

D6.1. Sustainability, Replication and Exploitation Plan



Deliverable Information Sheet

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List of Acronyms

CA	Consortium Agreement
COP	COMANAGE Open Platform
CSO	Civil Society Organisation
DSS	Decision Support System
EC	Energy Community
ECGT	Energy Community Governance Toolkit
ER	Exploitable Result
ESCO	Energy Service Company
GA	Grant Agreement
IPR	Intellectual Property Rights
OIS	Operative Integrated Services
OSS	One Stop Shop

OTC	Community Transformation Office
PA	Public Administration
REC	Renewable Energy Community
SRE	Sustainability, Replication and Exploitation

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Keywords list

- Replication activities
- Exploitable results
- Sustainability roadmap
- Exploitation strategy

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

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

The objective of this document is to provide a first version of the Sustainability, Replication and Exploitation Plan (SRE) of the COMANAGE outputs as they are planned and designed until February 2024 (M16) as part of the Work Package 6 aiming at maximizing, ensuring, and sustaining the project impact outside of the consortium and beyond the project duration.

With the aim of providing a general overview of the COMANAGE products or, as they will be defined afterward, exploitable results (ERs), this report will outline the main guidelines or strategies on the different current and prospective sustainability, exploitation and replication activities, who are and might be the partners responsible for each activity, what tools and channels are and might be available for dissemination and what are the actions that could be planned to ensure the capitalization of the results and impact of the project.

1. Introduction

Communication, dissemination, and exploitation are an integral part of EU-funded Horizon projects and are fundamental to determine their success and maximize their impact. The aim of the COMANAGE project is to foster the adoption and wide dissemination of regional climate resilience pathways in Europe, adopting a long-term perspective which goes beyond the duration of the project itself. In order to ensure the uptake of solutions in time and the replication in other areas, at the local, regional, and national level a dedicated work package focuses on a sustainability roadmap for a long-term exploitation and replication. The current document aims to define the needed activities, strategies, and key synergies to ensure the success of COMANAGE while amplifying and perpetuating its impact beyond the consortium and the project's timeframe.

Generally speaking, while communication and dissemination focus on transferring knowledge and results by showing the generated impact and benefits, the objective of exploitation is to make effective use of project results, not only from a scientific perspective but also in the broader socio-economic and political context. The exploitation can be commercial, societal, political, or aimed at improving public knowledge and civic action. In order to pave the way for the long-term sustainability of COMANAGE, this document describes the list of exploitable results (ERs), the targeted stakeholders and institutions, as well as the actions to follow the learnings and continue using them. This will allow to create an ecosystem centred on a set of tools and techniques, which will successfully collaborate to define, develop, share, and evolve solutions that will help civil servants to support the long-term management of Energy Communities (ECs).

The Sustainability, Replication and Exploitation (SRE) Plan required the review of local information, the identification of stakeholders in every Operative Integrated Services (OIS) Hub, as result of the Executive Plans, that enable the further development of the solutions, the identification of possible funding sources, and the establishment of common requirements and replication strategies. The SRE plan has been also designed taking into consideration the activities already implemented to date and those still in progress, as indicated by the Grant Agreement (GA). In addition, the plan also considers the preliminary exploitation guidelines developed in the proposal stage (already included in the GA), the replication and exploitation strategies, elaborated in the GA (in sections 2.4 and 2.5 respectively), strengthening the influence of sustainability actions by enabling the expansion, replication, and commercial or scientific application of project results.

The document also foresees a part specifically dedicated to the Intellectual Property Rights (IPR) management, to build the pillars for a successful exploitation, which also respects the agreements taken by the COMANAGE partners. The document is divided into three main parts:

1. **The Roadmap for follow-up and sustainability**, in which specific aspects like objectives and barriers, economic feasibility and technical factors related to the IT management of the following outputs are outlined: ECGT (ECOSERVEIS), the COMANAGE Moodle learning platform (AISFOR SRL), the Decision Support System (SPXL), the Digital Hub (SPXL) and the OIS Hubs methodology (Co-opAbility Institute).
2. In terms of **exploitation**, it will:
 - Identify relevant (target/end) users, suitable transfer activities, and IP management;
 - Identify strategies and actions to ensure COMANAGE longevity and legacy also at the communication and dissemination level;

- Identify protection measures influencing exploitation of the project's results.
- 3. Finally, the **replication section**, led by METROPOLIS, will outline general measures and actions to engage and replicate the COMANAGE results in other metropolitan areas and regional PAs around the EU and beyond.

The document, prepared by ECO with the support of METROPOLIS and thanks to the contributions from key partners, serves as an initial but not complete version of the SRE Plan. The project consortium is actively engaged in launching the Moodle platform, initiating the first development phase of the Decision Support System (DSS), while tailoring the ECGT to the specificities and needs of the pilots. It is crucial to emphasize that the document primarily outlines basic measures, with more comprehensive actions to be detailed as pilot actions are in a more advanced level of development or progress. This will allow the involved partners to gain a clearer understanding of the necessary measures to ensure sustainable and exploitable outputs. As the project advances, the SRE Plan will undergo a thorough review and be presented in a more detailed version at the project's end under the *D6.2 Update of the Sustainability, Replication, and Exploitation Plan*.

1.1. Stakeholders and target groups

The long-term sustainability, exploitation, and replication strategy of the COMANAGE project cannot only be guaranteed by the consortium partners. It requires an effective process of engagement with external partners, stakeholders, and institutions who should make effective use or have a replicator potential of the project lessons learnt and main outputs or results. In accordance with the stakeholder analysis, carried during the proposal phase and, later, under WP2 between the Pilots partners, ECO and Co-opAbility, the following stakeholder categories have been identified:

- Municipalities and civil servants, local and regional authorities, and decision makers
- Renewable Energy Communities (RECs), energy cooperatives, citizenship
- Energy Service Companies (ESCOs), Energy providers and private sector
- Research centres, think tanks or trainers
- Metropolis network

For each of these categories, the strategy highlights the possible benefits and indicators to measure the level of uptake from external stakeholders in the prospective future and to foster replication actions/strategies that will be detailed in the next sections.

Stakeholders	Benefits	Indicators for exploitation/replication
Municipalities and civil servants, local and regional authorities, and decision makers: It is the primary target group to ensure the successful exploitation of COMANAGE results and current activities.	Learn from the experience of other European regions and local municipalities which face specific challenges and have different levels of maturity. This group could be able to exploit the learning from different case studies. Moreover, regional, and local authorities and municipalities could receive policy recommendations.	- Level of uptake of COMANAGE tools and learnings by other municipalities and local authorities at the regional and national level. - Pilot partners should be able to track, monitor, and assess which COMANAGE tools or aspects in the Comanage Open Platform (COP) receive more interest from stakeholders (number of visits,

		number of downloads, number of visualizations) and which aspects can be internalized and implemented without extra costs.
Energy communities, cooperatives, and citizens: these stakeholders are considered as the second main audience of COMANAGE results, receiving information and knowledge through social media and the COMANAGE online communication means.	Effective dissemination activities targeting already established energy communities, or in the early stage, could promote awareness raising, access to knowledge, as well as participation and engagement.	The participation of citizens and RECs, representatives in regional events and initiatives could provide an indication of the successful dissemination within the Pilot sites.
ESCOs, energy providers and private sector: category of stakeholders that could play an active role in supporting local and regional authorities in the establishment of RECs.	ESCOs can be involved through bilateral agreements with the One-Stop-Shop (OSS) or public authorities in providing support on financing solutions, energy efficiency renovation, investment and or maintenance.	Indicators are hard to find, however the success can be measured through the number of public tenders and contracts (under the form of PPPs or public procurement), EU initiatives or partnerships in which private stakeholders are involved.
Academia, think tanks and research centres: indirect stakeholders that could share the lessons learnt and use them as best practices for further applied research projects.	Research partners are interested in the innovative solutions which are going to be developed in the pilots' areas, that can be applied and replicated in other initiatives or projects. In terms of exploitable results, the most relevant for this group include policy briefs, or papers and articles that can support and incentivize the collaboration with other municipalities or metropolitan areas.	The reference and use of COMANAGE publications in the upcoming years could provide an indication of the interest and relevance of the policy recommendations output produced during the time frame of the project.
Members of the Metropolis network: stakeholders specifically involved in the replication activities.	Metropolis has a global network of major cities and metropolitan areas, who can use and test the learnings from the COMANAGE Project and the subsequent Policy Recommendations. The Metropolis network will test the replicability of the project in different contexts beyond the Pilots. Metropolis has personal and regular contact with its member cities, allowing closer collaboration and influence than with other cities and municipalities.	- The level of uptake of COMANAGE tools among Metropolis members. - Interest from Metropolis members can be measured long-term by number of pageviews and downloads of the Policy Recommendations from the Metropolis website.

Table 1. List of stakeholders for exploitation and replication

1.2. Methodology

The long-term sustainability and exploitation strategy of COMANAGE project is built following a 4-step process:

1. **The preliminary key principles and guidelines** of the sustainability, exploitation and replication strategy were identified in the proposal phase and included in the Grant Agreement.
2. The structure of the strategies included in this document elaborated after **reviewing other exploitation strategies from previous EU projects** as reference and examining opportunities for exploitation in the EU context.
3. A round of **consultations with the project partners** was carried out in order to define the key exploitable assets and the commitments from partners after the conclusion of the project. To provide the right and most appropriate information, **several bilateral sessions** with the partners responsible for the design, deployment, and exploitation of results have been undertaken. An indicative set of generic questions were used to guide the conceptualization of what constitutes a key exploitable result:
 - a. What exploitable results are the project participants hoping to generate?
 - b. What forms can the exploitation of these results take (commercial or non-commercial use, patenting, technology transfer, publication, etc.)?
 - c. What conditions will need to be fulfilled to enable exploitation of the results (cost of implementation and ease of obtaining)?
 - d. What kind of stakeholders will be using the ERs?
 - e. The owner(s) of the output
 - f. Access rights to the output during and after the project completion
 - g. Protection mechanism(s)
 - h. Communication/dissemination actions: in this document a preliminary set of means for the dissemination of project results (i.e. scientific publication, public divulgation, publication on website and social media, conferences, etc.) according to the *D7.1 Communication and Dissemination Plan*.
4. **Monitoring, periodic review and update** of this preliminary version is foreseen following the upcoming activities and development in the pilot sites. Moreover, the collaboration with sister projects or parallel initiatives could further align the list of the ERs and create new opportunities for replication and exploitation.

This plan submitted in February 2024 (M16), will be regularly reviewed during the implementation of the project to integrate any necessary adjustment, and ensure its effectiveness. The development and coordination of the strategy is done by ECO and supported by other COMANAGE partners. The final version of the plan will be included in the updated report at the conclusion of project in M36.

2. Roadmap for follow-up and sustainability

The COMANAGE sustainability plan is designed to establish a comprehensive framework that ensures the continuation and effective application of the knowledge and outcomes gained throughout the project. Its primary goal is to ensure that the outputs produced within the project are not only supported but also integrated into the long-term operations of energy communities (ECs). This integration is intended to extend beyond the immediate geographical boundaries of the pilot regions and encompass the pilot countries.

The main aim of the Sustainability section is to identify **the main actions** to be undertaken for those outputs that are suitable to be continued and maintained after the end of the project, such as the **ECGT (ECO)**, the **COMANAGE Moodle learning platform** (AISFOR SRL), the **Decision Support System (SPXL)**, the **Digital Hub (SPXL)** and the **OIS Hubs methodology** (Co-opAbility Institute).

In addition to the aforementioned products, the sustainability of the **social media profiles and general communication** and the **Policy Recommendations** have been considered as important outputs, as the related activities and channels contribute to engage and raise awareness among the general public. The section will outline the main objectives and possible barriers, the resources needed, and all the factors related to the IT and technical management, and maintenance of the platforms hosting the main outputs. Finally, it is important to highlight that all the COMANAGE outputs, except for the OIS Hub Methodology, are hosted in the **COMANAGE Open Platform (COP)**. For this reason, the COP has been conceived as a main output.

2.1. Sustainability objectives and barriers

The COMANAGE project aims to achieve the long-term sustainability and impact of energy communities across the three pilot areas through the different outputs. To do so, the sustainability activities need to accomplish the following **objectives**.

- Support the **integration of the knowledge and tools** built into the action plans to be developed for the improvement of energy communities' governance and management.
- Secure sufficient **support in partnership territories** to implement the envisioned/suggested improvement.
- **Mainstream project results** at the local, regional, national, and European level.
- **Mobilize resources** for actions/measures in collaboration with public administration (PA) representatives.
- **Build consensus** about the importance of RECs and **raise awareness** among citizens, while involving different stakeholders.

To ensure the sustainability of results, it is important to also consider some **barriers** that could impede the progress in the long term. The most important ones, related to the COMANAGE risks register table (Table 2 below) that partners may encounter are as follow:

	Risk description	WP	P	I	Strategy	Status
	Lack of coordination among partners	WP1,2,3,4,5,6,7	2			
R01	All partners have been involved in the project development showing strong coordination. Several face-to-face and virtual meetings have been foreseen. Management structure and procedures have been clearly defined to outline precise responsibilities and avoid lack of coordination. Additional virtual meeting will be planned, and work or roles will be reorganised if needed. The Project Coordinator will continuously be in contact with all partners. This guarantees that any team problems are identified and solved before they escalate.					
	Budget constraints	WP1,2,3,4,5,6,7	2			
R02	The budget has been estimated in detail for each activity and project meeting also identifying needs for external subcontracting. Transfer of budget among category costs and among partners could be envisaged.					
	Partner leaves	WP1,2,3,4,5,6,7	2			
R03	Consortium is of sufficient strength and diversity that remaining partners could deliver the remaining work until a new partner is found. Coordinator will ensure appropriate control management and redistribute of the work					
	Low participation / engagement of stakeholders in Hub activities	WP3	3			
R04	A robust Communication and Dissemination Plan, containing pilot-oriented strategies guidelines for the engagement of stakeholders and for the effective communication of the benefits of participating in the project activities will enhance stakeholder participation. Each partner, and especially pilot cases, will launch communication campaigns to attract additional stakeholders if needed (online and offline). In addition, already at the proposal stage, relevant stakeholders have signed the letters of support demonstrating their commitment.					
	Lack of engagement from the Replicators	WP6	2			
R05	The participation both as partner and external supporters (such as ICLEI and METREX) of networks of regional and local governments ensure the participation of relevant Replicators around the Europe and beyond. European networks of public authorities, metropolises, regions and municipalities have already signed the LoS. METROPOLIS will mobilize the members of its network.					
	Quantity and quality of data not sufficient for analysis, monitoring and impact assessment and for development	WP2,5	3			
R06	Pilot cases have already demonstrated at proposal stage their capacity and availability to provide relevant data and information. Different tasks are dedicated to collect information and data from the pilots. If needed, additional surveys will be carried out, and integration with additional databases from the pilots will be envisaged					
	Persistence of energy communities' management and governance barriers	WP4	3			
R07	The persistence of barriers affecting energy communities' management and governance have been considered in the design of the proposal. For this reason, an updated and refined version of the ECGT will be produced after the evaluation and impact assessment procedures. The refined version of the ECGT will feed the plans for Replicators and follow up initiatives.					
	Difficulties in making public authorities cooperating with citizens	WP3,4	3			
R08	A specific WP (WP2) has been dedicated to the design of a robust public/private and collaboration methodology. Several workshops, roundtables and events are envisaged by involving representatives of local communities collaborating with public authorities' officials. If difficulties arise, the organizational models designed in WP3 will be refined to solve the emerging hurdles					
	COVID-19 restrictions	WP1,2,3,4,5,6,7	4			
R09	The project has been designed by considering the current epidemiological situation. All project activities are suitable to be maintained also in case of restrictions and necessity of moving the events and workshops online. The project digital spaces (Elearning Platform, DSS, Digital Hub) will be reinforced if the situation will not allow face to face meetings and events and project travel budget will be re-allocated to face the situation					

Table 2. COMANAGE Risk Matrix Register

- **Funding opportunities (R02):** If needed, new funding opportunities can be identified during the development of the project as a way to ensure the sustainability in the post-project period.
- **Staff allocation and other resources:** The staff associated with the deployment of COMANAGE activities and outputs can be specifically hired inside the project or allocated to different activities after the project completion. This means that the human resources availability can be quite limited. Integrating or using the results of COMANAGE in the scope of other projects, under the EU or national scheme funding, might ensure that the project outputs will be sustained both during and after the project completion.
- **Organization and communication (R01, R04):** Communication between partners and key stakeholders can easily be lost or become less frequent after the project's completion. It is important to create opportunities to continue the established relationships and to further expand them while sharing new ideas.
- **Time management (R01, R04):** Related to the previously mentioned aspects, limited time is a quite significant constraint as human resources might not be available to spend time on specific tasks or deploying certain responsibilities. In this case, focusing on the activities with the highest added value (for example public events with other stakeholders to raise awareness or networking activities) might be a solution.
- **Interest and motivation (R04, R05, R08):** Partners and regional stakeholders may lose interest after the project's completion, particularly in the case that the immediate effects of the project have been achieved. Developing

high-quality outputs, and building strong networks, could help maintaining high interest and motivation to further disseminate project results.

- **Other potential difficulties (R07, R08):** Red tape and complex bureaucratic procedures in certain countries can be a significant barrier to the implementation of the sustainability plan.

Overcoming the mentioned barriers can be a challenging process, specifically related to the lack of resources, however it is essential that potential, negative effects are minimized or taken into consideration to achieve the maximum results from the project in the long term. The actions and strategies briefly outlined in the sections that follow serve as roadmap to provide a certain sustainability and will be reviewed both during and at the end of the project.

2.2. COMANAGE OIS Hub methodology

Responsible of the output development: **Co-opAbility**

As for the specificity of this intellectual output, the actions foreseen to make it sustainable in the long term are depicted as follows:

General guidelines for sustainability:

In terms of both human and economic resources:

- Individuals who are experienced or have facilitation competences to implement the **Theory U** methods and tools might be needed.
- Funding might be necessary to train individuals as facilitators while the following strategies could help to keep the co-creation perspective:
 - Seek partnerships with NGOs or other training organizations with experience in community engagement and facilitation methodologies.
 - Explore funding opportunities from governmental agencies and private investors for capacity building trainings.

2.3. COMANAGE Open Platform

Responsible of the output development: **SPXL**

The COMANAGE Open Platform (COP) collects all the contents and tools developed within the project and is useful for external stakeholders to boost the creation of energy communities (ECs). The COP is composed of 4 main components:

- The Energy Community Governance Toolkit
- The Digital Hub
- The E-learning platform
- The Decision Support System (DSS)

Although there is no official output or ER foreseen for the COMANAGE Open Platform, it is important to highlight and determine specific technical sustainability aspects of the COP as it hosts and stores the different COMANAGE outputs.

The COP is a platform hosted in Amazon Web Services (AWS) that includes a mixture of infrastructure-as-a-service, platform-as-a-service, and packaged-software-as-a-service offerings. AWS can offer organization tools such as compute power, database storage and content delivery services. Spindox Labs is partner of AWS and exploits it for the deployment of all the applications. The COP platform was developed by Spindox Labs using WordPress (<http://wordpress.com>) as a backend, which allows for simplified resource management, the possibility of adding posts and content in an easy and intuitive manner. The frontend was customised by Spindox Labs to simplify the development management and to meet usability requirements.

General guidelines for sustainability:

- Entities wishing to replicate the COP on its whole or just some of its specific components, will be autonomous using the **content management** part. They will be able to add, modify, and delete content according to their needs.
- The COMANAGE outputs **hosting costs** are currently covered by SPXL. In the future, these might be internalised by the Pilots.
- Further changes to the **frontend, migration, and maintenance** should be managed by a technology provider.

Since the products are still in an early stage of development, more detailed actions and strategies will be provided in the updated version of this document. Whenever possible, the specific aspects to take into account will be outlined as follows.

2.3.1. COMANAGE Energy Communities' Governance Toolkit and pilot project Executive Plans

Responsible of the output development: AMB, ANCI LAZIO & KMA

General guidelines for sustainability:

- To ensure that the content remains accurate and up to date, allocate resources, both in terms of personnel and budget.
- Create a mechanism (on the webpage) for users to provide feedback on the toolkit's usability and effectiveness.
- Review the content according to the developments (legal/administrative, etc.) and design to ensure it remains up-to-date and user-friendly.

Concerning the needed resources, Pilots could have three different options:

- Deploy internal staff with expertise in legal, communication, and technical areas to assist RECs and manage the toolkit or specific tools that need updating.
- Outsource specific services (legal advice and/or update communication and technical aspects) to external professionals.

- Find collaborations with supramunicipal agencies or local PAs that provide support services to energy communities.

2.3.2. COMANAGE Training Program and e-learning platform

Responsible of the output development: **AISFOR**

When dealing with sustainability, it is important to remark that the COMANAGE consortium will take into consideration aspects related both to the content and the platform itself. As for the latter, the **Moodle** is an open access platform, hence it does not provide any specific fee related to its maintenance. Once built the platform, there is no need for further work for its maintenance.

The work done by AISFOR within the COMANAGE has been to set up a **multilingual customised learning platform**, which will specifically host all the **4 COMANAGE training courses** (the general one in English plus the 3 pilot specific courses in the pilot languages) designed with the different project partners.

General guidelines for sustainability

Content ownership and platform management:

The contents of the COMANAGE training course have been built with a 2-level geographical objective in mind – on one side the lessons in English which are common to all European countries and then some pilot specific lessons which are relative only to the specific pilot country. For this reason, the **common lessons** have been prepared **in English** and then translated into each piloting country while the **pilot specific lessons** have been prepared only **in the pilot languages**. Therefore, the common English course is shorter and more generic than the pilot specific courses.

Concerning the training content's updates, the sustainability strategies that can be deployed are as follows:

1. **Open access course with no need for future update in the contents:** AISFOR could provide a very basic and generic course, built on the common English course cleaned from all time references. This version can be available to everyone and does not imply any future cost related to animations, postproduction, and audio recording (voice off and comments) to bear.
2. **Open access course with the need to update in the contents:** in case the resources of the training courses include time references or other information which might become outdated, then there will be the need to bear costs for the partner who decides to update the e-training: animation, preparation of the lesson's materials, postproduction. The update of the training courses requires the use of the licence of the *Articulate software*, which is not open source.
3. **Access to the course paying a fee:** after the project completion, the course can be further integrated and become an educational resource available in the market. The revenues can be reinvested to update contents, pay the platform hosting costs and to provide technical support.

These three options are not mutually exclusive; it is possible to implement more than one option.

Funding:

- The course might be funded through a **subscription fee** with a final certificate (i.e. Coursera)
- The course might be **funded/subsidised** by public administrations, providing a professional certificate for civil servants working with ECs.

Platform hosting costs and technical support:

- The Moodle hosting costs are currently covered by SPXL, the partner in charge of hosting the different outputs (COP, Digital Hub, DSS, Webpage)
 - The hosting cost is approx. 70€/per month and does not imply any financial risk to keep the platform alive and cover for the relative costs¹.
- After the project completion, if a COMANAGE partner wants to update the content but has no resources to provide a long-term accessibility, a partnership with educational organizations, universities, or educational providers or within other on-going projects related to the COMANAGE scope might be set.
- Other solutions might be found for hosting the Moodle at a lower cost, for example storing it directly into the Moodle Cloud (<https://moodle.com/it/solutions/moodlecloud/>). Switching to this sort of solution is considered as the easiest option, in which the partner just needs to make a backup of the current solution and restore it to another hosting.

2.3.3. The Digital Hub

Responsible(s) of the output development: **SPXL, AMB, ANCI LAZIO & KMA**

The Digital Hub was built using an opensource tool called nodebb (<https://nodebb.org/>). Spindox Labs merely customised the graphics and categories using the tool's settings. All resources are directly integrated into the tool used.

General guidelines for sustainability**Platform management: migration, maintenance, and modification:**

SPXL, the responsible partner for this output:

- Created the structure that has to be further updated by pilots in the content.
- Secured to keep the platform alive for the project lifetime.
- Will provide an easy way to keep it working after the project completion to be embedded and integrated into the Pilots' webpages or platforms.

¹ This is valid only if the partner in charge (AISFOR) has the economic resources and the technical support and hosting to keep the platform alive.

After the project completion:

- If there are problems with the plugin, Pilots should be able to subcontract or internalise this aspect within their IT Services.
- Technical support will be deployed by the Hub Managers.
- To migrate the Digital Hub, simply make a backup and restore it to the newly selected instance.
- Maintenance and changes can all be done directly from the tool's management interface.
- Regular feedback from users on both improvements that need to be done and possible bugs, might be provided through a pop-up window or a support email.
- Entities wishing to replicate the digital hub can independently install it in their own cloud or in any cloud provider they choose.

For these activities, technical skills are needed in the installation and management of tools, but no knowledge of software development is required.

Registration and access:

To **actively participate** in the Digital Hub and being committed, users must register via the appropriate section within the digital hub. **Non-registered users** can only view the posts.

The **Hub Managers** will play a crucial role in sustaining the platform, both at the operational and technical level:

- Managing user registrations
- Ensuring that new users are welcomed and can access the relevant sections
- Serving as moderators for the pilot sections, maintaining a respectful and focused environment

After the project completion, if the Hub Manager wants to keep the Digital Hub alive, has to:

- Identify the diverse range of users
- Consider user prerequisites for registration
- Decide which kind of user can register

Contents update:

Spindox Labs will provide tutorials for the implementation phases. Contents can be updated by using the tool. No specific knowledge of software development is required.

COMANAGE Pilots, through the Hub Manager, are and will be in charge of the following tasks:

- Creation of new posts in the general section or creation of sub-sections
- Management of the pilot sections
- Moderation of users posted contents (i.e. articles, videos, events, research findings, etc.)

2.3.4. Decision Support System

Responsible of the output development: **SPXL, AMB, ANCI LAZIO & KMA**

The development of the DSS is currently in progress, hence usability, replicability, and exploitation aspects will be taken into consideration throughout the development of the output which is due in M20 (1st version) and M30 final version.

General guidelines for sustainability

- The DSS has been designed by Spindox Labs, that is currently managing and building the platform architecture.
- In order to simplify any future update and management at the end of the project, the idea is to use a folder in which the future DSS Manager will be able to upload, edit and manage the documents and contents on which the DSS will be based.
- Spindox Labs should provide technical support to Hub Managers, to make the documents update process easy and user-friendly.
- After doing this, the system will automatically process the documents to train the automatic response system.
- The COMANAGE Pilots are the partners, through the Hub Manager, in charge to update content during and after the project completion.
- After the project completion, the main idea is to embed the DSS in the Pilots' webpage, this way they will have a control on the platform.

Data Quality and Data Privacy:

Pilots will have to:

- Ensure access to accurate, trustworthy, and updated data and information.
- Implement measures to protect user data and maintain privacy (GDPR rules) according to the specificities of the Pilots' country legislation.

2.4. Policy Recommendations

Responsible of the output development: **METROPOLIS**

The Policy Recommendations will be produced at the end of the Project, distilling the evidence and findings into concise actions that policymakers can take to facilitate successful energy communities.

General guidelines for sustainability

The Policy Recommendations will be hosted on the Metropolis and COMANAGE websites. Other partners are also free to host the PDF on their website if they wish. This will ensure the sustainability of the document, as these are well-established websites, with longevity. There will be no additional fee to maintain them.

Scalability, flexibility, and accessibility:

- The graphic design of the document will be visually appealing and easy to digest. In this way, it will be functional to people from different contexts and with different accessibility needs.
- The content will be able to be re-packaged into more “bite-sized” graphics for social media, which will allow the recommendations to reach a larger audience – including those unlikely to read a PDF document.
- The Policy Recommendations document should include a point of contact (a person who is involved in the authorship of the document) so that readers can provide feedback in the future.

Contents ownership and platform management:

- The Policy Recommendations document will be authored by the “COMANAGE Project.” A disclaimer will state that the recommendations are the result of expert analysis of the project’s findings (the third-party expert can also be credited here).
- All collaborating organizations will be listed and credited in the document for their roles in the project.

2.5. Social media profiles and communications

To extend the project's outcomes beyond its duration, a 'push/pull' approach is adopted to promote the benefits and effective use of the ECGT. **Three local communication and dissemination strategies**, as highlighted in the *D7.1 Communication and Dissemination Plan* will be crafted for AMB, KMA, and ANCI LAZIO, and tailored to their specific contexts and communication needs. Each strategy will outline objectives and goals for targeted actions, providing guidelines on using different tools and channels to have the greatest impact on stakeholders and identified audiences. A communication kit, available in both English and the local language, will be provided to each pilot case according to their local strategy. In accordance with the COMANAGE *Grant Agreement*, the three local strategies will aim to:

- **Raise awareness** among relevant target groups at local, national, European, and international levels about the ECG Framework and Toolkit, along with other project resources.
- **Create synergies** and complementarities with relevant local, national, and European projects and initiatives.
- **Establish the COMANAGE Open Platform**, ensuring accessibility of the main digital outputs to all interested users and maximizing the impact of communication and dissemination activities.

3. The Exploitation Strategy

The **COMANAGE Exploitation Strategy** aims at facilitating and encouraging the actual and future use of the results produced for scientific, societal, and economic purposes as well as for policy making during the project but also after its completion. Although the majority of expected results become available towards the end of the project and obligations for dissemination and communication continue for up to 1 year after the project completion, it is important to establish specific exploitation measures that follow the right to use, and the intellectual property rights established by the project partners.

This section outlines some possible measures that can be taken to allow a long-term exploitation and impact on energy communities, while providing guidance to the COMANAGE partners on the methods for exploiting the project results. On the other hand, the IPR Management will be drawn to allow proper protection of the intellectual outputs.

The COMANAGE Grant Agreement (Annex 1 – Part B) includes an initial list of the potential results (Exploitable Results - ERs). However, this list can be subject to review and updates throughout the project's implementation, reflecting the evolving nature of the project outcomes and prospective opportunities of exploitation. The long-term objectives are built upon the work started by the COMANAGE consortium in 2022 and will depend on the development, implementation and progress of both activities and outputs, during the project's life frame.

It is important to highlight the fact that the actions, strategies, and protection measures outlined herein, will be carefully reviewed and detailed, taking into account the specificities and needs of the Pilots, in the updated version of this document foreseen in 2025, at the end of the project.

3.1. Intellectual Property Rights Management

COMANAGE partners in charge of the different ERs should protect the intellectual property developed during and after the project from possible external threats or improper usage. This also takes into consideration the development of mitigation strategies in case of internal disagreements between partners that might occur following the rules defined in the Consortium Agreement (CA). Intellectual Property Rights (IPR) management is essential when considering the exploitation of the following COMANAGE exploitable results.

3.1.1. COMANAGE Exploitable Results

COMANAGE is and will be producing several results with different exploitation potentials. The exploitation of project's results means the usage of results in further research or capacity building activities other than those covered by the project, or in developing and creating a product, or providing a service. Among the ERs listed in the GA, some additional promising results (Policy recommendations) that have not been previously considered have been inserted in the list. This output is considered important as it could support COMANAGE partners in achieving a higher pool of interested stakeholders, aspect that is useful for the possible replication and advocacy. The main idea of the exploitation is related on how using the results for scientific, societal, and economic purpose as well as for policy making.

The exploitation activities will be addressed to all the results generated during the project's lifetime but also after its end and will include actions capable of making the **results exploitable/usable** in further research and innovation activities or services. In this sense, an exploitable result should follow these two conditions:

- Must have commercial/social/academic/innovative relevance.
- Must be commercialised/exploited as an independent product or as a part of the whole ER.

3.1.2. Access and exploitation rights

According to what is established in the COMANAGE *GA Article 16.4* and *Annex 5, Section on Ownership of Results*, the results are owned by the Party that generates them. In the specific case of COMANAGE, the development of the project outputs is collaborative as it involves different partners during the process. Hence the provisions are established on the following *joint ownership principles*:

- The owners will **collectively agree** on how to strategically exploit the outputs.
- When considering specific components of a product (for instance as in the case of the different tools of the ECGT), opting to exploit the general asset instead of individual components may be more practical. In such cases, owners of different parts can agree on joint ownership of the composite and establish a joint ownership agreement to govern its exploitation. These measures ensure a **fair and transparent** approach to the usage of jointly developed outcomes.
- **Rights of use:** Unless otherwise specified, each joint owner has the right to use jointly owned results for non-commercial research, teaching, and non-commercial journalistic purposes without seeking prior consent from other joint owners. This usage is royalty-free.
- **Exploitation rights:** Joint owners are entitled to exploit the jointly owned results and grant non-exclusive licenses to third parties (without sub-licensing rights). However, this requires providing other joint owners with (a) a minimum of 45 calendar days advance notice and (b) fair and reasonable compensation.

The justification for adhering to the specified guidelines for **access rights**, as specified in the *Consortium Agreement (CA) Article 9* and related sub-articles, during and after the projects is as follows:

- The access rights granted **strictly exclude any sublicensing rights** unless expressly stated otherwise. This ensures that parties accessing the rights do not have the authority to further sublicense them, maintaining control and accountability.
- Access rights come **without any administrative transfer costs**. This promotes a streamlined process, eliminating financial barriers and facilitating efficient collaboration among the involved parties.
- **Access rights to results** and background necessary for a party's work under the project are granted on a **royalty-free basis**. This fosters an environment where parties can utilize essential elements for their project-related activities without incurring additional financial burdens.
- **Access rights for the exploitation** of a party's own results are granted under fair and reasonable conditions, subject to a **written bilateral agreement**. This ensures an equitable arrangement for both parties involved in the exploitation process.
- Access rights for internal non-commercial **research, teaching activities**, and non-commercial **journalistic purposes** are granted on a **royalty-free basis**. However, it is stipulated that no results shall be accessed by, transferred, or licensed to any third party without the **explicit consent** of the owning party or associated party. This protects the proprietary nature of the results.

- Parties are allowed to request access rights up to 12 months after the project completion (as outlined in *Section 9.6.2.1.2*). This provision provides a reasonable timeframe for parties to assess their access needs after the project completion, ensuring flexibility in the utilization of access rights.

3.1.3. Intellectual property protection measures

When considering intellectual property, IPR management is integral to preserving the value and integrity of these exploitable results while facilitating their responsible dissemination to external parties. The selection of the most suitable protection measures depends on the nature and specificities of the result considered and should take into consideration the right balance between sharing knowledge and protecting the intellectual asset.

3.2. ER1: COMANAGE collaborative methodology and holistic approach

It is a **methodological framework** that can be used in different cooperative projects and adapted to the specific context. It offers civil servants a range of tools that fit the objective of developing a fully qualified and equipped workforce, capable of implementing, executing, and performing all the necessary actions to help energy communities. The collaborative character of this methodology is a brand-new aspect within PA agencies that could enable a higher level of engagement and participation.

Related stakeholders using/exploiting the result:

- Owner(s) of the output: Co-opAbility
- Contributing partners: ECO & Anese
- Access rights to the output during the project: all COMANAGE partners
- Access rights to the output after the project: Researchers, civil servants, cooperatives, market actors
- Exploitation: non-commercial use, for knowledge-based and societal purposes

Actions & strategies for exploitation:

- Crafting the *D2.1 Energy communities' holistic framework and collaborative methodology* and the *D3.1 OIS Hubs stakeholders' engagement and mobilization Plan* as adaptable guidelines with step-by-step processes and tools would help to use it in other and prospective projects.
- When arranging training sessions, workshops, or informative sessions, provide the participants with this methodology to empower stakeholders with the necessary skills to proficiently apply the methodology.
- Have it available as an easy-to-read booklet or in digital format or infographics or visual materials that can facilitate the implementation of the methodology.
- Within the already established EC or cooperative project identify individuals who are willing to implement the methodology inside their communities.

Communication & dissemination strategies:

- Document the usage of this methodology in activities through **visual descriptive content** and material especially through social media.
- Write **articles for public divulgation** in which the outcomes of the methodology helped to reach the COMANAGE project objectives.
- Produce **short videos explaining the methodology's** key features.
- Include **testimonials** from those who have applied the methodology with their **success stories/results**.
- Present the methodology at conferences, workshops, and training sessions (Metropolis/all COMANAGE partners)
- Use **social media channels** (LinkedIn, X (Twitter)) to promote the methodology highlighting their capacity to assist energy communities.
- Put-in-practice **campaigns** that enlighten the audience about potential issues they may encounter, demonstrating how to effectively resolve them using the platform and emphasizing its practical utility.
- **Shared calendar with partners and pilots** for two-way communication regarding actions, events, etc. where the ER has been used/presented.

Protection measures:

- Type of protection: copyright
- Condition(s) to use after the project completion: free to use
 - Obligation to reference and quote the source with the COMANAGE logo, when sharing both with external parties, and if used in trainings or facilitation activities.

3.3. ER2: COMANAGE energy communities' governance toolkit and pilot project executive plans

The ECGT **provides tools to address** the key issues/barriers/challenges that energy communities face in the different aspects of their management and governance. It is also conceived as resource within the COMANAGE engagement strategy.

Related stakeholders using/exploiting the result:

- Owner(s) of the output: ECO KMA, AMB, ANCI LAZIO
- Contributing partners: AISFOR, ANESE & Co-opAbility
- Access rights to the output during the project: all COMANAGE partners
- Access rights to the output after the project: civil servants, cooperatives, citizenships, new energy communities in the pilot country or pilot projects with similar specifications.
- Exploitation: non-commercial use, for knowledge-based and societal purposes

Actions & strategies for exploitation:

- Encourage stakeholders, energy communities, and civil servants to use the toolkit or its different tools to implement sustainable practices, make informed decisions, and drive positive change.
- Incorporate the toolkit into workshops, webinars, or capacity-building initiatives (foundational resource in user guides, tutorials, and FAQs)
- Collaborate with Civil Society Organisation (CSOs), public institutions, and network to integrate the toolkit into their programs and use the specific tools when convenient.

Communication/dissemination strategies

- Use **channels** (newsletters, social media) to continuously promote and highlight the toolkit's value and benefits.
- Highlight **real success stories (videos)** that demonstrate how the toolkit has been used to achieve positive sustainability outcomes as an inspiration source.
- Develop **press releases** highlighting the toolkit's launch and updates.
- Establish an **online forum for energy communities** to discuss their challenges and barriers and how the toolkit has contributed to dealing with them.
- Organise **webinars** with representatives of energy communities, stakeholders, and public authorities to discuss the obstacles faced and have some knowledge exchange.
- **Shared calendar** with partners and pilots for two-way communication regarding actions, events, etc. where the tool has been used/presented.

Protection measures

- Type of protection – open access
- Condition(s) to use after the project completion: free to use
- Ensure that the ECGT and Executive Plans are well-documented, their authors cited, and their intellectual property is protected through copyrights if there are unique services and innovative solutions involved (i.e. legal subcontracting & financial tools).

3.4. ER3: COMANAGE OIS Hubs

Related stakeholders using/exploiting the result:

- Owner(s) of the output: KMA, AMB, ANCI LAZIO
- Access rights to the output during the project: all COMANAGE partners
- Access rights to the output after the project: Civil servants working in supporting and boosting the creation of energy communities, members of already established ECs and individuals who want to start an EC.
- Exploitation: non-commercial use, for knowledge-based and societal purposes

Actions/strategies for exploitation

- Establish the OIS Hub as a replicable model, allowing interested entities in various regions to reproduce the “hub” concept.
- Present the OIS Hub inside the city/region public debate spaces as a hotspot in the city/region for energy communities related issues.
- Create partnerships with existing organizations, universities, or research institutions to host and manage OIS Hubs.
- Transform the Hub as a support mechanism/node facilitating information and updated data on energy communities through a newsletter.

Communication/dissemination strategies:

- Develop a **handbook** about **best practices** and **guidelines** to be replicated by the replicators (METROPOLIS)
- **Participate** in **public debates, forums, and events** to showcase the OIS Hubs as focal points for energy community-related issues (all COMANAGE partners).
- **Joint publications** and **initiatives** with the partnerships
- Use **channels** (newsletters, social media) to continuously promote and highlight the OIS Hubs value and benefits.
- **Shared calendar** with partners and pilots for two-way communication regarding actions, events, etc. where the OIS Hubs have been presented.

Protection measures:

- Type of protection – open access
- Condition(s) to use after the project completion: free to use
- Document the processes, methodologies used to build the idea of OIS Hub.

3.5. ER4: COMANAGE training program and e-learning platform

It is comprehensive capacity building and multilingual training program, coordinated by AISFOR with the support of COMANAGE partners will be developed and delivered during the project. The training program is made of various modules, including a series of open training webinars (in English) and pilot-specific sub-modules (in pilots’ specific languages).

Related stakeholders using/exploiting the result:

- Owner(s) of the output: all COMANAGE partners
- Contributing partners: ECO, ANESE & Co-opAbility
- Access rights to the output during the project: all COMANAGE partners

- Access rights to the output after the project: Civil servants, trainers, researchers
- Exploitation: it can be for commercial or non-commercial use, for knowledge-based²

Contents ownership and platform management:

During the project:

- The e-training will be open upon free registration at the national level.
- A certification will be provided to the registered users who follow and complete the different modules.

After the project completion:

- the courses will remain accessible to interested parties and, if needed (according to the changes in the legislation and implementation status) the training resources will be updated.
- The financial coverage to provide open and free access to the course will be provided by the project partners – each for its own country (adding the course to their training offer or and services for energy communities).
- The financial coverage for updating the course will depend on the effort needed – for small updates the partners will invest and cover themselves the cost while if the course needs to be strongly revised the country partners will initially seek for external financial coverage and if not possible will consider the revised course as a business product which pays (through participation fees) for its update.

Activities that can foster long-term exploitation

- The **English version** of the course can be used as a generic and basic EU course, available and accessible to everybody. It can be promoted on EU platforms and online repositories.
- The **tailored version of the course** translated in Pilots country languages will be embedded in Pilots websites and promoted among partners and in other projects or initiatives.
- Directly linked to the replication strategy, the **tailored version of the training for Catalonia will be also translated into Spanish** to be promoted in both Spain and in Latin America.

Communication / dissemination actions

- Make use of social media, newsletters, and project website to announce the **launch** of the e-training.
- Regularly **update** stakeholders about upcoming training **modules** (webinars and pilot-specific sub-modules) through social media or e-reminders.
- Share **promotional videos** where potential users can have a **sneak peek** into the course content and structure of the platform (i.e. using the introduction submodule M0).
- **Collaborate** with relevant stakeholders to promote the training program such as public actors.
- Use **events** to introduce the learning platform and present it to a wider audience (all COMANAGE partners).

² The exploitation outcome will depend on the sustainability actions that will be undertaken.

- Develop **e-materials** to be downloaded and used as a guide for users available on the website of the project.

Protection measures

- Safeguard the content of the training program and e-learning platform with copyright protection from freelance consultants who can monetize the work done.
- In the situation of providing access to external organizations or institutions, establish requirements that protect your intellectual property while permitting the legitimate use for educational purposes.
- Signed up and registered users of the online course: The data of those users who signed up to the online course platform to access the modules and receive the certificate of completion is managed by AISFOR and after the project completion by Pilots, under their GDPR conditions. It is not possible to use their emails to send other information related to the project out of the context of the online course.
- An evaluation survey of the online course will be sent to the registered users at the end of the course, including the possibility to provide their email for receiving news about the project under a new GDPR.
- The same evaluation survey of the online course will be available for the free access to the Moodle. This will allow to recover the mails from the users that freely download the modules of the course from the website and send them information about the project under GDPR.

3.6. ER5: COMANAGE Digital Hub

The Digital Hub is conceived as a vibrant online ecosystem for the exchange of information, mutual learning, and constructive dialogue among users. During the co-design session led by Spindox Labs involving Hub managers and stakeholders, this digital hub was defined considering pilots specific requirements, with a particular focus on user considerations, roles and resources, and technical features that Hub Managers envisioned.

Key features during the co-design session were posed among the participants specifically focusing on the user's registration and access, the person in charge of the moderation of contents. This collaborative step can be considered the foundation of the long-term life and activity of the Digital Hub after the project completion.

Related stakeholders using/exploiting the result:

- Owner(s) of the output: SPXL, AMB, ANCI LAZIO & KMA
- Contributing partners: AISFOR, ECO, Co-opAbility
- Access rights to the output during the project: all COMANAGE partners
- Access rights to the output after the project: Civil servants, ECs
- Exploitation: non-commercial use, for knowledge/information-based and societal purposes

Activities that can foster long-term exploitation:

- Add content about the latest news and solutions (i.e. grants, user fees, partnerships with energy organizations, or government support) used in the energy field, updated energy data, or useful documents (best practices, user guides, case studies) for the management of ECs.
- Data collection and periodical feedback from users on how the tool is being used and its impact on energy communities. Use this information to make informed improvements to enhance the user experience.
- Ensure that the DSS aligns with local energy policies and regulations and seek collaboration with PA bodies.

Communication / Dissemination activities:

- Customise the communication messages on **social media** according to the target audience (public administrations, cooperatives, citizens).
- Highlight how citizens can **participate** in the discussions and contribute ideas related to energy communities.
- Create **materials** on how other cooperative projects and public administrations can replicate the concept Digital Hub.
- Promote the Digital Hub as an opportunity for **networking** to connect, collaborate, and build a community.
- Use **events** planned by COMANAGE project to set up face-to-face meetups where the related stakeholders can discuss.
- Develop e-materials to be downloaded and used as a **guide** available on the website of the project.
- **Shared calendar** with partners and pilots for two-way communication regarding actions, events, etc. where the Digital Hub has been presented.

Protection measures:

- Ensure that any original content, branding, or software used within the Digital Hub is protected by intellectual property rights.
- When engaging in membership agreements, clearly define the rights and responsibilities of the involved parties regarding the use of your IP.

3.7. ER6: COMANAGE Decision Support System

The DSS, by extracting and making available to users' useful information for decision-making processes starting from the data collected during the project, will represent an important tool for supporting Replicators and all interested stakeholders in identifying and interpreting the most useful information/tools/tricks for the management of energy communities' projects, facilitating thus the replication of best practices.

Related stakeholders using/exploiting the result:

- Owner(s) of the output: SPXL
- Contributing partners: AMB, ANCI LAZIO, KMA
- Access rights to the output during the project: all COMANAGE partners

- Access rights to the output after the project: public authorities, ECs
- Exploitation: non-commercial use, for knowledge/information-based and societal purposes

Activities that can foster long-term exploitation:

- Spindox Labs is currently managing the platform, while the Pilots are the partners, through the Digital Hub Manager, to update content during the project.
- After the project completion the pilots will explore the possibility to merge management and update with sister projects or on-site activities.
- The DSS will be designed according to the needs of small and big ECs and tailored and adjusted to different socio-economic or energy contexts.
- The pilots will decide if providing accessibility to a wide range of users, with different needs, languages and IT skills and command.

Communication / Dissemination activities:

- Use **channels** (newsletters, social media) to continuously promote and highlight the DSS value and benefits.
- Carry out **workshops** or seminars to address the specific needs of public administrations to facilitate replication.
- **Collaborate** with selected public administrations to use them as a pilot and gather feedback.
- Record **success stories of local and regional public authorities** that have applied the DSS tool.
- Make use of social media, newsletters, and project website to **announce the launch** of the platform and its progress.
- Develop e-materials to be downloaded and used as a **guide** available on the website of the project to facilitate engagement with replicators.
- **Shared calendar** with partners and pilots for two-way communication regarding actions, events, etc. where the DSS has been used/presented.

Protection measures:

No specific protection measure is detected for the DSS, since the COMANAGE partner in charge of its development is still in the process of designing the platform. Hence, further detail and information will be provided in the update version of this document.

3.8. ER7: Policy Recommendations

The Policy recommendations are constituted by a set of practices addressed to practitioners and political representatives both from the pilot cases of the project (KMA, ANCI LAZIO, and AMB) and from the replicators and potential additional replicators, as well as national and European public entities. These will encourage both the replication of local plans for the implementation of the ECGT, and the political will and leadership to establish them. Its main objective will be to provide national, regional, city and metropolitan governments with actionable information, suitable frameworks,

knowledge, and resources to navigate the governance process of establishing and managing energy communities. In this context, special attention will be given to the governance of legal, financial, social, and technical aspects. The Policy Recommendations will be produced at the end of the Project, distilling the evidence and findings into concise actions that policymakers can take to facilitate successful energy communities.

Related stakeholders using/exploiting the result:

- Owner(s) of the output: METROPOLIS
- Contributing partners: All COMANAGE partners
- Access rights to the output during the project: all COMANAGE partners
- Access rights to the output after the project: public authorities
- Exploitation: non-commercial use, for knowledge-based and societal purposes

Format:

- The Policy Recommendations will take the form of a short report document (PDF).
- It will be hosted on the COMANAGE website as well as on the Metropolis website. Other partners will also be welcome to promote it as part of their publications.

Activities that can foster long-term exploitation:

- Use **communication channels** such as social media, newsletters, project and partners website, and press releases to share the findings and reach a wider audience.
- Organize **workshops**, webinars and events addressed to political representatives, practitioners, and policymakers to present the Policy Recommendations and encourage discussions. (all partners)
- Provide replicators with a **practical guidance** on how to implement the recommendations in different contexts. (metropolis)
- **Collaborate** with national and European public entities to integrate the Policy recommendations into their policy framework.
- **Collaborate** with similar projects to establish joint initiatives on energy communities using as a reference the recommendations developed.
- Provide **training** to public authorities and policymakers on how to implement in practice the recommendations. (Ecoserveis)
- Develop **capacity-building programs** that empower practitioners and policymakers to implement the Policy Recommendations effectively. (Ecoserveis)
- **Shared calendar** with partners and pilots for two-way communication regarding actions, events, etc. where the tool has been used/presented.

Protection measures: Authorship and restrictions

- The Policy Recommendations document will be authored by the “COMANAGE Project.” A disclaimer will state that the recommendations are the result of expert analysis of the project’s findings (the third-party expert can also be credited here, or the Metropolis Policy Team).
- All collaborating organizations will be listed and credited in the document for their roles in the project.
- Measures should be implemented to ensure adherence to GDPR regulations, depending on the sensitivity of the content in the final product.

4. The COMANAGE pathway to replication

Overall, the **COMANAGE project** has been designed to be scalable and replicated, allowing its growth and expansion beyond its ending. Its tools and resources are intended for standardization and further replication among interested local and regional public administrations worldwide.

The three **pilot cases (AMB, KMA and ANCI LAZIO)** that will be developed during the project lifecycle might be a grounded-based experience and a reference for the potential replicators, allowing them to standardize methodologies, project processes, governance frameworks and best practices that might facilitate replication in different contexts.

Replication actions are also planned in the three pilot OIS Hubs and adapted to each local context, while the efforts will extend beyond individual municipalities to encompass the broader national and regional context. These three local strategies are based on the establishment of **physical and virtual spaces** for dialogue and collaboration with local agents with a **participatory approach**, in which knowledge is shared and information is provided on each executive plan, the needs of the participants are known and cases of good practices that can serve as a reference model are identified. A crucial point is the involvement of decision-makers and Public Authorities representatives for gaining credibility and influence. By actively engaging with these official stakeholders, the representatives not only gain access to valuable insights and resources, but also benefit from their ability to amplify the COMANAGE message and objectives within their respective jurisdictions.

As an example of these collaborative ecosystems there is the community of practitioners of **Lazio Region municipalities** who have identified the Community of Ventotene as best practice. As well as the **Community Transformation Offices (OTCs) network in the metropolitan area of Barcelona** or the **Krakow Metropolitan area** that includes 14 municipalities and might expand to the neighbouring Malopolska region. All these metropolitan ecosystems can be scaled up to a higher territorial level and involve other metropolitan areas and cities in the replicability of the COMANAGE project.

The replication process will be enhanced at the first stage, with the creation of a **Board of Replicators** and the developing of training and capacity building program activities, allowing board members to improve technical skills and enhance capacity building to ensure successful implementation in their own different geographical and cultural contexts. Ongoing support and online available resources will be provided to ensure successful replication. In addition, the COMANAGE platform will create a space to enhance the best practices adopted in Europe and beyond, allowing practitioners to establish synergies and create a **network of interconnected communities**, encouraging the spreading of best practices and the replication of successful Energy Communities models.

More specifically the roadmap for the project replication strategy starts with the setting up of the **“Board of Replicators”** an external community of practitioners who will be the first to know the developed project tools and explore strategies and roadmaps to replicate and further testing them in their own contexts. The potential replicators may be selected according to the size of their territories with preference about metropolises, metropolitan and regional Public Administrations who might have expressed their potential interest and capacities for replication through a letter of commitment. The project outreach has been done through the Metropolis international network of 150 metropolitan areas and the dissemination of the Board among the ongoing Metropolis international exchanges program, the

[Metropolis Solutions Labs](#) that promotes city-to-city international thematic exchanges, among them the Energy Communities management.

A specific focus on the regional or national areas of the ongoing pilot Hubs (AMB, KMA and ANCI LAZIO) has been considered to benefit other local and regional Administrations, from those experiences. The international network of Metropolis will ensure to outreach possible interested additional replicators to compose 5 members Board (from Europe and beyond) engaged to participate in both online and in person peer-to-peer mutual learning exchanges and benefit from the developed project tools during and beyond the project's lifecycle. A **kick-off online meeting** will be focused on a peer-to-peer coaching gathering that will contain an introduction and sharing expectations from the replicators as well as an introduction from the pilot Hubs experiences and introduction of the program and products/outcomes already developed. It will be also expected the **co-creation of a plan of action** with the replicators to schedule the online exchanges along with the final replication workshop. In addition, during the project lifecycle, replicators will be registered to the project's open platform and participate to the online forums as well as the e-learning platform. This e-platforms will be available for them after the ending of the project.

4.1. Peer coaching and knowledge transfer methodology

Peer coaching is a **collaborative process** wherein individuals, often colleagues or peers, engage in mutual support and feedback. Typically, it begins with establishing mutual goals and expectations, followed by regular meetings or sessions where each participant takes turns as both coach and coached, sharing challenges, insights, and strategies for improvement. Through active listening, probing questions, and constructive feedback, peers help one another gain fresh perspectives, identify strengths and areas for growth, and implement action plans to achieve their goals.

This process fosters a culture of trust, empathy, and accountability, ultimately leading to enhanced performance, and skill acquisition. The following steps can be used to implement a peer coaching process however they can be adjusted to fit any given context.

Step 1: Consider the roles

- **Case giver:** Share a challenge that is current, concrete, and important, for you and in which you are a key player/decision maker. *Present the case in 15 minutes.*
- **Coaches:** Do not offer advice; instead, listen carefully.

These roles can rotate in different meetings.

Step 2: Intention statement by case giver (10-15 mins.)

Describe your case using the following questions as a guide:

- **Current situation:** What are the key challenges or questions?
- **Stakeholders:** How might others view this situation?
- **Intention:** What future are you trying to create?

- **Learning threshold:** What do you need to let go of, and what do you need to learn?
- **Help:** Where do you need input or help?

Coaches may ask clarifying questions if needed.

Step 3: Mirroring (10 mins.)

- Each coach shares what emerged (feelings, thoughts, etc.) while listening to the case. Again, coaches should refrain from offering solutions.
- After listening to all the coaches, the case giver responds to what they said.

Step 5: Dialogue (20 mins.)

Reflect together and build on each other's thoughts, without pressure to resolve the case giver's challenge.

Step 6: Closing remarks and journaling (8 mins.)

- Everyone shares a final reflection. The process may conclude with individual journaling where each partner writes down what they have learnt from the process.

A structured roadmap for the replication strategy of the Energy Communities models could be outlined as follows:

Roadmap for the COMANAGE replication strategy	
Initiation phase: (already achieved):	▪ Establish the Board of replicators: Identify and select potential replicators from metropolitan and regional Public Administrations, prioritizing those with expressed interest and capacity for replication. ▪ Project outreach: Utilize the Metropolis International Network and Metropolis Solutions Labs to disseminate information about the Board of Replicators and invite interested parties to join. ▪ Formation of the Board: Form a diverse minimum 5-member Board consisting of practitioners from Europe and beyond, ensuring representation from different geographical and cultural contexts.
Preparation phase:	▪ Kick-off meeting: An online peer-to-peer coaching session will be arranged to introduce the replicators to each other, share expectations, present pilot Hubs experiences, and introduce project tools and outcomes. ▪ Co-creation of an action plan: At the same meeting a plan of action will collaboratively be developed with replicators to schedule online exchanges and co-design the replication workshop.

Implementation phase:	▪ Capacity building exchanges: At least 5 exchanges³ will take place among replicators to share best practices, address challenges, and refine replication strategies. ▪ Use COMANAGE tools: During the first three meetings, Replicators will engage with COMANAGE tools and resources available on the COP and e-learning platform. The fourth meeting will be dedicated to evaluation and assessment. ▪ Ongoing support: Provide continuous support and guidance to replicators throughout the implementation process, addressing any issues and facilitating collaboration.
Evaluation and enhancement phase:	▪ The progress of replication efforts and the evaluation of the effectiveness of strategies employed by replicators will be monitored during on-line and in person exchanges. ▪ During the Replicators kick-off meeting, a routine will be established for replicators to provide regular updates on their progress, challenges, and learnings. The replicators will be also invited to register to the e-learning platform. ▪ Peer-to-peer learning exchanges where replicators come together to share their experiences, insights, and best practices will be facilitated during the meetings. Replicators will be engaged in participatory evaluations to assess the progress and effectiveness of replication efforts. ▪ Feedback forms can be utilized at the end of each meeting, to gather input from replicators on the usefulness of the tools provided by the COMANAGE project, to identify areas for improvement and enhance the replication process. ▪ Also, during the meetings Replicators will be encouraged to share success stories and cases to highlight their achievements, challenges and lessons learned. These narratives will be shared with all stakeholders in a dedicated session at the general assemblies since they cannot only provide valuable insights into the replication process but also inspire and motivate other replicators and stakeholders.

Table 3. Roadmap for the COMANAGE replication strategy

Finally, a **replication workshop** following the peer coaching and knowledge transfer methodology and a Webinar, will be held at the end of the project's lifecycle to further disseminate key findings and insights. This replication workshop will be outlined according to the co-creation process with the replicators and based on their needs.

Co-creation involves active collaboration between stakeholders to develop solutions tailored to their specific needs. In this context, the replication workshop will serve as a platform for replicators to engage in peer coaching and knowledge transfer, facilitated by experts in the field. Through **interactive sessions and hands-on activities**, participants will not only gain insights into the project's methodologies but also have the opportunity to identify their unique challenges and requirements. Co-design sessions will involve collaborative brainstorming and prototyping activities, where stakeholders will work together to develop solutions that address their shared needs.

³ The format (both in onsite and online) of the exchanges format will be defined later among the Consortium partners, attending, and analyzing specific needs and capacities.

By actively involving replicators in the process, we can ensure that the COMANAGE toolkit will be tailored to their specific requirements and needs. By incorporating replicators' inputs, we ensure that the content is relevant, practical, and actionable. Together, these initiatives will aim to foster a culture of collaboration, empowerment, and continuous improvement among replicators, ultimately enhancing the project's impact and sustainability.

4.2. Risk matrix for replication and exploitation

The identification of potential risks for the implementation of the COMANAGE replication and exploitation strategy will be done through a participatory approach with all the COMANAGE consortium members. Identified risks should be divided into external and internal depending on the location of the factor that can potentially cause them. Mitigation plan actions for each identified risk might complement the risk matrix.

The previous register of the most important barriers related to the COMANAGE identified by the partners could be the departure point to develop a specific risk matrix focused on the replication and exploitation strategy implementation. The highlighted points that could put in risk the implementation of the R&E plan are the following:

- **Funding resources** to maintain the (online) resources, tools and collaborative spaces created by the project that might be available for potential replicators.
 - Mitigation action(s): New funding opportunities can be identified during the development of COMANAGE project to ensure the sustainability in the post-project period including the replication action plan.
- **Staff allocation and other resources regarding the maintenance of the resources and tools that might be used for future replicators:** The staff associated with the deployment of COMANAGE activities and outputs can be specifically hired inside the project or allocated to different activities after the project completion. This means that the staff human resources availability can be quite limited.
 - Mitigation action(s): Integrating or using the results of COMANAGE in the scope of another project under EU or national scheme funding, might ensure that the project outputs will be sustained both during and after the project completion.
- **Leadership** and ownership among the COMANAGE Consortium members to take responsibility on project resources maintenance.
 - Mitigation action(s): Ensure the commitment of the COMANAGE Consortium members in the post-project period.
- **Transfer and ownership** to other public or private key stakeholders from the ongoing EC ecosystems.
 - Mitigation action(s): Elaborate a transfer strategy to other previously identified key stakeholders. Use the board of replicators experience to outreach the project through their territories and networking. Create opportunities to continue the established relationships among the Board of replicators members and to further expand them while sharing new ideas.
- **Interest and motivation of the Board of Replicators:** Board members interest after the project's completion, particularly in the case that the immediate effects of the project have been achieved.
 - Mitigation action(s): Developing high-quality outputs, and building strong networks, could help maintaining high interest and motivation to further disseminate project results.

5. Conclusions

Sustainability and exploitation are key components of EU funded projects, together with communication and dissemination. The partners of a project are required to take measures aiming to ensure exploitation of results both during the project and in the upcoming years. The sustainability strategies included feasible measures and general guidelines for making the COMANAGE outputs sustainable in the long term. Key aspects, like content ownership, IT management, hosting, migration, and maintenance, specifically related on the digital environments created within the project, have been considered and outlined. The design of an exploitation strategy usually identifies the exploitable results and their added value, as well as the stakeholders and interested third parties who can benefit from their use.

Intellectual Property Rights and protections measures have been briefly highlighted to define if the exploitation of COMANAGE results can be commercial, societal, political, or aimed at improving public knowledge and action. While the replication section has been designed and still generically outline the main actions to undertake to establish synergies and create a network of interconnected communities, encouraging the spreading of the Energy Community model around and beyond Europe.

The long-term sustainability, exploitation and replication strategies will be periodically reviewed and updated. This current version outlines basic measures to be undertaken, although additional changes and modifications will be considered based on the implementation of COMANAGE activities and emerging opportunities for collaboration with third parties and initiatives. A final version of the Plan will be included in the final report of COMANAGE at the conclusion of the project, with the *D6.2 Update of the Sustainability, Replication, and Exploitation Plan*, detailing more comprehensive actions as pilot actions will be in a more advanced level of development or progress.