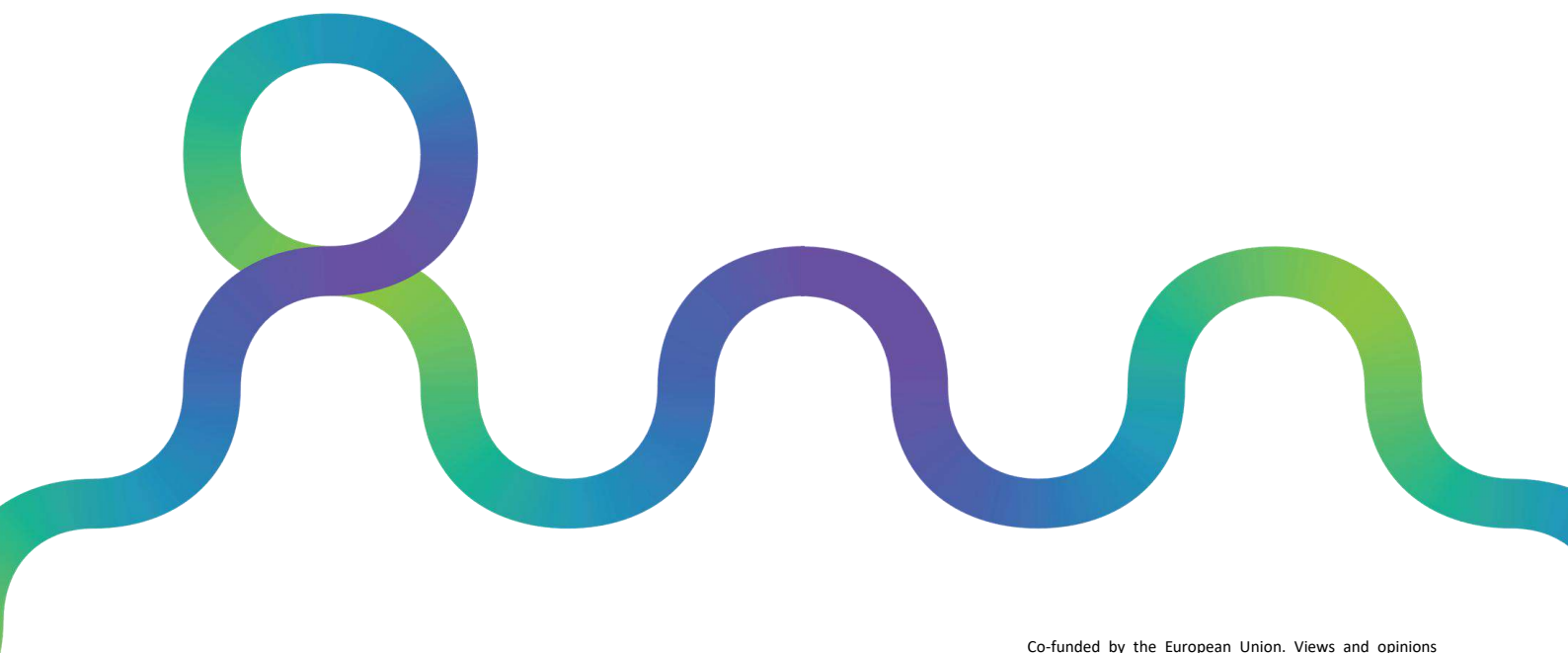


D4.1. E-learning platform + training material



comanage



Co-funded
by
the European Union

Co-funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CINEA. Neither the European Union nor CINEA can be held responsible for them.

Deliverable Information Sheet

Version	1.0
Grant Agreement Number	101076753
Project Acronym	LIFE21-CET-ENERCOM-COMANAGE
Project Title	Developing a transnational governance and holistic integrated services framework supporting the sustainability of European energy communities
Project Call	LIFE-2021-CET
Project Duration	36 months
Deliverable Number	D4.1
Deliverable Title	E-learning platform + training material
Deliverable Type	DEC — Websites, patent filings, videos, etc
Deliverable Dissemination Level	PU
Work Package	WP4
Lead Partner	AISFOR
Authors	Marina Varvesi, Davide Parziale (AISFOR)
Contributing Partners	
Reviewers	Camila Canelas, Cristina Ramos (Ecoserveis) Caitlin Law (Metropolis)
Official Due Date	31.03.2024
Delivery Date	24.04.2024

History of changes

Version	Date	Comments	Main author(s)
1.0		Draft of the first version	Aisfor
2.0		Reviews	Metropolis Ecoserveis
2.1		Final version	Aisfor Ecoserveis
3.1		Re-opening	Aisfor

List of Acronyms

COP	COMANAGE Open Platform
DSS	Decision Support System
EC	Energy Community
PA	Public Authority

List of Figures

Figure 1. Training Homepage slider 1 - EN	9
Figure 2. Training Homepage slider 1 – IT	9
Figure 3. Training Homepage slider 1 – CAT	9
Figure 4. Training Homepage slider 1 – ES.....	10
Figure 5. Training Homepage slider 1 – PL.....	10
Figure 6. COMANAGE Open Platform slider 2 – EN	10
Figure 7. COMANAGE Open Platform slider 2 – IT	11

Figure 8. COMANAGE Open Platform slider 2 – CAT	11
Figure 9. COMANAGE Open Platform slider 2 – ES	11
Figure 10. COMANAGE Open Platform slider 2 – PL	12
Figure 11. COMANAGE Website slider 3 – EN.....	12
Figure 12. COMANAGE Website slider 3 – IT	12
Figure 13. COMANAGE Website slider 3 – CAT.....	13
Figure 14. COMANAGE Website slider 3 – ES	13
Figure 15. COMANAGE Website slider 3 – PL	13
Figure 16. Homepage mid-section 1	14
Figure 17. Homepage mid-section 2	14
Figure 18. Homepage bottom section	15
Figure 19. Homepage partners section	15
Figure 20. ALL COURSES page	17
Figure 21. Enrolment option section.....	18
Figure 22. Homepage partners section	19
Figure 23. External description of the course	20
Figure 24. Footer	20
Figure 25. Test example	22
Figure 26. Example of a lesson	24
Figure 27. English course.....	30
Figure 28. Screenshots of the English course on the COMANAGE Academy Platform	30
Figure 29. COMANAGE training program – IT.....	37
Figure 30. Course content – IT	38
Figure 31. COMANAGE training program – PL	39
Figure 32. Course content – PL	40

Figure 33. Catalan course program	42
Figure 34. Course content – CAT	43

Keywords List

Open platform
 Digital Hub
 E-learning platform
 Decision Support System

Disclaimer

This document reflects the views of the author(s) and does not necessarily reflect the opinions or policy of the European Commission. Whilst efforts have been made to ensure the accuracy and completeness of this document, the European Commission is not responsible for any use of the information it contains nor for any errors or omissions, however caused. This document is produced under a [Creative Commons Attribution 4.0 International License](#).

Table of Contents

Deliverable Information Sheet	1
History of changes	2
List of Acronyms	2
List of Figures	2
Keywords List.....	4
Disclaimer	4
1. Executive summary	6
1.1. About the COMANAGE project	6
1.2. Purpose of this deliverable	6
2. COMANAGE Academy: the e-learning Platform.....	7
2.1. About e-learning platforms	7
2.2. COMANAGE Academy: the e-learning Platform	8
2.3. Homepage	8
2.4. ALL COURSES page.....	15
2.5. Registration page	18
2.6. Course page.....	19
2.7. Footer.....	20
3. COMANAGE training	21
3.1. Teaching methodologies and learning resources	21
3.2. Pathways and rules of fruition and certificate	21
3.3. COMANAGE training course contents' structure.....	22
3.4. COMANAGE training resources.....	23
4. COMANAGE training courses.....	25
4.1. COMANAGE English general course	25
4.2. The Pilot-specific courses: Catalan, Italian and Polish	31
▪ Italian and Polish training course	31
▪ The Catalan training course.....	40

1. Executive summary

1.1. About the COMANAGE project

Over the past years, several projects boosting energy communities have seen the light around the EU. The launch and implementation of these initiatives carried out -among others- by projects in which the members of the COMANAGE partnership participate has made it evident that once started, energy communities' projects often struggle to take off. The COMANAGE proposal originates from this experience, aiming to tackle and counter the central governance and management barriers faced by citizen-led and public-participated energy communities' projects, including legal, administrative, financial, social, and organisational hurdles.

It will do so by creating a methodological and operational **Energy Communities Governance Framework** and by equipping public authorities involved in energy communities' projects with a set of integrated services, supporting mechanisms and tools aimed at facilitating the management and governance of energy communities and other forms of citizen-led energy initiatives, ensuring their growth and sustainability in the medium and long term: **the Energy Communities Governance Toolkit**.

The final goal of the project will be twofold: first, to ensure that energy communities' projects that have already been set-up can take-off and grow in the medium and long term. Second, to encourage and stimulate the uptake of new community-owned energy projects. With this goal in mind, the project will, on one hand, operationalise a transnational network of knowledge and competence providers; on the other, it will mobilise, engage, and operationalise key stakeholders around three Operative Integrated Services Hubs to be established in three Pilot Cases across the EU represented in the consortium by the Metropolitan Area of Barcelona in Spain (AMB), the Krakow Metropolis Association in Poland (KMA), the Lazio National Association of Italian municipalities in Italy (ANCI LAZIO).

1.2. Purpose of this deliverable

Deliverable 4.1 presents one of the four digital tools developed by COMANAGE: the e-learning platform and the related training. As the outcome of the training activities within COMANAGE is an online platform with training resources, this report aims to offer an overview and highlight the key features of the platform, supplemented by relevant screenshots of the training contents developed.

The deliverable initially describes the general characteristics of the e-learning platform, then tells the customised COMANAGE e-learning platform, detailing how the graphical layout of the platform has been harmonised with the entire graphical layout of the project and how the COMANAGE e-learning platform has been structured to incorporate the different national courses. The deliverable then describes some functionalities of the COMANAGE e-learning platform (such as the registration process, course progress rules and certificate issues). Finally, the deliverable provides an overview also of the training material produced within the COMANAGE project (in English and the three piloting languages) and now freely accessible to all interested users through the e-learning platform.

2. COMANAGE Academy: the e-learning Platform

2.1. About e-learning platforms

Several e-learning platforms may be adapted/bought to deliver an online training course. These platforms may be either open and customisable or commercial and keys-in-hand. Further, they may integrate multi-language components, enabling them to easily provide courses in multiple languages within a multi-language environment and infrastructure. For this reason, the first step is to select the e-learning platform according to the context and needs of the training to be delivered.

The COMANAGE training addresses stakeholders in pilot areas in 3 countries, Italy, Poland, and Spain, who are interested in understanding energy communities and how these may be set up and run according to the specific national rules and context. Further COMANAGE training may also interest stakeholders from all European countries who are interested in gaining general knowledge on energy communities in a more general and not country-related form. For this reason, the learning platform for COMANAGE needs to be multilingual to ensure a straightforward translation of the infrastructure contents. Further, the COMANAGE e-learning platform will outlive the duration of the project and be accessible also after the 3-year timeframe of the project itself. In parallel to the accessibility need also after the end of the project, considering the problems of exploitation and scalability after the project's end, there is also the need to ensure the free accessibility to a high number of interested actors. To meet the needs of COMANAGE, the e-learning platform needs to be:

- *open source platform – to enable a high number of registered users;*
- *multilanguage – to enable the delivery of courses in different languages addressing registered users coming from other countries, deleting any language barrier;*
- *accessible with different devices – to be quickly followed by users*

Research was carried out to select the learning platform that was in line with the needs of COMANAGE, and this led to the selection of the Moodle platform as the most suitable to use on COMANAGE. Moodle is an open-source learning management system (LMS) nowadays widely used to create and manage online courses (it started as the platform used by universities but, in recent years, has been taken up by all types of actors, thanks to the flexibility and customisation possibilities of the platform). Further, Moodle incorporates numerous tools to create dynamic online learning environments, allowing for the delivery of course materials, interactive activities, assessments, and communication with users. Moodle is highly customisable, including multilingual multi-target training. Moodle was therefore chosen as the learning platform for COMANAGE to build a multilingual online learning environment tailored for delivering course materials, interactive activities, and assessments and fostering collaborative learning experiences for all users involved in the COMANAGE project.

The COMANAGE e-learning platform, COMANAGE Academy, is an open-source Moodle platform customised for COMANAGE, both in terms of the platform's look and feel and content structure.

The customisation of the COMANAGE Academy includes setting up a multilingual environment for each of the COMANAGE training languages. The English, Italian, Polish and Catalan language packs were installed to ensure the accessibility to the platform to interested actors coming from all pilot countries as well as other European countries.

2.2. COMANAGE Academy: the e-learning Platform

COMANAGE Academy is now accessible online (and linked to all the COMANAGE website and other COMANAGE web tools).

To access the **COMANAGE Academy**, the link is <https://comanage.aisforacademy.eu/>.

COMANAGE Academy consists of a web tool specifically built and customised to answer all COMANAGE training needs, fully customised with COMANAGE's visual identity.

The structure of the COMANAGE Academy platform has been carefully built to make it very easy for users to navigate. It includes the following pages:

- *homepage,*
- *all courses page*
- *registration page,*
- *course page (a page for each of the four courses: English, Catalan, Italian and Polish)*

Further, all pages include the same header and footer designed to have the same graphical layout as other COMANAGE web tools and meet LIFE-funded projects' requirements.

The following paragraphs detail the various pages – except for the course pages, which are described in the following chapter

2.3. Homepage

The homepage is accessible by all users and requires no registration. As the COMANAGE Academy will also be disseminated as a self-standing tool, the homepage must give users a general overview of the project and the training.

The homepage starts with a slideshow featuring the main COMANAGE web tools. By clicking on the slideshow images, the user can reach:

- *COMANAGE training homepage – Energy Community Academia (slider 1)*
- *COMANAGE Open Platform (slider 2)*
- *COMANAGE Website (slider 3)*

By simply changing the language in the right corner of the website, it is possible to switch to each of the pilot languages (CAT, IT, PL + ES) and to English.

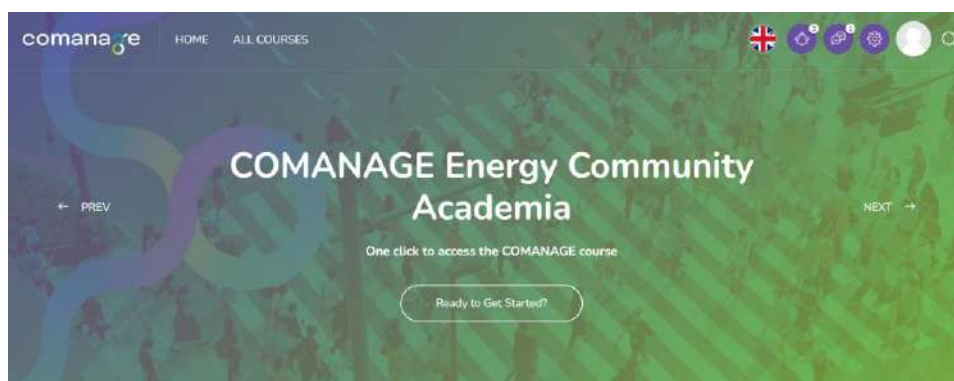


Figure 1. Training Homepage slider 1 - EN



Figure 2. Training Homepage slider 1 – IT



Figure 3. Training Homepage slider 1 – CAT



Figure 4. Training Homepage slider 1 – ES

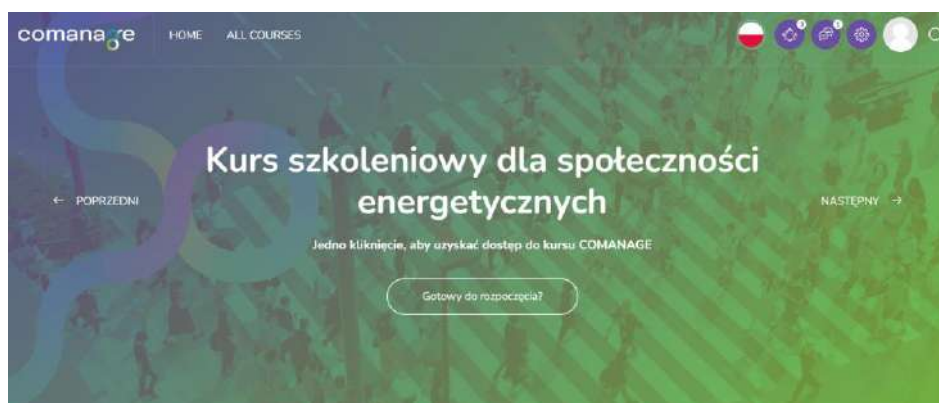


Figure 5. Training Homepage slider 1 – PL

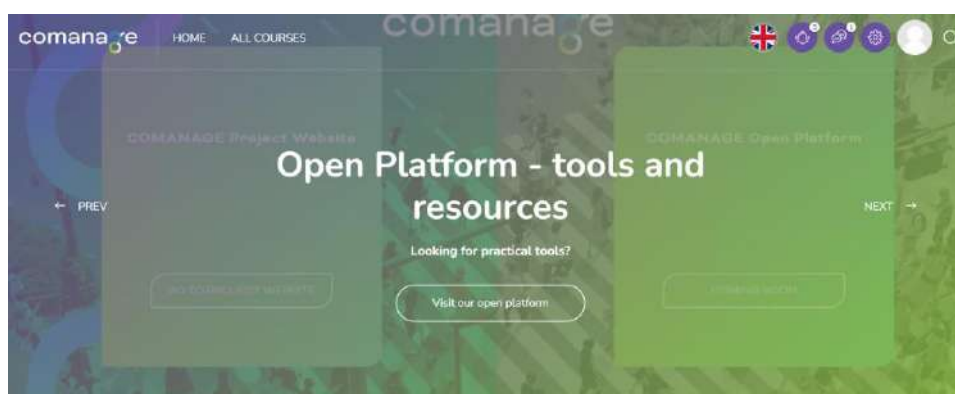


Figure 6. COMANAGE Open Platform slider 2 – EN



Figure 7. COMANAGE Open Platform slider 2 – IT



Figure 8. COMANAGE Open Platform slider 2 – CAT



Figure 9. COMANAGE Open Platform slider 2 – ES

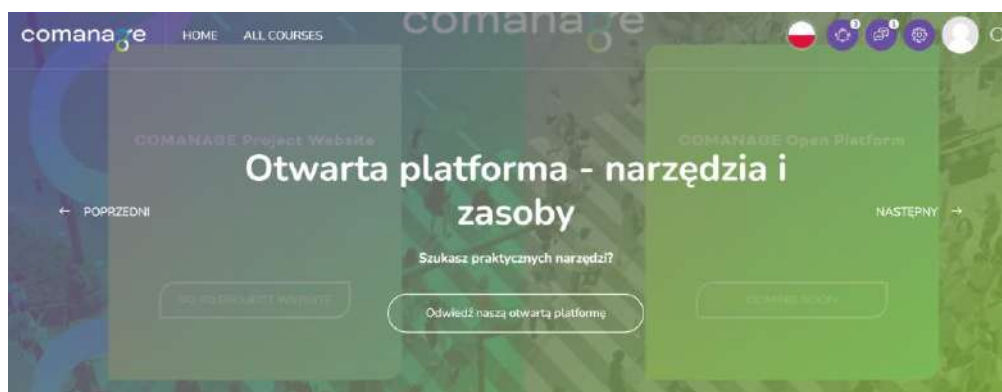


Figure 10. COMANAGE Open Platform slider 2 – PL



Figure 11. COMANAGE Website slider 3 – EN



Figure 12. COMANAGE Website slider 3 – IT



Figure 13. COMANAGE Website slider 3 – CAT



Figure 14. COMANAGE Website slider 3 – ES



Figure 15. COMANAGE Website slider 3 – PL

The other sections of the homepage include the COMANAGE video, a brief description of the project, COMANAGE training, COMANAGE main results and COMANAGE partners.

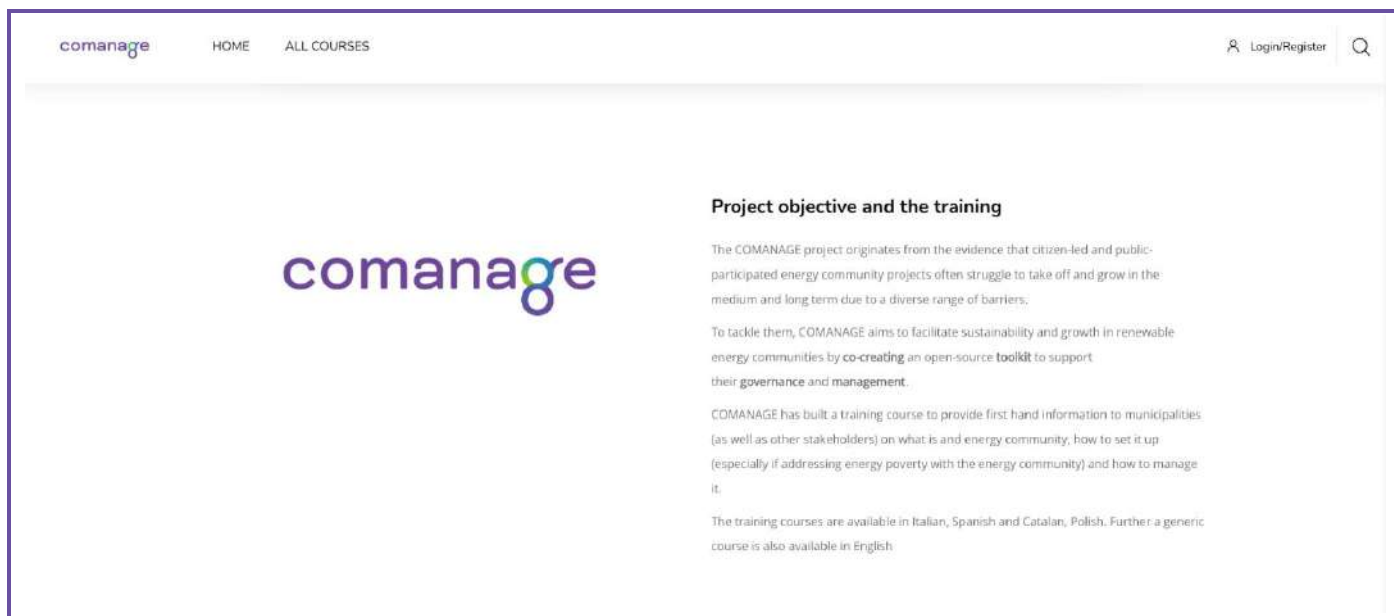


Figure 16. Homepage mid-section 1

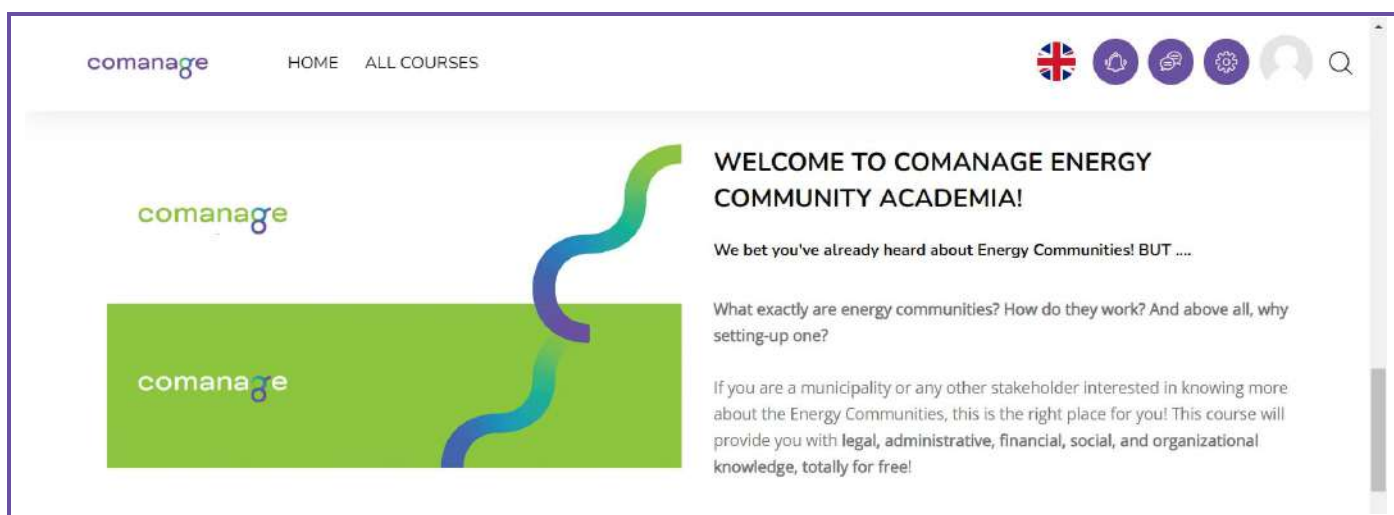


Figure 17. Homepage mid-section 2

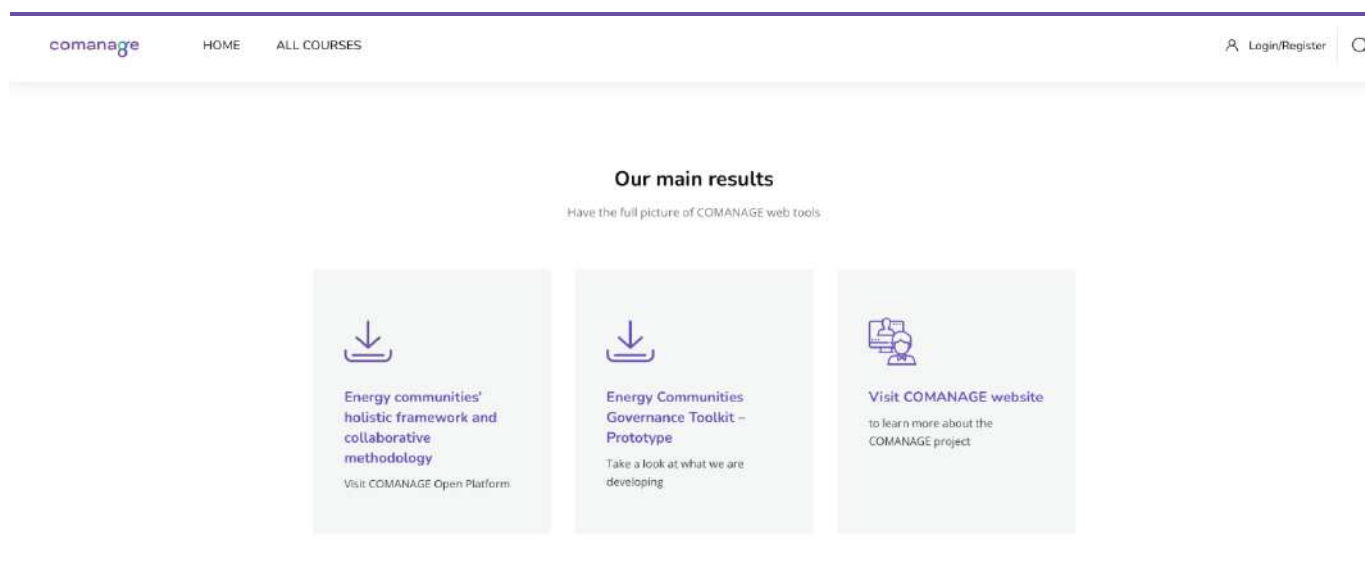


Figure 18. Homepage bottom section

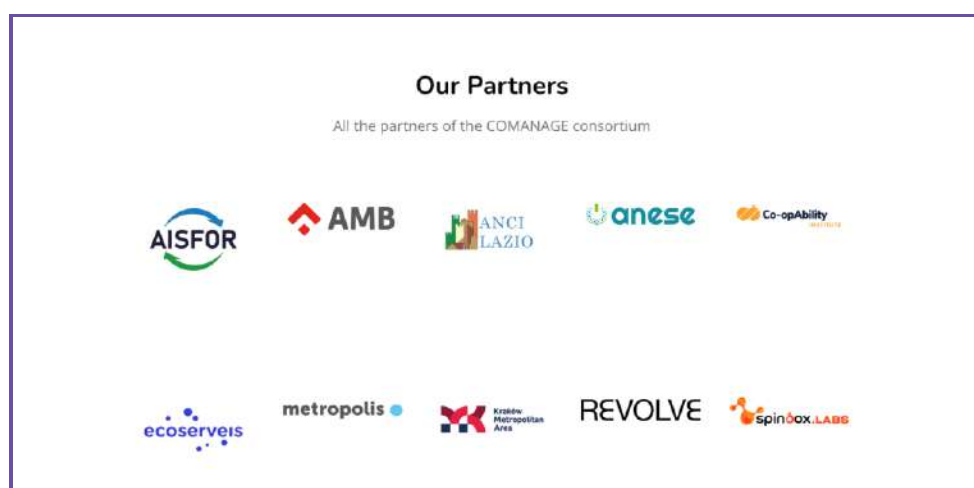


Figure 19. Homepage partners section

The header of the Homepage, which remains visible when scrolling down the page (see figures above), contains a link to the “ALL COURSES” page. To access this link, users are still not obliged to register—this way, the user may read more about COMANAGE training without being obliged to register (which always represents a psychological barrier hindering people from continuing).

2.4. ALL COURSES page

The all-courses page showcases COMANAGE training and provides easy access to the various training courses aligned with the project's goals and objectives.

This page lets users see the three pilot training programs plus the generic English one and read a brief introductory text for each course. The introductory text aims to provide first-hand information on the course (such as its contents and duration) to answer users' questions. Further, it is written catchy to invite users to register and undertake the training.

To highlight the multi-language dimension of COMANAGE training, each course icon has been branded with a specific colour reflecting the project's visual identity (Figure 8).



COMANAGE

COMANAGE Curso básico de Comunidades Energéticas

Este curso gratuito ofrece una guía general con respecto al concepto, principios y operaciones relacionadas con las Comunidades de Energías Renovables (CERs). Se estructuró partiendo de una base común en inglés para todos los socios de COMANAGE, y luego se le añadió un estudio en profundidad en español sobre terrenos específicos, como el legal y el económico. El curso consiste en 5 módulos que abarcan los siguientes temas: introducción a las CERs, asuntos técnicos, esfera legal y administrativa, estrategias de participación y divulgación. Una vez superado, ¡podrá obtener el certificado COMANAGE para demostrar su competencia en el campo de las CERs! ¿Quiere hacerse una idea del contenido del curso? ¡Puede acceder libremente a la clase de prueba en YouTube y al vídeo de introducción!



COMANAGE
E-Learning
Platform
comanage

¡
REGISTRARSE para asistir al curso completo!



COMANAGE

COMANAGE Curs bàsic de Comunitats Energètiques

Aquest curs gratuït ofereix una guia general pel que fa al concepte, els principis i les operacions relacionades amb les Comunitats d'Energies Renovables (CERs). Es va estructurar a partir d'una base comuna en anglès per a tots els socis de COMANAGE, i després s'hi va afegir un estudi en profunditat en catàl sobre terrenys específics, com el legal o l'econòmic. El curs consisteix en 5 mòduls que tracten els següents temes: introducció a les CERs, assumptes tècnics, models de negoci, esfera legal i administrativa, estratègies de participació i divulgació. Una vegada superat, podreu obtenir el certificat COMANAGE per a demostrar la vostra competència en el camp de les CERs! Voleu fer-vos una idea del contingut del curs? Podeu accedir lliurement a la lliçó de prova a YouTube i al vídeo d'introducció! Feu clic a REGISTRAR-SE per a assistir al curs complet!



COMANAGE

Kurs szkoleniowy COMANAGE o społecznościach energetycznych

Ten bezpłatny kurs zawiera informacje dotyczące koncepcji, zasad i sposobu zarządzania społecznościami energetycznymi. Został on skonstruowany w oparciu o wspólną bazę dla wszystkich partnerów COMANAGE, a następnie zintegrowany z dogłębnym studium w języku polskim na temat konkretnych dziedzin, takich jak m.in. kwestie prawne i finansowe. Kurs składa się z 5 modułów obejmujących następujące tematy: wprowadzenie do społeczności energetycznych, kwestie techniczne, modele biznesowe, sfera prawna i administracyjna, strategię uczestnictwa i rozpowszechniania. Po ukończeniu kursu będziesz mógł uzyskać certyfikat COMANAGE, aby poświadczyć swoje kompetencje w dziedzinie społeczności energetycznych! Chcesz zapoznać się z treścią kursu? Możesz uzyskać swobodny dostęp do lekcji demo na YouTube i [filmu wprowadzającego](#)!

ZAREJESTRUJ SIĘ, aby wziąć udział w pełnym kursie!



COMANAGE
COMANAGE Corso base sulle Comunità Energetiche

Questo corso gratuito fornisce una guida generale per quanto riguarda il concetto, i principi e le operazioni relative alle Comunità Energetiche Rinnovabili (CER). È stato strutturato a partire da una base in inglese comune per tutti i partner di COMANAGE, integrata poi con un approfondimento in italiano su aspetti specifici, ad esempio quelli legali e finanziari. Il corso si compone di 5 moduli riguardanti i seguenti temi: introduzione alle CER, strumenti tecnici, strumenti e modelli finanziari, strumenti legali e amministrativi, strumenti per la partecipazione e diffusione.

Una volta completato, potrai ottenere il certificato COMANAGE così da testimoniare la tua competenza nel campo delle CER!

Vuoi avere un'idea dei contenuti del corso? Puoi accedere liberamente alla [prima lezione](#) su YouTube e al [video introduttivo](#)!

ISCRIVITI per seguire il corso completo!



COMANAGE
COMANAGE Basic training course on Energy Communities

This fully funded course delivers an holistic guide about the concept, the principles and the activities related to the Energy Communities (EC).

The English course is the shared point of departure with all the pilots regions and consists of 5 modules concerning the following topic: introduction to Energy Communities, Technical issues, Business Models and Financial matter, Legal and Administrative topic, Participation and Dissemination field. However, the Catalan, Italian, Polish and Spanish courses deepen all those topics, such as the legal and the financial ones, that need specific contents for each country.

Once completed, the COMANAGE Certificate will be delivered, and you will be able to prove your proficiency in EC!

Want to better understand what are the contents about? Have a look at the [demo lesson](#) on YouTube and the introduction video!



COMANAGE
E-Learning Platform
comanage

GET REGISTERED to have full access to the whole course!

Figure 20. ALL COURSES page

Not registered users clicking on the course are brought to the course's external homepage, which also represents the first page of the enrolment process.

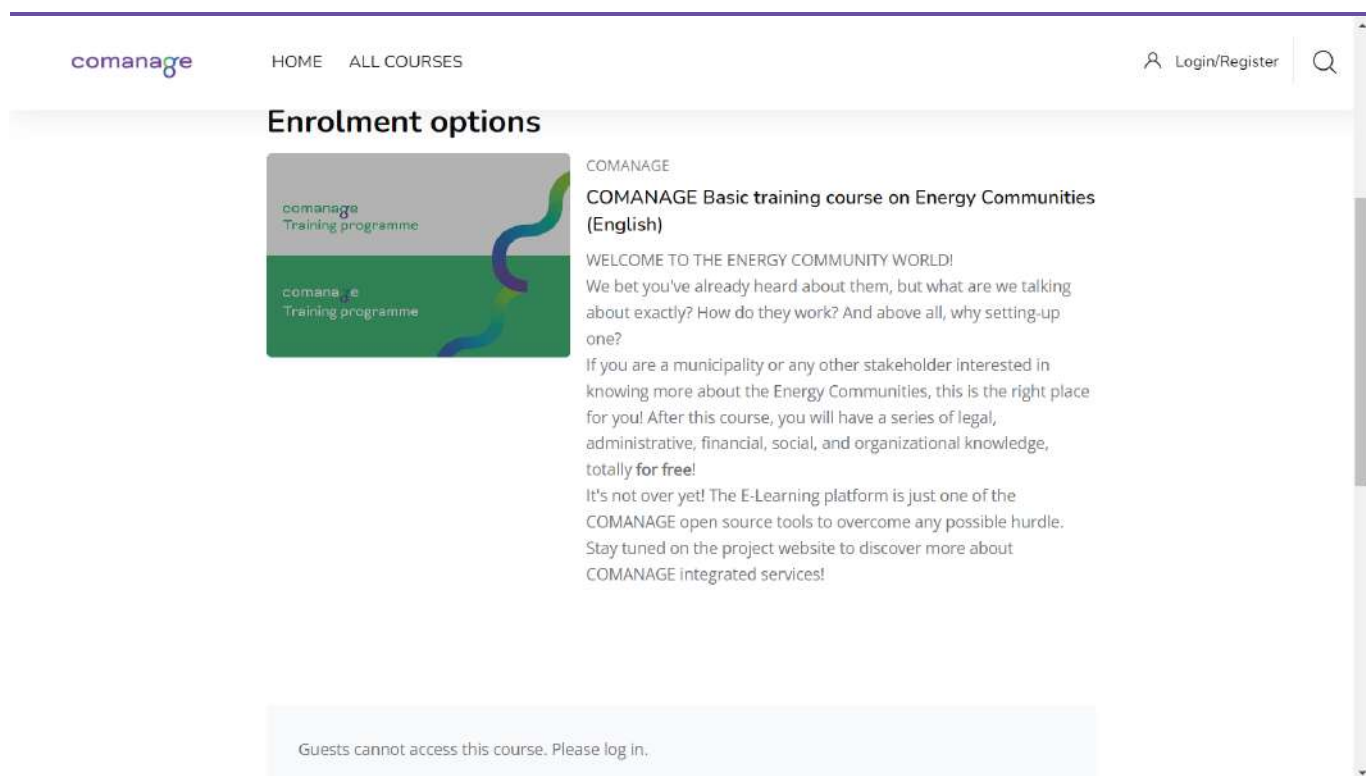


Figure 21. Enrolment option section

If the user is interested in undertaking the course, they must enrol in the COMANAGE Academia and register. By clicking on the link under the course description (see Figure 8), they are led directly to the registration page

2.5. Registration page

New users need to register on the COMANAGE Academy to access the training courses (non-registered users can access only an overview of the available courses and a brief description for each).

By clicking on the Login/Register link (top right-hand corner of the header), users will be led to the registration page (Figure 10). Fill out a form and provide their data (Username / Password / Name / Surname/email). The form also requires to indicate the country to automatically register the user to the relative national course.

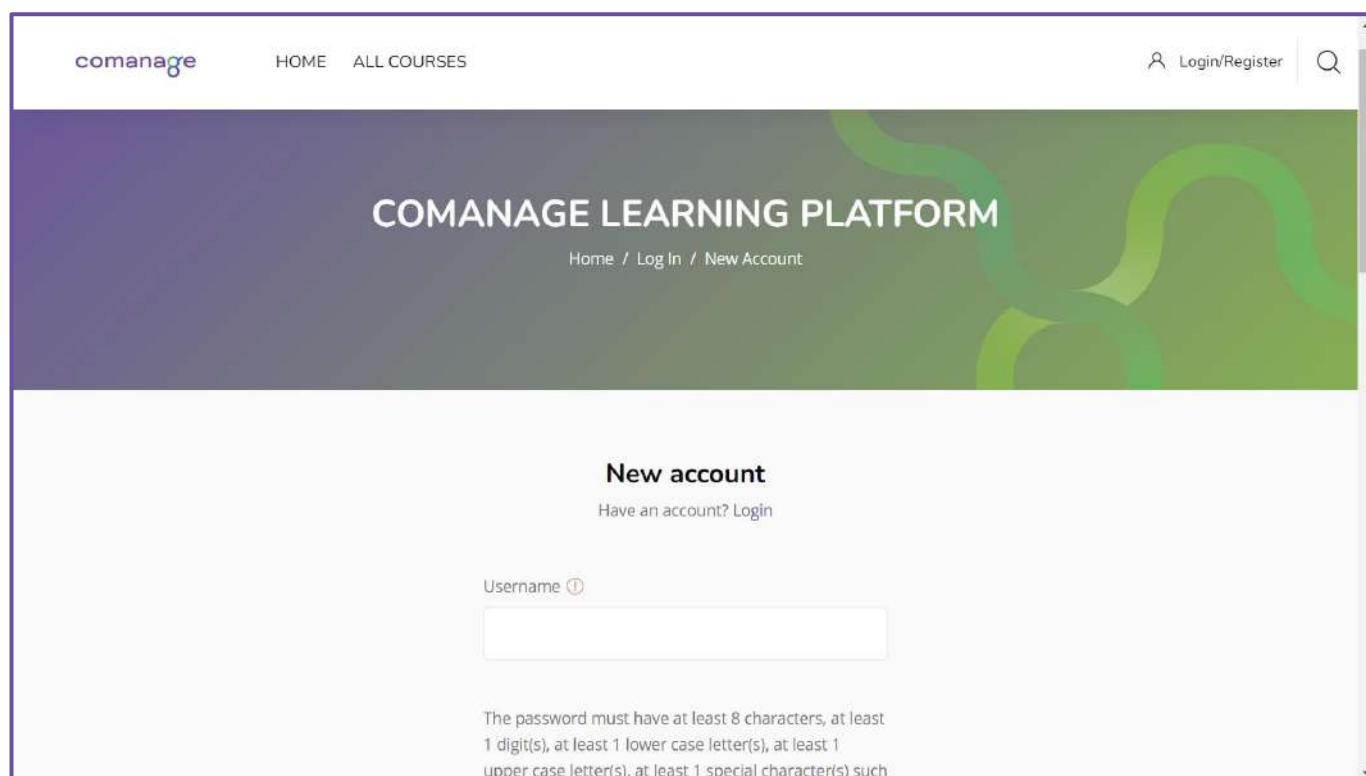


Figure 22. Homepage partners section

Once the user has terminated the registration, they will receive an automatic email with the data (username and password) to access the platform. The registration process will activate the creation of learner accounts with permissions and policies for access and fruition to the training course and all the related training resources (lessons, tests, and, at the end of the course, the certification).

2.6. Course page

To access one of the available COMANAGE courses (in English, Catalan, Italian, or Polish), users on the “ALL COURSES” page click on the course image.

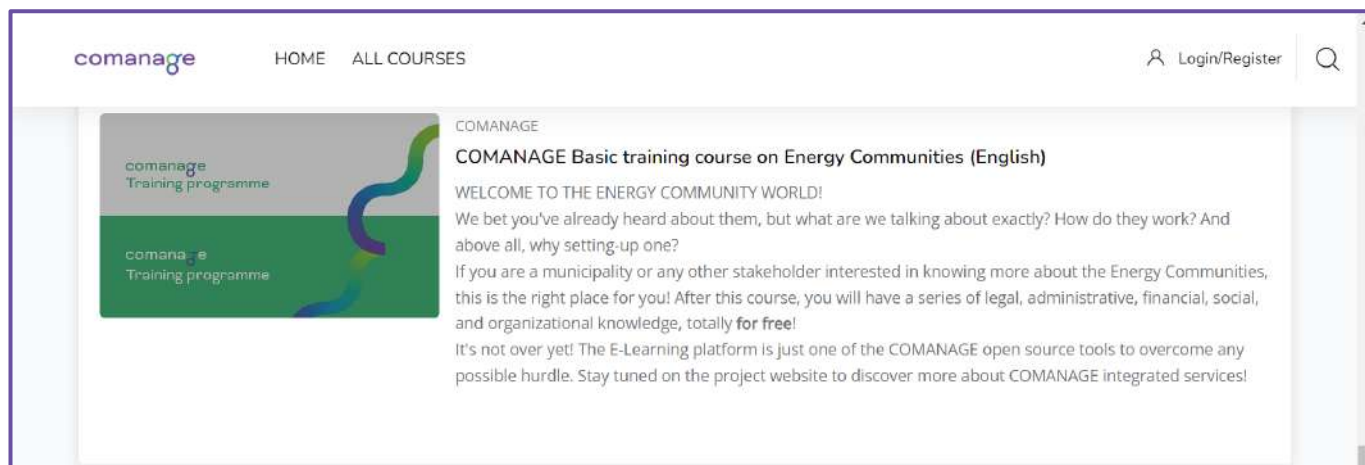


Figure 23. External description of the course

After logging in (or registering to the COMANAGE Academy platform, as explained above), the user accesses the course page where all the resources are accessible.

2.7. Footer

The footer contains information on how to contact the project, social networks, privacy policy, and the EU LIFE funding programme emblem with the disclaimer.

The footer is visible on all pages of the COMANAGE Academia platform and ensures the overall branding of COMANAGE.



Figure 24. Footer

3. COMANAGE training

3.1. Teaching methodologies and learning resources

The COMANAGE training course is delivered through distance learning methodologies thanks to the COMANAGE e-learning platform. This approach enables a broader reach to potentially interested users regarding geographical coverage and training time. The COMANAGE training is based on the asynchronous modes for the fruition of learning resources, using resources to support and deepen the topic, including external); - contact/interaction with other participants, the project team, and the system administrator. A second training is foreseen within the project lifetime with a face-to-face methodology in a synchronous mode.

Thanks to the COMANAGE learning platform, participants will be able to:

- *Create discussions and send messages*
- *Ask for active discussions, post to open discussions, and interact through messages with the project team and system administration.*

3.2. Pathways and rules of fruition and certificate

Several training fruition rules have been set up to ensure the user can undertake the course according to his path and knowledge needs. The course has been built to address all users with no predefined knowledge entry level. Suppose on one side this is positive as whoever may take the course. In that case, this also means that the contents of some modules may already be known by some users (if, for example, an engineer is interested in deepening the legal and social aspects of energy communities, for sure, they know the contents of the technical module). For this reason, it was decided that the fruition of the course would be free, and no progression rules would be included.

However, if a user wants the certification, they must undertake and pass all the tests in the course; a test is present at the end of each module. To this end, tests have been developed for each teaching unit, following a single approach and template. The test comprises several multiple-choice questions (see the following figure) and aims to verify whether the user has understood the training contents. The number of questions varies according to the length and difficulty of the lessons.

The tests may be taken numerous times by the participant.

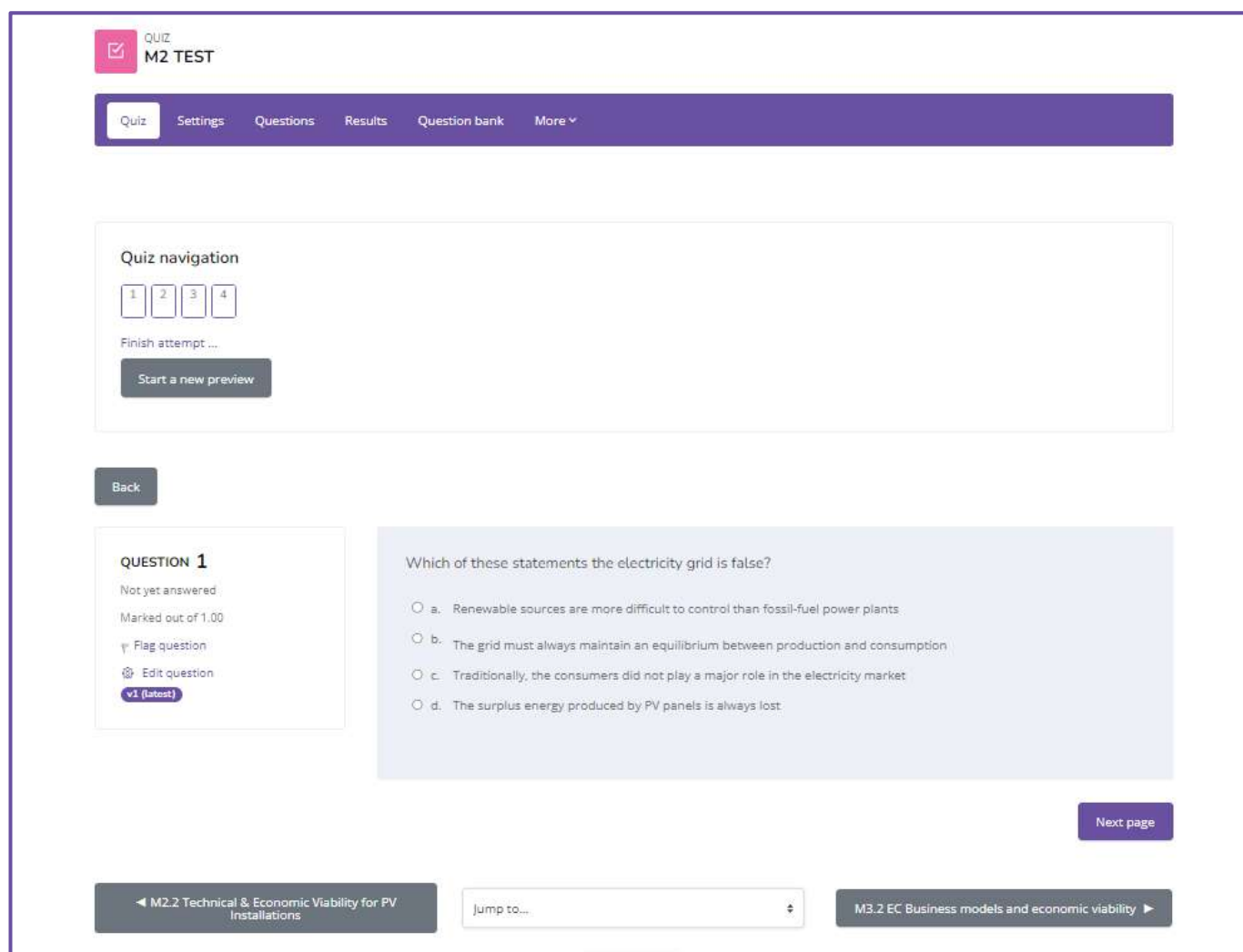


Figure 25. Test example

Following the fruition and "successful" completion of the training course, the participants are issued a certificate of participation that attests to the acquisition of the knowledge and skills

3.3. COMANAGE training course contents' structure

COMANAGE training follows the same logic and structure as the other COMANAGE tools, identifying five main areas of interest related to energy communities of the COMANAGE Governance toolkit: legal, social, communication, financial and technical. Building on and rearranging these five areas to ensure a progressive and modular follow of the course, the structure of standard COMANAGE training has been structured into five separate modules:

- *Module 1: Introduction to Energy Communities*
- *Module 2: Technical Tools*
- *Module 3: Business Models and Financial Tools*
- *Module 4: Legal and Administrative Tools*

- *Module 5: Participation and Dissemination Tools*

The building of the 3 piloting COMANAGE course had to take into account the fact that the state of the art of energy communities in the 3 piloting countries (Italy, Poland and Spain) are very different – ranging from a well-defined and established mechanisms in Spain to an experimental mechanism in Italy where the legislation has just been approved in 2024 to a situation in Poland where the legislation and implementation still needs to be set-up. For this reason, it was decided that the COMANAGE courses should include lessons with a standard and general context (such as the European legislation) and pilot-specific lessons (such as the National legislation). Therefore, a standard English course was conceived as a starting point for the later development of the more specific pilot courses (valid also for disseminating and exploiting the COMANAGE learning outcomes outside the geographical boundaries of the pilot cases). The standard and general lessons were prepared in English by the relatively responsible partner between AISFOR, ANESE; COOPABILITY and ECOSERVEIS and then translated into the pilot languages by the relative piloting partner (ANCI for Italy, KMA for Poland and AMB for Catalunya. Further, the piloting partners would prepare the pilot-specific languages directly in their language. Thanks to this methodology, **COMANAGE training includes four courses:**

- *one general standard course in English (with no country-specific lessons) which may be followed by all European actors interested in understanding what an energy community is, how to set it up addressing all the different aspects: legal, technical, financial and communicative*
- *Three country-specific courses, one in each piloting language (Italian, Polish, and Catalan), contain both the general aspects of an energy community (the translation of the English course) and the country-specific parts (prepared ad hoc for each National context), which may be followed by National actors (also very local actors, in line with the concept of an energy community) who do not know English. A fifth course will deliver the same contents of the Catalan course but in Spanish, so to have a broader audience.*

The following paragraphs provide more detailed information on the different courses. All the courses have been prepared and uploaded to the COMANAGE learning platform.

3.4. COMANAGE training resources

Technical (AISFOR, ANESE, COOPABILITY and ECOSERVEIS) and pilot partners (AMB, ANCI, KMA) have prepared COMANAGE training resources.

Initially, AISFOR and ECOSERVEIS structured the contents of COMANAGE training based on the same logic as other COMANAGE tools. Once the consortium approved the overall structure, AISFOR and ECOSERVEIS further detailed the contents, dividing them into each module's lessons. A further level of detail was provided considering the scope of each lesson; the lessons with common and overall valid contents were categorised as “general”, while lessons with country-specific lessons were classified as “pilot-specific”. The general lessons were then attributed to the English language (and will constitute the English course). The pilot-specific lessons would be prepared only in the pilot languages and, together with the translated general lessons, constitute the contents of the pilot training courses.

The lessons were prepared to be uploaded and followed on the COMANAGE online training platform. The format of the resources is SCORM (Shareable Content Object Reference Model), a widely used reference model for e-learning content.

To prepare the SCORM format, the visual resources were initially prepared (as slides using PowerPoint software). The lesson script was prepared in parallel, illustrating the content for each slide. The script was then recorded on the slide (always using

PowerPoint). The outcome of this initial process is to have a visual and audio file. The second step is to transform this visual-audio file into an easy-to-follow SCORM file, i.e. rendering the resource. This is done using a second software that allows the developed teaching content (thesis, links to external resources, videos, etc.) to be integrated with audio support. The outcome is a zip file that can be uploaded directly to the platform and launched as a video with preset and manual animations.

An example of the lesson is reported in the following figure.

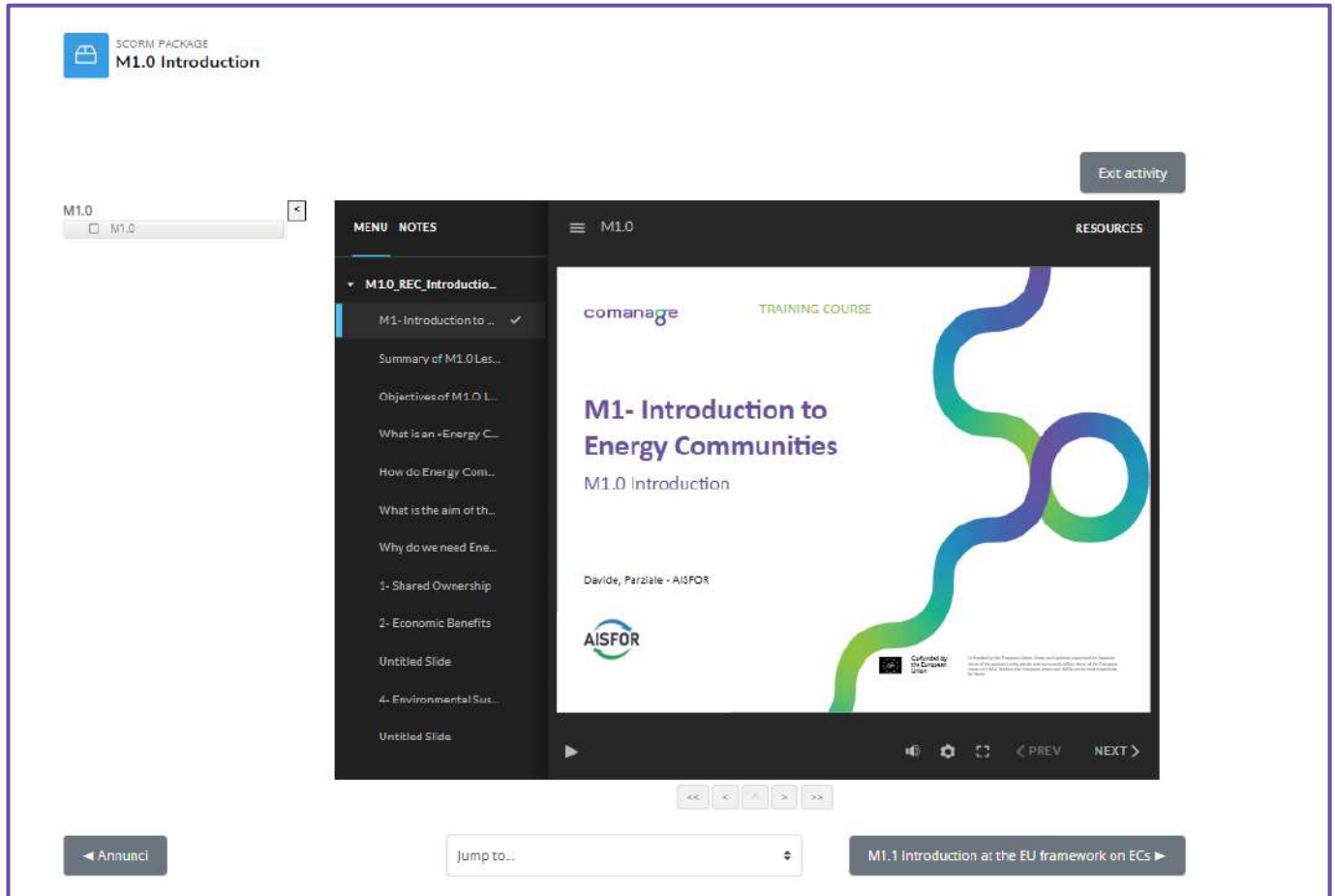


Figure 26. Example of a lesson

4. COMANAGE training courses

4.1. COMANAGE English general course

The COMANAGE English Course on Energy Communities comprehensively explores the concepts, principles, and practices surrounding energy communities. Tailored to meet the needs of participants interested in sustainable energy development and community empowerment, this course equips learners with the knowledge and skills to effectively understand, establish, and participate in energy communities.

As mentioned above, the COMANAGE English Course on Energy Communities is designed as a generic course and does not include specific modules tailored to the pilot's cases.

The following table reports the structure and contents of the English course (all the lessons in the English course have a generic scope, and the pilot-specific lessons are not included in the English course).

The following table reports the title of the module (and its overall duration), the title of the lessons (and the duration of each lesson), and a brief description of each lesson's contents.

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
M0	INTRODUCTION TO COMANAGE TRAINING PROGRAMME	15	
	Introduction	15	Presentation of the COURSE contents and progress, methodology, and evaluation system (certificate & rules)
M1	INTRODUCTION TO ENERGY COMMUNITIES	30	
M1.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> -Brief explanation of the concept of energy communities -Importance of energy communities for local energy production and consumption
M1.1	Introduction to the EU framework on ECs	15	European directives introducing the concept and mechanisms of REC - definitions adopted in the directives - obligation for MS
Test module	Online quiz	5	
M2	TECHNICAL TOOLS	40	
M2.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u>
M2.1	Electricity market basic	10	<u>Electricity market basic concepts (DSO, prosumers, etc.)</u> - Mechanisms of sharing energy with the grid - how does it work in each country? - DSO roles (privately owned- public)
Test module	Online Quiz	5	
M2.2	Technical and economic viability for PV installations	20	How to evaluate technical opportunities and Commercial offers + PayBack Time of investments for PV installation Commercial Offer Evaluation
Test module	Online Quiz	5	
M3	BUSINESS MODELS & FINANCIAL TOOLS	65	
M3.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> - Overview of the role of business models in understanding value creation and capture, emphasising the need for equitable distribution of benefits within the REC

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
M3.2	EC business models and economic viability	20	Different business models for benefit distribution in REC: How do we re-distribute the incentives? Focus on community-owned BM for EC. Economic viability assessment for EC initiatives
M3.4	Transversal services that ECs can offer	10	Explanation of other non-self-consumption services for REC members, such as mobility, flexibility, training and awareness raising, aggregated purchases, other RE generation, and many others.
Test module	Online quiz	5	
M4	LEGAL & ADMINISTRATIVE TOOLS	55	
M4.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> - Importance of effective governance in REC (most of the initiatives don't last for lack of effective governance) - Highlight the importance of effective governance in ensuring the success and sustainability of RECs. - Introduce the role of PAs in facilitating and supporting REC governance.
M4.1	Regulatory framework and legal bodies for ECs	10	Comparison of different legal bodies. Focus on Cooperatives and associations.
M4.3	Role of public entities for EC promotion	20	<u>Governance of RECs</u> - Define REC governance as the structures, processes, and decision-making mechanisms that guide the functioning of renewable energy communities. - Discuss the fundamental principles and objectives of REC governance, including: - Transparency and accountability in decision-making processes - Inclusivity and participation of community members. - Integration of environmental and social considerations. - Long-term planning and adaptability. <u>The role of PAs in creating an enabling environment for community-driven renewable energy initiatives.</u> - Provision of technical assistance, training, and resources to assist communities in developing and managing RECs. - Collaboration with educational institutions and research organisations to enhance knowledge sharing and expertise. - PA's involvement in coordinating efforts between stakeholders, including community groups, utilities, and private entities. - Collaboration with relevant departments or agencies is needed to ensure the integration of RECs into overall energy planning.

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
			- The PA's role is to enforce actions to maintain the integrity and effectiveness of renewable energy projects. - Promotion of public awareness campaigns and educational initiatives to empower communities.
Test module	Online quiz	5	
M5	PARTICIPATION & DISSEMINATION TOOLS	125	
M5.0	Introduction	5	Presentation of the module: topics, objectives & learning expectations
M5.1	Community engagement and communication plan	20	<u>Stakeholders engagement. Communication Tools. Communities are empowered to generate, consume, and manage renewable energy collectively.</u> - Provide strategies for community engagement, with a focus on an active role of consumers in energy transition and awareness of the energy market and consumption choices
M5.2	Communication tools and materials	20	How to effectively disseminate an energy community initiative
M5.3	Community facilitation and participation tools	15	The role of the facilitator (including reference to the U-Theory methodology and techniques) Facilitating activities considering the importance of the equity and gender balance approach
M5.4	Gender equality and social inclusion in ECs	10	<u>Understanding Gender Equality and Social Inclusion in ECs</u> - conceptualisation & background info on gender equality and its relevance in renewable energies - Explore the significance of social inclusion from an intersectional perspective in the context of energy communities. <u>Challenges & benefits</u> - Identification of issues faced by women and marginalised groups (i.e. collectives/individuals at high risk of vulnerability) in participating in energy communities. - Highlight the benefits of promoting gender equality and social inclusion <u>Strategies to foster inclusion</u> - Learn about effective strategies to enhance gender equality and social inclusion - overview of best practices and real cases <u>Role of participation</u> Explain how the active participation of all members contributes to a more inclusive and equal energy community. <u>Communication for change</u> Highlight how to positively disseminate experiences and inform people to lead to a positive change.

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
M5.5	Tackling Energy Poverty with ECs	15	<u>Definition of energy poverty and its key indicators</u> (energy expenditure, energy access, energy efficiency) <u>The implications of Energy poverty for individuals, communities, and the environment.</u> - Environmental Consequences and negative impacts of Energy Poverty (Dependence on fossil fuels and inefficient energy sources, contributing to greenhouse gas emissions and climate change; deforestation and habitat degradation caused by unsustainable fuelwood collection and/or fossil fuel use/generation; adverse effects on ecosystems and biodiversity due to unsustainable energy practices) - Social needs benefits of addressing EP; - Tools, framework, Energy Poverty Circular Model - The Role of Renewable Energy Communities (RECs): Potential and benefits of RECs tackling energy poverty - Best practices of REC projects. <u>The main challenges faced by individuals living in energy poverty</u> - limited access to modern energy services - high energy costs relative to income - limited educational opportunities
M5.7	Comanage Open Platform Results and Exploitation	20	<u>DSS Platform, Training and engagement as everyday activities</u> <u>Introduction</u> - The crucial role of community engagement and empowerment in achieving long-term sustainability in REC. - How to foster a strong community as the foundation for successful REC initiatives. <u>Engaging the Community for Sustainable Energy Transition:</u> - The role of community engagement as an ongoing activity for PAs to achieve sustainable energy goals within RECs. - The benefits of involving community members in decision-making, project planning, and implementation. - The long-term vision of REC sustainability and the role of community empowerment in driving sustainable development - There is potential for community-led innovation, entrepreneurship, and adopting additional sustainable practices. - Training, capacity building, and knowledge sharing are essential to empower communities for a sustainable future. <u>Toolkit and DSS Platform</u> - Overview of the DSS Platform
Test module	Online quiz	5	

The training resources were prepared and uploaded to the training platform, as detailed in paragraph 3.4 on COMANAGE training resources. The following figures show the English training course on the COMANAGE training platform.



Figure 27. English course

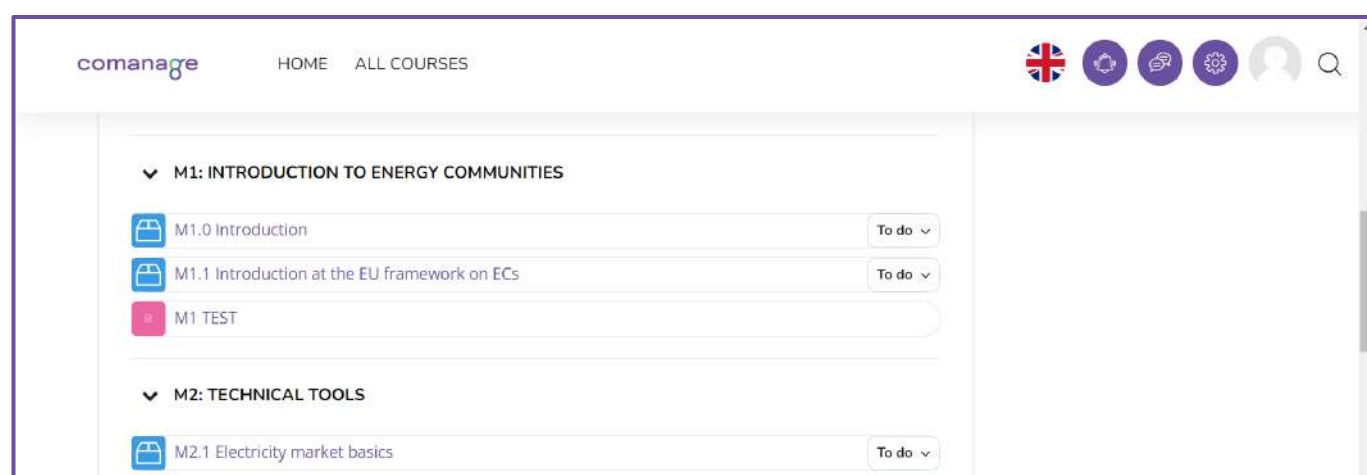


Figure 28. Screenshots of the English course on the COMANAGE Academy Platform

4.2. The Pilot-specific courses: Catalan, Italian and Polish

In parallel to the English course, COMANAGE-built pilot-specific training courses were prepared. The pilot-specific courses incorporate the core contents of the English course and pilot-specific and country-related tailored content specific to each pilot's unique case.

Participants enrolled in pilot-specific courses can expect a deeper dive into relevant topics, which will provide them with a thorough understanding of how energy community concepts and principles apply to their specific case in multimedia presentations (slides + audio).

- **Italian and Polish training course**

The Italian and Polish courses have been prepared following the COMANAGE training and integrating the translated standard course of the English course with the pilot-specific lessons. The following table reports the final structure and contents of the Italian and Polish courses (where the lessons highlighted in green are those pilot-specific that are present only in these courses and not in the English course).

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
M0	INTRODUCTION TO COMANAGE TRAINING PROGRAMME	15	
	Introduction	15	Presentation of the COURSE contents and progress, methodology, and evaluation system (certificate & rules)
M1	INTRODUCTION TO ENERGY COMMUNITIES	30	
M1.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> -Brief explanation of the concept of energy communities -Importance of energy communities for local energy production and consumption
M1.1	Introduction to the EU framework on ECs	15	European directives introducing the concept and mechanisms of REC - definitions adopted in the directives - obligation for MS
M1.2	Introduction to the National Framework	10	National Directives on Energy Communities
Test module	Online quiz	5	
M2	TECHNICAL TOOLS	40	
M2.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u>
M2.1	Electricity market basic	10	<u>Electricity market basic concepts (DSO, prosumers, etc.)</u> - Mechanisms of sharing energy with the grid - how does it work in each country? - DSO roles (privately owned- public)
M2.1.1	Introduction to self-consumption and energy-sharing mechanisms	5	Details on different models for energy sharing, technical settings and state of legislation in each pilot
M2.1.2	Legalisation procedures for Shared Self-Consumption	10	Legalisation and other procedures related to shared self-consumption.
Test module	Online Quiz	5	
M2.2	Technical and economic viability for PV installations	20	How to evaluate technical opportunities and Commercial offers + PayBack Time of investments for PV installation Commercial Offer Evaluation
Test module	Online Quiz	5	

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
M3	BUSINESS MODELS & FINANCIAL TOOLS	65	
M3.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> - Overview of the role of business models in understanding value creation and capture, emphasising the need for equitable distribution of benefits within the REC
M3.1	Public-communitarian partnership models	20	"The importance of the relation between PA and citizens (SME's other community initiatives) in RECs, real-case scenarios.
M3.2	EC business models and economic viability	20	Different business models for benefit distribution in REC: How do we re-distribute the incentives? Focus on community-owned BM for EC. Economic viability assessment for EC initiatives
M3.3	Financing Schemes & options from a municipality perspective	10	National financing options (financial mechanisms + subsidies)
M3.4	Transversal services that ECs can offer	10	Explanation of other non-self-consumption services for REC members, such as mobility, flexibility, training and awareness raising, aggregated purchases, other RE generation, and many others.
Test module	Online quiz	5	
M4	LEGAL & ADMINISTRATIVE TOOLS	55	
M4.0	Introduction	5	<u>Presentation of the module: topics, objectives & learning expectations</u> - Importance of effective governance in REC (most of the initiatives don't last for lack of effective governance) - Highlight the importance of effective governance in ensuring the success and sustainability of RECs. - Introduce the role of PAs in facilitating and supporting REC governance.
M4.1	Regulatory framework and legal bodies for ECs	10	Comparison of different legal bodies. Focus on Cooperatives and associations.
M4.2	Legal body constitution for ECs	20	How to write a Statute for REC. Different statutes for different purposes
M4.3	Role of public entities for EC promotion	20	<u>Governance of RECs</u> - Define REC governance as the structures, processes, and decision-making mechanisms that guide the functioning of renewable energy communities. - Discuss the fundamental principles and objectives of REC governance, including: - Transparency and accountability in decision-making processes

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
			- Inclusivity and participation of community members. - Integration of environmental and social considerations. - Long-term planning and adaptability. <u>The role of PAs in creating an enabling environment for community-driven renewable energy initiatives.</u> - Provision of technical assistance, training, and resources to assist communities in developing and managing RECs. - Collaboration with educational institutions and research organisations to enhance knowledge sharing and expertise. - PA's involvement in coordinating efforts between stakeholders, including community groups, utilities, and private entities. - Collaboration with relevant departments or agencies is needed to ensure the integration of RECs into overall energy planning. - The PA's role is to enforce actions to maintain the integrity and effectiveness of renewable energy projects. - Promotion of public awareness campaigns and educational initiatives to empower communities.
M4.3.1	Tax regulation for self-consumption promotion	15	Options to model tax regulation relative to the participation in EC.
Test module	Online quiz	5	
M5	PARTICIPATION & DISSEMINATION TOOLS	125	
M5.0	Introduction	5	Presentation of the module: topics, objectives & learning expectations
M5.1	Community engagement and communication plan	20	<u>Stakeholders' engagement. Communication Tools. To empower Communities to generate, consume, and manage renewable energy collectively.</u> - Provide strategies for community engagement, with a focus on the active role of consumers in energy transition and awareness of energy market and consumption choices
M5.2	Communication tools and materials	20	How to effectively disseminate an energy community initiative
M5.3	Community facilitation and participation tools	15	The role of the facilitator (including reference to the U-Theory methodology and techniques) Facilitating activities considering the importance of the equity and gender balance approach
M5.4	Gender equality and social inclusion in ECs	10	<u>Understanding Gender Equality and Social Inclusion in ECs</u> - conceptualisation & background info on gender equality and its relevance in renewable energies - Explore the significance of social inclusion from an intersectional perspective in the context of energy communities.

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
			<u>Challenges & benefits</u> - Identification of issues faced by women and marginalised groups (i.e. collectives/individuals at high risk of vulnerability) in participating in energy communities. - Highlight the benefits of promoting gender equality and social inclusion <u>Strategies to foster inclusion</u> - Learn about effective strategies to enhance gender equality and social inclusion - overview of best practices and real cases <u>Role of participation</u> Explain how the active participation of all members contributes to a more inclusive and equal energy community. <u>Communication for change</u> Highlight how to positively disseminate experiences and inform people to lead to a positive change.
M5.5	Tackling Energy Poverty with ECs	15	<u>Definition of energy poverty and its key indicators</u> (energy expenditure, energy access, energy efficiency) <u>The implications of Energy poverty for individuals, communities, and the environment.</u> - Environmental Consequences and negative impacts of Energy Poverty (Dependence on fossil fuels and inefficient energy sources, contributing to greenhouse gas emissions and climate change; deforestation and habitat degradation caused by unsustainable fuelwood collection and/or fossil fuel use/generation; adverse effects on ecosystems and biodiversity due to unsustainable energy practices) - Social needs benefits of addressing EP; - Tools, framework, Energy Poverty Circular Model - The Role of Renewable Energy Communities (RECs): Potential and benefits of RECs tackling energy poverty - Best practices of REC projects. <u>The main challenges faced by individuals living in energy poverty</u> - limited access to modern energy services - high energy costs relative to income - limited educational opportunities
M5.6	Virtues cases and European Panorama of REC	20	"Analogies and differences in RECs in EU countries, quick scope of successful cases"
M5.7	Comanage Open Platform Results and Exploitation	20	<u>DSS Platform, Training and engagement as everyday activities</u> <u>Introduction</u> - The crucial role of community engagement and empowerment in achieving long-term sustainability in REC. - How to foster a strong community as the foundation for successful REC initiatives.

MODULE	TITLE	DURATION (minutes)	COURSE DESCRIPTION
			<u>Engaging the Community for Sustainable Energy Transition:</u> - The role of community engagement as an ongoing activity for PAs to achieve sustainable energy goals within RECs. - The benefits of involving community members in decision-making, project planning, and implementation. - The long-term vision of REC sustainability and the role of community empowerment in driving sustainable development - There is potential for community-led innovation, entrepreneurship, and adopting additional sustainable practices. - Training, capacity building, and knowledge sharing are essential to empower communities for a sustainable future. <u>Toolkit and DSS Platform</u> - Overview of the DSS Platform
Test module	Online quiz	5	

The following images show how the Italian and Polish courses look once uploaded on the COMANAGE training platform:

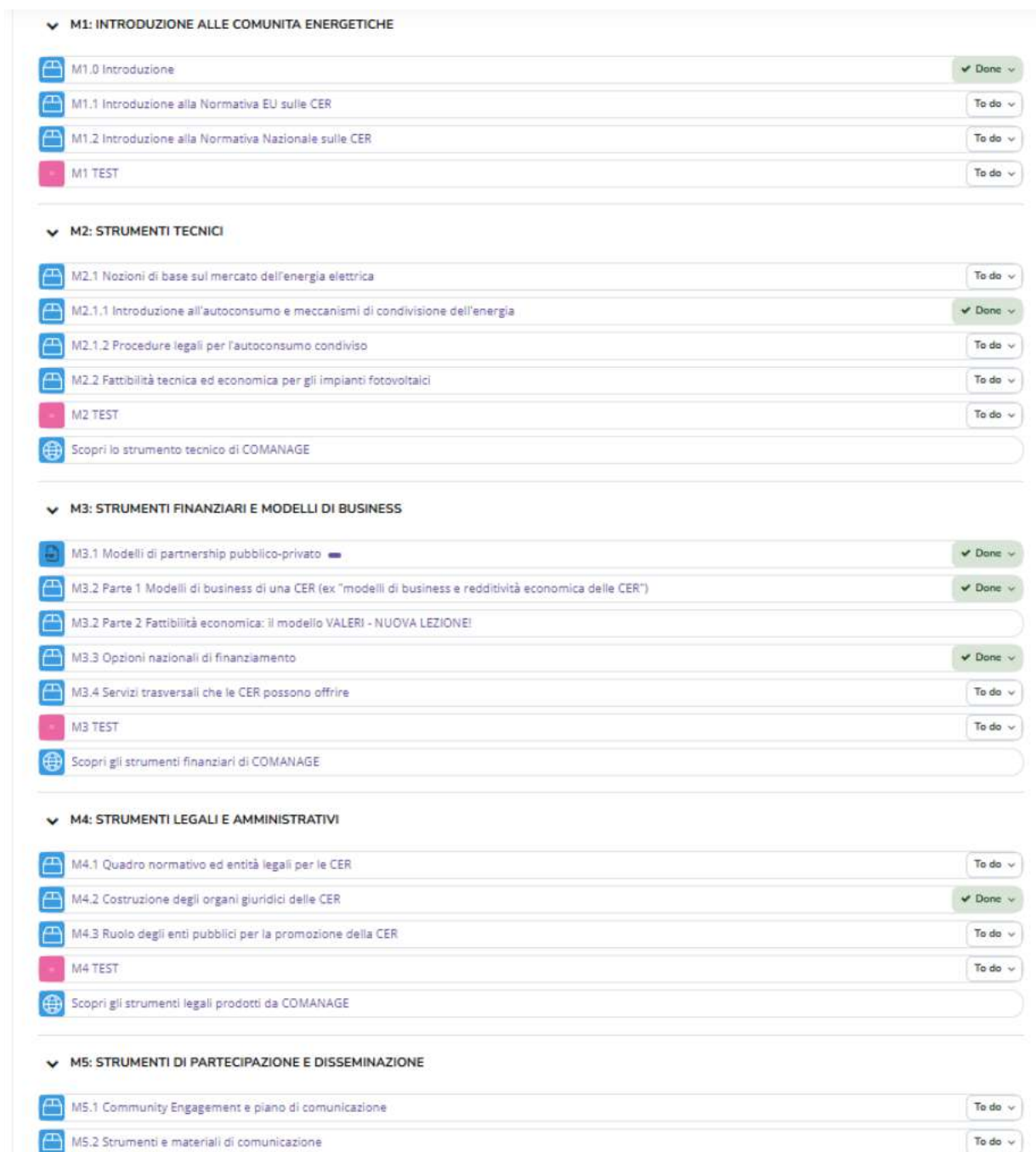


Figure 29. COMANAGE training program – IT



Figure 30. Course content – IT

▼ M1- Wprowadzenie do społeczności energetycznych		
	M1.0 Wprowadzenie	To do ▾
	M1.1 Wprowadzenie do ram UE dotyczących społeczności energetycznych	To do ▾
	M1.2 Wprowadzenie do krajowych ram prawnych	To do ▾
	M1 TEST	To do ▾
▼ M2 – Narzędzia techniczne		
	M2.1 Podstawy rynku energii elektrycznej	To do ▾
	M2.1.1 Społeczności energetyczne ramy techniczne	✓ Done ▾
	M2.2 Techniczna i ekonomiczna opłacalność instalacji fotowoltaicznych	To do ▾
	M2 TEST	To do ▾
▼ M3 - Modele biznesowe i narzędzia finansowe		
	M3.1 Modele partnerstwa publiczno-społecznego	To do ▾
	M3.2.1 Modele biznesowe Społeczności Energetycznych (EX Rentowność finansowa i modele biznesowe)	To do ▾
	M3.2.2 Rentowność finansowa PV, model VALERI	✓ Done ▾
	M3.3 Systemy i opcje finansowania z perspektywy gminy	To do ▾
	M3.4 Usługi przekrojowe społeczności energetycznych	To do ▾
	M3 TEST	To do ▾
	Sprawdź narzędzie finansowe Comanage!	
▼ M4 - Dokumenty prawne dla społeczności		
	M4.2 Dokumenty prawne dla społeczności	To do ▾
	M4.3 Rola władz publicznych w promocji Społeczności Energetycznych	To do ▾
	M4 TEST	To do ▾
▼ M5 - Narzędzia uczestnictwa i komunikacji		
	M5.1 Zaangażowanie społeczności i plan komunikacji	To do ▾
	M5.2 Narzędzia i materiały komunikacyjne	To do ▾
	M5.3 Narzędzia służące do koordynowania społecznością	To do ▾
	M5.4 Równość płci i integracja społeczna w Społecznościach Energetycznych	To do ▾
	M5.5 Zwalczanie ubóstwa energetycznego za pomocą społeczności energetycznych	To do ▾
	M5.6 Społeczności energetyczne w Europie – dobre praktyki	To do ▾
	M5 TEST	To do ▾

Figure 31. COMANAGE training program – PL

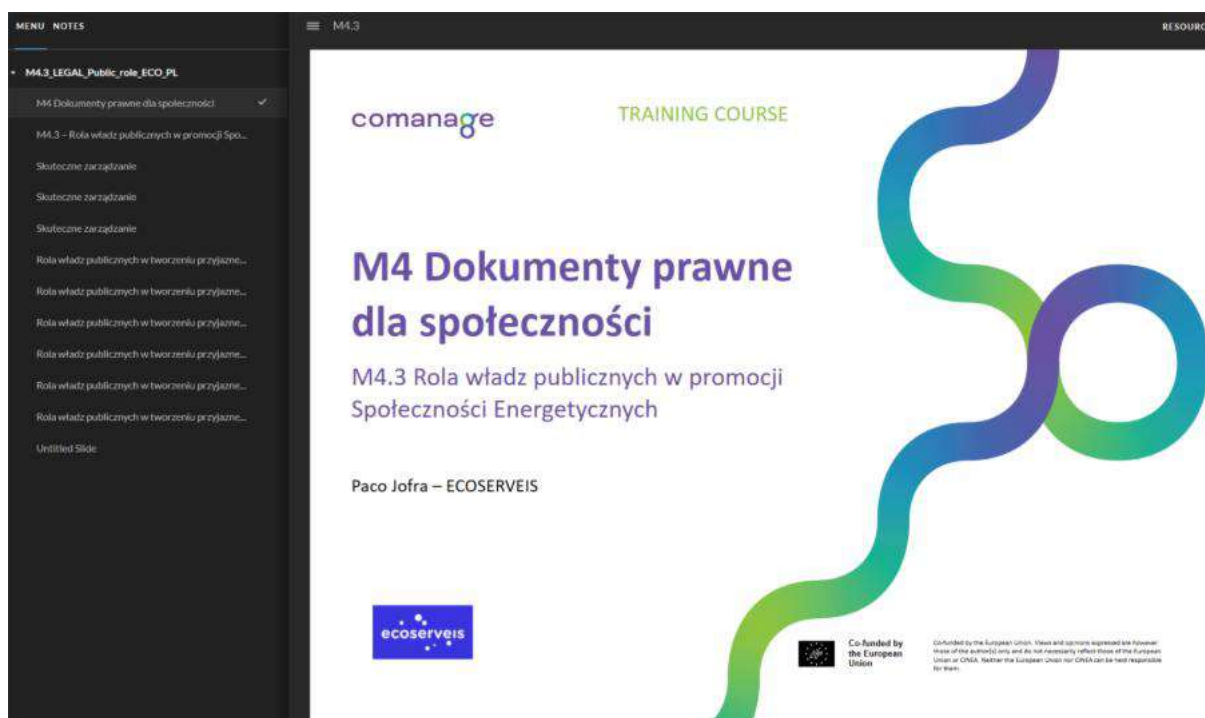


Figure 32. Course content – PL

■ The Catalan training course

The Catalan course has been developed, including more content. (Because the Catalan pilot, Barcellona municipality, had already developed introductory training courses on energy communities, they decided to use the COMANAGE opportunity to prepare further resources. The program of the Catalan course is also available in Spanish.

The following table reports the structure and contents of the Catalan course:

MODUL	TITLE
M0	INTRODUCCIÓ A LA PLATAFORMA DE FORMACIÓ DE COMANAGE
M0.0	Introducció
M1	Introducció a les comunitats energètiques (CCEE)
M1.0	Introducció
M1.1	Introducció normativa europea CCEE
M1.2	Introducció al marc normatiu estatal
Test module	Online quiz
M2	ÀMBIT TÈCNIC
M2.0	Introducció
M2.1	Mercat elèctric avançat
M2.1.1	Introducció a l'autoconsum (RD244/2019)
M2.1.2	Legalització i tramitació d'instal·lacions d'autoconsum compartit
Test module	Online Quiz
M2.2	Viabilitat tècnica i econòmica d'instal·lacions
Test module	Online Quiz

MODUL	TITLE
M3	MODEL DE NEGOCI I VIABILITAT ECONÒMICA
M3.0	Introducció
M3.1	Models de col·laboració publico comunitària
M3.2	Models de negoci i viabilitat econòmica de CCEE
M3.3	Finançament de CCEE amb perspectiva municipal
M3.4	Potencials serveis transversals per CCEE
Test module	Online quiz
M4	FIGURA JURÍDICA I MARC LEGISLATIU
M4.0	Introducció
M4.1	Marc legislatiu i figures jurídiques
M4.2	Constitució jurídica per a CCEE
M4.3	El rol públic en la promoció de CCEE (OSS)
M4.3.1	Bonificacions fiscals i autoconsum compartit
Test module	Online quiz
M5	PARTICIPACIÓ I GOVERNAÇA
M5.0	Introducció
M5.1	Pla de comunicació i enxarxament comunitari
M5.2	Recursos i materials comunicatius
M5.3	Eines participatives i facilitació
M5.4	Perspectiva de gènere i inclusió a les CCEE
M5.5	Abordatge de la pobresa energètica via CCEE
M5.6	Casos d'estudi i aprenentatge
M5.7	Plataforma oberta COMANAGE
Test module	Online quiz

▼ M1- Introducció a les Comunitats Energètiques		
	Mòdul 1.0 - Introducció a les Comunitats Energètiques	To do ▾
	Mòdul 1.1 - Normativa Europea sobre Comunitats Energètiques	To do ▾
	Mòdul 1.2 - Normativa Estatal sobre Comunitats Energètiques	To do ▾
	M1 TEST	To do ▾
	Gestió de Comunitats Energètiques amb el projecte COMANAGE - Mira el vídeo!	
▼ M2 - Aspectes Tècnics		
	Mòdul 2.1 - Funcionament del mercat elèctric	To do ▾
	Mòdul 2.1.1 - Introducció a l'autoconsum (RD244/2019)	To do ▾
	Mòdul 2.1.2 - Legalització i tramitació d'instal·lacions d'autoconsum compartit	To do ▾
	Mòdul 2.2 - Viabilitat tècnica i econòmica d'instal·lacions fotovoltaïques	To do ▾
	M2 TEST	To do ▾
	Descobreix l'eina tècnica del COMANAGE	
▼ M3 - Models de Negoci i Viabilitat Econòmica		
	Mòdul 3.0 - Models De Negoci i Viabilitat Econòmica	To do ▾
	Mòdul 3.1 - El rol públic en la promoció de les CCEE: Informació i suport	To do ▾
	Mòdul 3.2 - Models de negoci i viabilitat econòmica de les comunitats energètiques	To do ▾
	Mòdul 3.3 - Models de finançament	To do ▾
	Mòdul 3.4 - Serveis transversals per comunitats energètiques	To do ▾
	Mòdul 3.5 - Casos d'estudi i aprenentatge	To do ▾
	M3 TEST	To do ▾
	Descobreix l'eina financera del COMANAGE	
▼ M4 - Marc legislatiu i governança		
	Mòdul 4.0 - Introducció al marc legislatiu i governança	To do ▾
	Mòdul 4.1 - Figures jurídiques	To do ▾
	Mòdul 4.2 - Constitució jurídica	To do ▾
	Mòdul 4.3 - Procés de creació	To do ▾
	Mòdul 4.4 - Governança i gestió	To do ▾
	Mòdul 4.5 - Ajudes i bonificacions fiscals	To do ▾
	M4 TEST	

Figure 33. Catalan course program

La Teulada
AMB

Marc legislatiu i figures jurídiques

El marc actual dona lloc principalment a tres figures jurídiques:

- COOPERATIVA
- ASSOCIACIÓ
- SOCIETAT LIMITADA

"Les cooperatives són empreses centrades en les persones, que pertanyen als seus membres, qui les controlen i dirigeixen per donar resposta a les necessitats i ambicions de caràcter econòmic, social i cultural comunes."

**International Cooperative Alliance*

Figure 34. Course content – CAT

M1: INTRODUCCIÓN A LAS COMUNIDADES ENERGÉTICAS		
	M1.0 - Introducción	Completion ▾
	M1.1 - Introducción a la normativa europea sobre CEE	Completion ▾
	M1.2 - Introducción a las Comunidades Energéticas	Completion ▾
	M1 TEST	Completion ▾
	Gestión de Comunidades Energéticas con el proyecto COMANAGE - Mira el vídeo	
▼ M2: HERRAMIENTAS TÉCNICAS		
	M2.1 - Funcionamiento del mercado eléctrico	Completion ▾
	M2.1.1 - Introducción al Autconsumo (10/24/2019)	Completion ▾
	M2.1.2 - Legislación y activación del autoconsumo compartido	Completion ▾
	M2.2 - Viabilidad técnica y económica de instalaciones	Completion ▾
	M2 TEST	
	Descubre la herramienta técnica del COMANAGE	
▼ M3: MODELOS DE NEGOCIO Y VIABILIDAD ECONÓMICA		
	M3.0 - Introducción	Completion ▾
	M3.1 - El rol público en la promoción de las CEE	Completion ▾
	M3.2.1 - Modelos de negocio de las CEE	Completion ▾
	M3.2.2 - Viabilidad económica de las CEE, modelo V&E	Completion ▾
	M3.3 - Financiamiento de las CEE	Completion ▾
	M3.4 - Servicios Transversales para CEE	Completion ▾
	M3.5 - Casos de estudio y aprendizaje	Completion ▾
	M3 TEST	
	Descubre la herramienta financiera del COMANAGE	
▼ M4: MARCO LEGISLATIVO Y GOBERNANZA		
	M4.0 - Introducción	Completion ▾
	M4.1 - Marco legislativo y figuras jurídicas	Completion ▾
	M4.2 - Constitución jurídica para las CEE	Completion ▾
	M4.3 - Proceso de gestión y creación de una Comunidad energética	Completion ▾
	M4.4 - Gobernanza y gestión	Completion ▾
	M4.5 - Bonificaciones fiscales para el autoconsumo compartido	Completion ▾
	M4 TEST	
	Descubre la herramienta legal del COMANAGE	
▼ M5: PARTICIPACIÓN Y DIFUSIÓN		
	M5.0 - Introducción	Completion ▾
	M5.1 Plan de participación comunitaria	Completion ▾
	M5.2 Plan de comunicación, herramientas y materiales de comunicación	Completion ▾
	M5.3 Herramientas de participación y facilitación comunitaria	Completion ▾
	M5.4 Igualdad de género e inclusión social en las CEE	Completion ▾
	M5.5 - Abordaje de la pobreza energética via las CEE	Completion ▾
	M5.6 - La Escuela	Completion ▾
	M5 TEST	
	Descubre la herramienta de diseminación del COMANAGE	
	Descubre la herramienta de participación del COMANAGE	

Figure 1. COMANAGE training program – ES

The screenshot displays the e-learning platform interface. On the left is a dark sidebar menu with the title 'MENU' and a list of course topics under 'M4.1_Figuras_Juridicas_CAST'. The main content area has a header 'M4 Marco legislativo y gobernanza' and a 'RESOURCES' link. The central content features a title 'Ventajas e inconvenientes de las cooperativas y asociaciones' above a table comparing 'Asociación' and 'Cooperativa' across various criteria. The 'comanage' logo is at the bottom left of the content area.

	Asociación	Cooperativa
Constitución	Requiere un capital muy simple y rápido, un procedimiento muy simple, y sólo 3 socios.	Procedimiento largo, complicado y costoso.
Democracia interna	Necesita un estatuto bastante estructurado para asegurar cierto grado de democracia interna.	Tienen un funcionamiento estructural que asegura una mejor democracia interna, como por ejemplo el acceso a los órganos de gobierno.
Régimen fiscal		Más beneficios fiscales para las cooperativas, 5% menos de Impuesto de Sociedades entre otros.
Responsabilidad civil	Responsabilidad ilimitada que por tanto recae sobre las socias.	Como otras figuras, responsabilidad limitada.
Objeto/Actividad	No pensadas per grandes actividades económicas.	No tiene limitación.
Participación pública	Difícil.	Muy difícil.
Enalzamiento	Las asociaciones tienen un bagaje histórico de defensa y promoción del bien local.	En los últimos tiempos, las cooperativas de consumo han tomado importancia gracias a grupos de consumo agroecológico y en viviendas.

Figure 2. Course content – ES