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# HuMUS

Healthy Municipal Soils

Soil Stewards Training  
Programme syllabus  
(first version)

Deliverable D1.8

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## Summary

This deliverable will introduce the initial version of the syllabus developed within the framework of the HuMUS Project's training programme. Its purpose is to provide the civil servants (public officers) operating at the regional and/or municipal levels in Europe with the necessary knowledge and support tools to serve as facilitators for local dialogues on soil health related issues as described in the Project's WP2 (T2.2). The training programme will be targeting civil servants and other stakeholders in the partner's territories first, and then more broadly at the European and international levels.

This first version of the training programme is based on the outputs of previous tasks and deliverables of WP1 developed by the HuMUS Partners.

The training programme will be developed in 3 Editions, as follows:

Edition #1	Edition #2	Edition #3
<ul style="list-style-type: none"> <li>➤ Design of the course syllabus and positioning of the contents in an Online Platform provided by FUNDECYT-PCTEX.</li> <li>➤ Content provided by the HuMUS Partners based on the outputs of previous Project tasks.</li> </ul>	<ul style="list-style-type: none"> <li>➤ Further development of the course with the integration of information related to 14 Pilot Cases of HuMUS Project in 8 European Countries (partner's territories).</li> <li>➤ The course will also be improved with feedback from:               <ul style="list-style-type: none"> <li>• other Soil Mission projects and initiatives</li> <li>• the participants in the training modules.</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>➤ Development of a final version with more detailed information derived from the political, scientific and societal contexts involved.</li> <li>➤ Integration of information related to the 20 Pilot Projects awarded by the WP4 Call for Proposals.</li> </ul>

Once the Training programme is publicly available, each HuMUS partner from involved territories will identify facilitators (Soil Stewards) to participate in and take benefit from it.

# 1. Introduction

As indicated by the European Commission “**Soils are the foundation of our health and wealth.** Supporting our cultural heritage and landscapes, they are the basis of our economy and prosperity. Life on Earth depends on healthy soils. Yet land and soils are also dramatically degrading in Europe and worldwide”.

But European soils are under increasing pressure and facing many and different challenges that need an urgent reaction, such as:

- urban sprawl and low land recycling rates, which contribute to the continued loss of soil from sealing and replacement and to pollution from traffic and industrialisation;
- the intensification of agriculture resulting in increasing use of fertilisers and plant protection products and of heavy machinery;
- climate change, which causes weather extremes such as drought, heavy rain, landslides and wildfires.

Within this context, the question we ponder is: **Can we act individually? The answer is NO.** We need to count on **public and private stakeholders** from all around Europe, who must be informed and engaged around this important issue: Soil Health. Stakeholders that can guide others in this path.

Bearing that in mind, we decided within the HuMUS Project to develop a Training Programme focused on Soil Health and Soil Management.



The **Main Objective** of the programme will be:

to provide knowledge and tools mainly to civil servants - working at regional and/or municipal levels - and enable them to become a **Soil Steward**, that is

***a person that carefully, responsibly, and voluntarily contributes to spreading her/his knowledge and experience regarding Soil Health.***

Simultaneously, he/she will serve as an **advocate for raising awareness about soil health and care** within the local or regional community.



**Other Objectives** of the programme:

- to deliver clear and concise information about the significance of soil, the concept of soil health, and relevant policies and practices, both at a general level and within the context of local/regional considerations.
- to address the challenges stakeholders may encounter and explore potential means of support, encompassing financial aspects, stakeholder engagement, and the facilitation of interactions.

- to explore replication and transfer potential of the 14 pilot sites and the additional 20 pilots (identified via the Open Call for Proposals).

Although the training has been designed mainly for civil servants, any person who may be interested in Soil Health can register on the platform (CAPCYT) and follow the course.



The **ultimate Result** of the Training Programme will be:

***to create a Next Generation of Civil Servants/ Stakeholders that act as Soil Stewards and facilitators of local dialogues on Soil Health management and improvement***, using a wide range of tools and methods that the Course will provide to help guide the process.

## 2. Training Material

The first edition of the Soil Steward Training Programme will be made of:



**4 Modules** divided into **8 Units** to better address each of the topics;

a **Course Introductory Video (animated)** to facilitate a first and general overview of the whole course.

Next, the main content each Module/ Unit will cover:

<b>Module 1. INTRODUCTION TO SOIL HEALTH</b>	
<b>Unit 1.1</b>	<b>What is soil health about?</b>
<p><b>Learning Outcomes:</b>            What do we mean by Soil Health in general: principles, benefits of healthy soils and related European Strategies;</p>	

<b>Module 2. ASSESSING SOIL HEALTH</b>	
<b>Unit 2.1</b>	<b>State of the art of soil assessment methods</b>
<b>Unit 2.2</b>	<b>Demonstration tools of the relationship between soil health and other ecosystem services</b>
<p><b>Learning Outcomes:</b>            Where do we start from to assess the soil health, which assessment methods exist to be performed directly <i>on site</i> and what relationship exists between soil health and other ecosystem services;</p>	

<b>Module 3. FACILITATING PARTICIPATORY SOIL GOVERNANCE</b>	
<b>Unit 3.1</b>	<b>Toolbox for coaching &amp; moderating dialogues. Best practices on social dialogue</b>
<b>Unit 3.2</b>	<b>Conflict Management Techniques</b>
<b>Unit 3.3</b>	<b>Local evidence on Living Labs and Lighthouses</b>
<p><b>Learning Outcomes:</b>            What is the state of the art of Participatory Soil Governance, including knowledge on tools to facilitate local dialogues, conflict management techniques and existing good practice examples, including evidence on local Living Labs and Lighthouses;</p>	

<b>Module 4. POLICY FRAMEWORK AND FUND RAISING</b>	
<b>Unit 4.1</b>	<b>Collection of information on regional policies</b>
<b>Unit 4.2</b>	<b>Guidelines to retrieve and apply for funds to improve Soil Health</b>
<p><b>Learning Outcomes:</b>            What is the state of the art of regional and local policies on Soil Health, available funding opportunities, and guidelines to retrieve and apply for financial support.</p>	

## 3. Training Module Templates

In order to better define, identify and standardise the training contents, we have created a **Word** and a **PowerPoint template for each of the module/ Unit**.

An **Introduction** section will be common for all the **Word templates**, as well as a section of **Additional Resources** with the aim to facilitate additional info for consultation to the course participants.

Regarding the **PowerPoint templates**, apart from the **Introduction**, there will be also a final slide where an **"Inspiring Idea"** will be shared. The PowerPoint is a more visual, concrete and friendly presentation of the Word document, created to facilitate the info to those that, in a concrete moment, don't have time enough to go deeper into the Word content.

Both documents (Word and PowerPoint) will be available to download in order to facilitate the learning process.

When required, **factsheets** and **videos** have been also included as part of the training material.

Below each of the templates per Module.

### Module 1

#### Unit 1.1 Word Template



MODULE 1  
INTRODUCTION TO SOIL HEALTH  
UNIT 1.1 WHAT IS SOIL HEALTH?



## Unit 1.1 PowerPoint Template



**INTRODUCTION TO  
SOIL HEALTH**

MODULE 1  
**UNIT 1.1: WHAT IS SOIL HEALTH?**





## Module 2

## Unit 2.1 Word Template



**MODULE 2**

ASSESSING SOIL HEALTH AND QUALITY  
UNIT 2.1 STATE OF THE ART OF SOIL ASSESSMENT METHODS



## Unit 2.1 PowerPoint Template



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# ASSESSING SOIL HEALTH AND QUALITY

MODULE 2  
UNIT 2.1: STATE OF THE ART OF SOIL ASSESSMENT METHODS



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## Unit 2.2 Word Template



MODULE 2

ASSESSING SOIL HEALTH AND QUALITY  
UNIT 2.2 DEMONSTRATION TOOL OF THE RELATIONSHIP BETWEEN  
SOIL HEALTH AND OTHER ECOSYSTEM SERVICES



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## Unit 2.2 PowerPoint Template



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# ASSESSING SOIL HEALTH AND QUALITY

MODULE 2

UNIT 2.2: DEMONSTRATION TOOLS OF THE RELATIONSHIP BETWEEN SOIL HEALTH AND OTHER ECOSYSTEMS SERVICES



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## Module 3

## Unit 3.1 Word Template



**MODULE 3**

MODULE 3. FACILITATING PARTICIPATORY SOIL GOVERNANCE

UNIT 3.1 TOOLBOX FOR COACHING & MODERATING DIALOGUES

BEST PRACTISES ON SOCIAL DIALOGUE



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## Unit 3.1 PowerPoint Template



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**FACILITATING  
PARTICIPATORY SOIL  
GOVERNANCE**

**MODULE 3**

**UNIT 3.1: TOOLBOX FOR COACHING & MODERATING  
DIALOGUES. BEST PRACTISES ON SOCIAL DIALOGUE.**



## Unit 3.2 Word Template



**MODULE 3**

**FACILITATING PARTICIPATORY SOIL GOVERNANCE**  
**UNIT 3.2 CONFLICT MANAGEMENT TECHNIQUES**



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## Unit 3.2 PowerPoint Template




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**FACILITATING  
PARTICIPATORY SOIL  
GOVERNANCE**


**MODULE 3**  
UNIT 3.2: CONFLICT MANAGEMENT TECHNIQUES




## Unit 3.3 Word Template




**MODULE 3**  
**FACILITATING PARTICIPATORY SOIL GOVERNANCE**  
UNIT 3.3 LOCAL EVIDENCE ON LIVING LABS AND LIGHTHOUSES



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**Unit 3.3 Fourteen territory factsheets/ Pilot Cases of HuMUS Project are included in this Unit**




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**ANGERS LOIRE  
MÉTROPOLE**  
(France)




**TERRITORY CHARACTERISTICS:**

- Population: 303,500 inhabitants
- Density: 455 ha/km<sup>2</sup>
- A wide variety of soils (over 100 types)
- 49% of the territory is farmland (CAPDL, 2020)
- Highly diversified agricultural production: mixed farming and specialized plant production, including viticulture
- Growing urbanization on land with high agronomic potential
- A strong objective: to maintain soil health for the local agricultural economy, water quantity and quality, air quality and carbon storage



## SOIL & LAND PRESERVATION



**ISSUES & CHALLENGES: defining criteria and indicators to be taken into account to facilitate the preservation of soil functions in territorial strategies**

**What is ongoing:**

- Two protected agricultural zone (ZAP) initiatives to safeguard horticultural and wine-growing areas and encourage new farmers to set up in the area
- A national plan for "zero net artificialization" in France by 2050
- Current updating of urban planning documents with local elected representatives of the municipality, who are aware of soil issues

**What remains to be done:**

- Inclusion of more comprehensive soil preservation parameters such as fragmentation of agricultural land

**SOLUTIONS & HuMUS APPROACH:**

A participatory approach with stakeholders across the territory to:

- Improved land-use planning tools (e.g. mapping) to better exploit the agronomic and environmental potential of soils
- Transfer of knowledge from soil experts to project members
- Better consideration of soil heritage value by political decision-makers

**PILOT SITE SUCCESS INDICATORS:**

- The cohesion of all players and the fluidity of exchanges
- The development of more effective decision-making tools for soil protection
- New partnerships between soil specialists and decision-makers
- Spreading this approach to other regions with similar challenges
- Improved soil health indicators

Unit 4.1 Word Template



Unit 4.1 PowerPoint Template



**Unit 4.2 Word Template**



**MODULE 4**  
POLICY FRAMEWORK AND FUND RAISING  
UNIT 4.2: GUIDELINES TO RETRIEVE AND APPLY FOR FUNDS TO IMPROVE SOIL HEALTH



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**Unit 4.2 PowerPoint Template**



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**POLICY FRAMEWORK AND FUND RAISING**

**MODULE 4**  
**UNIT 4.2: GUIDELINES TO RETRIEVE AND APPLY FOR FUNDS TO IMPROVE SOIL HEALTH**





## 4.The CAPACYT Platform

FUNDECYT-PCTEX will utilise a platform to host the course, named CAPACYT. **CAPACYT** is an Open and Free digital training tool, which aims to offer a service of access to training in areas such as science, technology, innovation, research and development.

**CAPACYT** is based on Moodle and uses online tools together with specific and general actions with the aim to train in E-Learning or B-Learning models, compatible with any content format and with the advantage of being able to use synchronous or asynchronous communication with users through its resource database.

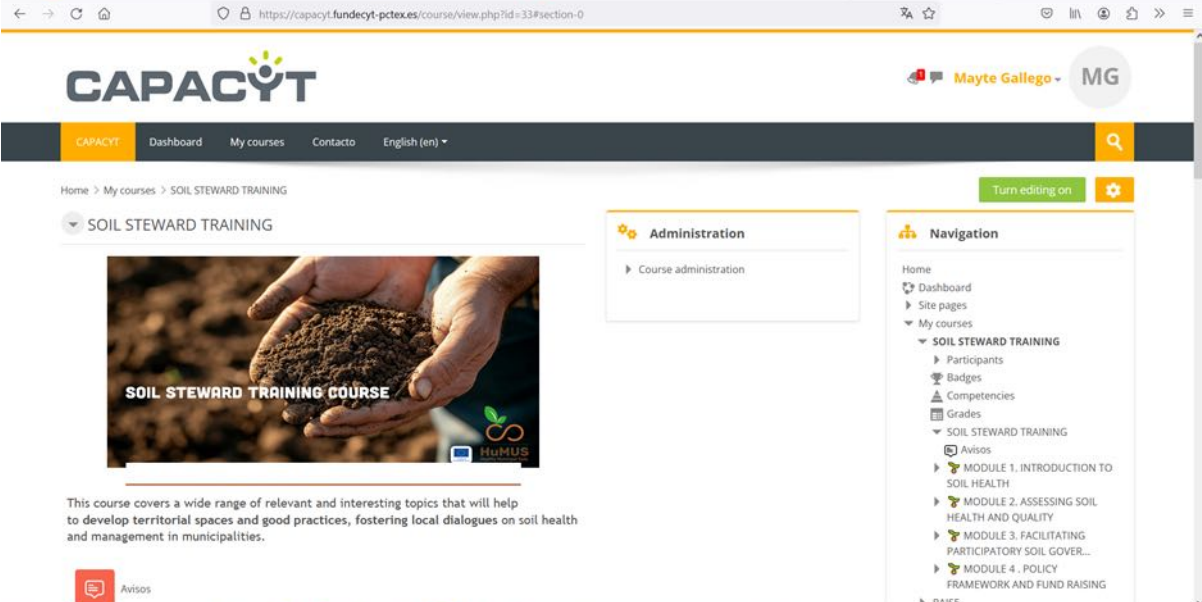
Accordingly, **CAPACYT** can develop the following functionalities:

- develop on-line (in its virtual part) courses, seminars, conferences and work meetings in synchronous communication (or asynchronous through recordings).
- generate ad-hoc contents for any type of project (as HuMUS) and any defined topic, using for this purpose all types of multimedia and interactive formats.
- serve as a virtual classroom for the management of any type of training including registration, monitoring and follow-up and evaluation of participants with an unlimited capacity.
- perform general and specific analysis of the results in terms of participation and effectiveness of any of the training services generated in its environment.

The link to the training platform is: <https://capacyt.fundecyt-pctex.es/login/index.php>

Below we share some screenshots of the training programme's progress:

### 1.- the first sight of the course and the navigation to the right



The screenshot displays the CAPACYT platform interface. At the top, the CAPACYT logo is visible on the left, and the user profile 'Mayte Gallego' with initials 'MG' is on the right. Below the header is a navigation bar with links for 'CAPACYT', 'Dashboard', 'My courses', 'Contacto', and 'English (en)'. The main content area shows the course 'SOIL STEWARD TRAINING' with a featured image of hands holding soil. Below the image is a description: 'This course covers a wide range of relevant and interesting topics that will help to develop territorial spaces and good practices, fostering local dialogues on soil health and management in municipalities.' To the right of the course content is a navigation menu with two main sections: 'Administration' (containing 'Course administration') and 'Navigation'. The 'Navigation' section includes links for 'Home', 'Dashboard', 'Site pages', 'My courses', and a detailed list of course components: 'SOIL STEWARD TRAINING', 'Participants', 'Badges', 'Competencies', 'Grades', 'Avisos', 'MODULE 1. INTRODUCTION TO SOIL HEALTH', 'MODULE 2. ASSESSING SOIL HEALTH AND QUALITY', 'MODULE 3. FACILITATING PARTICIPATORY SOIL GOVER...', 'MODULE 4. POLICY FRAMEWORK AND FUND RAISING', and 'RAISE'. A 'Turn editing on' button is located above the navigation menu.

## 2.- the four Modules

The screenshot shows a web browser displaying the course page for 'SOIL STEWARD TRAINING'. The URL is <https://capacity.fundecyt-pectex.es/course/view.php?id=33#section-0>. The page features a navigation menu on the right with options like 'Home', 'Dashboard', 'Site pages', 'My courses', and 'SOIL STEWARD TRAINING'. Under 'SOIL STEWARD TRAINING', there are sub-menus for 'Participants', 'Badges', 'Competencies', 'Grades', and 'SOIL STEWARD TRAINING'. The main content area includes a header with 'SOIL STEWARD TRAINING' and a sub-header 'Administration' with a link to 'Course administration'. Below this is a large image of hands holding soil, with the text 'SOIL STEWARD TRAINING COURSE' overlaid. A description follows: 'This course covers a wide range of relevant and interesting topics that will help to develop territorial spaces and good practices, fostering local dialogues on soil health and management in municipalities.' There are also 'Articles' and a list of four modules: 'MODULE 1. INTRODUCTION TO SOIL HEALTH', 'MODULE 2. ASSESSING SOIL HEALTH AND QUALITY', 'MODULE 3. FACILITATING PARTICIPATORY SOIL GOVERNANCE', and 'MODULE 4. POLICY FRAMEWORK AND FUND RAISING'. The third module is highlighted in yellow.

## 2.- Unit 2.1 example: Word, PowerPoint and evaluation questionnaire

The screenshot shows a web browser displaying the course page for 'MODULE 2. ASSESSING SOIL HEALTH AND QUALITY'. The URL is <https://capacity.fundecyt-pectex.es/course/view.php?id=33#section-0>. The page features a navigation menu on the right with options like 'Home', 'Dashboard', 'Site pages', 'My courses', and 'SOIL STEWARD TRAINING'. Under 'SOIL STEWARD TRAINING', there are sub-menus for 'Participants', 'Badges', 'Competencies', 'Grades', and 'SOIL STEWARD TRAINING'. The main content area includes a header with 'MODULE 2. ASSESSING SOIL HEALTH AND QUALITY' and a sub-header 'Administration' with a link to 'Course administration'. Below this is a large image of a hand holding a soil probe, with the text 'FACILITATING PARTICIPATORY SOIL GOVERNANCE' overlaid. A description follows: 'The module describes and defines what soil and soil health is and how soil health can be assessed estimated through easy methods. The module is focused on physical, chemical and biological characteristics of soil health that are all linked to important soil functions. The module gives you an overview how to sample soil and what materials are needed. The module provides seven easy in field soil health assessment methods that can be carried out by all the stakeholders involved in the HUMUS project.' There are also 'Articles' and a list of four modules: 'MODULE 1. INTRODUCTION TO SOIL HEALTH', 'MODULE 2. ASSESSING SOIL HEALTH AND QUALITY', 'MODULE 3. FACILITATING PARTICIPATORY SOIL GOVERNANCE', and 'MODULE 4. POLICY FRAMEWORK AND FUND RAISING'. The second module is highlighted in yellow. Below the description, there are five items listed: 'Unit 2.1. State of the art soil assessment methods. (PDF document)', 'Unit 2.1. State of the art soil assessment methods. (WORD document)', 'Unit 2.1. State of the art soil assessment methods. (PDF slides)', 'Unit 2.1. State of the art soil assessment methods. (PPT slides)', and 'Module 2 evaluation questionnaire'. Each item has a 'Mark as done' button.

## 5.The Training Journey

The following visual describes the training journey of a participant:



The above steps numbered 1-6 can be described as follows:

- (1) Civil servants working at regional and/ or municipal level, or any other person who may be interested in Soil Health, are free to register in the CAPACYT platform at <https://capacyt.fundecyt-pctex.es/login/index.php> and follow the course. *The link to the training will be placed on the HuMUS webpage.*
- (2) All the training content of the first edition (the Course Introductory Video, 4 modules and 8 units, factsheets and other videos) will be available for people registered on the course.

- (3) The training programme can be completed within 50 hours over a span of 3 weeks, although this may vary depending on the participants' availability. No specific time limit has been imposed.
- (4) Evaluation requirements: 5 multiple choice questions with 3 possible answers per question will be provided per Module, with a threshold of 80%.
- (5) A Diploma certifying attendance and completion of the course will be facilitated by the HuMUS Project.

## 6. Communication and Dissemination Campaign

***The first edition of the Soil Steward Training Programme will be soon available and open to registration.***

In order to properly Communicate and Disseminate this Training Programme and reach our target audience, we will (among others) announce it:

- through the HuMUS webpage;
- through project partners' webpages;
- through social media (LinkedIn, Facebook, Twitter...);
- to other Soil Mission Projects (by contacting the coordinator or the communication and dissemination manager);
- to attendees of the Soil Health Training Webinar (organised by HuMUS on the 20<sup>th</sup> of March 2024);
- to the already running 14 Pilot Cases of HuMUS Project in 8 European Countries (partner's territories).