in soil structure, nutrient availability, and overall system resilience.</p> <p><b>6. Monitoring and assessment:</b> Develop skills in monitoring fungal and bacterial populations, assessing processes, and evaluating the overall impact of microbiology on agricultural productivity and sustainability.</p> <p><b>7. Decision-making and management:</b> Learn how to make informed decisions about incorporating microbiology into agricultural practices, considering factors such as site-specific conditions, crop needs, and overall management goals.</p>
4	<p><b>TITLE</b> Cultivating Resilience: Water Use and System Design in Regenerative Agriculture</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> Through this course, participants will delve into the principles of water cycle, soil-water relationships, and integrated water management strategies that promote agroecosystem resilience. Explore various water conservation techniques, irrigation system designs, monitoring and evaluation. By the end of this course, participants will be able to assess water resources, design efficient irrigation systems, and implement sustainable water management practices that contribute to the long-term viability of agricultural production in a changing climate.</p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>1. Water cycle and soil-water relationships:</b> Understand the natural water cycle and its connection to agricultural systems, as well as the dynamics of water movement and retention in soils.</li> <li><b>2. Water resource assessment and planning:</b> Learn how to evaluate water resources available for agricultural use, including precipitation, surface water, and groundwater sources. Develop skills in creating water budgets and planning water use strategies to meet crop needs.</li> <li><b>3. Water conservation and efficiency techniques:</b> Acquire knowledge of various techniques to improve water-use efficiency and reduce water wastage in agricultural systems, such as rainwater harvesting, drip irrigation, and mulching.</li> <li><b>4. Irrigation system design and management:</b> Gain an understanding of different irrigation systems and their suitability for various agricultural contexts. Develop the ability to design, install, and manage efficient irrigation systems, including scheduling and monitoring water application.</li> </ol>

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Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
		<p><b>5. Integrated water management and agroecosystem resilience:</b> Explore the interconnectedness of water management with other aspects of regenerative agriculture, such as soil health, biodiversity, and agroforestry. Learn how to implement integrated water management strategies to enhance agroecosystem resilience in the face of climate change and other challenges.</p> <p><b>6. Water quality assessment and protection:</b> Understand the importance of water quality for agricultural production and ecosystem health. Learn how to assess water quality parameters, identify potential sources of contamination, and implement measures to protect water resources from pollution.</p> <p><b>7. Monitoring and evaluation:</b> Acquire skills in monitoring and evaluating the performance of water management strategies and irrigation systems. Develop the ability to assess the effectiveness of these practices in conserving water resources, improving crop productivity, and enhancing overall farm sustainability.</p>
5	<p><b>TITLE</b> Soil Carbon Sequestration and Climate Resilience in Regenerative Agriculture</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> This is a course designed to delve into the critical role that regenerative farming practices play in enhancing soil carbon sequestration, mitigating greenhouse gas emissions, and strengthening the resilience of agricultural systems to climate change. Participants will learn about the various strategies and techniques employed in regenerative agriculture to improve soil health, increase carbon storage, and contribute to global climate mitigation efforts.</p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>Soil carbon sequestration mechanisms:</b> Understand the processes and mechanisms involved in soil carbon sequestration, including the role of soil organic matter and soil microorganisms in carbon storage.</li> <li><b>Regenerative farming practices for carbon sequestration:</b> Dive further into the key regenerative agriculture practices that promote soil carbon sequestration, such as reduced tillage, cover cropping, agroforestry, and conservation agriculture.</li> <li><b>Greenhouse gas emissions mitigation:</b> Explore strategies for reducing greenhouse gas emissions in agricultural systems, including the management of nitrous oxide and methane emissions.</li> <li><b>Climate-smart agriculture and resilience:</b> Understand the principles of climate-smart agriculture and how regenerative farming practices can enhance the resilience of agricultural systems to climate change impacts, such as drought, flooding, and temperature extremes.</li> <li><b>Monitoring and evaluating soil carbon sequestration:</b> Gain knowledge of methods and tools for measuring and monitoring soil carbon sequestration, including soil carbon assessment techniques and carbon footprint calculators.</li> <li><b>Policy frameworks and incentives for soil carbon sequestration:</b> Develop an understanding of policy frameworks, financial incentives, and carbon market opportunities that support and reward soil carbon sequestration.</li> </ol>

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Nº	TRAINING UNIT	TRAINING UNIT OBJECTIVE
		efforts in agriculture.

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## MODULE 2 – MANAGING BIODIVERSITY WITHIN A REGENERATIVE FARM – 150H

1. Introduction to Regenerative Agriculture: practices, benefits and principles – 25h
6. Graze the Change: Mastering Animal Grazing, Pasture and Forage Management in Regenerative Agriculture – 25h
7. The Orchard: How to Design and Manage a Regenerative Garden – 25h
8. Syntropic Symphony: Mastering Design Principles for Thriving Agroforestry Systems – 25h
9. Pollinators and their crucial role in farms – join the bee movement – 25h
10. Integrated pest and disease control within Regenerative Agriculture – 25h

1	<p><b>TITLE</b> Introduction to Regenerative Agriculture: practices, benefits and principles</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b></p> <p>This introductory unit dives into the world of regenerative agriculture, its practices and the importance of soil health as a foundation for sustainable farming. It offers practical and useful information on the key principles of soil health, including the role of organic matter, soil biodiversity, and nutrient cycles in maintaining and enhancing the productivity and resilience of agricultural systems.</p> <p>It also presents the key regenerative techniques from no till management, cover cropping, animal grazing to promoting radicular life. Participants will learn how to design a multi-faceted polyfarm by incorporating diverse crops, livestock, and agroforestry elements, promoting ecological balance, and optimizing resource utilization.</p> <p><i>This is an introductory course, for more advanced understanding on the received competencies, specialized themes must be studied.</i></p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>1. Understanding regenerative agriculture:</b> Students will gain a comprehensive understanding of what regenerative agriculture is, its key principles, and how it differs from conventional agriculture. This includes basic understanding on soil health, water management, biodiversity, and ecosystem restoration.</li> <li><b>2. Soil health and fertility management:</b> Students will learn the importance of maintaining healthy soils and how to improve soil fertility through techniques like cover cropping, no-till or reduced tilling, crop rotations, and composting.</li> <li><b>3. Carbon sequestration and climate change mitigation:</b> This competency involves learning how regenerative agriculture practices can help reduce greenhouse gas emissions and sequester carbon in the soil.</li> <li><b>4. Agroecology and biodiversity:</b> This competency focuses on understanding the relationships between plants, animals, and their environment, and how to design agricultural systems that promote biodiversity and ecological balance.</li> <li><b>5. Holistic management and decision-making:</b> Students will learn how to apply a holistic approach to farm management, considering the interconnectedness of various elements within the agricultural system, and how to make informed decisions that support long-term sustainability.</li> <li><b>6. Social and economic aspects of regenerative agriculture:</b> This competency</li> </ol>
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		<p>introduces the role of regenerative agriculture in building resilient communities, supporting local economies, and promoting fair labor practices.</p> <p><b>7. Implementation and transition strategies:</b> Students will learn practical steps for transitioning from conventional to regenerative agriculture, including assessing current practices, designing a regenerative plan, and monitoring progress.</p>
6	<p><b>TITLE</b> Graze the Change: Mastering Animal Grazing, Pasture and Forage Management in Regenerative Agriculture</p> <p><b>TARGET GROUP</b> Employers Employees University students FPE students</p>	<p><b>THEME DESCRIPTION</b> This unit introduces the concepts of holistic grazing and PRV techniques as part of the design of animal rotation plans to enhance soil health and biodiversity on farms. It covers the benefits of rotational grazing and practical tips for implementing these practices. It also dives into productive pastures through adaptive grazing strategies, multi-species forage mixes, and nutrient cycling practices. Participants will create a customized grazing plan that considers various animal breeds, the nutritional behavior on pasture, and their specific needs while also establishing and maintaining a diverse forage environment to support the system.</p> <p><b>COMPETENCIES (to be adapted by chosen teacher)</b></p> <ol style="list-style-type: none"> <li><b>1. Understanding holistic grazing principles:</b> Gain a strong foundation in the concepts and benefits of holistic grazing, including its role in promoting soil health, biodiversity, and overall ecosystem resilience.</li> <li><b>2. Animal rotation planning:</b> Learn to develop and implement animal rotation plans that optimize grazing patterns, considering factors such as stocking density, forage availability, and animal welfare.</li> <li><b>3. Pasture and forage management:</b> Acquire knowledge and skills in adaptive grazing strategies, multi-species forage mixes, and nutrient cycling practices to create productive, diverse pastures.</li> <li><b>4. Livestock selection and nutritional needs:</b> Develop an understanding of different animal breeds, their nutritional behaviors, and specific needs, and learn how to apply this knowledge in designing customized grazing plans.</li> <li><b>5. Establishing diverse forage environments:</b> Learn how to cultivate and maintain a diverse forage ecosystem that supports the overall health and productivity of the grazing system.</li> <li><b>6. Monitoring and evaluating grazing systems:</b> Acquire the ability to monitor the performance of grazing systems and make data-driven adjustments to improve productivity, soil health, and animal welfare outcomes.</li> <li><b>7. Integrating grazing into the broader farm system:</b> Understand the interconnectedness between grazing management, crop production, and other aspects of regenerative agriculture, and learn how to integrate grazing practices into a holistic, sustainable farming approach.</li> </ol>
7	<p><b>TITLE:</b> The orchard: how to design a regenerative garden</p>	<p><b>THEME DESCRIPTION</b> This unit focuses on the practices required to establish and maintain a regenerative orchard including vegetable, small fruits and vineyards. Participants will learn about soil preparation, crop selection, pest management, crop rotation, the advantages of flower cropping and how to bring allies such as ducks or chickens to support and enhance the system. Participants will learn about the</p>

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- **Subdivision of Training Units. Partner responsibilities**

Training Unit (TU)	Partner(s)	Trainer(s)	Background Summary
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**Module 1: Foundations of Regenerative Agriculture**

TU1. Introduction to Regenerative Agriculture: practices, benefits and principles	UIB	Josefina Bota	PhD in Biology. 20+ years of university teaching. Expert in agrobiodiversity, crop sustainability, and plant responses to stress.
TU2. Soil: the world beneath our feet	UPA	David Erice	Technical team with agricultural and forestry engineers. Experts in sustainable practices and EU agricultural regulations.
TU3. Microbiological allies: harnessing the power of microbiology	BF.GR	Theofilos Komninos	
TU4. Cultivating resilience: water use and system design	UIB		
TU5. Soil Carbon Sequestration and Climate Resilience	UPA	David Erice	(See TU2)

**Module 2: Managing Biodiversity within a Regenerative Farm**

TU6. Graze the change: animal grazing, pasture and forage management	TVI	Felipe Toro	Biologist specialised in Agroecology. Co-creator of Planeses model. Founder of Terra Viva Ibiza.
TU7. The vegetable garden: how to design a regenerative garden	UIB		
TU8. Syntropic symphony: design principles for agroforestry	TVI	Joshua Andersen	Agroforester, permaculture designer. Specialist in syntropic systems across Europe and the US.
TU9. Buzzing with life: pollinator power	BF.GR	George Karypidis	Environmental educator, beekeeper since 1985. Leader in pollinator programs, sustainable agriculture and eco-tourism in Greece.
TU10. Unlocking the power of mushrooms and truffles	BF.GR		

Training Unit (TU)	Partner(s)	Trainer(s)	Background Summary
TU11. Integrated pest and disease control	PAF (Polish Farm)	Natalia Truskowska	Expert in rural development and EU projects. MA in Int. Business, PRINCE2 certified, 10+ years in agri projects.

### Module 3: Regenerative Farm Operations

TU12. Efficient Project Management and Time-Structuring Tools	Ecomuseo	Gabriella Bigatti	Project Manager with MA in International Sciences. 25+ years experience, expert in EU programmes and training.
TU13. Farming in the Digital Age	PAF (Polish Farm)	Natalia Truskowska	(See TU11)
TU14. Circular farming and waste reduction	CIOFS	Daniela Varone	MA in Economics. Expert in EU-funded projects, agri-food VET designer and validation of informal learning.
TU15. Innovative machinery and technologies	MANS	Andrzej Borusiewicz	Postdoctoral in Agricultural Sciences. 25+ years in agri research. Expert in precision & smart farming.
TU16. Ethical labour practices	CIOFS	Elisabetta Donato	Psychologist. 20+ years in social innovation and training. Specialist in well-being, skills certification and Third Sector.

### Module 4: Running a Successful Regenerative Business

TU17. Sowing success: crafting business plans	MANS	Andrzej Borusiewicz	(See TU15)
TU18. Cultivating financial success: accounting and finance	Katranitsa	Katerina Chatzidimitriou	BA in Agriculture and Public Admin. MA in Agricultural Economics. Experienced adult trainer.
TU19. Growing your brand: communication and branding	CIOFS	Simona Finocchiaro & Irene Merello	Simona: MSc in Computer Engineering. Irene: MSc in Communication. Both are trainers and comms officers at CIOFS.
TU20. Building prosperity through collaboration	Katranitsa	Katerina Chatzidimitriou	(See TU18)
TU21. Unlocking EU support for Regen and Organic Farming	UPA	David Erice	(See TU2)

- **Peer Review. Evaluation sample. Module 1 case**



**Module 1 FOUNDATIONS OF REGENERATIVE AGRICULTURE: SOIL, WATER, AND MICROBIAL DYNAMICS IN REGENERATIVE AGRICULTURE AND ITS CLIMATE BENEFITS**

Training Units	Comments by partner UPA-UIB
<p>Nº 1 - Introduction to Regenerative Agriculture: practices, benefits and principles</p> <p>Partner in charge: UIB</p>	<p>It is considered essential to review the competencies indicated in order to better focus the objective of this unit. Beyond this comment, there are no further details to point out.</p>
<p>Nº 2 - Soil: the world beneath our feet</p> <p>Partner in charge: UPA</p>	<p>It is considered essential to review the competencies indicated in order to better focus the objective of this unit. Beyond this comment, there are no further details to point out.</p> <p>The skills to be acquired in unit 2 will be the following:</p> <ul style="list-style-type: none"> <li>• What concepts do I need to know to know if my soil is healthy?</li> <li>• How to analyse and interpret a soil analysis?</li> </ul> <p>In parallel, these skills will allow the student to acquire knowledge about:</p> <ul style="list-style-type: none"> <li>• The physical, chemical and biological properties of the soil.</li> <li>• Soil characterisation systems.</li> <li>• The main causes of soil degradation.</li> <li>• Identify the elements that determine the fertility of a soil.</li> <li>• Adequate practices for carrying out analyses.</li> <li>• Identify the fundamental elements of a soil analysis.</li> </ul> <p>In order to resolve these 2 questions, the unit will offer information related to:</p>

Training Units	Comments by partner UPA-UIB
	<ul style="list-style-type: none"> <li>• Description of the concept of soil as the basis of the ecosystem.</li> <li>• Knowledge of the physical, chemical and biological properties of the soil.</li> <li>• Main threats, erosion, compaction, contamination, loss of organic matter.</li> <li>• Concepts on soil fertility and nutrient availability.</li> <li>• Soil regeneration techniques. This point is very briefly covered, as there is another unit, No. 14, which deals with it in more detail.</li> <li>• Performing soil analyses.</li> <li>• Basic interpretation of soil analysis</li> </ul> <p>Learning activities.</p> <ul style="list-style-type: none"> <li>• Viewing videos and/or webinars.</li> <li>• Using presentations.</li> <li>• Reading articles.</li> </ul> <p>Evaluation methods</p> <ul style="list-style-type: none"> <li>• Online questionnaire.</li> <li>• Practical case of sampling and making a video.</li> </ul>
<p>Nº 3 - Microbiological allies: harnessing the power of microbiology in Regenerative Agriculture</p> <p>Partner in charge: BF</p>	<p>The content of this unit is very focused on the use of truffles. It is considered necessary to change its orientation. The following is proposed:</p> <p>This module, which will continue to be developed by BF, becomes part of module 2.</p> <p>The UIB will be responsible for the development of unit 2, with the following content:</p> <p><u>Training UNIT 3: Microbiological Allies: Harnessing the Power of microbiology in Regen Agriculture</u></p> <p>This unit introduces the essential roles that fungi and bacteria play in soil health and plant</p>

Training Units	Comments by partner UPA-UIB
	<p>interactions. Students will explore the biology and ecology of soil microbiome, as well as the processes carried out that support nutrient cycling and soil structure formation. Practical Minimum Skills in cultivating beneficial microorganisms for agriculture are covered, with applications in mycorrhizal relationships, microbial inoculants, and bio-fertilizers.</p> <p>Competence 1. Knowing how to identify the advantages that a high microbial diversity in the soil brings to the crop and being able to list the environmental services provided by a certain group of microorganisms.</p> <p>Knowledge acquisition: Through webinars, watching videos, reading articles.</p> <p>Evaluation of the acquisition of the competence: Through an online short-answer exam.</p> <p>Competence 2. Determining which agricultural practices damage the soil microbiome and which improve it, as well as distinguishing the process involved in this.</p> <p>Knowledge acquisition: Through webinars, viewing videos, reading articles, discussions in forums</p> <p>Evaluation of the competence acquisition: Carrying out a case study, each student will be assigned a farm with certain conditions and must make a plan to improve the soil microbiome through agricultural techniques.</p> <p>Competence 3 Know the commercial inoculants available on the market, their pros and cons, and be able to create your own microbial inoculants.</p> <p>Knowledge acquisition: Through the analysis of sales pages for microbial-based biofertilizers, study of the European legislation that regulates said fertilizers, debates in discussion forums, and</p>

Training Units	Comments by partner UPA-UIB
	<p>viewing explanatory videos on the realization of microbial preparations on farms.</p> <p>Assessment of the acquisition of the competence: Carrying out a case study, each student will be assigned a farm with certain conditions and must make a plan to improve the soil microbiome by applying commercial microbial inoculants justifying their use.</p> <p>Students must make a microbiome preparation and record a video of the process.</p>
<p>Nº 4 - Cultivating resilience: water use and system design in Regenerative Agriculture</p> <p>Partner in charge: UIB</p>	<p>It is considered essential to review the competencies indicated in order to better focus the objective of this unit. Beyond this comment, there are no further details to point out.</p> <p>a)Water Cycle and Soil-Water Relationships</p> <ol style="list-style-type: none"> <li>1. Hydrological cycle: Precipitation, infiltration, runoff, evaporation, and transpiration.</li> <li>2. -Water retention in soils: Soil porosity, field capacity, and the role of organic matter in enhancing water holding capacity.</li> <li>3. -Soil-water relationships: How soil texture and structure influence water movement and retention.</li> </ol> <p>B)Water resource assessment and planning</p> <ol style="list-style-type: none"> <li>0. -Tools for water resource assessment: Geographic Information Systems (GIS), remote sensing, and watershed management approaches.</li> <li>0. Crop water needs estimation.</li> </ol> <p>C)Water conservation and efficiency techniques</p> <ol style="list-style-type: none"> <li>0. -Water Use Efficiency (WUE): Definition and significance of water use efficiency (WUE) in agriculture, which measures the productivity of water applied to crops.</li> </ol>

Training Units	Comments by partner UPA-UIB
	<p>0. -Factors that impact WUE, such as crop type, soil conditions, and climate.</p> <p>0. -Techniques to improve WUE, including selecting drought-tolerant crops, adjusting irrigation timing, and enhancing soil organic matter to increase water retention. Key line technique.</p> <p>D) Irrigation system design and management</p> <p>0. -Irrigation Water Quality: Understanding the quality of irrigation water, including parameters such as pH, salinity, and the presence of nutrients or contaminants.</p> <p>0. -Irrigation management. Deficit Irrigation Strategies.</p> <p>The skills involve understanding, recognizing, and explaining concepts related to water management and water dynamics in agricultural systems.</p> <p>Also, executing tasks or processes to manage water effectively in farming systems as improving soil-water retention practices (e.g., mulching, organic matter incorporation) or implementing strategies to optimize water use.</p> <p>Finally, these skills involve the practical application of water management strategies in specific agricultural settings. Applying water management techniques to maximize water savings while maintaining crop productivity</p>
Nº 5 - Soil Carbon Sequestration and Climate	It is considered essential to review the indicated competencies in order to better focus on the

Training Units	Comments by partner UPA-UIB
Resilience in Regenerative Agriculture Partner in charge: UPA	objective of this unit. Beyond this comment, no further details are noted to comment on.

- Overall evaluation of the platform

For the overall evaluation of the platform, we used the criteria outlined in the GUIDELINES FOR DEVELOPING LEARNING COMPONENTS AND USE OF MOODLE and GUIDELINES FOR DEVELOPING VIDEO SUMMARY, with particular reference to:

- The structure of the introduction;
- The quality of the introductory video (duration, teacher presentation, stimulus questions);
- The visual consistency between home images and TU's contents;
- The quality of materials (slides, videos, PDFs);
- The completeness and variety of others resources (external);
- The clarity of the modular structure;
- The redundancy of some educational contents.

See the table Platform oversight for the overall evaluation uploaded in [https://drive.google.com/drive/u/0/folders/1-i-XGhYk6ltuOFQAJQr3Dd9Om\\_Cju2YL](https://drive.google.com/drive/u/0/folders/1-i-XGhYk6ltuOFQAJQr3Dd9Om_Cju2YL)

- General remarks. Uniformity and structure

- The first menu item varies between "Introduction" and "General".
- The numbering in the introductory videos is not always consistent with the sequence of Training Units (TUs) indicated in the TERRA Training Units Methodology document.
- The four (sometimes three) stimulus questions are not always included in the introductory videos.

Educational materials

- Video lessons are concentrated in just a few TUs, while others rely solely on slides or PDFs.
- Sometimes references are presented within the resources, other times in dedicated final sections.

Navigation and usability

- Resources currently open in the same browser window and not in a new tab.

Graphic aspects

- On the Home page, some images have text overlays, while others do not.
- Fonts, line spacing and bold formatting are used inconsistently across materials.
- Lack of standard titles (modules, TUs, lessons, etc.).
- Some presentations are in Spanish.
- Some introductions include images that were not expected or foreseen.

- **Final Peer Review report**



## FINAL PEER REVIEW REPORT

### QUANTITATIVE AND QUALITATIVE ANALYSIS OF TRAINING UNITS

The **Final Peer Review Report** provides a comprehensive and detailed evaluation of the training units (TUs) in the regenerative agriculture program, based on quantitative and qualitative feedback collected from students and experts. This document offers an in-depth analysis of course performance, identifying strengths, areas for improvement, and specific recommendations for each unit.

The primary objective of the report is to present a clear and balanced overview of the program's effectiveness, highlighting both successes and challenges identified during the evaluation. Through quantitative data (such as average ratings) and qualitative observations (comments and suggestions), the report aims to guide continuous improvement of the training units, ensuring they meet the needs of the target audience and uphold expected quality standards.

#### 1. QUANTITATIVE ANALYSIS OF RATINGS

##### Average ratings per Training Unit (TU)

##### Rating Scale:

1 = Not at all / Not adequate at all

2 = A little / Slightly adequate

3 = Fairly / Fairly adequate

4 = Very / Very adequate

5 = Absolutely yes / Completely adequate

Module	TU	Training Unit Title	Student Avg.	Expert Avg.	Overall Avg.
1	1	Introduction to Regenerative Agriculture	4.7	3.8	4.25
1	2	Soil: the world beneath our feet	3.6	4.2	3.9
1	3	Microbiological allies: harnessing the power of microbiology	2.4	4.9	3.65
1	4	Cultivating resilience: water use and system design	4.2	3.2	3.7
1	5	Soil Carbon Sequestration and Climate Resilience	3.7	3.2	3.45
2	6	Graze the change	4.9	5.0	4.95
2	7	The vegetable garden	3.6	4.8	4.2
2	8	Syntropic symphony	4.8	4.2	4.5
2	9	Buzzing with life	-	3.6	3.6
2	10	Unlocking the power of mushrooms and truffles	4.9	2.6	3.75
2	11	Integrated pest and disease control	4.6	3.9	4.25
3	12	Efficient project management and time-structuring tools for Regen Ag professionals	2.4	5.0	3.7
3	13	Farming in the digital age	4.0	4.7	4.35
3	14	Circular farming	5.0	4.4	4.7

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3	15	Innovative machinery and technologies	4.7	4.9	4.8
3	16	Ethical labor practices	3.0	4.1	3.55
4	17	Sowing success	4.8	5.0	4.9
4	18	Cultivating financial success	1.9	1.0	1.45
4	19	Growing your brand	4.7	4.9	4.8
4	20	Building prosperity through collaboration	3.4	1.0	2.2
4	21	Unlocking EU support	4.9	4.7	4.8

#### Key observations:

- **Highest-rated TUs:** TU 6 (Graze the change), TU 17 (Sowing success)
- **Lowest-rated TUs:** TU 18 (Cultivating financial success), TU 20 (Building prosperity through collaboration).
- **Greatest discrepancies:**
  - o TU 10: Student avg. = 4.9 vs. Expert avg. = 2.6 ( $\Delta = 2.3$ ).
  - o TU 3: Student avg. = 2.4 vs. Expert avg. = 4.9 ( $\Delta = 2.5$ ).
  - o TU 12: Student avg. = 2.4 vs. Expert avg. = 5.00 ( $\Delta = 2.6$ ).

## 2. QUALITATIVE SYNTHESIS OF COMMENTS AND SUGGESTIONS

### Common strengths identified in the peer review evaluation.

#### By students:

1. **Clear and logical structure:**
  - o Many courses were praised for their logical flow and well-organized content, making them easy to follow.
  - o Clear sections, headings, and subheadings were highlighted as strengths.
2. **High-quality external resources:**
  - o External materials (videos, PDFs, case studies) were frequently noted as engaging, informative, and well-produced.
  - o Examples and case studies from diverse geographical regions were appreciated.
3. **Practical application:**
  - o Courses that included actionable tools, real-life examples, and practical exercises were highly rated.
4. **Engaging and motivating content:**
  - o Courses with a mix of active and passive learning activities (e.g., quizzes, forums, videos) were seen as more engaging.
  - o Visual aids and video summaries were noted as helpful for comprehension.
5. **Relevance to Regenerative Agriculture:**
  - o Content that clearly linked to regenerative agriculture principles was well-received.
  - o Courses focusing on specific methods (e.g., syntropic systems) were praised for their clarity and applicability.

**6. Suitability for target audience:**

- o Modules tailored to beginners or offering introductory-level explanations were considered accessible.
- o Some courses successfully balanced depth for advanced learners while remaining approachable for novices.

**7. User-friendly platform navigation:**

- o Courses with intuitive Moodle layouts and easy-to-find materials were highlighted as strengths. Clear instructions and automated assessments improved the learning experience.

**8. Strong community and interaction:**

- o Forums and interactive activities that fostered peer discussion and instructor engagement were positively noted.
- o Courses with prepopulated FAQs or prompts for discussion were seen as more dynamic.

**9. Professional and polished presentation:**

- o Modules with minimal grammatical errors, well-designed slides, and professional visuals received high marks.
- o Multilingual support (e.g., subtitles, translations) was appreciated where available.

**10. Alignment with learning objectives:**

- o Courses where content matched stated objectives and provided measurable outcomes were rated favorably.
- o Clear expectations and assessments tied to objectives enhanced the learning experience.

**By experts:**

**1. Clear learning objectives & logical structure**

- o Courses with well-defined objectives and coherent sequencing were praised for ease of navigation and alignment with regenerative agriculture principles.

**2. High-quality external resources**

- o External videos, case studies, and PDFs were highlighted as engaging, informative, and practical.

**3. Strong adaptation to Regenerative Agriculture**

- o Courses that effectively linked content to regenerative farming systems, emphasizing ecological and social benefits.

**4. Practical Application & Case Studies**

- o Hands-on examples (e.g., beekeeping techniques, microbial inoculants) bridged theory and practice.

**5. Engaging Multimedia & Visual Aids**

- o Professionally produced slides and videos enhanced comprehension and retention.

**6. Target audience suitability**

- o Courses tailored to farmers balanced scientific depth with accessible language, while advanced modules catered to policymakers.

**7. Effective Use of Moodle**

- Well-organized platforms with labeled resources and intuitive navigation were commended.
- 8. Alignment with Learning Outcomes**
  - High-rated courses clearly matched content to stated competencies, ensuring relevance.
- 9. Multilingual support**
  - Bilingual materials improved accessibility for non-native speakers.
- 10. Interactive potential**
  - Courses with forums or prompts were noted for fostering peer learning, though activation needed improvement.

### Common Weaknesses Identified in the Peer Review Evaluation

#### By students:

- 1. Lack of original content**
  - Over-reliance on external materials (90%+ in some cases), making courses feel "curated" rather than "created."
- 2. Language and clarity issues**
  - Grammatical errors, awkward translations, and overly technical language reduced accessibility.
  - Some courses needed proofreading by native speakers or AI tools.
- 3. Misalignment between objectives and content**
  - Disconnect between course titles, introductions, and actual focus (e.g., a course on "vegetable garden design" heavily focused on Grow Biointensive methods without clear labeling). Learning outcomes sometimes did not match the material covered.
- 4. Insufficient practical application**
  - Too theoretical, with missing tools, case studies, or step-by-step guides (e.g., no wage calculation grids for labor practices, no farm-ready templates).
  - Passive learning dominated (e.g., long PDFs, lectures) without enough interactive or hands-on tasks.
- 5. Poorly designed assessments**
  - Quizzes were too simple, repetitive, or poorly aligned with lessons.
  - Some courses lacked automated evaluations, relying on instructor grading.
- 6. Accessibility and navigation challenges**
  - Moodle resources were sometimes hard to find or poorly organized.
  - Missing introductory videos, inconsistent language (e.g., slides in Spanish but course in English), or broken links.
- 7. Inadequate support for novice learners**
  - Advanced/scientific terms lacked explanations or glossaries.
  - No scaffolding for beginners in technical topics (e.g., microbiology, blockchain).
- 8. Underused interactive features**
  - Forums were empty or not activated.
  - Few opportunities for peer discussion or collaborative learning.
- 9. Inaccurate time estimates**



- o Courses advertised as 25-hour workloads were completed in ≤10 hours, indicating misaligned expectations.
- 10. **Weak visual and multimedia elements**
  - o Partner-created slides had formatting issues (e.g., empty slides, misaligned images).
  - o Lack of videos, infographics, or dynamic content in some modules.

#### By experts:

1. **Lack of original content**
  - o Over-reliance on external materials (90%+ in some courses), making modules feel like "curated libraries" rather than original training.
2. **Language and clarity issues**
  - o Grammatical errors, awkward translations, or overly technical jargon.
3. **Misalignment between objectives and content**
  - o Competencies listed but not addressed.
4. **Poor practical application**
  - o Theory-heavy with few actionable tools.
5. **Weak assessments**
  - o Quizzes misaligned with content or missing entirely.
6. **Underdeveloped interactive elements**
  - o Forums empty or unused, with no guidance for peer engagement.
7. **Inconsistent structure**
  - o Duplicate files, unlabeled lessons or abrupt transitions between topics.
8. **Inadequate multimedia**
  - o Long, unedited videos, blurry slides, or lack of teacher-led video summaries.
9. **Target audience mismatch**
  - o Advanced scientific terms without glossaries or missing profitability data for farmers.
10. **Inaccurate workload estimates**
  - o Courses advertised as 25 hours completed in ≤10 hours.

### 3. PRIORITY AREAS FOR IMPROVEMENT

Audience	Priority areas
Students	<ul style="list-style-type: none"> <li>• Balance original/external content with tailored examples.</li> <li>• Simplify language and add glossaries.</li> <li>• Boost interactivity (e.g., quizzes, forums, case studies).</li> <li>• Revise assessments for clarity and automation.</li> <li>• Align titles/intros/content for transparency.</li> </ul>
Experts	<ul style="list-style-type: none"> <li>• Add original teacher input, simplify language, align titles/content.</li> <li>• Activate forums, shorten videos, include case studies.</li> <li>• Standardize quizzes, add practical final tasks.</li> <li>• Improve translations, glossaries, and navigation.</li> </ul>

#### 4. MAIN RECOMMENDATIONS PER TRAINING UNIT

TU	Title	Student recommendations	Expert recommendations
1	Introduction to Regenerative Agriculture	Add section on pest/disease management.	Improve video usage and EU language translations.
2	Soil: the world beneath our feet	Add more examples, case studies, and interactive exercises.	Improve video engagement and forum usage explanations.
3	Microbiological allies	Reduce academic tone; add definitions and practical examples.	Maintain current high standards; expand interactivity.
4	Cultivating resilience: water use and system design	Improve organization and add more practical demonstrations.	Clarify visual aids and provide better explanations for forum usage.
5	Soil Carbon Sequestration and Climate Resilience	Add practical examples and methods for carbon sequestration.	Clarify learning outcomes and improve video-slide alignment.
6	Graze the change	Add introductory explanations for novice learners.	No major improvements needed; maintain high quality.
7	The vegetable garden	Align content with Grow Biointensive focus; improve grammar and originality.	Improve formatting consistency and correct minor errors.
8	Syntropic symphony	Add case studies on profitability and productivity.	Shorten videos and improve editing for better engagement.
9	Buzzing with life	Add quizzes, final assessment, and teacher-led content.	Include interactive elements and original teacher input.
10	Unlocking the power of mushrooms and truffles	Add more case studies and practical demonstrations.	Align competences with content; improve course structure and language clarity.
11	Integrated pest and disease control	No major recommendations; the course is well-structured.	Translate web videos and clarify forum usage.
12	Efficient project management	Include practical tools (e.g., audit checklists).	Address student feedback on theory-heavy content.
13	Farming in the digital age	Improve navigation and add more practical examples.	No major improvements needed; maintain high quality.
14	Circular farming	No major recommendations; the course is well-structured.	Add more examples and recommended readings.
15	Innovative machinery and technologies	No major recommendations; the course is well-structured.	Add an introductory video and clarify forum usage.

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16	Ethical labor practices	Add practical tools (e.g., wage assessment grids, work contracts).	Include additional information on sustainable production progress.
17	Sowing success	Remove unrelated videos and add credentials.	No major improvements needed; maintain high quality.
18	Cultivating financial success	Restructure with interactive activities and visual aids.	Complete the course (currently only a PDF).
19	Growing your brand	Add explanatory illustrations and English subtitles to videos.	Include more visual design templates or storytelling examples.
20	Building prosperity through collaboration	Add videos, quizzes, and glossary.	Follow course guidelines; populate platform with content.
21	Unlocking EU support for Regenerative and Organic Farming	No major recommendations; course is well-structured.	Add case studies and examples of successful CAP applications.

## CONCLUSIONS

The [Final Peer Review Report](#) revealed significant findings for the regenerative agriculture program. On one hand, highly praised training units, such as *Graze the Change* (TU 6) and *Sowing Success* (TU 17), received excellent ratings due to their clear structure, practical content, and relevance to regenerative agriculture. On the other hand, some units, like *Cultivating Financial Success* (TU 18) and *Building Prosperity Through Collaboration* (TU 20), showed major weaknesses, requiring urgent improvements in originality, interactivity and alignment with learning objectives.

The recommendations provided for each TU offer a clear roadmap for optimizing the program, with a focus on:

- **Content enhancement:** balancing external materials with original contributions, simplifying technical language, and adding practical examples.
- **Interactivity and engagement:** strengthening the use of quizzes, forums, and case studies to make learning more dynamic.
- **Alignment and clarity:** ensuring consistency between titles, objectives, and content, as well as improving resource navigation and accessibility.

In summary, this report not only highlights the program's successes but also provides actionable steps to turn challenges into opportunities for growth.

By implementing these recommendations, the program can enhance its effectiveness, ensuring a high-quality learning experience for students and professionals in the field.