

D4.3. Evaluation report of the training



Deliverable Information Sheet

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List of Acronyms

BoR	Board of Replicators
BMC	Business Model Canvas
COP	COMANAGE Open Platform
DSS	Decision Support System
EC	Energy Community
ECGF	Energy Community Governance Framework
ECGT	Energy Community Governance Toolkit
EP	Energy Poverty
EU	European Union
FAQs	Frequently Asked Questions
M	Module
OIS	Operative Integrated Services
PA	Public Administration
PV Panels	Photovoltaic panels
REC	Renewable Energy Community

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Keywords list

- Renewable Energy Community
- Training
- E-learning
- E-learning platform
- Face-to-face workshop
- Tool
- Toolkit
- Survey

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1. Executive summary

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, with the aim of tackling and counteracting the main governance and management barriers - including a series of legal, administrative, financial, social, and organizational hurdles - faced by citizen-led and public-participated energy communities' projects.

It has done it by creating a methodological and operational **Energy Communities Governance Framework (ECGF)**, 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 (ECGT)**.

The final goal of the project is 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 has, on one hand, operationalized a transnational network of knowledge and competence providers; and on the other, it has mobilized, engaged, and operationalized key stakeholders around three Operative Integrated Services (IOS) Hubs to be established in three Pilot Cases across the European Union (EU) represented in the consortium by the Metropolitan Area of Barcelona in Spain (AMB), the Krakow Metropolitan Area in Poland (KMA), the Lazio National Association of Italian municipalities in Italy (ANCI LAZIO).

This document describes the **COMANAGE training evaluation**, which can be considered the continuation of *D4.1 E-learning platform + training material*. The objective of this deliverable is to understand the quality and effectiveness of the COMANAGE training through a quantitative analysis (people reached) and qualitative analysis (report on feedback). The document highlights the training approach and hurdles faced, describing both the success and the room for improvement.

This document gives, first, an overall idea of the training program and the platform that hosts it, enlightening the updates and improvements more than its functioning, which is explored in depth in *D4.1 E-learning platform + training material*. Given that the COMANAGE training foresaw both an E-learning version and a face-to-face version of the training program, this deliverable explores them in separate chapters.

2. Introduction

The **E-learning** consists of one generic course delivered in English and 3 national specific courses, whilst the **face-to-face training** only foresees national specific meetings. Both chapters explore the national based trainings, where COMANAGE pilots describe what specific contents they prepared and why, how they promoted their course and the final evaluation, whilst the E-learning training chapter includes also the generic English course. In this document, quantitative and qualitative analysis about each course is reported. In particular, the qualitative analysis has been conducted through a common questionnaire, which has been prepared in English by AISFOR and translated by pilots in their languages to collect users' feedback both on the training and on the other COMANAGE tools. Besides this questionnaire, pilot tailored surveys and interviews have been run to collect such information. Eventually, a sum-up of both online and face-to-face training, together with the more technical aspects, bring the conclusion of the deliverable.

The objective of the COMANAGE training pathway, the so called “**COMANAGE Energy Community Academia**”, is to provide a solid foundation for understanding what a Renewable Energy Community (REC) is and how it works: a subject barely unknown to the general public, yet full of potential, as it can bring numerous economic, environmental, and social benefits. The course is primarily aimed at public administration staff and individuals interested in establishing a REC, but, as an introductory course, it may also appeal to anyone curious to explore this subject.

The training program is closely linked to the other tools made available by the COMANAGE project in support of the creation and management of RECs. Even by looking at the structure of the course, it becomes clear that the naming of the five course modules corresponds to the five sets of tools contained in the Energy Community Governance Toolkit (ECGT), which are available on the COMANAGE Open Platform (COP): legal, social, communication financial and technical. This strong connection is actively part both of the E-learning and the “face-to-face workshops”, therefore it will be examined in detail in each dedicated chapter.

3. COMANAGE Energy Community Academia: the structure of the training and the E-learning

The “COMANAGE Energy Community Academia” is a fully founded training program on renewable energy sharing that includes a generic English course and 3 pilot specific courses. The “COMANAGE Energy community Academia” refers to the combination of all four courses and is accessible at this link <https://comanage.aisforacademy.eu/> or though the dedicated button on the COP.

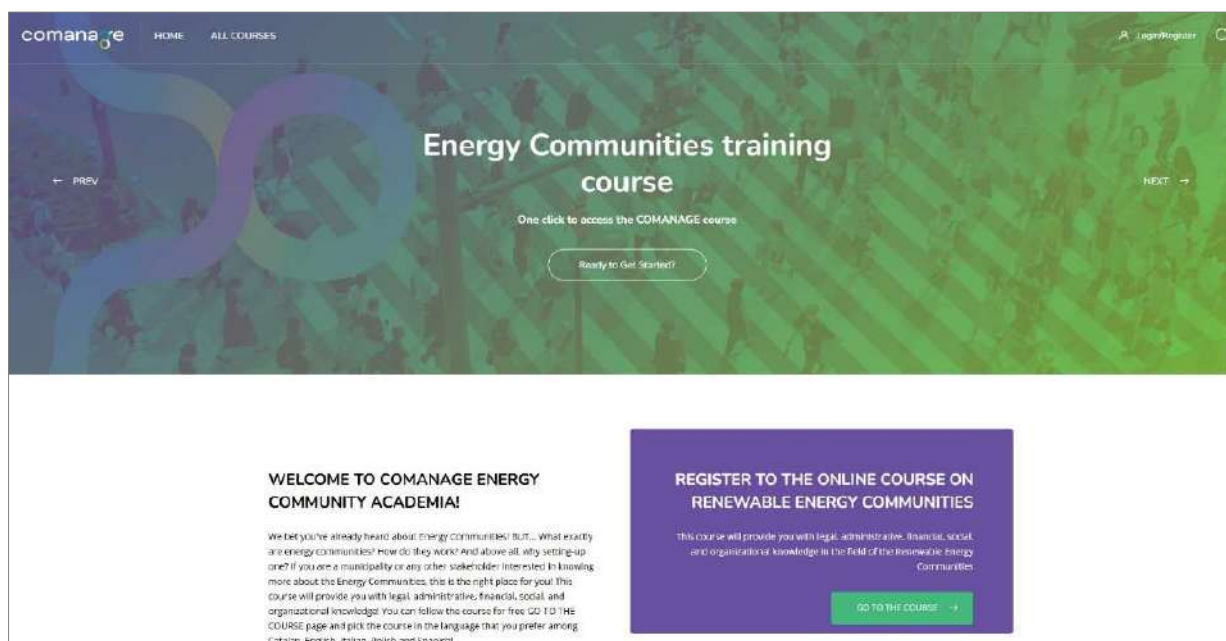


Figure 1. COMANAGE E-learning platform - homepage

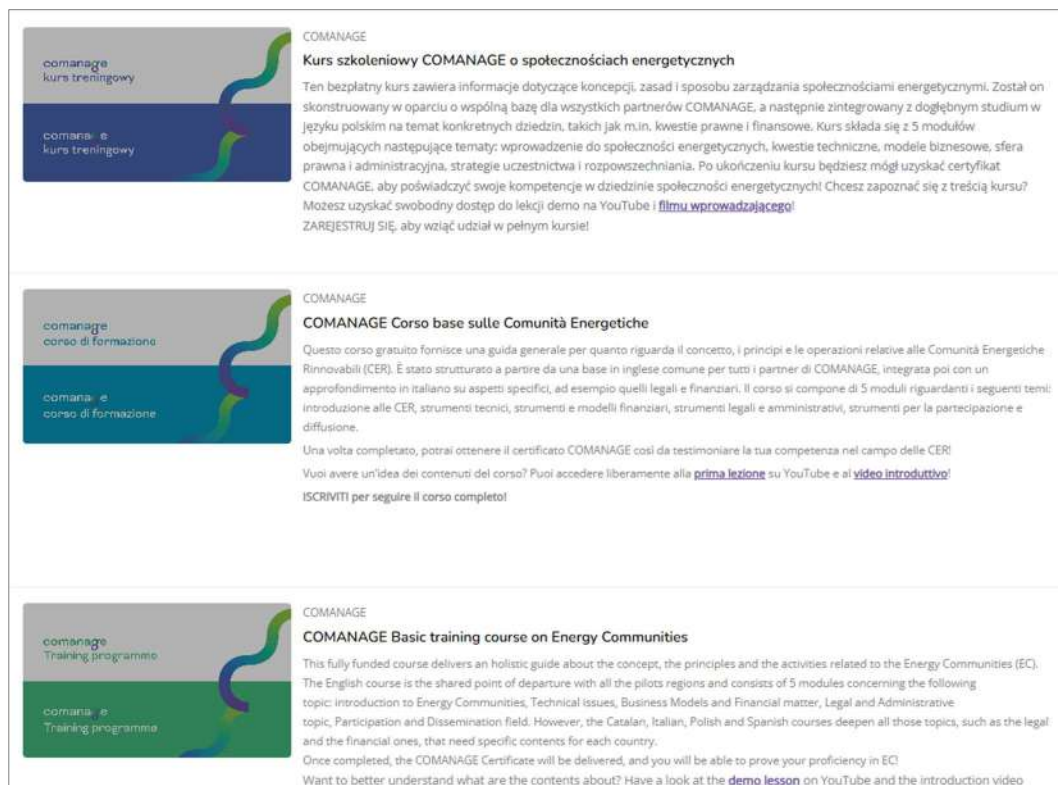
3.1. The training structure

The identification of the training topics and their organisation follows the methodology explored in D2.2. *Energy Communities barriers, needs and best practices analysis*. From this document it becomes clear how the consortium led the research which revealed the country specific barriers and the common European barriers, and how the consortium converted these hurdles in the training contents of the COMANAGE Energy Community Academia.

The COMANAGE Energy Community Academia identifies a common structure among all courses and includes “general lessons” and “pilot-specific lessons”. The lessons with common and overall valid contents (e.g. the whole social and participation module, general REC advantages, European context) were categorized as “general”, while lessons with country-specific lessons were classified as “pilot-specific”. The general lessons were then attributed to the English language and constitute the English course. The pilot-specific lessons have been prepared only in pilot languages and, together with the translated general lessons,

constitute the contents of the pilot training courses. Because of its non-specificity, the English course is quite short (about 2 hours). These common and general lessons were prepared in English by the relative responsible partner between AISFOR, ANESE, COOPABILITY and ECOSERVEIS and then translated in the pilot languages by the relative piloting partner (ANCI Lazio for Italy, KMA for Poland, and AMB for Catalunya).

Thanks to this methodology **COMANAGE training includes 4 courses: English, Italian, Catalan and Polish.** The **Spanish course**, which can be considered the fifth course, reflects the same contents as the Catalan course but in Spanish language.



The screenshot displays the 'All courses section' of the COMANAGE E-learning platform. It features three course cards, each with a logo on the left and descriptive text on the right. The logos consist of a stylized wave graphic and the text 'comanage' followed by the course name in the respective language.

- Top Card (Polish):**
 - Logo: 'comanage kurs treningowy' and 'comana e kurs treningowy'.
 - Title: 'KOMANAGE Kurs szkoleniowy KOMANAGE o społecznościach energetycznych'.
 - Description: 'Ten bezpłatny kurs zawiera informacje dotyczące koncepcji, zasad i sposobu zarządzania społecznościami energetycznymi. Został on skonstruowany w oparciu o wspólną bazę dla wszystkich partnerów KOMANAGE, 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 KOMANAGE, 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!'.
- Middle Card (Italian):**
 - Logo: 'comanage corso di formazione' and 'comana e corso di formazione'.
 - Title: 'KOMANAGE Corso base sulle Comunità Energetiche'.
 - Description: '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 KOMANAGE, 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 KOMANAGE 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!'.
- Bottom Card (English):**
 - Logo: 'comanage Training programme' and 'comana e Training programme'.
 - Title: 'KOMANAGE Basic training course on Energy Communities'.
 - Description: '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 KOMANAGE 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'.

Figure 2. COMANAGE E-learning platform – All courses section



Figure 3. COMANAGE E-learning platform – All courses section

The COMANAGE Energy Community Academia consists of video lessons divided in 5 modules, with an overall duration of 3 hours, and 5 quizzes, one per module. As mentioned above, the English generic course is shorter (2 h) as it does not include the country specific lessons. The 5 modules (M) are:

- *M1: Introduction to energy communities*
- *M2: Technical area*
- *M3: Business and financial area*
- *M4: Legal and administrative area*
- *M5: Participation and dissemination area*

The following table (Table 1) shows the common structure and common contents: this is the latest update with regards to the length and the topics, whilst on D4.1 *E-learning platform + training material* they were still drafted.

MODULE	TITLE	DURATION (minutes)	LESSON DESCRIPTION
M1	INTRODUCTION TO ENERGY COMMUNITIES	16	
M1.0	Introduction	4	- 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	12	- European directives introducing the concept and mechanisms of REC - Definitions adopted in the directives - Obligation for Member States
Test module	Online quiz		
M2	TECHNICAL TOOLS	13	
M2.1	Electricity market basic	6	- Electricity market basic concepts (Distribution System Operator, prosumers, etc.): - Mechanisms of sharing energy with the grid - how does it work in each country? - Distribution System Operator's roles (privately owned- public)
M2.2	Technical and economic viability for PV installations	7	- How to evaluate technical opportunities and Commercial offers - Payback Time of investments for PV installation - Commercial Offer Evaluation
Test module	Online Quiz		
M3	BUSINESS MODELS & FINANCIAL TOOLS	34	
M3.2 part 1	EC business models (ex M3.2 EC Business models and economic viability)	10	- Tools for defining the business model of an Energy Community - Business Model Canvas (BMC) - how to use it? - Business models typically used by ECs - From Business Model Canvas to VALERI method (VALERI method insights in M3.2 part 2)
M3.2 part 2	Economic viability of PV: VALERI methodology	16	- How to evaluate your project to make it easy to finance - Simplified example of evaluation using VALERI - Tools for defining an EC business model
M3.4	Transversal services that ECs can offer	8	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		
M4	LEGAL & ADMINISTRATIVE TOOLS	9	

MODULE	TITLE	DURATION (minutes)	LESSON DESCRIPTION
M4.3	Role of public entities for EC promotion	9	Governance of RECs - 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 The role of Public Authorities (PA) in creating an enabling environment for community-driven renewable energy initiatives. - 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.
Test module	Online quiz		
M5	PARTICIPATION & DISSEMINATION TOOLS	54	
M5.1	Community engagement and communication plan	21	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	6	How to effectively disseminate an energy community initiative
M5.3	Community facilitation and participation tools	9	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	11	Understanding Gender Equality and Social Inclusion in ECs - 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. Challenges & benefits - Identification of issues faced by women and marginalised groups (i.e. collectives/individuals at high risk of vulnerability) in participating in energy communities.

MODULE	TITLE	DURATION (minutes)	LESSON DESCRIPTION
			- Highlight the benefits of promoting gender equality and social inclusion Strategies to foster inclusion - Learn about effective strategies to enhance gender equality and social inclusion - overview of best practices and real cases Role of participation - Explain how the active participation of all members contributes to a more inclusive and equal energy community. Communication for change - Highlight how to positively disseminate experiences and inform people to lead to a positive change.
M5.5	Tackling Energy Poverty with ECs	7	Definition of energy poverty (EP) and its key indicators (energy expenditure, energy access, energy efficiency) and the implications of Energy poverty for individuals, communities, and the environment. - 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. The main challenges faced by individuals living in energy poverty - limited access to modern energy services - high energy costs relative to income - limited educational opportunities
Test module	Online quiz		

Table 1. Training structure and common contents

Welcome to the English fully funded training course!

Before we start, here are some information. This course is made up of video lessons divided into 5 modules, with an overall duration of 3 hours, and 5 tests, one per module. Don't worry, you can manage your attendance according to your needs!

In fact, the COMANAGE course is super flexible: you don't need to pass the test for moving to the following module, so you can jump from one to another as you wish and repeat the tests as many times as you want.

While on the other hand, you will gain the Certificate once you have successfully passed all the 5 tests by achieving a minimum score of 75% of right answers for each test. Ready? Let's get started!

➤ **M1: INTRODUCTION TO ENERGY COMMUNITIES**

➤ **M2: TECHNICAL TOOLS**

➤ **M3: BUSINESS MODELS & FINANCIAL TOOLS**

➤ **M4: LEGAL & ADMINISTRATIVE TOOLS**

➤ **M5: PARTICIPATION & DISSEMINATION TOOLS**

➤ **EXTRA RESOURCES**

Figure 4. Training structure on the E-Learning platform

The COMANAGE Energy Community Academia is accessible through a registration procedure which is important for the COMANAGE team to count the number of enrolled students. Once the student is enrolled, he or she can start attending the lessons and taking the quizzes. A final certificate is achievable with the possibility to share it on LinkedIn. The COMANAGE Energy Community Academia is designed to be flexible: students do not need to watch every single video-lesson nor to pass the quizzes for moving to the following module. They can attend the lessons they are more interested in, and they can freely move from one to another and repeat the tests as many times they want. On the other hand, in order to gain the Certificate, students must have successfully passed all the 5 tests by achieving a minimum score of 75% of right answers for each test. All this information is also provided on the platform. To deepen the building of the training structure and the platform accessibility in detail, see *D4.1 E-learning Platform + training material*



Figure 5. COMANAGE E-learning platform – final certificate

Through the Moodle platform, it is possible to check the success of the E-learning course. Hence, part of AISFOR's activity is also to monitor the following criteria that has been identified by the consortium:

1. **Enrolled users:** the total number of enrolled people (except the COMANAGE staff)
2. **Trained users:** number of students who attended at least one lesson or who overcame at least one quiz with 50% of correct answers
3. **Delivered certificates:** number of students who achieved the final certificate. This means that they passed all the quizzes with a minimum of 75% score.

Monitoring has been essential both to identify which courses seemed more interesting and also to check whether more communication and promotion actions were required, as well as which ones resulted in a higher number of new enrolled students. More specific and detailed data obtained through monitoring actions is included in each of the pilot courses sections.

3.2. Updates and improvements on the E-learning platform

Through the project lifetime, the E-learning platform has been developed and improved. From its first version (June 2024), the platform is more easily accessible thanks to its visual and to step-by-step instructions about the enrolment procedure provided to pilots in English.

Additionally, on the platform it is now possible to read and download the public COMANAGE deliverables (as shown in Figure 6).

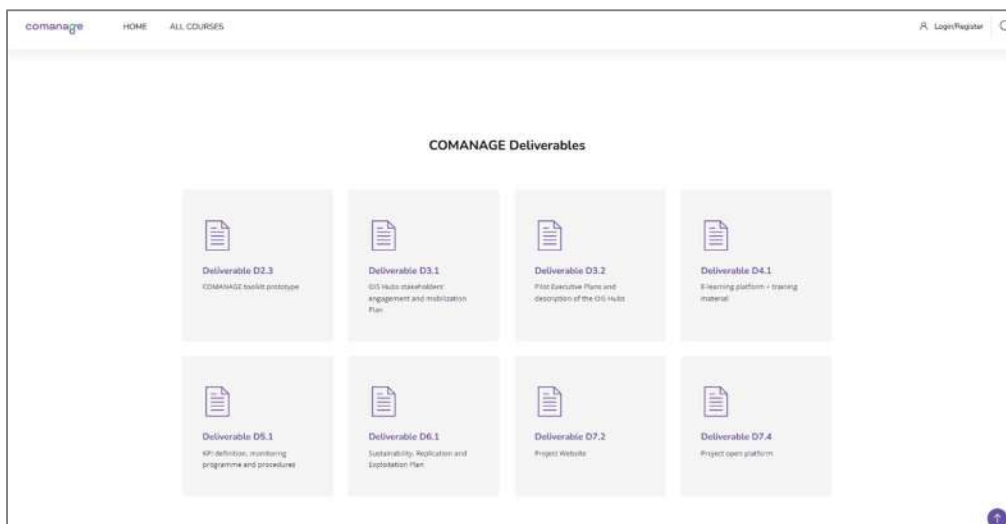


Figure 6. COMANAGE E-learning platform – deliverables section

Moreover, the users' feedback has been pivotal in the improvement of the whole E-learning experience. This feedback has been collected from different manners:

- *A common questionnaire*
- *Pilot tailored surveys*
- *OIS Hubs' meetings*
- *Consortium meetings*

The **common questionnaire** includes a Google Forms created by AISFOR and adapted in each of the languages of the pilots for better understanding of the respondents. AMB's survey was adapted in the platform Mentimeter and used only during the execution of the OIS Hubs meetings. An additional English survey was meant for replicators. Questions were divided depending on the respondent's previous use of the tools produced by COMANAGE: ECGT (Energy Community Governance Toolkit), training (both E-learning and face-to-face) and Decision Support System (DSS).

The questions encompassed the level of satisfaction of the browsing experience of each tool, the satisfaction with the materials of each topic (legal, social, financial, communication and technical), and the deployment of the modules, by topics, in the E-learning course. The multiple selection questions were split into five levels (excellent, good, average, insufficient and bad). Moreover, respondents could share their insights about their experience, such as their browsing opinion, suggestions for additional changes, their most-liked topic and their least- liked topic. The results discussed in each pilot section only address the ones referring to the training. **Consortium meetings** have been useful to identify problems and malfunctioning at a common level and from a more technical point of view. For what concerns **tailored surveys** and **OIS Hubs meetings**, pilots have independently designed, distributed and collected their specifically desired information, the analysis of which will be explored in pilots' specific section, leading to the final evaluation of the training.

Thanks to all these surveys methodologies and to the consortium meetings, the COMANAGE team has been able to implement corrective actions, in particular on the Moodle E-Learning platform and on some training contents. AISFOR collected all the inputs and managed how to transform feedback in practice.

One of these pivotal actions has been the strong interconnection of all COMANAGE tools. The E-learning component, the ECGT, and the DSS all share a common purpose and collectively tackle the RECs’ hurdles from different usage angles. The **integration of the toolkit** with the other tools and spaces ensures that the identified barriers are effectively addressed in a holistic manner. The E-learning component provides educational resources and training materials, equipping stakeholders with the knowledge and skills required to overcome the identified barriers. It is possible to find the ECGT and DSS links on the Moodle platform both in the header and in the «tools’ section», as shown in Figure 7. Furthermore, each training Module is connected to its relative ECGT tool: this is meant to provide attendees with practical skills to be directly applied in their local context.

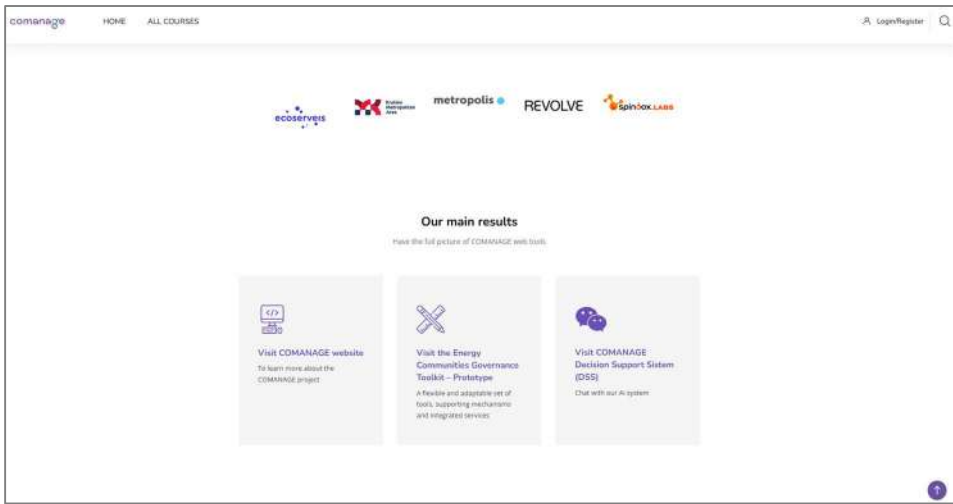


Figure 7. COMANAGE E-learning platform – tools’ section

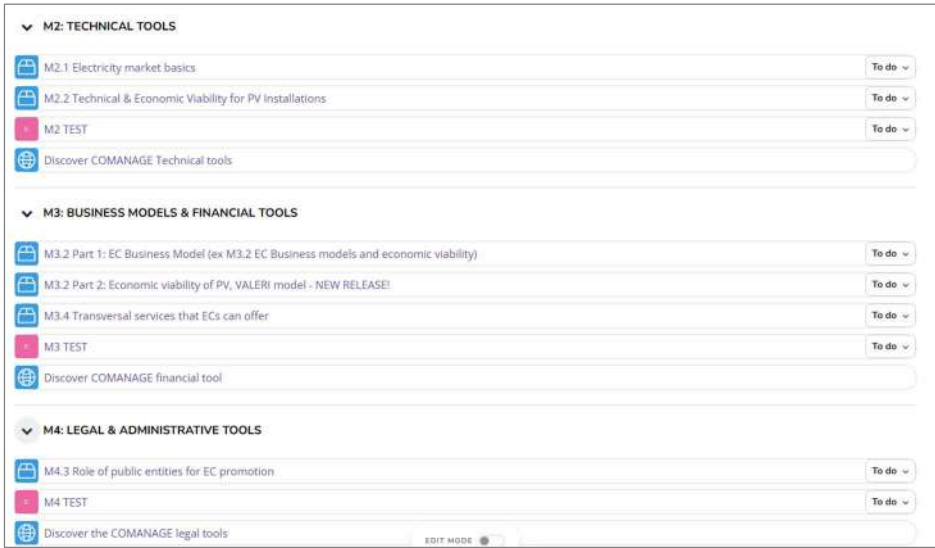


Figure 8. COMANAGE platform – training modules and tools integration

One more corrective action on the platform has been the insertion of the “extra resources” section (figure 4). This way, pilots can provide users more information, e.g. reglementary framework updates: this ensures that the course is always updated.

The extra resources' section supports the training but is not part of it, therefore it is not tested. Each pilot decides what contents to provide in that section.

Speaking of training contents, it was also possible to identify contents issues: some problems emerged with M3.2 lesson (Module M3 – business and financial area). According to COMANAGE students, the lesson was too long, too specific and lacking practical examples. Hence, the consortium decided to divide that lesson in 2 parts, ensuring a more generic first part and a more detailed and technical second part: both including practical examples. As this lesson is one of the common contents, its adjustment covered not only the English course but also the country specific courses.



Figure 9. COMANAGE E-learning platform – M3.2 improvement

3.3. The courses' contents

As mentioned in the introduction, the COMANAGE Energy Community Academia can be found in a common place which is the multilingual Moodle platform. Moreover, all courses that constitute the Academia follow a common structure and share some common contents as well. Nevertheless, each pilot specific course is independent in its management, release, promotion and success evaluation. Pilots are the specific contents' providers: they were asked to prepare and send the raw material (ppt slides) to AISFOR. Then, AISFOR, as training coordinator and task leader, has taken care of each country tailored course from receiving the raw material to the final release and update. AISFOR is also in charge of the management of the platform itself, monitoring its correct functioning and supporting users with its use. At the same time, AISFOR provides to pilots the needed data to understand the courses' success, so that they can build tailored promotion activities.

3.3.1. English training



Because of its non-specificity, this course has been mainly attended by replicators, who engaged with the E-learning platform in its English version. The course was expected to be useful to the replicators and enhance their working skills and knowledge, since their profiles are related to municipal technical teams involved in Energy transitions including the support to EC.

3.3.1.1. English general contents

The COMANAGE English Course on Energy Communities comprehensively explores the concepts, principles, and practices surrounding energy communities. As mentioned above, the COMANAGE English course provide an open and wide European

perspective and does not include specific modules tailored to the pilot's cases: as a matter of fact, the English course is basically the general course that was designed at the beginning of the project.

However, as mentioned above, some of the contents have been improved along the process and have been updated accordingly in the E-learning platform. Additionally, in the English course extra resources section it is possible to watch the **Board of Replicators (BoR)** online meetings, as they contain interesting case givers presentations that may be interesting for users to know. Case givers refer to BoR members that presented their current projects on Energy Communities, together with their biggest challenges, barriers and potential solutions.



Figure 10. COMANAGE English course – extra resources

3.3.1.2. Promotion

The main purpose of the E-Learning course is to establish the general structure of the training and to showcase the E-Learning platform to speakers of non-pilot languages. Consequently, the English course has been heavily promoted with the replicators. As a matter of fact, the aim of the BoR was to promote the E-learning platform, alongside other COMANAGE tools, within their own contexts and among their contacts in public administrations, as well as key stakeholders from civil society, the public, and private sector.

The E-learning platform was presented in several online knowledge exchange sessions with the members of the Board of Replicators, a transnational practitioner's exchange network created by the COMANAGE project. The recording of such meetings has been uploaded by REVOLVE on the COMANAGE YouTube playlist and linked to the English course section “extra resources”.

During these sessions, the E-learning tool was presented to 10 replicators coming from different cities in Europe, Africa and South America, along with the three COMANAGE Pilot Hubs and the Project Partners. AISFOR, as a main E-Learning tool provider, has explained the functioning, use and facilities of the tool, opening a discussion space to raise questions and answers.



Figure 11. BoR – Third online session

During the usage period given to the replicators, they had the chance to explore the tool and leave their comments through the available English survey created by AISFOR and even through a satisfactory survey created and used during the last online meeting in May 2025 that aimed to get feedback from the replicator users of the tool after its presentation on the previous online session and collecting their improvement proposals. The survey issued questions regarding satisfaction, or potential use of the tool rating the interest of each specific module.

As part of the promotional campaign for the E-Learning course, multiple communication activities have been undertaken by the partner REVOLVE, in collaboration with all project partners. The first campaign focused on the various barriers that individuals setting up energy communities may encounter, and how COMANAGE aimed to address these challenges through the resources developed and the course content.

Subsequently, a second campaign highlighted the different tools offered by the COMANAGE project, with each tool linked to a post and article on LinkedIn, providing an in-depth overview of the outcomes achieved. Recognising the significant barrier that language can present in reaching target audiences, a social media campaign was also developed, featuring tailored posts and visuals promoting the course in local languages, with accompanying posts in English, ensuring accessibility for all.

Given the importance of visual content today, an explanatory video of the E-Learning course was produced, exploring the course and its various functionalities. To support this initiative, a further video campaign was launched, in which each project partner shared some of the challenges encountered when gathering relevant information for the course users. The aim was to connect partners with users and give a human face to the knowledge behind the course.

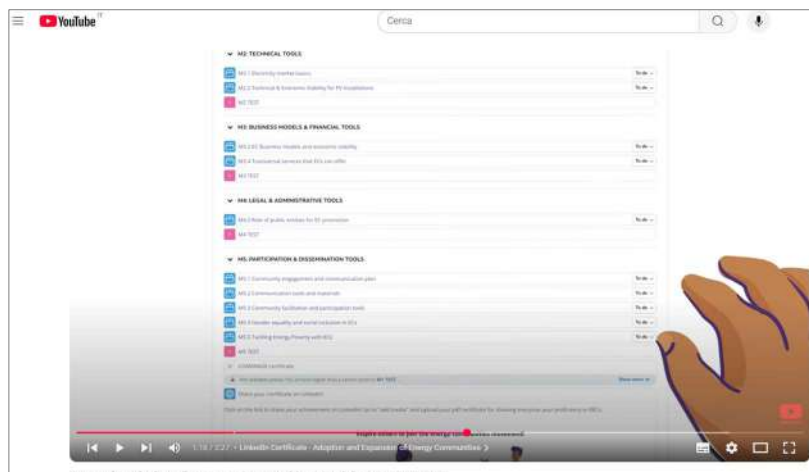


Figure 12. E-Learning Platform for Energy Communities – Explainer video | COMANAGE

Other communication materials produced and that will be available beyond the end of the project, are a series of website banners in English and in the different local languages to add in the pilot's websites, and in other potential multiplier that may be interested, linking directly to the course so the promotion keeps running. The idea is that this banner remain available after the project ends.

3.3.1.3. Evaluation

Since the main target of the English course is made up of replicators, they have been asked to give feedback both through the common survey provided by AISFOR and through a dedicated satisfaction survey provided by METROPOLIS. As a result, the users ranked E-learning the most interesting COMANAGE tool. Regarding the contents, the introduction to ECs, the financial and the business models were the most appreciated. As an improvement suggestion they propose to adapt the tool to other languages, as French, and update regularly the contents. They also proposed to include a Frequently Asked Questions (FAQs) section and other modules such as “repair and maintenance of equipment”. This feedback can help while elaborating strong sustainability actions.

In addition, most replicators would implement this tool in their daily work, and they also propose some promotion strategies for the E-learning platform, from creating videos with successful stories or undertaking communication strategies addressed to urban movements (associations, platforms for social action...) or other EC projects. They also suggested having this tool embedded in existing public administration websites and online services addressed to EC. Replication through the BoR is expected in different European countries such as France, Italy, Spain, Slovenia, Switzerland and beyond such as South Africa (Johannesburg), Senegal (Dakar) or Argentina (Córdoba).

Comparing the Italian numbers and the overall COMANAGE Energy Community Academia numbers, the English course is the third most visited course (following the Italian and the Polish courses) reaching 11% of the COMANAGE Energy Community Academia registered users. Further, English course trained students representing 11% of all trained people in the Academia (see criteria in chapter 3.1 *The Training Structure*) and achieved 10% of all delivered certificates. Within the English course, 53% of the enrolled users actually attended (or have fulfilled) the course and about 23% of them gained the final certificate.

English course COMANAGE Energy Community Academia (Latest data update: 26.08.2025)				
MONITORING PARAMETERS	ENGLISH COURSE	TOTAL (Energy Community Academia)	ENGLISH EXPECTED VALUES	NOTE
ENROLLED USERS	30	263	300 per course (1500 total value)	
CERTIFICATE DELIVERED ("honourable mention")	7	69	/	Certificates delivered are NOT part of any value, BUT they can be considered as "honourable mention"
COURSE COMPLETION (at least one activity done: one lesson attended, or one test passed with 50% of correct answers)	16	150	/	E-learning trained people will contribute to the "skills KPI"

Table 2. COMANAGE English course – platform numbers

3.3.2. Italian training



The Italian training content has been provided by ANCI Lazio with support of AISFOR. The five-module structure of the training course was enriched with Italian-specific contents, which were designed and validated through a systematic process of needs analysis. The training materials did not originate in an abstract way but were indeed grounded on an in-depth survey of the barriers, gaps, and learning needs faced by public authorities, energy community managers, and other stakeholders engaged in citizen-led energy initiatives. The needs' analysis aimed to:

- Identify governance and management barriers affecting energy communities in Italy, such as legal uncertainty, administrative complexity, lack of financial sustainability, and social resistance.
- Assess capacity-building gaps among public authorities' staff and REC managers, particularly concerning technical knowledge, governance models, and effective stakeholder engagement.
- Collect first-hand experiences from key actors (via surveys and dialogue interviews), including cooperatives, community project managers, and representatives of local and regional authorities.

A concrete example is provided by the interview with the Energy Community of Antrodoco (Mr Daniele Pascasi, Deputy Mayor of Municipality of Antrodoco), which highlighted barriers such as: the difficulty of overcoming citizens' distrust, the lack of clarity in national legislation, the absence of initial funding to launch renewable energy plants, and the need for practical and experiential training ("learning by doing") instead of purely theoretical resources.

3.3.2.1. Italian specific contents

The five modules structure has been implemented with Italian specific contents, developed through desk research, analysis of national and regional legislation, and targeted interviews with stakeholders (such as municipalities, energy agencies, and local associations). This approach allowed the Italian pilot to adapt the general knowledge base to the Italian context and fill in knowledge gaps emerging from practice.

MODUL	TITLE
M1	Introduzione alle comunità energetiche rinnovabili (CER)
M1.0	Introduzione
M1.1	Introduzione alla normativa europea sulle CER
M1.2	Introduzione alla normativa nazionale sulle CER
Test	Online quiz
M2	STRUMENTI TECNICI
M2.1	Nozioni base sul mercato dell'energia elettrica
M2.1.1	Introduzione all'autoconsumo e meccanismi di condivisione dell'energia
M2.1.2	Procedure legali per l'autoconsumo condiviso
M2.2	Fattibilità tecnica ed economica per gli impianti fotovoltaici
Test	Online Quiz
M3	STRUMENTI FINANZIARI E MODELLI DI BUSINESS
M3.1	Modelli di partnership pubblico-privato
M3.2.1	Modelli di business e redditività economica delle CER (parte 1)
M3.2.2	Modelli di business e redditività economica delle CER (parte 2)
M3.4	Servizi trasversali che le CER possono offrire
Test	Online quiz
M4	STRUMENTI LEGALI E AMMINISTRATIVI
M4.1	Quadro normativo ed entità legali per le CER
M4.2	Costruzione degli organi giuridici delle CER
M4.3	Ruolo degli enti pubblici per la promozione della CER
Test	Online quiz
M5	STRUMENTI DI PARTECIPAZIONE E DISSEMINAZIONE
M5.1	Community Engagement e piano di comunicazione
M5.2	Strumenti e materiali di comunicazione
M5.3	Strumenti di facilitazione e partecipazione della comunità
M5.4	Parità di genere ed inclusione sociale nelle CER
M5.5	Affrontare la povertà energetica con le CER
M5.6	Casi virtuosi in Italia ed in Europa
Test	Online quiz

Table 3. COMANAGE Italian course – specific contents (light purple)

Module 1, the **introductory** module, provides students with a lesson (M1.2) on the institutional and regulatory framework. This section outlines the evolution of Italian and European legislation on Renewable Energy Communities (RECs), offering learners a clear understanding of the main actors, responsibilities, and compliance requirements.

In Module 2, the module dedicated to the **technical topics**, the Italian course focuses on renewable energy sources, system integration, and energy efficiency measures. Lessons were informed by case studies and technical interviews with practitioners, highlighting how different renewable technologies (solar PV, biomass, small hydro) can be combined in RECs and how grid connections and monitoring systems are managed in practice.

Module 3, **business model and financial tools**, provides insights into the economic and financial dimensions of RECs. In particular, lessons M3.1 and M3.3 explore innovative financing schemes, cost-benefit analyses, and revenue-sharing models relevant for Italy. Practical examples and surveys with cooperative leaders were used to illustrate both traditional cooperative approaches and emerging financial mechanisms tailored to small municipalities and local communities.

Module 4, **legal and administrative tools**, is the most national tailored out of the five. If the general M4.2 explores the key role of Public Authorities in enabling RECs through technical support, stakeholder coordination, and awareness campaigns, the more specific M4.1 and M4.2 goes in details for what concerns the legal bodies to be used according to the law and their functioning (juridical organs, documentation...). This includes juridical organs, documentation requirements, and procedures for establishing an energy community. Legal analysis and interviews with municipal officers were carried out to clarify how these processes are implemented in practice.

Module 5, **participation and dissemination**, consists mainly in the direct translation of the English course module 5. Nevertheless, it still provides relevant national insights. M5.6 explores Case Studies and Best Practices in Italy and Europe. The national examples illustrated are Antrodoto and Ventotene (Lazio), where the lesson explores their composition and establishment process, energy production systems used, production and consumption balance. As for the European study case, the lesson explains the role of Rescoop illustrating how cooperative models support citizen participation and long-term sustainability.

3.3.2.2. Promotion

The Italian training programme has been strongly promoted with social campaigns, print releases and in-person meetings and webinars, according to the target. As a matter of fact, public authorities – especially if coming from small municipalities, the ones ANCI deals with the most – need to be involved with a more direct approach, while the general public can be easily reached through social media channels.

A print release by ANCI Lazio came right after the official launch of the Italian training course occurred in June 2024, giving information about the course structure, the enrolment and attendance guidelines, the course duration and the certificate gaining criteria. Since then, both national and European promotion activities have been run.

A huge success came after the social summer campaign 2024 named *“Porta la formazione con te in vacanza!”* (literally “Bring the building-capacity with you on vacation!”), which took advantage of the Italian summer holidays to entertain people with quizzes about energy communities. The summer social campaign then left the floor to the autumn social campaign, focused on exploring each of the five training modules.



Figure 13. COMANAGE Italian course – summer social campaign 2024

Other promotion activities foresaw a promo-video realized in English by REVOLVE and translated in all pilot languages aiming to explain the training program structure, access guidelines and the possibility to achieve and share the final certificate. Besides this, a demo-lesson has been uploaded on AISFOR YouTube channel within the COMANAGE playlist to give future students the chance to preview what was the course like without subscribing. Finally, the release of the COMANAGE certificate, which is also possible to share on LinkedIn with a direct link, the possibility to visualize their achievement motivate them in fulfilling the whole course.

The Italian course has been also promoted among the small municipalities of Piano di Sorrento e Vico Equense (Campania Region) thanks to the COMANAGE – ENTRACK synergy leading to the co-creation of two energy communities. This process was conceived and organized by ENTRACK ("Empowering local and regional authorities to design clean Energy TRANSITION plans through Capacity and Knowledge-building actions") in close collaboration with COMANAGE. The ENTRACK project has a strong policy orientation and complements the pragmatic nature of COMANAGE project, which has developed a system of operational tools and knowledge to support the creation and management of RECs. From March 2025 to June 2025, five thematic meetings were held and in each of them the COMANAGE RECs' support activities (ECGT, DSS and COMANAGE Energy community Academia) were actively part of the co-creation.

ANCI Lazio actively promoted the COMANAGE E-learning course during its institutional and networking activities in 2024–2025. The course was showcased as a practical tool for municipalities, technicians, and local actors to strengthen their competences in creating and managing Renewable Energy Communities. Promotion took place through national and regional webinars, in-person meetings with local administrations and associations of municipalities, and broader communication channels including newsletters, public events, and LinkedIn, where participants could share their course certificates. These initiatives ensured visibility of the COMANAGE training alongside other operational tools, while fostering direct engagement and motivating stakeholders to enrol and complete the course.

3.3.2.3. Evaluation

People who answered the Italian common questionnaire are only 5. Two of them have not actually provided any relevant information. Out of the three-remaining people, two of them strongly praised the contents of all modules, but the highest appreciated has been the M5 Communication and Participation module for its being complete and detailed. The last one, did not find useful neither the Italian course nor another Italian tool.

Besides the questionnaire, a couple of direct interviews have been run and shared on the COMANAGE official LinkedIn channel. The focus was understanding students' background, why they enrolled on the platform and if the course met their expectations. Both were keen on energy subject. Student 1 was part of Rete Assist, a no-profit organization tackling energy poverty, and he was further running for mayor in its hometown, willing to establish an energy community. Student 2 worked for Banco dell'Energia, which is a foundation supporting a just and sustainable energy transition. Both students considered the COMANAGE course well-designed, at the same time friendly and complete, praising the COMANAGE project effort for raising awareness about a responsible production and use of energy, which is at the same time a daily-life topic yet barely unknown. In addition to these interviews, feedback was also collected informally during webinars and in-person meetings.

Hence, from a qualitative point of view, these responses confirm a positive reception of the course, highlighting its clarity, accessibility, and practical relevance for strengthening competences in creating and managing Renewable Energy Communities.

Thanks to its strong promotion, from the first release until now, Italian course has reached high interest. Comparing the Italian numbers and the overall COMANAGE Energy Community Academia numbers, the Italian course is the one with the most enrolled students out of the four, reaching 65% of the COMANAGE Energy Community Academia registered users. Moreover, Italian students represent 73% of all people trained (see criteria in chapter 3.1 *The Training Structure*) and 72% of all delivered certificates is to Italian students. Within the Italian course, numbers are relatively high as well: 65% of the Italian course enrolled users are actually attending (or have fulfilled) the course and 29% of them gained the certificate. The certificate has significantly motivated people in finishing the course.

Italian course COMANAGE Energy Community Academia (Latest data update: 2025.08.26)				
MONITORING PARAMETERS	ITALIAN COURSE	TOTAL (Energy Community Academia)	ITALIAN EXPECTED VALUES	NOTE
ENROLLED USERS	171	263	300 per course (1500 total value)	
CERTIFICATE DELIVERED ("honourable mention")	50	69	/	Certificates delivered are NOT part of any value, BUT they can be considered as "honourable mention"
COURSE COMPLETION (at least one activity done: one lesson attended, or one test passed with 50% of correct answers)	111	150	/	E-learning trained people will contribute to the "skills KPI"

Table 4. COMANAGE Italian course – platform numbers

3.3.3. Catalan training



The Catalan training content has been provided by AMB with support of ECOSERVEIS.

3.3.3.1. Catalan specific contents

The general content structure has been adapted to Catalan-specific information, in order to be able to cover the local requirements.

The Catalan training course on energy communities, developed by AMB and ECOSERVEIS, includes both common COMANAGE modules and Catalan-specific contents. In the training material, common modules are shown in grey, while Catalan-specific contents—adapted to the regional context—are highlighted in light purple.

The course follows the common COMANAGE structure, with five main modules (M0–M5) and 26 submodules, each concluded with an online quiz. The Catalan-specific modules (in light purple) provide locally relevant knowledge on the legalisation and administrative procedures of shared self-consumption installations (M2.1.2), public–community collaboration models (M3.1), municipal financing mechanisms for energy communities (M3.3), and the public role in promoting energy communities through One-Stop Shops (M4.3), as well as tax incentives for shared self-consumption (M4.3.1). Additionally, within Module 5 (Participació i Governança), several sections were adapted to the Catalan context, covering communication and community networking (M5.1), participatory tools and facilitation (M5.3), gender and inclusion (M5.4), and energy poverty mitigation (M5.5), complemented by local case studies (M5.6).

All modules were translated into Spanish and published as a separate but equivalent course within the COMANAGE Energy Community Academia. The Spanish version retains the same structure and content while ensuring accessibility for participants across Spain, maintaining the regional focus and examples initially developed for the Catalan version.

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	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
M2.2	Viabilitat tècnica i econòmica d'instal·lacions
Test	Online Quiz
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	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	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	Online quiz

Table 5. COMANAGE Catalan course – specific contents (light purple)

The training course was co-designed with key stakeholders during a participatory workshop held in November 2023, where representatives from municipalities, citizen groups, and technical experts contributed to identifying knowledge needs and local priorities related to energy communities. The initial draft was later reviewed and refined through online surveys conducted in April and July 2025, gathering targeted feedback on content relevance, clarity, and structure.

In addition, the course was benchmarked against other Spanish training programmes on energy communities that have recently been launched, ensuring that the COMANAGE course is comprehensive, technically accurate, and aligned with the most current national and European regulatory frameworks. This iterative and evidence-based process helped to fill knowledge gaps and ensure high-quality, context-specific training materials for both the Catalan and Spanish versions.

3.3.3.2. Promotion

To maximize the outreach of the Catalan and Spanish training courses, AMB and ECOSERVEIS carried out a series of communication and promotion actions targeting different audiences.

- **Social media campaigns:** The courses were promoted through LinkedIn posts on ECOSERVEIS' account and shared by AMB team members, reaching professionals and public administrations across the energy and sustainability sectors.

- **OIS Hub meetings:** The training offer was presented during two OIS Hub meetings, held on April 24th and July 10th, 2025, engaging local stakeholders and technical staff from metropolitan municipalities.
- **Mailing campaigns:** A dedicated mailing campaign will be launched in collaboration with the AMB Environmental Department, aiming to reach over 1,000 subscribers, including municipal technicians and local energy stakeholders. Additional mailing campaigns were launched by ECOSERVEIS and AMB, targeting municipalities, energy communities and energy community transformation offices across Spain.
- **Multiplier channels:** The information was also shared with other public energy agencies in Spain (EnerAgen), ensuring wider dissemination through established institutional networks.
- **Other events:** The AMB and ECOSERVEIS teams promoted the training course at several national and European workshops, including ENTRACK project, EUSEW, and other LIFE and Horizon Europe sister projects, increasing visibility and encouraging cross-project collaboration.

3.3.3.3. Evaluation

Due to AMB internal issues related to the choice of the E-learning platform, from the first release until now, the Catalan and Spanish courses have been disadvantaged in terms of numbers. The main hurdle faced by AMB was the impossibility of integrating the Moodle platform into the AMB's internal servers due to strict cybersecurity and data protection protocols. The technical team identified several incompatibilities between the Moodle system requirements and AMB's internal IT infrastructure, which made local deployment unfeasible. As a result, the implementation process experienced significant delays, since alternative hosting and compliance solutions had to be explored to ensure that the E-Learning platform met the organization's security.

In addition, the limited engagement and lower participation figures in the Catalan and Spanish courses can be attributed to several external factors. During the same period, the Spanish Government launched a national programme providing financial support to public administrations for the development of training materials and online courses on energy communities. This initiative led to a rapid expansion of similar free training offers, saturating the market and reducing the visibility and uptake of the COMANAGE training in Spain.

Therefore, comparing the numbers of the two and the overall COMANAGE Energy Community Academia numbers, these courses are the ones with the lowest enrolled students out of the four. If considered them together, they can reach the 7% of the COMANAGE Energy Community Academia registered users. Moreover, Catalan and Spanish students represent 3% of all people trained (see criteria in chapter 3.1 *The Training Structure*) and 3% of all delivered certificates is to Catalan and Spanish students. Within the two courses considered together, numbers are as follows: 22% of the Catalan and Spanish courses enrolled users are actually attending (or have fulfilled) the course and 11% of them gained the certificate. It is worth noting that by the end of October 2025 AMB and ECOSERVEIS are participating in an event for Catalan municipalities to keep promoting the training course and other COMANAGE resources.

Catalan and Spanish courses COMANAGE Energy Community Academia (Latest data update: 2025.08.26)					
MONITORING PARAMETERS	CATALAN COURSE	SPANISH COURSE	TOTAL (Energy Community Academia)	CATALAN + SPANISH EXPECTED VALUES	NOTE
ENROLLED USERS	9	8	263	300 per course (1500 total value)	
CERTIFICATE DELIVERED ("honourable mention")	1	1	69	/	Certificates delivered are NOT part of any expected values, BUT they can be considered as "honourable mention".
COURSE COMPLETION (at least one activity done: one lesson attended, or one test passed with 50% of correct answers)	2	2	150	/	E-learning trained people will contribute to the "skills KPI"

Table 6. COMANAGE Catalan course – platform numbers

3.3.4. Polish training



3.3.4.1. Polish specific contents

The five-module structure was implemented with Polish-specific content, similarly to other COMANAGE project pilots designed to address identified barriers. In Poland, the topic of energy communities was still at an early stage of development at the time of preparing the materials. Therefore, it was important to promote knowledge about energy communities at both the basic and advanced levels. Additionally, within the framework of cooperation with legal and technical experts engaged through the COMANAGE budget, specialized materials were developed to explore the legal and technical aspects of energy communities. This ensured that the prepared materials were of appropriate quality.

As for the other two pilots, modules in light purple represent the ones that have Polish specific content.

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

Table 7. COMANAGE Polish course – specific contents (light purple)

Module 1 – Introduction to Legal Frameworks

In Module 1, the introductory module, students are provided with Lesson M1.2, which offers an overview of the national legal framework. The lesson presents relevant European regulations alongside Polish legislation and introduces the different types of energy communities, describing them from a legal perspective. At the end of the lesson, a list of sources and references is provided, enabling participants to further deepen their knowledge independently. This structure ensures that learners build a solid legal foundation before moving on to more advanced topics.

Module 2 – Technical Aspects of Energy Communities

Module 2 is dedicated to technical issues. The Polish lesson explains the technical distinctions related to energy communities recognized in legislation. It highlights the differences between *net metering*—the use of the energy grid as a form of energy storage—and *net billing*, which involves selling surplus energy at wholesale market prices. This comparison not only clarifies how these mechanisms function in practice but also illustrates their implications for the financial stability and operational strategies of energy communities.

Module 3 – Business Models and Financial Tools

Module 3 focuses on business models and financial instruments. Lessons M3.1 and M3.3 provide insights into public–community partnership models, demonstrating how municipalities can collaborate with energy communities to develop sustainable projects. Lesson M3.3, *Financial Systems and Options from the Municipal Perspective*, outlines national funding opportunities that municipalities can use to support the development of energy communities. This dual focus on cooperation models and funding mechanisms helps participants understand both the strategic and practical aspects of initiating and financing projects.

Module 4 – Developing Statutes for Energy Cooperatives

In Module 4, Lesson 4.2 examines in detail the process of drafting and adapting the statute of an energy cooperative. Each section of the document is discussed step by step, ensuring that participants gain a clear understanding of its structure and requirements. As the statute is the fundamental document governing the cooperative’s activities and future decision-making, its thorough preparation is essential. Properly drafting this document is a key factor in ensuring the long-term effectiveness and resilience of an energy cooperative.

Module 5 – Best Practices and Regional Experiences

The final module, Module 5, concludes with Lesson 5.6, which presents best practices in the field of energy communities, with a particular focus on the experiences of the Kraków Metropolitan Area (KMA) as the pilot region of the COMANAGE project. The lesson gathers examples of functioning energy cooperatives and clusters, both from the pilot area and from across Poland. This collection of case studies provides participants with practical insights, demonstrating how theoretical concepts can be successfully implemented and scaled in real-life contexts. By showcasing both local and national experiences, the lesson highlights the diversity of approaches and the potential for replication in other regions.

3.3.4.2. Promotion

The promotion of the course was carried out mainly through the social media channels of KMA, particularly LinkedIn. A total of 22 posts were created about COMANAGE Project, COMANAGE Open Platform and E-learning Course. For this purpose, several iconographies have been created in collaboration with REVOLVE.



Figure 14. E-Learning platform promotion – presenting the platform



Figure 15. E-Learning platform promotion – all modules and contents



Figure 16. E-Learning platform promotion – M1 and M2 contents



Figure 17. E-Learning platform promotion – M3 and M4 contents



Figure 18. E-Learning platform promotion – M5 contents and final certificate

The course was also discussed and promoted during the OIS HUB meetings and through newsletter. Another form of promotion included distributing information by email to various other organizations engaged in the topic of energy communities and universities career office. In result the article about E-learning course were added on Polish Green Network website (<https://wiecejnazenergia.pl/wsparcie-dla-spolecznosci-energetycznych-nowoczesne-narzedzia-i-e-learning/>) and on FB page of Career Office of Cracow University of Technology (<https://www.facebook.com/photo/?fbid=1212588417537775&set=a.497514122378545>). In addition, the promotion materials were sent to municipalities within KMA, which were encouraged to share promotional content on their official websites. As a result, four municipalities published information about the E-learning course, three of them on their website:

- Municipality of Wieliczka: <https://www.wieliczka.eu/pl/201129/33026/wsparcie-dla-energetyki-obywatelskiej-%E2%80%93-projekt-comanage-%E2%80%93-narzedzia-dla-gmin-i-mieszkancow.html>
- Municipality of Skawina: <https://www.gminaskawina.pl/aktualnosci/2024/12/projekt-comanage-narzedzie-dla-gmin-i-mieszkancow>
- Municipality of Świątniki Górne: <https://swiatniki-gorne.pl/aktualnosci/n,374623,projekt-comanage-narzedzia-dla-gmin-i-mieszkancow.html>

And City of Krakow on LinkedIn: https://www.linkedin.com/posts/doradcy-ds-klimatu-i-%C5%9Brodowska_comanage-learning-platform-activity-7290725871789699072-uUA0/?utm_source=share&utm_medium=member_desktop

3.3.4.3. Evaluation

In November 2024, an evaluation of the COMANAGE tools was carried out. The focus was on the COMANAGE Open Platform (COP), E-learning Course, and Decision Support System (DSS), however, here only the E-Learning will be explored. Eleven users completed the evaluation survey.

Most users expressed a high level of satisfaction with the course. They described it as accessible, intuitive, and easy to follow, with lessons that are well organized and reproducible. In particular, several participants highlighted the smooth transition from one lesson to the next as a major strength. While a few users suggested that additional clarity and structure could further improve the experience, the overall impression was positive and constructive.

The content itself was also highly valued. Many participants praised the usefulness, completeness, and clarity of the materials, noting the well-prepared slides and explanations. A smaller group suggested that some content could be made more detailed or explained in a clearer way, but overall, the materials were considered helpful and engaging. Users also recommended the addition of a progress indicator to give learners a clearer overview of their advancement through the course.

In response to questions about the modules, participants expressed interest in the entire program. Module 2 on technical tools and Module 4 on legal and administrative tools were the most popular, with the majority of users appreciating them. The modules on business models and financial tools, as well as participation and dissemination tools, were also well received, while the introductory module provided a valuable starting point for some participants.

Overall, the course was considered to support professional and personal development, with accessible content presented in a clear and engaging way. Users appreciated the structured approach, ease of navigation, and practical relevance of the lessons, and provided constructive ideas for further improvement of the course. The evaluation of the tools was conducted in November 2024, and since then the E-learning platform has been further improved.

Nevertheless, some barriers emerged, in particular the limited interest of the general public in the REC field and the length of the course. It should also be taken into consideration that the operational model of KMA is based primarily on cooperation with the 15 municipalities that are members of the association, rather than on outreach activities directed towards other communities.

However, thanks to KMA active promotion efforts, from the first release (June 2024) until now, the Polish course has reached the second highest interest, following the Italian course. Comparing the Polish numbers and the overall COMANAGE Energy Community Academia numbers, the Polish course reached 17% of the COMANAGE Energy Community Academia registered users. Moreover, Polish students represent 13% of all people trained (see criteria in chapter 3.1 *The Training Structure*) and 14% of all delivered certificates is to Polish students. Within the Polish course, numbers are as follows: 42% of the Polish course enrolled users are actually attending (or have fulfilled) the course and 22% of them gained the certificate.

Polish course COMANAGE Energy Community Academia (Latest data update: 2025.08.26)				
MONITORING PARAMETERS	POLISH COURSE	TOTAL (Energy Community Academia)	POLISH EXPECTED VALUES	NOTE
ENROLLED USERS	45	263	300 per course (1500 total value)	
CERTIFICATE DELIVERED ("honourable mention")	10	69	/	Certificates delivered are NOT part of any expected values, BUT they can be considered as "honourable mention"
COURSE COMPLETION (at least one activity done: one lesson attended, or one test passed with 50% of correct answers)	19	150	/	E-learning trained people will contribute to the "skills KPI"

Table 8. COMANAGE Polish course – platform numbers

4. The face-to-face training

Face-to-face training sessions represent another pivotal activity of the COMANAGE training, which marked the step from the “theory” to the action. Both online webinar and in-person workshops are considered part of this training phase, so to involve the highest number of participants.

AISFOR, as training coordinator, suggested the definition of “face-to-face activity” which the consortium agreed during the Consortium Meeting in October 2024. It was decided that it must have represented a moment of practical learning for students and a tools’ testing opportunity for the pilots. However, each pilot would have decided which topic to stress.

Therefore, AISFOR equipped pilots with a “common pack” to manage and monitor the success of the sessions, which include:

- *Instructions on how to run a proper face-to-face session*
- *Agenda (template)*
- *List of participants (template)*
- *Common contents to be included*
- *Link and QR code to the common questionnaires*

All shown material, agendas and lists of participants have been collected in dedicated folders, divided per each pilot Country and named with the event title.

Each pilot decided independently when to start this training phase, according both to their specific context situation and their outcomes (ECGT, DSS and E-learning) stage. As a matter of fact, the presentation and testing of the pilots’ results was considered fundamental for the training session to be considered as such. However, the consortium agreed to consider as face-to-face training session also conventions and events where COMANAGE has been explained in depth to target audiences, even if before the release of the tools or the proper definition of the “common pack”, since these activities were also considered as a way to raise awareness about energy communities their current state in the pilot countries, and also to present the tools that were coming next.

4.1. Italy

Between June 2023 and July 2025, ANCI Lazio organized and participated in a comprehensive series of initiatives to support the development of Renewable Energy Communities (RECs) in the region. The activities started with four Operative Integrated Services (OIS) Hub Meetings which took place from June 2023 to the end of November 2023. These meetings brought together local municipalities, regional associations, and technical experts to discuss barriers and opportunities for REC development in Lazio.

In 2024, engagement continued through workshops and training events designed to foster peer-to-peer exchange among municipalities and other stakeholders (table 9). Throughout these initiatives, ANCI Lazio drew on a wide range of resources, including the COMANAGE practical guide and technical-economic tools for assessing REC bankability, legal instruments such as

statutes, schemes, and FAQs, and presentations, reports, and case studies provided both internally and by external partners like Legacoop and regional institutions. Recordings and slides from webinars were shared online to maximize dissemination and learning.

The activities gradually strengthened awareness among municipalities in Lazio about the potential of RECs and fostered valuable networking with cooperatives, chambers of commerce, and civil society organizations. Several municipalities, including Rocca Priora, Roccagiovine, Fonte Nuova, and Ventotene, expressed concrete interest in establishing their own RECs. Over time, a community of practice emerged around ANCI Lazio, supporting long-term collaboration and the sustainability of Renewable Energy Communities in the region. Looking ahead, the project culminated in a final public event outside Lazio, in Umbria, at the Festival of Sociology in Narni, where ANCI Lazio delivered a practical presentation of COMANAGE during a roundtable discussion on 10 October 2025, further extending the reach and impact of the initiative.

As mentioned in the Italian E-learning promotion section, another crucial activity has been the COMANAGE – ENTRACK synergy which took place in Piano di Sorrento e Vico Equense (Campania Region), leading to the co-creation of two energy communities, one per each municipality. From March 2025 to June 2025, five thematic meetings were held and in each of them the COMANAGE RECs' support outcomes (ECGT, DSS and COMANAGE Energy community Academia) were actively part of the co-creation.

The methodology combined interactive OIS Hub Meetings, open discussions, technical presentations, peer-to-peer learning, and thematic webinars. The approach followed a progressive involvement model, starting with local municipalities and associations and gradually engaging enterprises, cooperatives, chambers of commerce, and university and research institutions. As agreed during the Consortium Meeting, each session presented concrete tools, including technical-economic instruments, legal guidelines, and case studies, while stimulating dialogue among public administrations, professionals, and citizens. The main objectives were to raise awareness of REC's potential, share technical and legal tools, foster partnerships between municipalities and private actors, promote knowledge transfer from national and European best practices, and strengthen local governance capacity to accelerate REC development in Lazio.

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS
10 June 2023	OIS Hub Meeting	30 (local municipalities, regional associations, technical experts)	Initial awareness raising; identification of key barriers and opportunities for RECs
10 September 2023	OIS Hub Meeting	54	Positive reception of legal and technical tools; discussion on customizing REC models for small municipalities
7 October 2023	OIS Hub Meeting	66	Peer-to-peer exchange; municipalities shared practical challenges and successes

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS
30 November 2023	OIS Hub Meeting	40	Validation of COMANAGE tools; feedback on usability and clarity
31 January 2024	Sun4U Initiative	30	Technical-economic tools discussed; strong interest in case studies
20 February 2024	Lazio Region Action Plan Presentation	52	Highlighted relevance of legal tools and statutes; discussion on replicability
27 February 2024	Chamber of Commerce of Rieti and Viterbo	21	Focus on bankability and practical implementation strategies
20 March 2024	Rocca Priora (Caiano Solare)	26	Concrete interest in starting municipal RECs; positive reception of step-by-step guides
26 March 2024	Ventotene - event	19	Small municipality perspective; need for simplified tools
2 October 2024	Peer-to-peer meeting in Rome - workshop	7	COMANAGE presentation to RECs and RECs' support organizations. First release and presentation of the legal toolkit; collection of feedback that led to its further improvement
3 October 2024	UNICOOP - Webinar	14	Focus on cooperative involvement; high appreciation of legal FAQ documents
17 October 2024	Roccagiovine - event	20	Discussion on collaborative governance; technical-economic instruments found very useful
30 November 2024	Fonte Nuova	50	Strong interest in legal templates and COMANAGE practical guide

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS
17 January 2025	Webinar	30	Consolidation of previous feedback; interactive Q&A session valued
8 April 2025	Agrivoltaics - Webinar	82	Technical guidance on hybrid projects; case studies well received
29 April 2025	Green Roofs & Renewable Energy - Webinar	35	Positive feedback on sector-specific examples; suggestions to include more visual content
17 April 2025	Energie in Comune (Legacoop) - Webinar	10	Cooperative-specific instruments appreciated; requests for additional examples
8 May 2025	COMANAGE-ENTRACK: REC technical topic - workshop	27	Introductory session on the REC field: the technical aspects (PV panels size) and economic incentives + presentation of COMANAGE Italian REC simulation tool
20 May 2025	COMANAGE-ENTRACK REC legal topic - workshop	19	Learning session on the REC legal constitutive models and best practice showcasing + presentation of COMANAGE Italian legal toolkit
22 May 2025	Webinar	20	Discussion on replicability in medium-sized municipalities
29 May 2025	Viterbo Lab - workshop	11	Hands-on tool testing; feedback on user-friendliness of ECGT
17 June 2025	COMANAGE-ENTRACK: REC financial topic - workshop	11	Learning session on the REC business model and best practice showcasing + presentation of COMANAGE Italian financial toolkit

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS	
24 June 2025	Rieti Lab - workshop	n.a.	Validation of case studies; municipalities provided specific improvement suggestions	
8 July 2025	International Grand Challenges Conference - Webinar	77	Dissemination at international level; positive reception of practical and legal tools	
11 September 2025	COMANAGE-ENTRACK: REC social topic - workshop	9	Learning session on the social advantages of building a REC + presentation of COMANAGE Italian social toolkit	
TOTAL		760	EXPECTED VALUE	Minimum of 150 participants per pilot

Table 9. Italian Face-to-face workshops



Figure 19. COMANAGE-ENTRACK: workshop on RECs legal topic - Vico Equense (left), Piano di Sorrento (right)



Figure 20. Italian face-to-face training: Rieti Lab

4.2. Catalonia



Between November 2023 and July 2025, the Metropolitan Area of Barcelona (AMB) worked on strengthening local capacities for the development of Renewable Energy Communities (RECs). Together with ECOSERVEIS, AMB designed and implemented a complete training programme co-created with regional stakeholders. The contents were discussed and refined through surveys and feedback sessions in Autumn 2023, ensuring they matched the real needs of municipalities and other local actors.

The course, available in Catalan and Spanish, offers more than 20 hours of high-quality, multidisciplinary content and has been recognised by participants for its technical and pedagogical excellence. It has also been benchmarked against similar national initiatives, proving to be one of the most comprehensive offers currently available.

Throughout 2025, AMB organised and participated in several events to promote the training and COMANAGE tools, including the AMB Energy Transition Tables, the Congreso Europeo de Comunidades Energéticas in Seville, and the ENTRACK webinar. Despite a later start compared to other pilots, these actions helped reach a significant number of stakeholders and positioned AMB as a reference actor in the field.

In the long term, AMB plans to integrate the training resources into “La Teulada”, its one-stop shop for energy communities and self-consumption, to ensure continuous access and use by municipalities and citizens. Moreover, AMB and ECOSERVEIS are participating in Working Group sessions with local entities to keep building on how Energy Communities should be integrated and promoted locally, and by the end of October will take part on a local event for Catalan Municipalities to present existing tools for energy communities together with key local actors, such as the Catalan Association of Municipalities (ACM), the Catalan Institute of Energy (ICAEN) which is part of the Catalan Government, and Som Comunitats focused on promoting Energy Communities. Feedback from participants has been highly positive, particularly for the technical and legal modules, which were valued for their clarity and practical orientation. The modules on governance and participation also received strong engagement, with participants highlighting the usefulness of the communication and gender inclusion sections. Overall, the

training was recognised as a high-quality and comprehensive resource, relevant for both municipal staff and energy community promoters.

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS	
30 November 2023	COMANAGE OIS HUBS meeting	45	First OIS hub meeting to co-design the toolkit and e-learning content. 27/36 municipalities attended.	
14th June 2024	Congreso EnerAgen	60	Presentation of the COMANAGE training to Spanish Energy Agencies	
24 April 2025	AMB Energy Transition Table	14	Presentation of the COMANAGE tools and training platform to municipal technicians.	
12 June 2025	Congreso Europeo de Comunidades Energéticas. Sevilla	80	National visibility for COMANAGE; exchange with other Spanish agencies and projects.	
25 June 2025	Webinar ENTRACK project	70	Online dissemination of COMANAGE training; strong interest from local administrations.	
10 July 2025	AMB 2 nd Energy Transition Table	27	Feedback session with municipalities; validation of course content and approach.	
21 October 2025	Webinar in Municipalia International Fair	42	Hybrid event in this important fair with all kinds of resources for municipalities.	
TOTAL		338	EXPECTED VALUE	Minimum of 150 per pilot (450 total value)

Table 10. Catalan Face-to-face workshops



Figure 21. Catalan face-to-face trainings - Metropolitan Energy Table

4.3. Poland



The first face-to-face training session conducted by KMA took place during an external conference organized by the Metropolis GZM (abbreviation for the Upper Silesian-Zagłębie Metropolis, in Polish: Górnośląsko-Zagłębiowska Metropolia), first metropolis in Poland to be established by law. The conference was held on 27th May 2024. During this event, KMA shared its experiences related to the development of energy communities and presented the key barriers identified so far. In addition, the COMANAGE project and its planned tools, which were under development at that time, were introduced. Following the presentations, an in-depth discussion was held, focusing on the barriers faced by municipalities when attempting to establish such communities. The meeting gathered 70 participants, representing local authorities, experts, and stakeholders, which ensured a broad exchange of perspectives.

The second session took place on 14 November 2025, when KMA organized and hosted a dedicated COMANAGE ECGT face-to-face meeting. This event provided an opportunity to present, test, and evaluate the COMANAGE Open Platform and the Decision Support System (DSS) together with members of the OIS Hub. Participants explored the functionalities of the platform, and the main conclusions can be summarized as follows:

- **Most useful category:** *The most valued elements of the ECGT were the legal and technical tools and documents, particularly those prepared by external experts. These resources were considered highly practical, as they responded directly to specific legal and technical needs of municipalities and local stakeholders.*
- **Real cases:** *Several municipalities within KMA had already applied these tools in practice during the project, in particular the model “Statutes of an Energy Community” for energy cooperatives. This document is required for the official registration of such cooperatives in Poland, and its availability significantly facilitated the process.*

In addition, participants filled out evaluation questionnaires, which enabled the project team to better align the quality of outputs with stakeholder expectations. The survey results confirmed that the workshops were well-received, with participants expressing a high level of satisfaction. Fourteen representatives from KMA municipalities took part in this meeting.

The third session was organized in the form of an external webinar hosted by the Association of Municipalities “Polish Network Energie Cités” on 28 November 2024. The event, entitled “*Shaping Areas of Accelerated RES Development and Energy Communities*”, provided a platform to discuss the tools created within the COMANAGE project, share KMA’s practical experience with the project’s implementation, and present upcoming activities. The webinar was attended by 44 participants, ensuring a diverse representation of municipalities and experts interested in the advancement of renewable energy sources and community-based initiatives.

The table below gives a complete overview of all the face-to-face activities run by KMA.

DATE	EVENT / LOCATION	PARTICIPANTS	NOTES / CONCLUSIONS	
28 May 2024	Konwent Naczelniczek i Naczelników - Miast i Gmin członkowskich GZM; city of Wrocław - conference	70	KMA shared its experiences related to the development of energy communities and introduced the COMANAGE tools	
14 November 2024	Forum Energii i Jakości Powietrza; City of Krakow - forum	14	Present, test, and evaluate the COMANAGE outcomes + gathering feedback	
28 November 2024	Kształtowanie obszarów przyspieszonego rozwoju OZE oraz społeczności energetycznych - webinar	44 (municipalities and experts)	Tools presentation and testing	
TOTAL		128	EXPECTED VALUE	Minimum of 150 participants per pilot – not reached

Table 11. Polish Face-to-face workshops

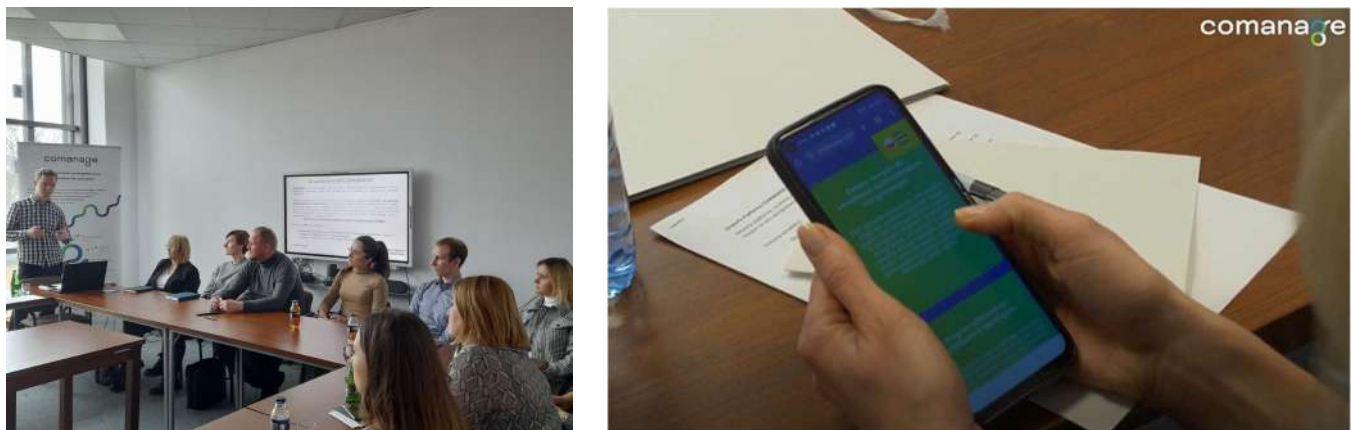


Figure 22. Polish Face-to-face workshops

5. Conclusions

The Moodle platform has been chosen for it being open source, accessible through different devices and highly customisable. Further, it integrates multi-language components, enabling them to easily provide courses in multiple languages within a multi-language environment and infrastructure. Also, this allows more national contexts to join the platform considering the problems of exploitation and scalability after the project's end. On the other side, some issue regarding the enrolment procedure occurred due to some automatic updates of the platform. Nevertheless, the AISFOR team supported the users and ensured the access while the technical problem got solved.

It also has to be considered that, even though the REC subject is not well known, there are many European initiatives that include training courses. This makes it tough for the COMANAGE course to stand out, even though the overall feedback is positive.

Eventually, it is a fact that the three pilots have different contexts, which leads to a different success and evaluation of the training. The registration numbers are as follows: 65% Italian users, 17% Polish users, 11% English users, 7% Catalan + Spanish users. Below, a graphic chart showing the percentages of enrolled students in the Moodle platform of each course.

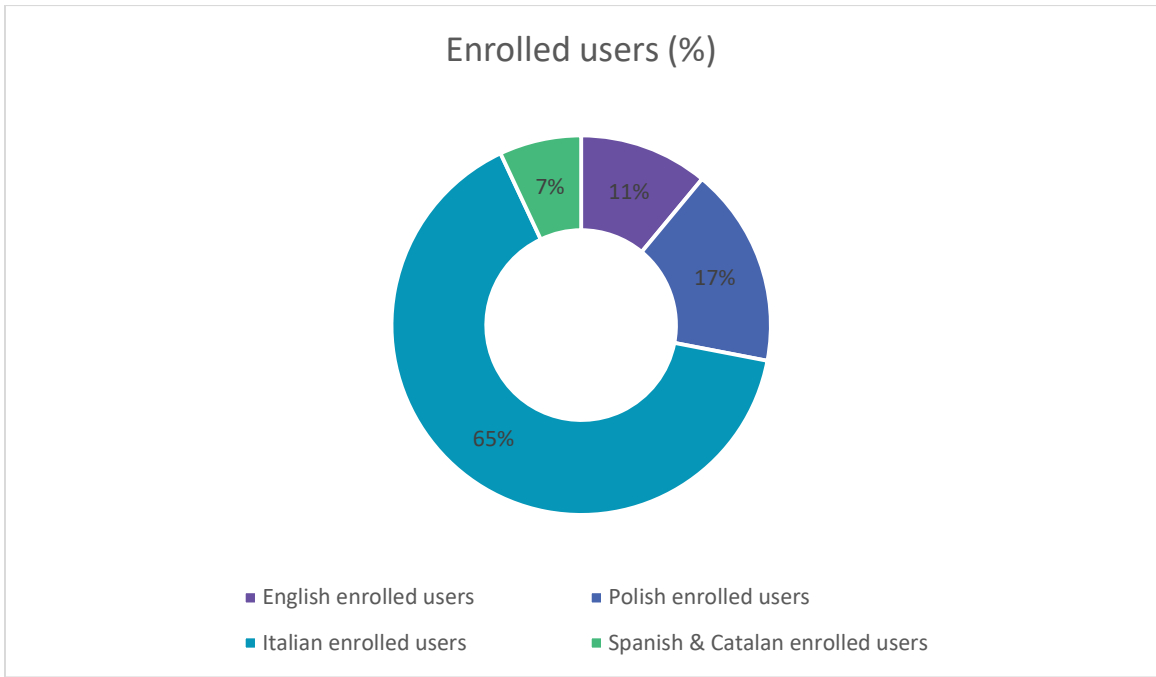


Figure 23. COMANAGE Energy Community Academia enrolled users

5.1. English training conclusions

As explored in its dedicated chapter, the English training is way different from the other courses. It is non-specific, mainly replicators oriented and only foresees the E-Learning part (no face-to-face trainings have been run). For these reasons, enrolled people achieved only 10% of the expected value.

However, the course obtained high success among the replicators who suggested the COMANAGE consortium to use it as a sort of guide to the E-Learning functioning and replication, besides its training main objective. The English course can be also useful to keep students updated on the European regulatory framework too. All these inputs are being discussed by the consortium to plan the sustainability of this course.

5.2. Italian training conclusions

The Italian course was the first to be released and right after promoted around the Lazio Region and beyond. From the perspective of ANCI Lazio, the Italian pilot course benefited not only from the digital resources but, above all, from the combination of E-learning and face-to-face training and initiatives (online and in-person) carried out across the Lazio Region between June 2023 and July 2025. Specifically, peer-to-peer laboratories and workshops further reinforced knowledge transfer, allowing municipalities, cooperatives, chambers of commerce, and local professionals to share experiences, practical solutions, and lessons learnt: these activities offered a valuable training update in a field—Renewable Energy Communities (RECs)—that remains particularly complex due to the high level of investment required and the need for multi-stakeholder and multidisciplinary integration. At the same time, participants could discuss challenges and opportunities in a dynamic environment, strengthening their capacity to plan, implement, and govern RECs locally.

In conclusion, the Italian pilot highlights that combining formal digital training with contextualized, practice-oriented engagement and informal knowledge exchange not only ensured the success of the COMANAGE objectives in Italy, but also significantly enhanced the understanding of the RECs field, even in areas where the topic is still largely unfamiliar or perceived as difficult to implement. The face-to-face activities went way beyond the minimum value foreseen (150 participant per pilot), whilst the E-learning had a good success, especially from a qualitative point of view, although the expected value has not been reached: however, Italian pilot achieved more than half of the expected value.

5.3. Catalonia training conclusions

The Catalan pilot, due to its initial delay, could not benefit from the same level of promotion and visibility as the Italian case. Nevertheless, the Catalan and Spanish training courses developed under COMANAGE stand out for their high-quality and comprehensive content, available in two widely spoken languages and covering more than 20 hours of structured learning. All participating stakeholders and experts have acknowledged the excellence and relevance of the materials, which provide a thorough and technically accurate overview of the energy community framework from the European to the local level.

In parallel with the online course, AMB organised an extensive series of face-to-face and hybrid activities to promote and validate the training contents. Between November 2023 and July 2025, 296 participants took part in six events—including COMANAGE OIS Hub meetings, the EnerAgen Congress, the European Congress of Energy Communities in Seville, and AMB's Energy Transition Tables—thus exceeding the expected minimum of 150 participants per pilot. These sessions fostered active

dialogue with municipalities, energy agencies, and local actors, generating highly positive feedback, especially on the modules dedicated to legal frameworks, participatory governance, and the role of municipalities in promoting energy communities.

Despite the solid results, the Catalan pilot faced strong competition from other national and regional one-stop-shop initiatives launched in Spain around the same period, many supported by national funding programmes, which reduced its visibility and enrolment potential.

In conclusion, the Catalan pilot represents a robust and technically rigorous contribution to the COMANAGE Academy, offering a valuable reference for municipal staff and energy community promoters. Its future integration into La Teulada—AMB's one-stop shop—will ensure the sustainability and continued use of the training materials beyond the project's lifetime, consolidating AMB's role as a key facilitator for local energy transition and community empowerment in Catalonia.

5.4. Polish training conclusions

Although the Polish pilot course was released at around the same time as the Italian pilot course, it initially faced difficulties in reaching students. At that time, the topic of Renewable Energy Communities (RECs) was not widely recognized or discussed in Poland, and therefore interest among potential participants remained limited. Only recently has the subject of energy communities started to gain increasing visibility and relevance in public debate and policy discussions. This is why E-Learning reached only 15% of the expected value. However, the face-to-face training has almost achieved the objective thanks to the direct interaction between KMA and its municipalities.