



**Deliverable 3.2**

# **FIRST CONSOLIDATED REPORT OF DESK ACTIVITIES IN THE TARGET REGIONS**

**Date: 30.11.2021**

**Version: V4**



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953040. The sole responsibility for the content of this document lies with the COME RES project and does not necessarily reflect the opinion of the European Union.

[www.com-res.eu](http://www.com-res.eu)

## SUMMARY

WP: 3		Name of the WP: Country Desks and stakeholder dialogues	
Dissemination level:	Public	Due delivery date:	30 November 2021
Type	Report	Actual delivery date:	30 November 2021
Lead beneficiary:	INEGI – Instituto de Ciência e Inovação em Engenharia Mecânica e Engenharia Industrial		
Contributing beneficiaries:	FUB; VITO; RESCoop.eu; ENEA; ECOAZIONI; IPE; LEIF; TU/e; CICERO; KAPE; ECORYS; ACER		
Lead authors:	Isabel Azevedo (INEGI)		
Contributing authors:	Irene Alonso (ECORYS); Hege Fantoft Andreassen (CICERO); Kellan Anfinson (TU/e); Massimo Bastiani (Ecoazioni); Elena De Luca (ENEA); Maria Rosaria Di Nucci (FUB); Vincenzo Gatta (FUB); Gaidis Klāvs (IPE); Michael Krug (FUB); Ivars Kudreņickis (IPE); Erik Laes (TU/e, VITO); Erika Meynaerts (VITO); Piotr Nowakowski (KAPE); Stavroula Pappa (RESCoop.eu); Karina Standal (CICERO); Virna Venerucci (Ecoazioni); Aija Zučika (LEIF)		

Document history				
Version	Submitted for review by	Date	Reviewed/approved by	Date
V1	Isabel Azevedo, INEGI	16.11.2021	Rosaria Di Nucci, FUB	19.11.2021
V2	Isabel Azevedo, INEGI	22.11.2021	Rosaria Di Nucci, FUB	23.11.2021
V3	Isabel Azevedo, INEGI	23.11.2021	Aija Zučika, LEIF	27.11.2021
V4	Isabel Azevedo, INEGI	29.11.2021	Rosaria Di Nucci, FUB	30.11.2021

## ABOUT COME RES

COME RES - Community Energy for the uptake of renewables in the electricity sector. Connecting long-term visions with short-term actions aims at facilitating the market uptake of renewable energy sources (RES) in the electricity sector. Specifically, the project focuses on advancing renewable energy communities (RECs) as per the EU's recast Renewable Energy Directive (REDII). COME RES takes a multi- and transdisciplinary approach to support the development of RECs in nine European countries; Belgium, Germany, Italy, Latvia, the Netherlands, Norway, Poland, Portugal, and Spain.

### ISSUES ADDRESSED AND MAJOR STEPS

COME RES covers diverse socio-technical systems including community PV, wind (onshore), storage and integrated community solutions, investigated in nine European countries. The project has a specific focus on a number of target regions in these countries, where community energy has the potential to be further developed and model regions where community energy is in a more advanced stage of development. COME RES analyses political, administrative, legal, socioeconomic, spatial and environmental characteristics, and the reasons for the slow deployment of RECs in selected target regions. COME RES synchronises project activities with the transposition and implementation of the Clean Energy Package and its provisions for RECs in policy labs. Policy lessons with validity across Europe will be drawn and recommendations proposed.

# ABSTRACT

The first consolidated report of the desk activities summarises and documents the events and activities held by the eight country desks throughout the first 14 months of the project, i.e. between September 2020 and October 2021. It comprises the activities performed under the framework of Work Package 3 “*Country Desks and stakeholder dialogues*”.

The report is composed by 4 main sections, with the following content:

- A brief introduction, with the background and purpose of the report. The planned activities, as described in the Deliverable D3.1, are also presented.
- An overview of the activities held by all the country desks, providing an aggregated review of the major activities and respective outputs. The desks have been successful in engaging a wide set of stakeholders and market actors, covering all the major stakeholder groups identified in D3.1. The current progress is compliant with the project expected outputs and milestones, fully aligned with what is described in the Grant Agreement.
- A more detailed description of the activities held by each of the country desks, with the identification of the main topics, participants and outputs. The breakdown of the participants per stakeholder group is also available for the different events, showing the diversity of stakeholders participating in the different activities.
- A final section with the main conclusions of the report and reflections on future steps.

Overall, the report shows the compliance of all country desks and the fulfilment of the KPIs, both in terms of the number of events organised and in terms of stakeholders’ engagement. Moreover, the report also highlights the relevance of the desk activities, and their nurturing of both other project activities and the national and regional policy making processes.

# CONTENTS

SUMMARY .....	2
ABOUT COME RES .....	3
ISSUES ADDRESSED AND MAJOR STEPS .....	3
ABSTRACT .....	4
1. INTRODUCTION .....	6
1.1. BACKGROUND AND PURPOSE OF THE REPORT .....	6
1.2. NATIONAL COUNTRY DESKS AND TARGET REGIONS .....	7
1.3. STRUCTURE OF THE REPORT .....	7
2. OVERVIEW OF DESK ACTIVITIES .....	9
2.1. SUMMARY OF ACTIVITIES HELD BY THE DESKS .....	9
2.2. STAKEHOLDER ENGAGEMENT .....	11
2.3. TOPICS DISCUSSED .....	12
2.4. NATIONAL DESKS ONLINE PAGES .....	13
2.5. PRIVACY AND ETHICS .....	15
3. DESK ACTIVITIES IN COME RES COUNTRIES .....	16
3.1. BELGIUM - NETHERLANDS .....	16
3.2. GERMANY .....	23
3.3. ITALY .....	33
3.4. LATVIA .....	39
3.5. NORWAY .....	43
3.6. POLAND .....	46
3.7. PORTUGAL .....	53
3.8. SPAIN .....	57
4. CONCLUSIONS AND NEXT STEPS .....	64
ANNEXES .....	66

# 1. INTRODUCTION

## 1.1. BACKGROUND AND PURPOSE OF THE REPORT

This report is part of the COME RES Work Package (WP) 3 “*Country Desks and stakeholder dialogues*”. This WP aims at the establishment and maintenance of eight stakeholder desks, and the organisation of a wide set of activities at the country and/or regional level. The desks are a vehicle to ensure wide engagement of market actors and stakeholders throughout the project duration and to create networks that can evolve after the end of the project. The WP comprises the organisation of dialogues with major stakeholders and thematic workshops, policy labs and dedicated stakeholder consultations, feeding into the remaining WPs of the project. The activities must address critical barriers and drivers for RECs in each target region (feedback loops with WP2), identify and select good/best practices (feedback loops with WP4 and WP5) and derive policy recommendations (feedback loops with WP7). Moreover, this WP also seeks to synchronise with the transposition of RED II and the respective implementation of enabling frameworks for RECs in the several COME RES countries. This implies an adaptation of the activities organised by the different desks to the local context, both in terms of the topics covered as well as the groups of stakeholders involved.

According to the Grant Agreement, each desk must organise and implement at least the following activities:

- **Three regular country desk meetings**, including the kick-off meeting and two follow up meetings;
- **Two thematic workshops**, which aim to provide non-biased information to stakeholders and market actors, critically assess good/best practice community energy solutions, identify options to improve legal and policy frameworks in the target regions, and assess best practice transfer opportunities/restrictions;
- **Two policy labs**<sup>1</sup>, serving as an interface between the COME RES project and actual policy formulation and implementation processes in the COME RES countries and facilitating a policy dialogue with policy makers;

The desks are also expected to **document the performed activities and make them visible on the COME RES website**. Country desks publish summary reports with the workshops’ results, as well as announcements, events and other relevant documents produced, in the Country Desk webpage.

Moreover, WP3 should also result in **targeted stakeholder consultations**, which will be conducted in all the COME RES countries, with the support of the country desks. Finally, it is also expected the elaboration of proposals for **action plans** for at least four target regions, in close collaboration with a core group of desk members.

---

<sup>1</sup> Policy labs are designed as policy roundtables addressing actual and relevant legal and policy developments related to the transposition and implementation of RED II (e.g. the assessment of potential and barriers for RECs, enabling frameworks for RECs, consideration of RECs in support schemes). They will also inform policy makers of (interim) project findings and policy developments in the other COME RES partner countries.

This deliverable provides the first of two reports whose **main purpose is to summarize and document the major activities of the eight country desks** throughout the project lifetime. These activities include the regular country desk meetings, thematic workshops and policy labs, as well as other relevant activities performed by the desks (as e.g. communication and dissemination activities). This report focuses on the activities implemented during the first half of the project lifetime – between September 2020 and November 2021 –, being based on contributions of the consortium partners responsible for the different country desks and on information provided in the Deliverable D3.1 “*Stakeholder involvement and engagement plans*”.

## 1.2. NATIONAL COUNTRY DESKS AND TARGET REGIONS

Eight country desks, representing nine European countries<sup>2</sup>, were established as part of the project, following the methodological framework defined within Task T3.1. By the end of January 2021, all the desks had been officially launched with a kick-off meeting, where stakeholders integrating the desk were invited to participate.

The eight country desks, the national consortium partners and the target and model regions are presented in Table 1. Hereafter, this report will refer to these national stakeholder desks when referring to the COME RES desks.

*Table 1 - COME RES Desks, corresponding leaders and target and model regions*

Country	Desk Leaders	Target Region(s)	Model Region(s)
Belgium/ Netherlands	VITO, ResCOOP.eu, TU/e	Province of Limburg	Provinces Antwerp and East-Flanders, Flemish Brabant (Leuven)
		Utrecht, North Brabant	Zeeland, Rijsenhout, Etten-Leur, Woerden
Germany	FUB-FFU	Thuringia	Schleswig-Holstein
Italy	ENEA, Ecoazioni	Apulia	Piedmont
Latvia	LEIF/FEI	Whole country	Municipality of Marupe
Norway	CICERO	Whole country	Islands and farming communities
Poland	KAPE	Mazovia Province, Lesser Poland Province	Lower Silesia, Pomerania, Virtual Green Power Plant Ochotnica
Portugal	INEGI	Norte Region	Municipality of Lisbon
Spain	ECORYS, ACER	Balearic and Canary Islands	Cataluña, C. Valenciana

## 1.3. STRUCTURE OF THE REPORT

This reports is composed by four main sections. **Section 1** provides a brief introduction with the background and purpose of the report and the identification of the eight country desks, which will be referred throughout the document. **Section 2** is dedicated to the overview of the desk activities from all

<sup>2</sup> Stakeholders from Belgium and The Netherlands cooperate in a cross-border desk.

the country desks, providing an overall perspective of what has been accomplished so far in terms of activities organised, stakeholders' involvement, main topics discussed and obtained results, and an overview of the online presence of the desks. Then, **section 3** provides a more detailed description of the activities organised by the country desks, with a subsection dedicated to each desk. Finally, **section 4** comprises the main conclusions deriving from the assessment of the activities performed by the country desks and respective results. A brief reflexion on next steps for the country desks' activities is also presented in this section. Additionally to these four sections, the agendas of all the events organised within each of the desks are included in Annex.

## 2. OVERVIEW OF DESK ACTIVITIES

### 2.1. SUMMARY OF ACTIVITIES HELD BY THE DESKS

The eight country desks held several activities within the first half of the COME RES project lifetime, including regular desk meetings, thematic workshops and policy labs. Table 2 presents a summary of the events organised by each of the desks and the main topics discussed. Due to COVID-19 pandemic crisis, most of these meetings were held online, ensuring the compliance with the sanitary restrictions established in the different countries.

All desks held a **kick-off meeting**, marking the establishment of the national desks. These meetings, taking place in January 2021, focused mostly on the presentation of the project to the invited stakeholders, including its objectives and expected results, as well as the desks' objectives and modes of operation. Preliminary discussions on the status quo of RECs in the different countries and the main barriers and drivers for their implementation were also conducted. The German desks organised an additional meeting with the country desk stakeholders, a status meeting, to update the participants on the recent project developments and to discuss adequate business models and good practices.

Moreover, as established by the Grant Agreement, all desks held the first **thematic workshops**, fostering information exchange with the different groups of stakeholders. Even though the workshops' topics were defined according to the desks' specific context, there was a clear focus on the current regulatory and legal framework for community energy initiatives and on the main barriers and drivers for RECs implementation. The Spanish desk organised two thematic workshops, one for each of the Spanish target regions.

All desks, with the exception of the Polish desk, did also combine the thematic workshops with **policy labs**, in the form of policy roundtables, gathering policy makers and other stakeholders to discuss the transposition processes in the different countries (and target regions). These events are key for the accomplishment of the project's objective of accompanying and contributing to the establishment of a favourable framework for RECs implementation, in line with the provisions of REDII.

Furthermore, the country desks have also been involved in other activities, including the regular interaction with relevant national and regional stakeholders, who may or may not be part of the country desks, ensuring the continuous interaction with the different stakeholder groups. Desks have also been liaising with other related projects and initiatives at national and European level, which has been accomplished through the participation in events organised by those initiatives.

Finally, the desks have also contributed to make the project results visible in the respective countries and regions, through the presentation of project's results in different national and regional events, additionally to the events organised in scope of the desks. Furthermore, amongst the additional activities, should also be mentioned the feeding of the national desks online pages with several resources, and the translation of the project communication materials into the respective national languages.

**Table 2 - Summary of events and activities organised in the COME RES countries**

Belgium-Netherlands	Germany	Italy	Latvia	Norway	Poland	Portugal	Spain
<b>Kick-off Meeting</b> <i>Region-specific drivers and barriers for RECs</i>	<b>Kick-off Meeting</b> <i>RECs in the Model and Target Regions</i>	<b>Kick-off Meeting</b> <i>Implementation of RED II in Italy: Barriers, drivers and good practices</i>	<b>Kick-off Meeting</b> <i>RECs in Latvia: Introduction to the project</i>	<b>Kick-off Meeting</b> <i>Information about COME RES and the national partners</i>	<b>Kick-off Meeting</b> <i>Conditions for the development of community energy in Poland</i>	<b>Kick-off Meeting</b> <i>RECs in Portugal: Status quo</i>	<b>Kick-off Meeting</b> <i>State of play of RECs in Spain</i>
19.01.2021	11.12.2020	21.01.2021	27.01.2021	14.01.2021	27.01.2021	29.01.2021	26.01.2021
Online	Online	Online	Online	Online	Online	Online	Online
<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>Interactions between local policies and RECs</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>The future of citizen wind power - How should an enabling framework for RECs look like?</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>Status of RED II transposition in Italy. Input for policy development.</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>Transposition of REDII and IEMD Directives in Latvia</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>REC in Norway: Opportunities and challenges</i>	<b>1<sup>st</sup> Thematic Workshop</b> <i>PV installations – a key element of energy communities in Poland</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>RECs in Portugal: current context and prospects for the future</i>	<b>1<sup>st</sup> Thematic Workshop and Policy Lab</b> <i>Policy, regulations and first steps toward REC development in the Canary Islands</i>
25.05.2021	30.03.2021	22.06.2021	17.06.2021	02.06.2021	17.06.2021	22.06.2021	25.05.2021
Online	Online	Online	Online	Online	Olsztyn	Online	Online
	<b>Status Meeting</b>  <i>Energy communities – potentials, business models, good practice</i> 21.09.2021 Online						<b>2<sup>nd</sup> Thematic Workshop and Policy Lab</b>  <i>Policy, regulations and first steps toward REC development in the Balearic Islands</i> 30.06.2021 Online

## 2.2. STAKEHOLDER ENGAGEMENT

As envisaged in the Deliverable D3.1 “Stakeholder engagement plans”, the country desks have been involving a diverse set of stakeholders in their activities, covering the different relevant groups identified in D3.1. A summary of the stakeholder engagement in the activities organised by the desks in the scope of the COME RES project is presented in Table 3 and the respective breakdown per stakeholder group in Figure 1.

On the **number of active participants**, the country desks’ regular meetings (kick-off meetings from the eight desks and status meeting from the German desk) had a participation rate which ranges from 19 to 89 participants, fully complying with the minimum of 15 participants per country as defined in the Grant Agreement. Moreover, the workshops’ level of participation also exceeded the proposed KPI of at least 20 stakeholders per country, with the exception of the first workshop organised by the Polish desk. This exception is mainly justified by the high specificity of the workshop, which focused on the techno-economic viability of PV installations as part of energy community initiatives. Overall, the desks have been successfully engaging a large number of relevant stakeholders to participate in their activities.

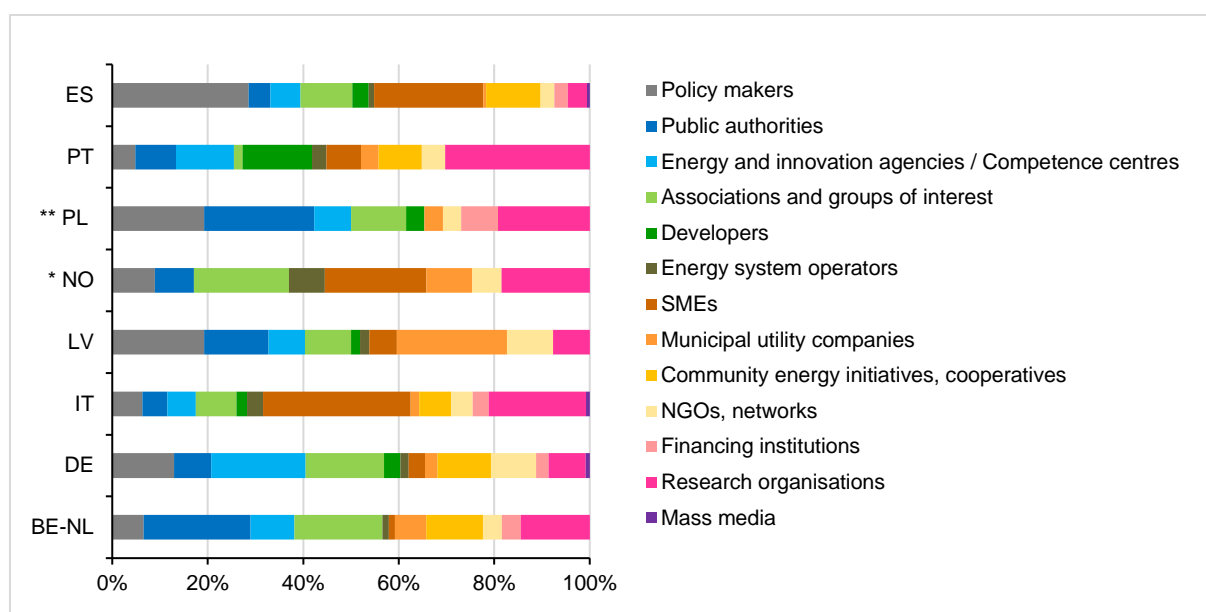
The activities organised by the desks within the COME RES project have also been able to achieve a relatively **balanced participation of male and female attendees**, with an average of 32% of female attendees. From all the events held by the desks, the minimum share of female attendees was of 22%. This balance promotes the incorporation of gender issues in the project results, by providing a gendered perspective on the topics discussed in the several activities organised by the desks.

*Table 3 - Summary of stakeholder engagement in the COME RES desk activities*

Country	Meetings	Total Participants	From which Policy Makers	Share of Female/Male
Belgium/ Netherlands	Kick-off Meeting	41	2	43% / 57%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	35	3	40% / 60%
Germany	Kick-off Meeting	37	3	38% / 62%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	70	8	31% / 69%
	Status Meeting	54	5	50% / 50%
Italy	Kick-off Meeting	180	12	25% / 75%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	170	10	25% / 75%
Latvia	Kick-off Meeting	19	3	45% / 55%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	33	7	40% / 60%
Norway	Kick-off Meeting	38	3	26% / 74%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	80	7	39% / 61%
Poland	Kick-off Meeting	85	-	38% / 62%
	1 <sup>st</sup> Thematic Workshop	13	-	69% / 31%
Portugal	Kick-off Meeting	35	4	25% / 75%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	132	4	22% / 78%
Spain	Kick-off Meeting	37	10	35% / 65%
	1 <sup>st</sup> Thematic Workshop and Policy Lab	75	17	31% / 69%
	2 <sup>nd</sup> Thematic Workshop and Policy Lab	51	19	30% / 70%

Regarding the breakdown of participants in the events organised by the eight desks per stakeholder group, Figure 1 illustrates the diversity of stakeholders engaged in activities of all the desks. Even though not all stakeholder groups were represented in all the activities, the groups involved ensure a diversity of perspectives and interests on the implementation of renewable energy community initiatives.

All desks have successfully engaged policy makers and other public authorities to actively participate in their activities, ensuring the involvement of politicians, administrations and policy advisory organisations in country desks. A good level of participation of community energy initiatives and cooperatives, as well as associations and groups of interest, has also been accomplished. Financing institutions and mass media seem to be the groups least engaged in the desks activities so far.



1\* The breakdown of participants in the events held by the Norwegian desk followed a slightly different categorisation. More detailed information can be found in Section 3.5.

\*\* The breakdown of participants in the events held by the Polish desk does not include the participants in the First Thematic Workshop, referring only to the participants in the Kick-off meeting.

**Figure 1 – Breakdown of participants in the events organised by the country desks per stakeholder group**

Specifically on the policy labs, as shown in Table 3, all desks have been able to involve between 3 and 19 policy makers in their policy labs, complying with the minimum of 2 policy makers per country (as established in the project KPIs).

## 2.3. TOPICS DISCUSSED

As referred in section 2.1, the topics discussed in the activities held by the country desks were defined on the basis of local context specificities as well as on national advances on the REDII transposition process. A more detailed summary of the topics discussed in the different activities and main conclusions is presented in section 3. This section highlights the main topics discussed and the potential feedback loops with the remaining activities of the COME RES project, including specific contributions to the project expected outputs.

The characterization of the **status quo of RECs** in the COME RES countries was one of the main topics discussed within the desks meetings. All desks used their events to both gather and disseminate information on the current implementation of energy community initiatives at national and regional level.

Obtained outcomes were relevant for the conception of the Deliverable D2.1, and for the estimation of the potential for RECs in the COME RES target regions (Deliverable D2.2). On the other hand, preliminary project outputs associated with these deliverables were also presented to different stakeholders in some of the desk activities.

Moreover, all desks dedicated part of their activities' agendas to the discussion of the **transposition of REDII** in the different countries, providing an assessment of the current legal and regulatory framework applicable to RECs. These discussions allowed project partners to accompany recent developments in the provisions applicable to energy community initiatives and gather the perspective of the different stakeholders on the ongoing transposition process. Within the policy roundtables, the project could also provide inputs to the transposition process, by bringing policy makers to the discussion.

As part of the discussion on the transposition process, the country desks have dedicated special attention to the development of an adequate **enabling framework for RECs**, as most of the countries are considerably behind schedule on this issue. Here, the contributions from the activities were two-fold. On the one hand, they were useful to collect suggestions from several stakeholders on how to build an adequate enabling framework which could create a level playing field for the establishment of RECs. On the other hand, these activities were relevant to provide advices to policy makers responsible for the development of the RECs enabling framework and to understand the future steps in each of the target regions.

**Barriers and drivers** for the implementation of RECs was also one of the topics thoroughly discussed in the desks events. Along with the discussion on the legal, regulatory and policy framework applicable to RECs in the COME RES countries, stakeholders participating in the different activities provided their perspective on the current barriers and drivers for the dissemination of community energy initiatives. Stakeholders have identified technical, financial and legal barriers which are currently hampering the development of these initiatives. The lack of information/low level of awareness on the RECs concept was also identified as a relevant barrier to be overcome.

Other topics, as the identification of **good and best-practices** and the most **appropriate business models**, were also covered within some of the desks topics. These are relevant for the activities being performed as part of work packages 4 and 5 of the project.

## 2.4. NATIONAL DESKS ONLINE PAGES

Besides the organisation of the events, the country desks have also contributed to make the project outputs visible at the national and regional level through the participation in national events and by feeding the project online page, and the national desks online pages.

The national desks online pages correspond to nine online pages (one for each of the COME RES countries), available in English and in the national language, and hosted by the project official website. These pages contain resources and information specific to the different countries, including information on the desks planned events and on their respective outputs (Table 4). All national pages include the summary of the regular desk meetings and thematic workshops. Additionally, the national desks' online pages also identify some of the stakeholders actively involved in the desk activities (Figure 2).

The project partners responsible for the leadership of the country desks have also supported ICLEI with the translation of different communication and dissemination materials, including the project flyer and poster, and factsheets. Moreover, desk leaders have also aided in the collection of material to include

in the periodic newsletters.

**Table 4– Overview of national desks online pages and the resources available for COME RES countries**

Desk	Language	Available Resources	Link to Desks Online Page
<b>Belgium</b>	Dutch / English	COME RES flyer and poster; Summary report of kick-off meeting; Presentations and summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab; Assessment report of potentials for RES community energy in Limburg en West-Vlaanderen	<a href="https://come-res.eu/stakeholder-desks/belgium">https://come-res.eu/stakeholder-desks/belgium</a>
<b>Germany</b>	German / English	COME RES flyer and poster; Summary report of kick-off meeting; Summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab; Summary report of the status meeting; Publication in Energiewirtschaftliche Tagesfragen	<a href="https://come-res.eu/stakeholder-desks/germany">https://come-res.eu/stakeholder-desks/germany</a>
<b>Italy</b>	Italian / English	COME RES flyer and poster; Agenda, presentations, session recording and summary report of kick-off meeting; Summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/italy">https://come-res.eu/stakeholder-desks/italy</a>
<b>Latvia</b>	Latvian / English	COME RES flyer and poster; Summary report of kick-off meeting; Summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/latvia">https://come-res.eu/stakeholder-desks/latvia</a>
<b>Netherlands</b>	Dutch / English	COME RES flyer and poster; Summary report of kick-off meeting; Presentations and summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab; Assessment report of potentials for RES community energy in Noord-Brabant	<a href="https://come-res.eu/stakeholder-desks/the-netherlands">https://come-res.eu/stakeholder-desks/the-netherlands</a>
<b>Norway</b>	Norwegian / English	COME RES flyer and poster; Summary report of kick-off meeting; Summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/norway">https://come-res.eu/stakeholder-desks/norway</a>
<b>Poland</b>	Polish / English	COME RES flyer and poster; Agenda and summary report of kick-off meeting; Summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/poland">https://come-res.eu/stakeholder-desks/poland</a>
<b>Portugal</b>	Portuguese / English	COME RES flyer and poster; Project summary and objectives of the national desk; Agenda, presentations and summary report of kick-off meeting; Agenda, session recording and summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/portugal">https://come-res.eu/stakeholder-desks/portugal</a>
<b>Spain</b>	Spanish / English	COME RES flyer and poster; Agenda and summary report of kick-off meeting; Agenda and summary report of the 1 <sup>st</sup> Thematic Workshop and Policy Lab; Agenda and summary report of 2 <sup>nd</sup> Thematic Workshop and Policy Lab	<a href="https://come-res.eu/stakeholder-desks/spain">https://come-res.eu/stakeholder-desks/spain</a>

## The Belgian Stakeholder Desk

In Belgium, the country desk focuses on Flanders. It brings together relevant policy makers, market actors and stakeholders with a thematic focus on community energy in the field of integrated solutions like community micro-grids or virtual power plants. The province of Limburg and West Flanders serve as target regions and the provinces of Antwerp, Flemish Brabant and East Flanders as model regions.

In Flanders, a regional decree is currently being drafted which will transpose the Electricity Market Directive (EMD) and Renewal of the Renewable Energy Directive (RED). Including the provisions for energy communities. Nevertheless, forms of REDs already exist in Flanders. Energy cooperatives have united themselves under the umbrella organisation 'REBios Vlaanderen'. According to the [REBios website](#), 17 energy cooperatives are active in Flanders, and an estimated 70,000 Flemish citizens own shares. Most of these cooperatives are smaller-scale and focus on renewable energy production, using through rooftop PV and onshore wind. In addition, two renewable energy communities are being set up in the context of Research and Innovation programmes and pilot projects such as [NEURONED](#), [Antwerp Circular South](#), [GUTP](#) and [SOLAR](#).

The country desk organises regular and solution-oriented stakeholder dialogues and actively engages experts and stakeholders from the model and target regions. The involved stakeholders accompany the operational work and tasks of COME RES, provide advice, and support the dissemination of the project results and solutions within their respective interest groups. The desk comprises policy notes dedicated to the transposition and implementation of REDs.



## The German Stakeholder Desk

The German desk concentrates on community and energy and community integrated solutions. It involves a core group of approx. 40 stakeholders and a wider group of roughly 100 stakeholders. For operational reasons, regular desk meetings are mainly addressing the core group whereas the Thematic Workshops and Policy Roundtables are open to a larger group of stakeholders. The stakeholders come mainly from target region Thuringia and model region Schleswig-Holstein, but also from other German federal states (e.g. North Rhine-Westphalia) and organisations at the national level.

The term Renewable Energy Community has not yet been officially defined in German law. However, there are community-based organisations and initiatives which comply with the corresponding criteria (see Renewable Energy Directive (RED) including many cooperatives. By the end of 2016, the number of energy cooperatives in Germany reached 885, involving 250,000 members and investments in RES installations of 2.9 billion EURs. Roughly one quarter of all energy cooperatives are engaged with the generation of electricity from wind energy, while most (80%) deal with electricity production from PV. Between 2008 and 2015, the total number of energy cooperatives saw an increase from 24 to 78. Since 2015 however, the annual increase has considerably declined. In 2015, only 94 new energy cooperatives were founded ([DGPR 2016](#)).

The desk is designed as an informal forum to discuss current topics related to the development of REDs. It seeks to accompany and inform the transposition and implementation of the recent Renewable Energy and the Integrated Electricity Market Directives and their provisions for energy communities. For this purpose, the desk organises Thematic Workshops and policy roundtables involving public decision-makers. It provides input for the analysis of potentials, barriers, good practices, business models and transfer opportunities. The stakeholders involved also provide feedback on project results (e.g. on the action plan for the target region Thuringia) and help to test and validate project outputs and support their dissemination.



**Figure 2 – Screenshots of Belgium (left) and German (right) desks online pages**

## 2.5. PRIVACY AND ETHICS

Comprehensive steps were taken throughout all the events and activities mentioned in this report to ensure due regard to privacy and ethical issues. In particular, the consortium has given careful consideration to the provisions set out in the Deliverable D1.4. This deliverable contains guidelines and actions to be followed by the consortium when dealing with stakeholders, participants and other relevant members of the public who may be invited to engage with the COME RES project. The deliverable provides templates of the informed consent forms and information sheets as well as information on the procedures to be implemented for data collection, storage, protection, retention and destruction, guaranteeing the compliance with national and EU legislation.

Before each event and activity, individuals were informed about the intentions of the relevant partners to take photographs and gather the information shared during the events. Individuals were informed about the option to refuse should they not wish to be photographed, and any of these requests was fulfilled.

Furthermore, no specific data about the individual attendees of the events have been published in this public report. As a rule, only the name of the organisations the individual represents has been mentioned and aggregated data (such as share of male/female attendees). However, all organisations were informed about the fact that their presence in events and activities would be disclosed, and they were given the opportunity to request not to be included in any project publications. Additionally, the only names which have been included in the report and other public material are the names of persons who are officially involved with the COME RES project, or who gave explicit permission for their names to be published because they acted as a speakers, moderators or special guests, or due to having any other special function at an event or activity.

Concluding, due regard has been given to ensure informed consent of attendees and participants to be photographed and mentioned in any subsequent description of the event.

## 3. DESK ACTIVITIES IN COME RES COUNTRIES

This section provides a more detailed description of the activities performed in the different COME RES countries and respective outcomes and lessons learned. Each section comprises one of the eight country desks: 3.1. Belgium – Netherlands; 3.2. Germany; 3.3. Italy; 3.4. Latvia; 3.5. Norway; 3.6. Poland; 3.7. Portugal; and 3.8. Spain.

### 3.1. BELGIUM - NETHERLANDS

Within the first 14 months, the Belgian/Dutch Desk organized two online events: the kick-off meeting and an event which combined a thematic workshop with a policy lab (Table 5).

*Table 5 - Overview of COME RES activities held by the Belgian/Dutch Desk*

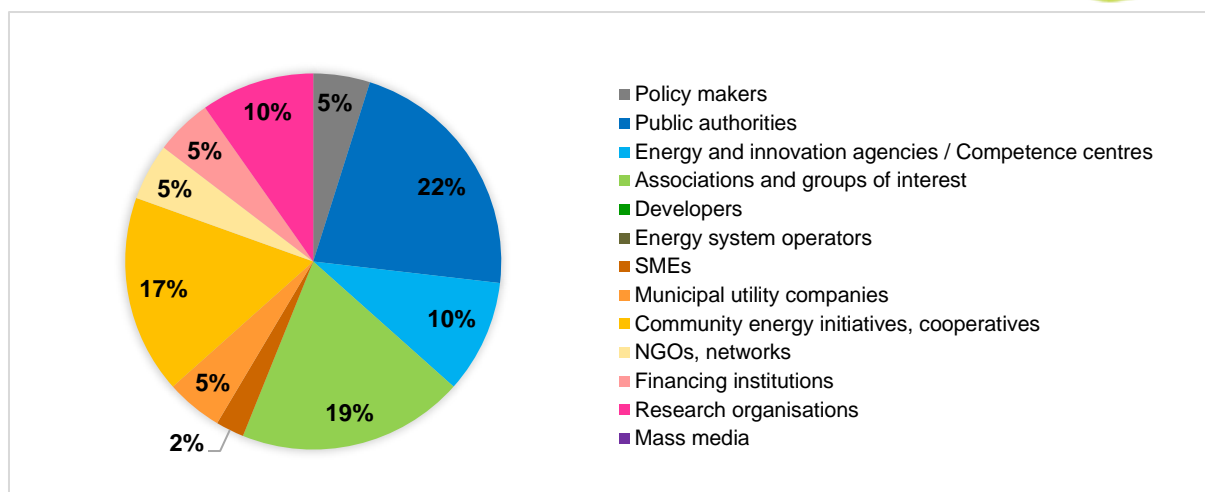
Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	19.01.2021	Online	Identify region-specific drivers and barriers for RECS	41
1 <sup>st</sup> Thematic Workshop and Policy Lab	25.05.2021	Online	Discuss interactions between local policies and RECs	35

#### 3.1.1. ACTIVITY 1: Kick-off Meeting of the Belgian/Dutch Desk

The first meeting of the joint Belgian/Dutch country desk took place online on January 19, 2021. The meeting was designed to bring together key stakeholders to identify opportunities and barriers for RECs in the selected COME RES target regions Limburg and West Flanders in Flanders and North Brabant in the Netherlands.

The meeting was attended by 41 stakeholders representing ministries, energy agencies, renewable energy associations, innovation agencies, energy cooperatives and their associations, municipal organizations, financing institutions, SMEs, environmental NGOs, and research organizations. Figure 3 shows the disaggregation of the participants per stakeholder group. Stakeholders from the transnational, national, provincial, and local levels were represented. Approximately 43% of stakeholder participants were female.

The event began with a presentation of the COME RES project by Erik Laes (TU/e) and Erika Meynaerts (VITO), including the main objectives of the desk. This was followed by presentations on the current and future policy frameworks for energy communities in Flanders (VITO) and the Netherlands (Ministry of Economic Affairs). The last part of the meeting consisted of breakout sessions to identify barriers and drivers for energy communities in the target regions and suggest important components of an enabling framework.



**Figure 3 - Breakdown of participants in the kick-off meeting per stakeholder group**

The main points raised by Flemish participants were:

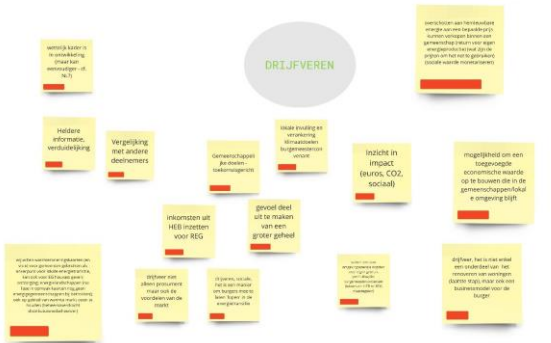
- Policy makers should utilize the full potential for energy communities e.g., installation of PV on large roofs of companies, schools, public buildings, etc. Maps of potential solar and wind installations could visualize this.
- Accessibility of the energy market should be guaranteed for all actors, not just the large/commercial players. This has historically been a problem for wind energy in the region and should be proactively anticipated with regard to other renewable energy sources.
- There is a lack of knowledge and information about energy communities (added value, role of different actors). The regulatory and enabling framework must be transparent and unambiguous to promote energy communities and engage citizens.

The main points raised by Dutch participants were:

- Congestion problems in the distribution grid are an opportunity for energy communities (especially for integrated solutions with energy storage) that can offer flexibility to the grid.
- There is a lack of knowledge and information about energy communities. Participation in energy communities is limited to "front runners" or "early adopters." The regional energy strategies offer a "window of opportunity" for citizen participation.
- Start-up and management of energy communities is to a large extent based on volunteers. There is need for professionalization and support to reach the ambitious targets.

#### Barrières en drijfveren voor hernieuwbare energiegemeenschappen

Vlaanderen groep 1 - gemedereerd door Erika Reynaerts



#### Barrières en drijfveren voor hernieuwbare energiegemeenschappen

Vlaanderen groep 1 - gemedereerd door Erika Reynaerts

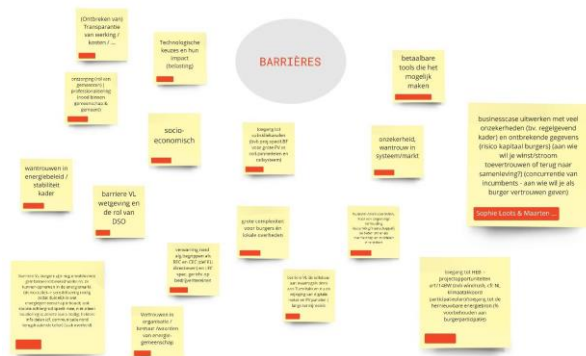


Figure 4 - Miro boards of barriers and drivers from the 1st group (Flanders)

#### Barrières en drijfveren voor hernieuwbare energiegemeenschappen

Vlaanderen groep 2 - gemedereerd door Dirk Vansintjan



#### Barrières en drijfveren voor hernieuwbare energiegemeenschappen

Vlaanderen groep 2 - gemedereerd door Dirk Vansintjan



Figure 5 - Miro boards of barriers and drivers from the 2nd group (Flanders)

#### Nederland groep 3 - gemedereerd door Erik Laas



#### Barrières en drijfveren voor hernieuwbare energiegemeenschappen

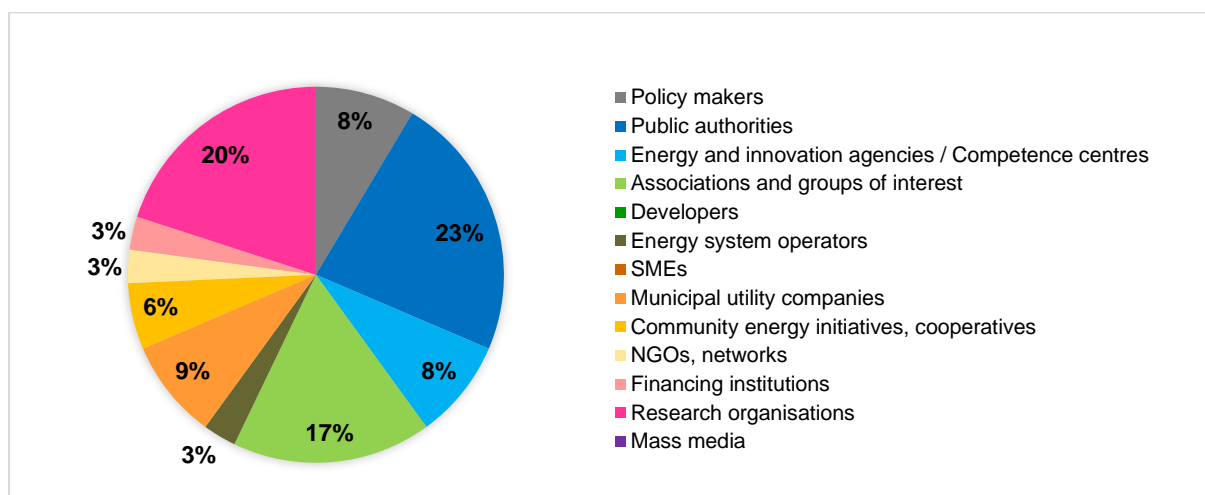


Figure 6 – Miro boards of barriers and drivers from the 3rd group (the Netherlands)

### 3.1.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

The first thematic workshop and policy lab was held on May 25, 2021. The aim was to explore how local policies can stimulate the start-up and further growth of energy communities and how energy communities can contribute to the realization of local policy objectives.

The meeting was attended by 35 stakeholders including local and national governments, intermunicipal organizations, energy cooperatives, transition experts, financing institutions, grid operators, and research institutions. Figure 5 shows the disaggregation of the participants per stakeholder group. Stakeholders from the transnational, national, provincial, and local levels were represented. Approximately 40% of stakeholder participants were female.



*Figure 7 - Breakdown of participants in the 1<sup>st</sup> thematic workshop and policy lab per stakeholder group*

The plenary session was chaired by Erika Meynaerts (VITO/Energyville). This was followed by a workshop in which four speakers discussed the interaction between local policies and energy communities based on their own context and perspective.

- Hilde Hacour (policy officer, Province of Vlaams-Brabant) explained the "LICHT Vlaams-Brabant" and "RHEDCOOP" projects.
- Leo D'haese (director, ECOoB) illustrated how citizen participation and public-private partnerships accelerated the climate transition in Oost-Brabant.
- Martijn Messing (project manager of the Social Innovation Program, Province of Brabant) discussed how energy communities can contribute to the energy transition and gave critical guidance on the role that authorities play in the development of local energy communities.
- Rien de Bont (Masters student, TU/e) presented the different views on the stimulation of energy communities in the Dutch context of multi-level governance based on his research.

The presentations were followed by a panel debate, moderated by Erik Laes (TU/e). Topics addressed included accelerating the renewables transition through professionalization, linkages between energy communities and the broader communities in which they are situated, and the transparency of national policy on energy communities

In the policy lab, the participants were divided into two groups. In each group, four propositions were discussed with the participants, using dot voting in Miro across a spectrum of positions as a basis for the discussion:

- To what extent should local governments facilitate energy communities?
- Assume that as a local government you can only support one energy community. Which criterion is decisive in making your choice?

- How can local governments ensure that energy communities have the broadest possible support?
- What type of energy community should local authorities stimulate in particular?

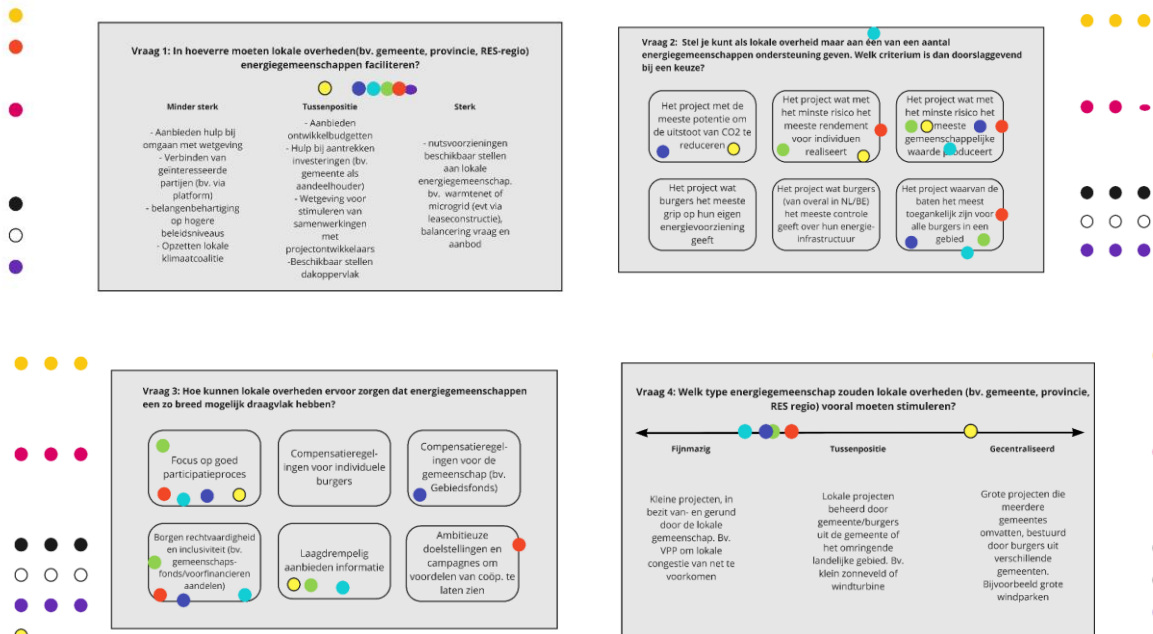


Figure 8 - Miro boards from group 1 policy lab

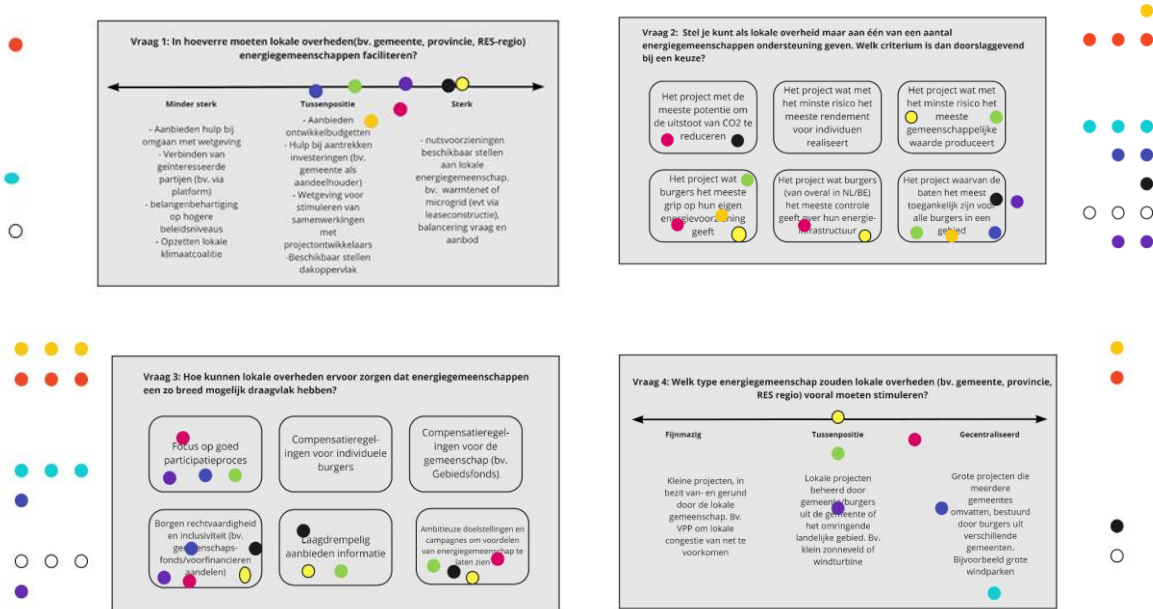


Figure 9 - Miro boards from group 2 policy lab

The session was closed by Erika Meynaerts (VITO/Energyville) with a look ahead to the next activities of the Country Desk. Finally, participants were asked to fill in a survey to assess their satisfaction with the content and organization of the first thematic workshop and policy lab.

The thematic workshop and policy lab yielded a number of conclusions, including:

- Both professionalisation and voluntarism are important. When it comes to embedding energy communities in their localities, volunteerism is crucial. But professionalisation is also important to manage the complexity of energy projects.
- Energy communities have to operate profitable projects themselves, but local government can facilitate the construction of profitable projects, for example through an environment fund that provides the necessary resources that have to be paid back later in the operational phase.
- There is a lack of insight and knowledge about national legislation on energy communities among local governments and citizens.
- The facilitating role of local government should not jeopardize the independence of energy communities.
- The facilitating role of local authorities is necessary to guarantee equal access to (renewable) energy markets for both private investors and energy communities.
- Strong facilitation by local government is mainly helpful in cases where there is real danger of monopoly.
- Embedding energy communities in local needs makes the energy community 'future-proof.'
- Inclusiveness is an important principle for energy communities.

### 3.1.3. OUTCOMES AND LESSONS LEARNED

The country desk meetings so far have yielded a number of outcomes and lessons learned. One of the most significant lessons learned is the extent to which there is a lack of information and knowledge across actors at the local level about the regulatory and enabling framework for RECs. While the country desk has made progress in giving stakeholders more access to information and lines of communication, the provision of information should remain as a relevant objective of country desk meetings, particularly information on how the enabling frameworks in Flanders and the Netherlands are rolled out.

Beyond this, the desk meetings have identified a number of barriers and drivers for the establishment and further development of RECs in the target regions, suggesting critical components of an enabling framework. In the thematic workshop and policy lab we explored further how local policies and RECs interact and how they can mutually reinforce each other. One of the advantages that has emerged from the transnational character of the Belgian/Dutch country desk is the facilitation of communication between key actors and stakeholders in the development of renewable energy communities in Flanders and North Brabant, yielding a more encompassing set of tools to support the establishment and further development of renewable energy communities in both countries.

The discussions in the country desk meeting and thematic workshop have enabled the identification of a number of topics that could be explored in subsequent meetings:

- The results of the national REDII transposition process and how to work with them and build upon them at local and regional levels.
- Supporting the set-up of an enabling framework in Flanders and the Netherlands by identifying effective policies and measures at different governmental levels.

- Identifying and selecting successful business models and sources of financing for RECs in the target regions.
- Ways to foster local support for RECs in the target regions by making energy communities more inclusive and embedded in communities.
- Identifying and selecting best REC practices.

The survey administered at the end of the thematic workshop and policy lab demonstrated significant interest in and benefits from the country desk activities. 56% of respondents said that the policy lab was relevant for them and 22% that it was very relevant for them. 78% said that the panel discussion was relevant for them and 22% said that it was very relevant. 100% of the respondents plan on participating in the next country desk meeting.

## 3.2. GERMANY

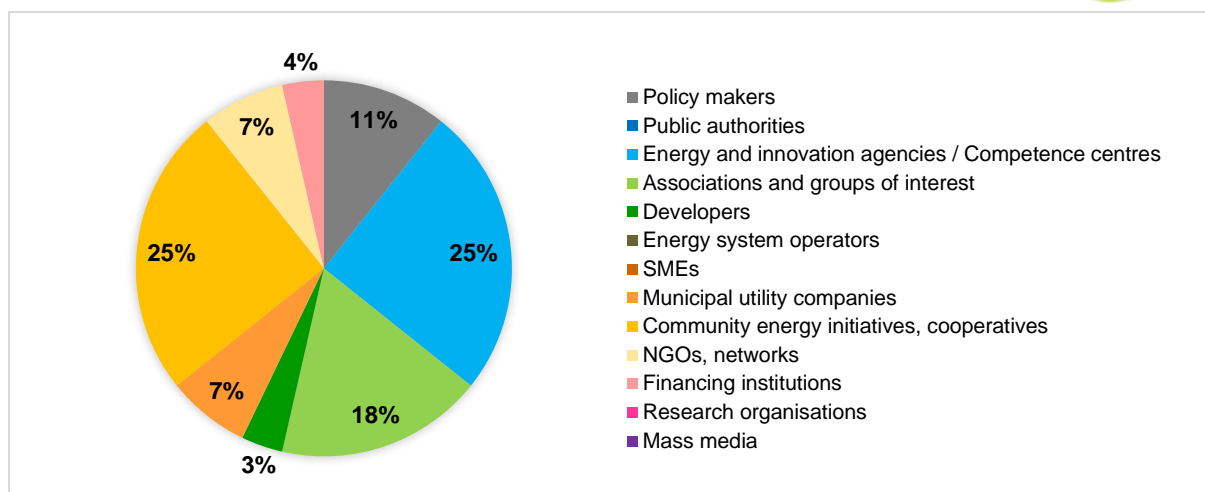
Within the first 14 months, the German Desk organised three online events: the kick-off meeting, an event which combined a thematic workshop with a policy roundtable and a status meeting (Table 6).

*Table 6 - Overview of COME RES activities held by the German Desk*

Type of Activity	Date	Location	Topic	# of Participants
Kick-Off Meeting	11.12.2020	Online	Presentation of the project and the European legal framework, discussion of the legal framework, frame conditions in the model region Schleswig-Holstein and target region Thuringia, key obstacles for energy communities and possible problem solutions.	37 (core group)
1 <sup>st</sup> Thematic Workshop and Policy Lab <i>"The future of citizen wind power - How should an enabling framework for RECs look like?"</i>	30.03.2021	Online	Presentation of the project's progress, issues concerning the RED II transposition process, potentials for RECs in Thuringia and Schleswig Holstein, possible (political) support measures (e.g., citizen energy funds). Low level of local acceptance even for community energy projects as a barrier.	70
Status Meeting <i>"Energy communities – potentials, business models, good practice"</i>	21.09.2021	Online	Presentation of the project's progress, especially findings of Deliverable 2.2 (REC potential assessment), presentation and discussion of business models and good practices, discussion of a citizen energy fund in Thuringia and on the national level.	54

### 3.2.1. ACTIVITY 1: Kick-Off Meeting

The Kick-Off Meeting was held online on 11 December 2020 and was attended by a core group of 37 stakeholders and markets actors, of which 38% female (including the organisation team). The main goal of this meeting was to launch the German Desk and to present the COME RES project to a core group of key stakeholders. Furthermore, the status quo and framework for (renewable) energy communities in Germany were discussed, including barriers and possible solutions. Participants included representatives from community energy initiatives, public authorities and policy makers from the national level, the target and model region, and other regions as well, highlighting the interest in the project from all over Germany.



**Figure 10 - Breakdown of participants per stakeholder group in the KOM of the German Desk**

The event started with the presentation of the COME RES project, its goals, tasks and the role of the country desk by the project coordinator Rosaria Di Nucci (FUB). Next, Michael Krug (FUB) and René Groß (DGRV, National Office for Energy Cooperatives) reported about the transposition of the RED II in Germany and the future development perspectives for energy cooperatives. In the following discussion, many participants shared their scepticism with regards to a full and timely transposition of the RED II and its provisions for collective self-consumption and energy communities in Germany.

Subsequently, the framework for community energy, obstacles, problem areas and examples of good practice in the model region Schleswig-Holstein and the target region Thuringia were discussed by Nicole Knudsen (BWE Schleswig-Holstein, Wind Energy Association), Ramona Rothe (ThEGA, Thuringian Energy and GreenTech Agency), Prof. Reinhard Guthke and Marcel Schwalbach (both BürgerEnergie Thüringen e.V., Regional association of Citizen Energy in Thuringia). The guaranteed feed-in tariffs provided through the Electricity Feed Act and later the Renewable Energy Sources Act as well as the high level of planning security for investors were considered as important success factors explaining the dynamic development of energy communities in Schleswig-Holstein, but also other regions. The specific model of community wind farms in Schleswig-Holstein is certainly not fully transferable to other regions, but there are definitely parallels and common challenges.

Various participants referred to existing forms of cooperation between municipal utilities and energy cooperatives in Thuringia as good practice cases. According to Marcel Schwalbach (Board of directors of energy cooperative Ilmtal eG), energy sharing makes energy cooperatives more interesting for project developers, adding to its overall attractiveness. Hence, Tom Janneck (VZSH, Consumer Advice Center Schleswig-Holstein) and Matthias Golle (Ilmtal eG) suggested exploring further cooperation possibilities between energy cooperatives and municipal utilities/energy supply companies.

An overview of different forms of cooperation between municipal utilities and energy cooperatives in Germany can be found here: <https://www.energiegenossenschaften-gruenden.de/kooperation-stadtwerke.html>.

In their joint presentation, Angelika Behlig and Milena Schulz-Gärtner (MELUND, Ministry for Energy Transition, Agriculture, Environment, Nature and Digitalization of the State of Schleswig-Holstein) introduced the Citizens' Energy Fund in Schleswig-Holstein, which was established in 2018. Through this fund, citizen/community energy projects can be supported in the start-up phase, in which project financing via financing institutions is not yet available. Beneficiaries would have to repay the funding as

soon as overall project financing would be secured. Marcel Schwalbach and Matthias Golle mentioned that Thuringia is going to follow the example of Schleswig-Holstein and that the regional government recently decided to set up a similar fund. René Groß (DGRV, National Office for Energy Cooperatives) reported that there were also plans to establish such a fund at the national level.

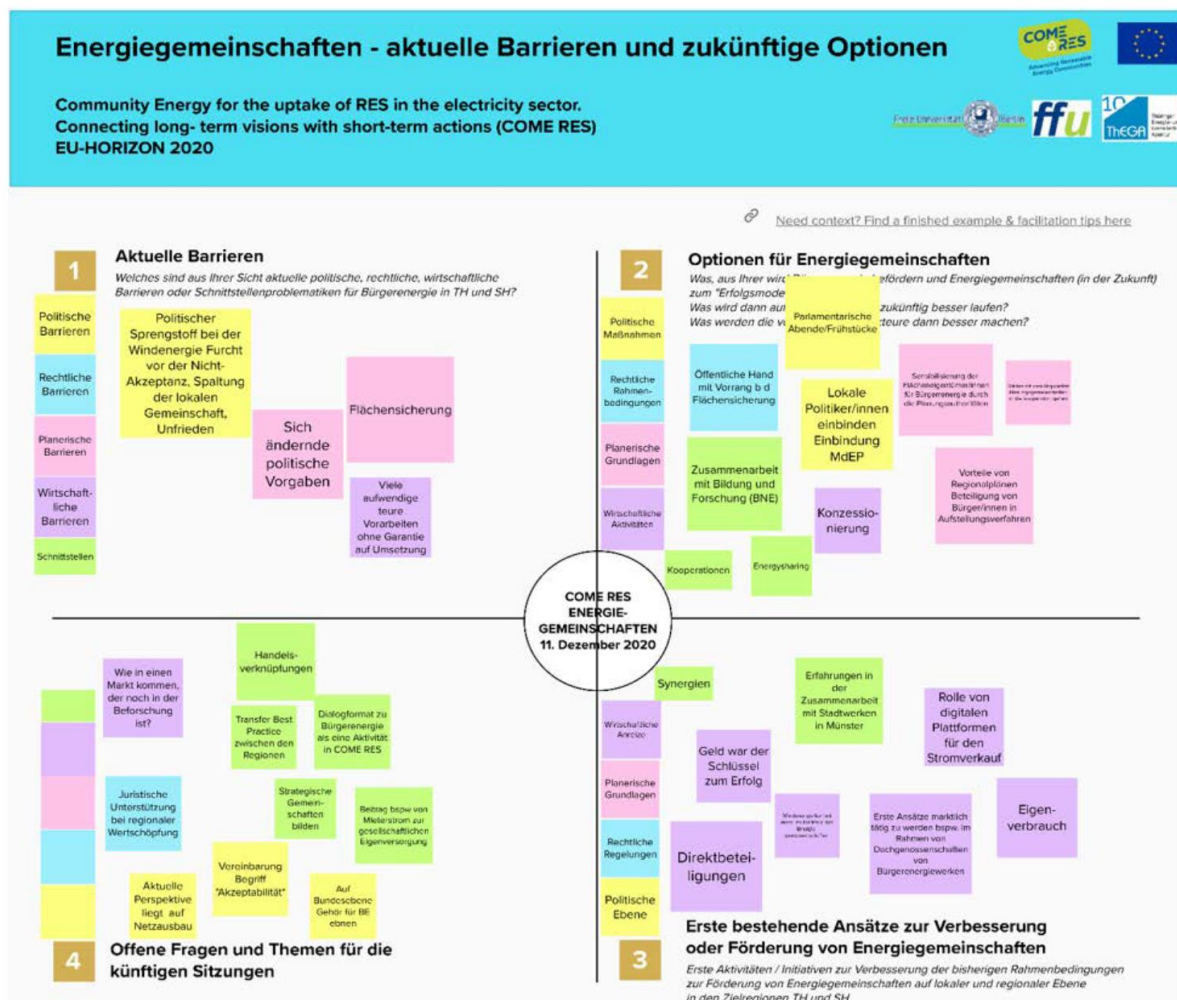


Figure 11 – Interactive section: Analysis of the present barriers and future options

Finally, the participants discussed the opportunities and risks regarding energy communities in Germany and especially in Thuringia.

- Digitalisation and digital platforms may provide a chance for energy cooperatives, e.g. if used to sell electricity (see Bürgerwerke eG.), but are still in an early stage. A problem arises with new foreign players that could occupy the electricity market, especially in the field of on-site trading/energy sharing, and prevent individuals to join a more time-consuming and expensive energy community.
- Land availability and land securing is another problem that was addressed. Often, project planning companies secure land at an early stage and tend to not cooperate with energy communities. Participants underlined the importance of regional planning authorities/communities and a proactive approach of informing and sensitising local landowners about energy communities.

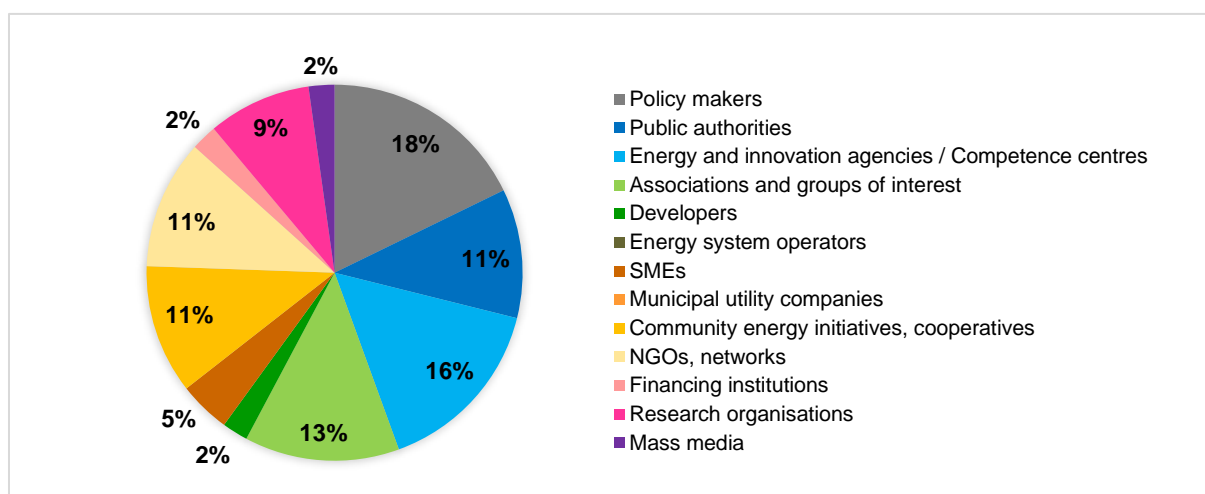
- Furthermore, the lack of local acceptance of (community) wind farms was mentioned several times. An increasing polarisation in many communities leads to a shift of focus of citizen energy movements towards more accepted systems, such as PV rooftop systems. Some participants proposed labelling and certification schemes (e.g. under the Economy of the Common Good initiative) as a tool to tackle the acceptance problems. Some promising examples exist already in Schleswig-Holstein and Thuringia.
- Finally, the inclusion of low-income households and people who have not been very interested in the energy transition so far was emphasised. Tom Janneck (VZSH) suggested to find solutions to realise collective self-consumption and tenant power concepts and on how to deal with financial shortfalls.

At a federal level, progress in the implementation of the RED II is not very encouraging, but there are some promising signals at the level of the federal states. The kick-off event illustrated the role of social and local acceptance as a critical barrier to the energy transition. Citizen energy and renewable energy communities are considered an important instrument not only for decentralisation, but also for the democratisation of the energy system in Germany and elsewhere.

### 3.2.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

The first Thematic Workshop was held on 30 March 2021 together with the Policy Lab titled "The Future of Citizen Wind Power - What Should a Regulatory Framework for Renewable Energy Communities Look Like?" Its aim was to organise a stakeholder dialogue on the transposition and implementation of the recast Renewable Energy Directive (RED II) in Germany and in the different Länder, especially with regard to the regulations addressing specifically RECs. The joint online event was attended by 70 stakeholders and markets actors, of which 31% female, including a high share of elected politicians, policy makers and public authorities from the EU, as well from the national, regional and local level. Due to the high policy relevance, the combined event was intended to gather a broader spectrum of participants and also to enlarge and reinforce the core stakeholder group and offer a forum to exchange experiences. Participants from regions beyond the COME RES target and model regions joined the event (e.g. from Bavaria, Berlin, Brandenburg, Saxony, North Rhine-Westphalia, etc.).

The workshop first presented the COME RES project and dealt with selected issues of the transposition process in Germany. Prof. Dr. Dieter Sell (ThEGA), Dr. Rosaria Di Nucci and Michael Krug (FUB) representing the project and country desk coordination stressed that in Germany there is still a lack of a legal definition of RECs that fully complies with the requirements of the RED II. Further transposition gaps have been identified in the field of electricity sharing or regarding the required assessment of barriers and development potentials for RECs. Ana Maria Sanchez Infante, of the European Commission DG Energy, provided insights into the European energy policy context, the policy objectives and the legal framework for RECs and citizen energy communities (CECs) provided by the RED II and the Integrated Electricity Market Directive respectively.



**Figure 12 - Breakdown of participants per stakeholder group in the first Thematic Workshop**

Klaus Mindrup (Member of the Federal Parliament, SPD) and Malte Zieher (Bündnis Bürgerenergie, Alliance for Citizens' Energy) held presentations on the historical development of citizen energy and the concept of energy sharing, respectively. They however concluded that the pioneering role of Germany had changed and that the former government hindered the transposition of the RED II: The existing definition of citizens' energy companies has not been adjusted and the concept of energy sharing has not been transposed in the German legislation. Dr. Phillipp Leander Wolfshohl (Bundesnetzagentur, Federal Network Agency) illustrated recent developments of the auction system. He also pointed out that one of the political goals linked to the auctions was to safeguard actor diversity. This political goal, however, has been neglected by the government. The auction system does not necessarily safeguard actor diversity. Furthermore, representatives of RECs underlined that frequent changes of the laws and the increasing complexity of the market rules would jeopardise the principle of non-discrimination. In a Slido survey the workshop participants were asked how the auction system should look like in the future in order to facilitate the development of energy communities in the area of wind energy. 61% of the 31 respondents were in favour to make use of the "de minimis clause"<sup>3</sup> and to exempt community wind energy from the auctions and provide predictable support instead. 29% of respondents supported the proposal to create special segments/bidding rounds exclusively for community wind farms in the frame of the auction system. 10% of the respondents were in favour of providing additional privileges/incentives in the frame of the existing auction system. None of the respondents supported the proposal to keep the auction design as it is.

The thematic block was followed by an interactive dialogue session where the key issues were highlighted:

- Need for further action regarding the transposition and implementation of RED II: Clear definitions of RECs and CECs are needed because too vague legal definitions in combination with attractive privileges for citizen energy companies in the field of wind energy led to the misuse of the concept after the amendments to the Renewable Energy Sources Act (EEG) in 2017 which marked the transition from feed in tariffs/premiums to auctions.

<sup>3</sup> *De minimis clause* is a legal principle which allows for matters that are small scale or of insufficient importance to be exempted from a rule or requirement.




- Development potentials for RECs in the target and model region.
- Elements of an enabling framework for RECs: It was emphasised by several participants that (financial) participation of citizens and local communities is generally necessary to achieve a broader level of social acceptance. This should be accompanied by effective formal and informal procedural participation.
- Possibilities of the federal states, districts and municipalities to facilitate the development of energy communities including RECs. The participants discussed existing support instruments for RECs like community resp. citizen energy funds. Schleswig-Holstein was the first of the German Länder that has set up such a fund in 2018. Stakeholders from Thuringia appreciated that the Thuringian state government decided to follow this example.

Subsequently, a survey among the participants of the meeting showed that electricity and heat production (70%), energy sharing and collective self-consumption (59%), tenant electricity models (52%) and electricity sales (41%) are considered as the most promising business areas for energy communities in the future.

The policy lab was designed as a roundtable and involved: Ana Maria Sanchez Infante (European Commission, GD ENER), Tobias Goldschmidt (State Secretary, Ministry of Energy Transition, Schleswig-H.), Klaus Mindrup (Member of Federal Parliament, SPD, Representative for Cooperatives), Markus Gleichmann (Member of State Parliament, Thuringia, Die Linke, European Committee of the Regions), Laura Wahl (Member of State Parliament, Thuringia, Bündnis 90/Die Grünen), and Hans-Jürgen Weidt (Mayor of the Municipality of Werther, Thuringia). Initially, the policy roundtable addressed issues related to the transposition of RED II from both a European and a regional perspective. Furthermore, the contributions of energy communities or RECs to enhance social acceptance were highlighted. Further acceptance factors which have been identified include the involvement of all citizens, early fact-based information, and the generation of local value added. A problem in Thuringia is the negative perception of the energy transition - frames are crucial, e.g. in relation to public services and job creation, since there is severe local opposition against wind energy projects. It was proposed to introduce a spatial target for wind energy at federal level (2% of the total area to be reserved for wind energy) and to launch a nationwide citizen energy fund. In addition, the importance of cooperation between cooperatives and municipalities, as well as between urban and rural regions was stressed together with an expansion of the leeway for financial participation offered to municipalities. It was suggested to check whether the possibility of voluntary payments by the operators of new wind farms to host municipalities which has been recently introduced with the amendments of the Renewable Energy Sources Act of 2020 might be extended to operators of existing wind energy plants.

To summarise, the transposition and implementation of the RED II may face the risk of becoming a lost opportunity in Germany. The implementation process has multiple dimensions, but shows important implementations deficits. In the workshop, important elements that should be included in a future enabling framework for RECs were mentioned (e.g. citizen energy funds). The presentations and reactions in the chat also illustrated the socio-political, economic and environmental challenges involved, in particular the need for concretisation of a number of vague and unspecified legal terms in relation to RECs (e.g. purpose, proximity, effective control, rights of RECs including energy sharing etc.).

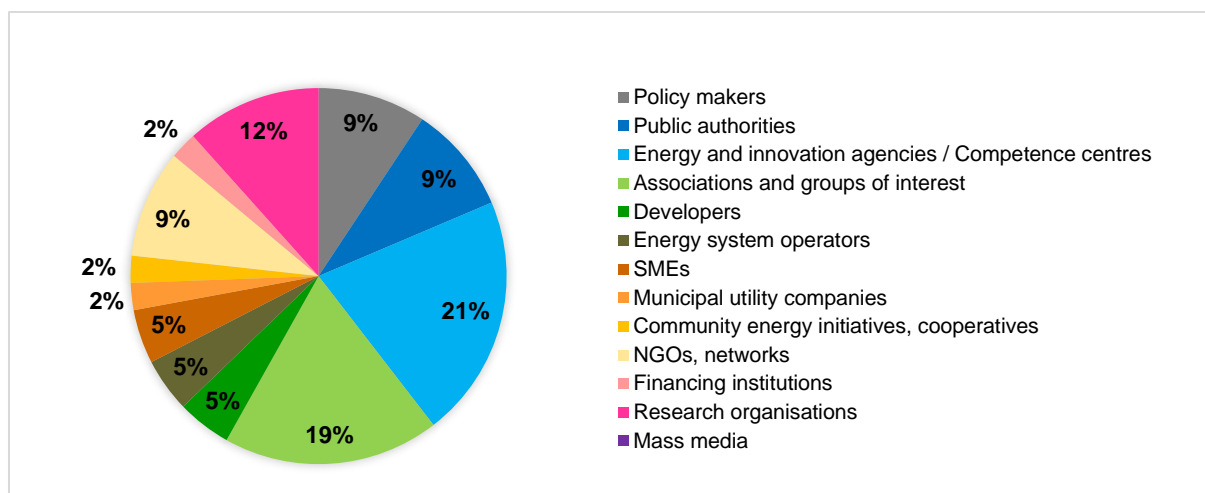
## Event summary report COME RES - Zukunft der Bürgerwindkraft - Online-Workshop 30.03.21

 Active users 46	 Questions 17	 Poll votes 208
Engagement score 268	Likes / dislikes 43 / 0	Polls created 8
Engagement per user 5.8	Anonymous rate 41%	Votes per poll 26

*Figure 13 - Participant engagement in the First Thematic Workshop*

### 3.2.3. ACTIVITY 3: Status Meeting

A status meeting was organised online on September 30, 2021 with the purpose to present outcomes and current activities of the COME RES project, to discuss business models and good practice cases and to reflect on actual policy developments in Germany. In particular, in view of the results of the Bundestag elections, the status meeting aimed to provide an opportunity for exchange and networking in a (virtual) space. The meeting was attended by 54 stakeholders and markets actors, of which 50% female, including all stakeholder groups except media representatives.



*Figure 14 - Breakdown of participants per stakeholder group in the Status Meeting*

The status meeting was structured into three sections: First, new project findings including the results of an analysis of REC potentials in Thuringia and current activities of the COME RES project were presented, followed by four good practice cases of energy communities in Germany. The third session was dedicated to the enabling framework for RECs. Participants discussed the future of the energy transition and the transposition of the RED II and its provisions for RECs in Germany after the federal parliament elections of 2021. The meeting was concluded by a discussion of the specifications of a citizen energy fund in Thuringia which soon will start operation.

Prof. Dieter Sell (ThEGA) opened the meeting together with Dr. Rosaria Di Nucci (FFU). Further on, Dr. Di Nucci and Michael Krug (FFU) presented key activities and preliminary results of the COME RES project. Rosaria Di Nucci also introduced some activities of other COME RES country desks, especially Italy and Portugal. Michael Krug gave a brief review of the two previous country desk meetings in Germany which have been documented in detail on the project website. Further, he presented together

with Vincenzo Gatta key assumptions and selected results of the assessment report of potentials for RECs in Thuringia that were recently compiled as a project report. Several participants questioned the assumption of 100% self-financing by citizens, and considered this not realistic at least for wind energy. Michael Krug specified that the condition of 100% self-financing does not exclude the possibility of taking up loans and that the assumptions had to reflect the different conditions in each country included in the study. However, the presenters conceded that in the case of wind energy, a 20% share of citizen-based financing is more realistic.

Johannes Vollmer (COME RES partner bbh) gave preliminary insights of an analysis of REC business models and provided examples from different COME RES countries, especially Italy. Here, the RED II with its provisions for RECs has been largely transposed to national law and an enabling framework for RECs is taking shape. A high public interest and various impulses from local public authorities helped to develop a large number of RECs, especially in small municipalities which aim to benefit from those RECs. In comparison to the Italian case, Horst Leithoff (BWE Schleswig-Holstein, Wind Energy Association) referred to the difficult framework conditions in Germany where energy sharing and self-consumption by members of a REC are practically impossible. The same would be true for combinations of energy production, energy storage and energy refinement which would be hampered by the restrictive system of taxes, fees and surcharges. Subsequently, a survey among the participants of the meeting showed that electricity and heat production (70%), energy sharing and collective self-consumption (59%), tenant electricity models (52%) and electricity sales (41%) are considered as the most promising business areas for energy communities in the future.

Next, four good practice cases were presented:

- Wind farm Uthleben: Co-operation between a developer, a municipal utility company and citizen energy cooperatives in Thuringia (presented by Thomas Mund, managing director of the municipal utility company Stadtwerke Nordhausen),
- Pool of five community wind energy projects in Schleswig-Holstein (“Grenzland-Pool”) with activities in the field of sector coupling and hydrogen production (presented by Horst Leithoff, Managing Director of several community wind farms including Bürgerwindpark Grenzstrom Vindtved and Chairman of the regional section of the German Wind Energy Association in Schleswig-Holstein),
- Direct marketing of electricity from community energy projects in North Rhine-Westphalia (presented by Thomas Voss, Die Energielandwerker eG, a developer of renewable energy projects),
- Pilot project on energy sharing in Essen/North Rhine-Westphalia based on so called consumer stock ownership plans implemented in the frame of the Horizon 2020 project SCORE (presented by Prof. Jens Lowitzsch, Viadrina University Frankfurt (Oder)).

The cases illustrated that not only cooperation between citizens is important, but also between different market actors like cooperatives and other citizen-based organisations, municipal utility companies and project developers. It proved fruitful to join forces and pool different citizen energy projects in order to gain a stronger market position and to profit from value-added effects, e.g. when selling electricity while owning local substations. Furthermore, RECs can profit from the collaboration and know-how of project developers and municipal utilities. In this manner, RECs can reduce risks and counteract the consequences of the increasing complexity of the legal framework that discourage citizen to engage in citizen energy projects. All these synergies are best illustrated in the concept of energy sharing.

The final section was dedicated to the enabling framework for RECs. First, Dr. Julia Verlinden (Bündnis 90/Die Grünen), member of the previous and newly elected federal parliament and so far energy policy spokeswoman of the Green Party, gave a keynote presentation on the prospects of the energy transition in general and on the implementation of RED II after the Bundestag elections in particular. She argued in favour of a higher CO<sub>2</sub> pricing and also pleaded for a reform of the electricity market design. She said two trends could be observed, flexibilisation and digitalisation, which could contribute to a further decentralisation of electricity production. Further, she saw a need for action regarding the transposition and implementation of the relevant EU directives, especially in the area of collective self-consumption, energy sharing and energy communities. In the following discussion she emphasised the role of citizen and community energy in order to allocate new investments for the energy transition. However, the developments in Brussels should always be kept in mind (e.g. with regard to the “de minimis rule” and the new State Aid Guidelines). She supported the development of a citizen energy fund on the federal level as a useful tool measure to set uniform standards.

In the final presentation, Prof. Dieter Sell (ThEGA) illustrated cornerstones of the planned citizen energy fund in Thuringia. The fund is expected to start operation in November 2021. It will be based on a funding guideline (*Förderrichtlinie*) and largely follows the example of the citizen energy fund in Schleswig-Holstein. The participants emphasised the importance of a clear definition of citizen energy in order to prevent the misuse of state funds. In this regard, Ramona Rothe (ThEGA) explained that according to the funding guideline, which should be available in the near future, the fund will offer financing of citizen energy projects in the planning and start-up phase. 500,000 EUR have been earmarked from the state budget. The aim is to strengthen citizen energy projects in the fields of renewable electricity and heat generation, energy efficiency, new mobility and digitalisation in the energy sector. As a rule, funding is awarded in the form of a conditionally repayable and interest-bearing grant to citizen collectives comprising at least seven natural persons who must have their primary residence in the municipality concerned. In addition to that, and similar to the case in Schleswig-Holstein, planned projects would be examined very carefully for their feasibility.

In his conclusions, Michael Krug (FFU) stressed that the importance and urgency of implementing the relevant EU directives and their provisions for energy communities. However, in the existing target architecture of the German energy transition, this is a blank space and it is worth considering the inclusion of quantitative and/or qualitative targets for citizen energy in general and energy communities in particular. In addition, the EU level should always be kept in mind, as important decisions are currently being made there, such as the revision of the State Aid Guidelines. Finally, the event and particularly the good practice cases illustrated how important cooperation between citizen energy actors and municipal utilities can be and how valuable networking and clustering among citizen energy actors is.

### 3.2.4. OUTCOMES AND LESSONS LEARNED

- In Germany, progress with the implementation of the RED II is not very encouraging at a national level, but there are some promising signals at the level of the federal states. The transposition and implementation of the RED II and its provisions for RECs is lagging behind that of other countries and faces serious implementation deficits (e.g. with regards to a fully compliant legal definition of RECs/CECs, collective self-consumption, energy sharing, enabling framework).
- Amongst the major bottlenecks are the legal frameworks for the promotion of RES, access to finance, and grid regulation.

- Insights and lessons from outside Germany can be helpful. Inviting COME RES partners from other countries may provide new impulses for participants of the country desks. Some of the partner countries or model regions in the COME RES project provide additional inspiration as they have formulated quantitative political goals for citizen energy or financial participation of citizens.
- For local initiatives, technical and legal knowledge that is required to invest in renewable energy creates a problem of access to information. Moreover, fragmentary or inconsistent information about opportunities to develop RES ownership models hinders access to reliable information.
- The administrative and legal process as well as permit application process and licensing processes is lengthy and costly.
- Citizen/community energy funds can be an important element that should be included in the enabling framework for RECs, particularly under the regime of auctions.
- The socio-political dimension has to be considered: Citizen energy and renewable energy communities are important instruments not only for decentralisation, but also for the democratisation of the energy system in Germany and elsewhere.
- Social and local acceptance can pose a critical barrier to the energy transition in general and specific projects in particular (including projects which aim to ensure financial participation of local citizens, communities and/or cooperatives). Furthermore, the increasing complexity of the legal framework discourages citizens to engage in citizen energy projects.
- On the local level, the inclusion of citizens in energy cooperatives can increase local acceptance, especially with generated local value added. However, we should keep in mind that local acceptance is always context-specific and depends very much on the local circumstances, actor constellations, perceived procedural and distributional fairness as well as trust.
- In the target region Thuringia, the lack of knowledge and facts-based dialogue on the topic, as well as the negative narratives about renewables in the traditional and social media have contributed to a weak local support for such initiatives.
- On the meso level, the exchange of expertise and the cooperation between citizens/community energy actors and municipal utilities seems to be very important. This cooperation can help cope with the complexity of the legal system. Likewise, networking and clustering among citizen energy actors is very valuable to reinforce the market position of single energy cooperatives.

### 3.3. ITALY

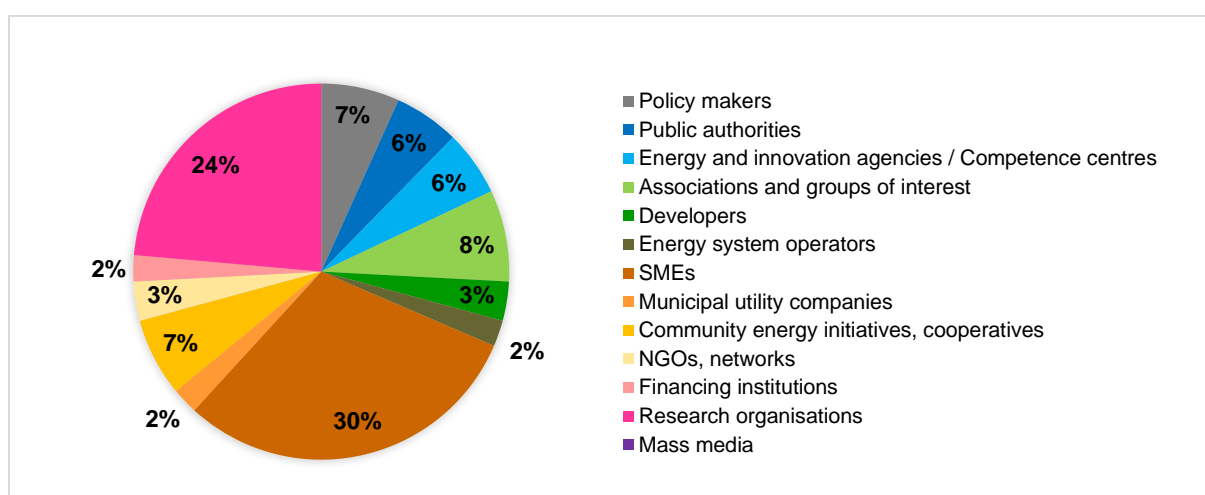
Within the first 14 months, the Italian Desk organised two online events: the kick-off meeting and an event which combined a thematic workshop with a policy roundtable (Table 7).

*Table 7 - Overview of COME RES activities held by the Italian Country Desk*

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	21.01.2021	Online	Implementation of REDII in Italy barriers, drivers and good practices.	180
1 <sup>st</sup> Thematic Workshop and Policy Lab	22.06.2021	Online	Status of transposition of REDII in Italy. Input for policy development.	170

#### 3.3.1. ACTIVITY 1: Kick-off Meeting of the Italian Desk

The kick off meeting (KOM) of the Italian Desk for Renewables Energy Communities (RECs) was held on 21 January 2021. The event was organised by ENEA and ECOAZIONI, the Italian partners of the project. About 180 stakeholders attended the meeting. In addition to the 47 participants who committed in advance, 42 actors expressed their interest during the meeting to participate in the desk activities on a more permanent basis, reaching 89 in total. Stakeholder groups represented included: decision-makers and public administrators, electricity companies, research institutes, financial institutions, professional trade associations, and environmental and consumer associations. The number of participants shows the large interest paid to this new form of collective action for energy that can offer an opportunity of development that strengthens the involvement and cohesion of the communities involved.



*Figure 15 - Breakdown of participants in the Kick-off meeting of the Italian Desk per stakeholder group*

Italy is currently very advanced in the process of transposing the European legislation on RECs. In fact, thanks to a strong attention at the parliamentary level, an incentive system has already been

established. The state of the art and the methods of implementation of the RECs was extensively described by the representatives of the MiSE, GSE and RSE, who joined the KOM.

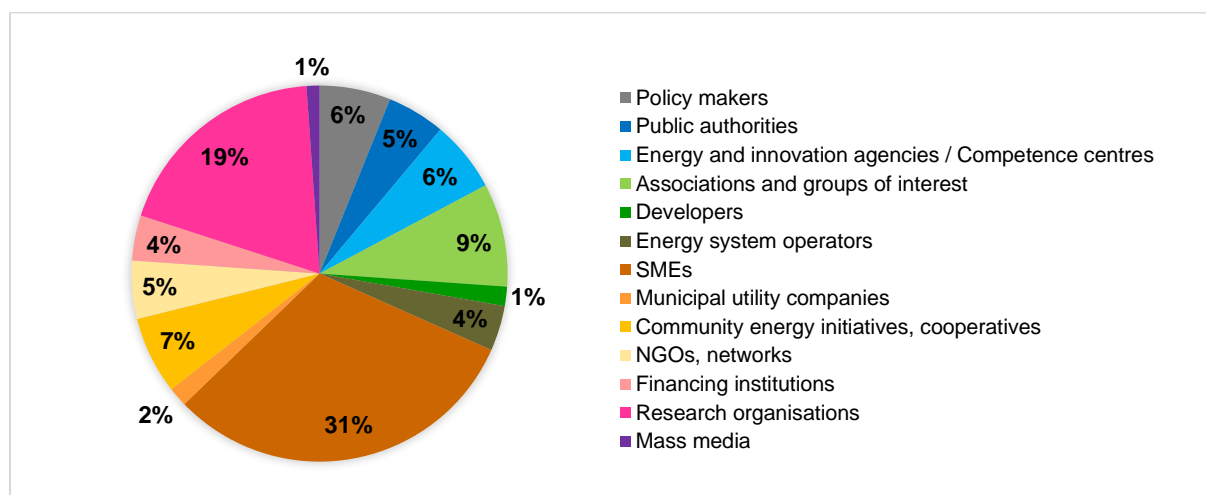
Elena De Luca from ENEA explained that some aspects emerged from the dialogue, such as the need for more information on the possibility of combining the incentives for RECs with the others provided for energy efficiency. In addition, some critical issues were reported at the legal level for the constitution of the RECs on the territorial dimension of the enabled subjects.

In the session dedicated to the dissemination of RECs on the national territory, the processes undertaken by the Piedmont Region, first to implement its own legislation, and by the Puglia Region, committed to encouraging the growth of this type of initiative, were highlighted. Furthermore Massimo Bastiani from ECOAZIONI pointed out how this form of self-production and collective consumption can have beneficial effects on consumer awareness about environmental, economic and social repercussions that can contribute to improving the quality of life in particular in the marginal and more internal contexts of the country.

### 3.3.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

The first thematic workshop for Italy has been organised in the form of an exchange of experiences between Piedmont Region (model region) and Apulia Region (target region) on common issues. The Policy Lab, which took place in the second part of the day, was dedicated to the transposition and implementation of RED II at the national level.

A total of 26 speakers and more than 170 participants (25% female and 75% male) participated in the meeting. In compliance with AntiCovid regulations the activities were carried out online.



**Figure 16 - Disaggregation of participants in the Thematic Workshop of the Italian Desk per stakeholder group**

The first thematic workshop of the country desk, titled "Energy communities: Forms, legal models and business plans", took place on May 06, 2021 organised and coordinated by ENEA and ECOAZIONI. Its aim was to promote a stakeholder dialogue on the transposition and implementation of the Renewable Energy Directive (RED II) in Italy and in the different Regions, and an exchange of experiences with different application models for RECs.

The workshop was structured into three sections: the presentations about COME RES and the update on the transposition process in Italy of the REDII, a specific focus on **forms, legal models and business plans** developed in Piedmont and Apulia and the last part in the form of a participatory workshop. The workshop was moderated by Massimo Bastiani for ECOAZIONI and opened by Elena De Luca from ENEA that presented activities and preliminary results of the COME RES project. Romano Borchiellini, Energy Center Lab - Politecnico di Torino, presented the initiative “Manifesto delle Comunità Energetiche”. The Manifesto proposes itself as a catalyst for the ability of different public and private stakeholders (municipalities, universities, companies, citizens) to build an integrated capacity for dialogue with national standardization and regulatory authorities, in order to give a unified voice to the efforts to transpose European Directives and to make them more attentive to the needs of public and private energy users. Matteo Caldera, Laboratorio Smart Cities and Communities of ENEA, presented the tool RECON, developed by ENEA to encourage the establishment of energy communities and which allows an initial technical and economic assessment to support the start-up of a REC. Alexia Boulanger for Envipark, illustrated the history and the state of the art of the Piedmont’ experience in the RECs, explaining why it is a model for the implementation of RECs Italy. This Region is already active for a long time, with planning and institutional organization, regional laws and regulations issued even before a national directive. At the regional level, Piedmont has set the goal of covering 10% of the territory with energy communities.

Marco Bailo, Mayor of Magliano d’Alpi, and Sergio Olivero, President of REC Scientific Committee, described their REC pilot experience in Piedmont. In particular, Olivero deepened the business model that has been developed in Magliano d’Alpi, to enable participatory development of RECs. The case of the Apulia Region, the Italian’ target region for COME RES, was introduced by Salvatore Tomaselli, DiTNE, who described the regional legislative framework and the initiatives that are currently being implemented. Lucilla Parisi, Mayor of Roseto Valfortore, and Michele Raffa, Friendly Power S.r.l. described the path that is being pursued in the creation of the first energy community in Apulia. The energy community of Roseto Valfortore, participated by citizens, businesses and local authorities, was created with the aim of enhancing all the resources of the territory and, through targeted investments, to retain locally the benefits created by Renewable Energy Sources (RES). Creation of RECs is closely connected with the concept of energy poverty and in Italy this experience is spreading mainly in the contexts of small municipalities and inland areas of the country, as well as in large urban peripheries. For Elena Torii, UNIPOL, this type of initiative has a great potential to bring attention to consumption, for the redevelopment and conversion of public and private buildings in the marginal areas of the country.

The third part of the workshop was focused on the application of an online participatory SWOT analysis, coordinated by Virna Venerucci from ECOAZIONI. Through the SWOT, strengths and weaknesses of the REC models treated in the workshop were highlighted with the aim of revealing the similarities, deviations and elements of success between Piedmont and Apulia, which may be useful on a regional and national scale.

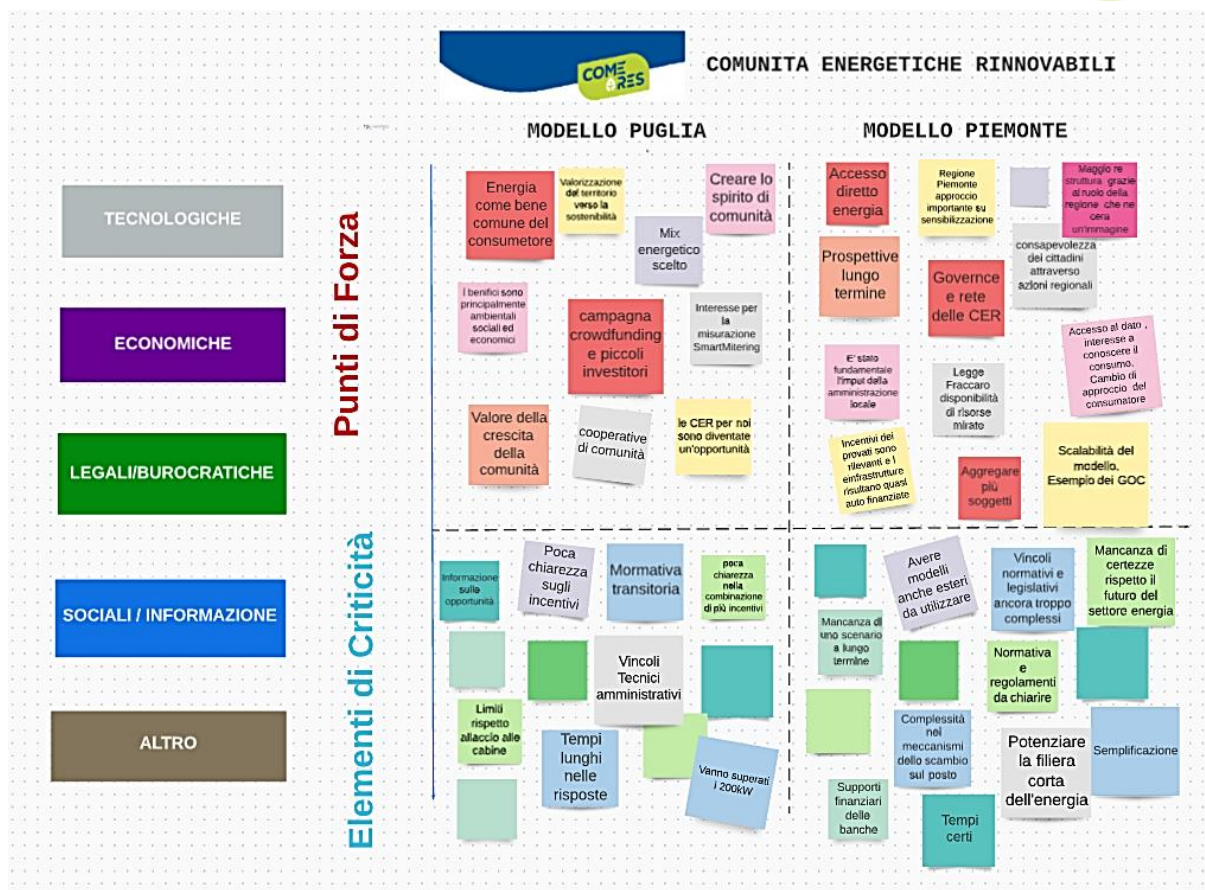


Figure 17– Result from the interactive session held during the Thematic Workshop of the Italian Desk

The Policy Lab "Scenarios for renewable energy communities" was held in the second part of the day, moderated by Elena De Luca from ENEA and introduced by Massimo Bastiani from ECOAZIONI. The introduction presented preliminary results of the COME RES project, including the findings of a legal gap assessment referring to the transposition of the RED II in the different COME RES partner countries. The work session was opened by Senator Giovanni Girotto updating the participants on the progress of the process of development of RECs in Italy, pointing out that 10 days before the law transposing the Directives including REDII was approved. This enables the overcoming of the limit of 200kW and constitutes an important step for the promotion of renewable energy communities since the kW limit represented a significant criticality for their diffusion. Davide Valenzano, Head of Regulatory Affairs Unit GSE, introduced the progress and the results of the consultation on collective self-consumption and community renewable energy and potential in Italy. GSE places the citizen at the centre of this great energy transition to renewable centred systems; the role of participation and consultation is seen as fundamental. Tools and some models of specifications are available to support those communities that want to start to establish RECs.

Eleonora Riva Sanseverino, National Representative of Partnership Driving Urban Transition, with her speech she highlighted the role of smart cities in the new community research programs. Maurizio Sasso, Department of Engineering of the University of Sannio, emphasized the role of sharing economy, energy communities, internal areas and training. On the role of the small and medium enterprises as actors in energy communities, intervened Claudio G. Ferrari, President of FEDERESCO. Small and medium enterprises, represented in the event by FEDERESCO, have reported the difficulty in using the financial resources made available. Indeed, less than one third of the budget available for 2020 was

spent. Even though existing planning tools are adequate, there are still some barriers that need to be overcome by the central government in order to establish effective rules and to streamline regulations that allow stakeholders to realise their investments in due time. There is also a lack of specific skills that should be trained. The point of view of the environmental associations was represented by Luca Iacoboni, Head of the Climate and Energy Campaign of Greenpeace Italy. Then, have followed the interventions of: Mauro Annunziato, Director of ENEA Smart Energy Division on the digital platforms for the development of local economies - Perspectives for geographically marginal communities; Marco Bussone, President of National Union of Mountain Communities (UNCCEM), who recalled the importance of the role of local communities in the development of initiatives; Jens Lowitzsch, European University Viadrina (ODER), who illustrated the role of international cooperation in the development of RECs in Piedmont; Daniela Patrucco, Consultant for the activation of Energy Communities - Freelance Journalist Qualenergia, who underlined the role of good practices for the promotion of more conscious RECs.

A number of interventions also highlighted the need for a better governance that allows the fruitful use of funds available to public bodies, and that promotes the development of territories and local communities also involving small and medium-sized enterprises.

It has also emerged the role of science and technology: the digitization and the use of tools that allow citizens to monitor energy exchanges and have a positive effect on reducing consumption, bringing concrete examples made in other territorial contexts. These tools, based on advanced technological solutions, can promote the emergence of new forms of economy with positive social impacts, activating a network of exchange of services, in addition to the "good" energy. As pointed out by environmental and third sector associations, RECs are perceived as a democratic and "truly green" instrument.

During the debate it was emphasized that RECs represent the great change underway in the energy system, which is moving from a centralised model to a form of greater decentralisation of energy production and consumption, where the citizen becomes a responsible protagonist. The delay in the achievement of the NECP RES-e production objectives (gap of 40GW to reach the target for PV installed capacity) was also pointed as an opportunity for an active participation of individual citizens. In this regard, the National Recovery and Resilience Plan (PNRR) will provide new resources to support RECs implementation. Indeed, it is expected a 2.2 billion euros funding to support PV generation, corresponding to around 2,500 GWh of electricity generation per year, and a reduction in greenhouse gas emissions of about 1.5 million tons of CO<sub>2</sub> per year.

### 3.3.3. OUTCOMES AND LESSONS LEARNED

The discussions showed the advancement in the definition of RECs and the efforts to establish an appropriate regulatory framework, consequently has emerged as Italy is currently very advanced in the process of transposing the European legislation on RECs.

So far Italy has made great efforts with transitional legislation that allows for the creation of RECs and by launching a public consultation that allowed for the participation of citizens and various local authorities. Now it is necessary to complete the technical-legal instruments and work towards the simplification in order to encourage the birth of concrete initiatives through the creation of public-private partnerships (PPP).

Some of the recurring suggestions on the improvement of local conditions and the development of an appropriate enabling framework are:

- The Regions and the regional policy context are strategic in supporting RECs;

- The authorization process and related timelines need to be simplified and reduced;
- The establishment of RECs must be supported from the beginning, by promotional and information initiatives, training activities, and dissemination of technical support tools;
- Adopting consumption monitoring and control tools can help reduce "not aware" consumption by users;
- Pay attention to the administrative procedures to overcome the uncertainty caused by regulatory transitions;
- To think also in terms of territorial networks, as for example happened in Piedmont with GOCs (Community Operational Groups), facilitates local processes and creates specific professionalism;
- More attention should be paid to the deployment of the business plan in small municipalities: particularly interesting is the modality of collection of resources, in the case of Apulia, for RECs start up, through the use of the crowdfunding and the contribution of small investors;
- Support the deployment of RECs in marginal and peripheral areas contributing to overcoming energy poverty and supporting small local economies;
- When possible, choose an energy mix: wind, solar, but also biomass and geothermal;
- Overcome with the transposition the limit of location of REC members on the low-voltage electricity network underlying the same secondary transformation cabin (MT/BT), provided by the current transitional legislation (Art. 42-bis of DL 162/2019 converted into Law no. 8/2020), which can hinder small municipalities and inland areas. Possibility to increase the size (currently 200kW) to 1 MW;
- Encourage repowering of existing plants.

### 3.4. LATVIA

Within the first 14 months, the Latvian Desk organised two online events: the kick-off meeting and an event which combined a thematic workshop with a policy lab (Table 8).

**Table 8 - Overview of COME RES activities held by the Latvian Desk**

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	27.01.2021	Online	RECs in Latvia: Introduction of the project	19
1 <sup>st</sup> Thematic Workshop and Policy Lab	17.06.2021	Online	Transposition of REDII and IEMD Directives and challenges of legal framework development in Latvia Development perspectives of REC in Latvia Status quo of the COME RES project	33

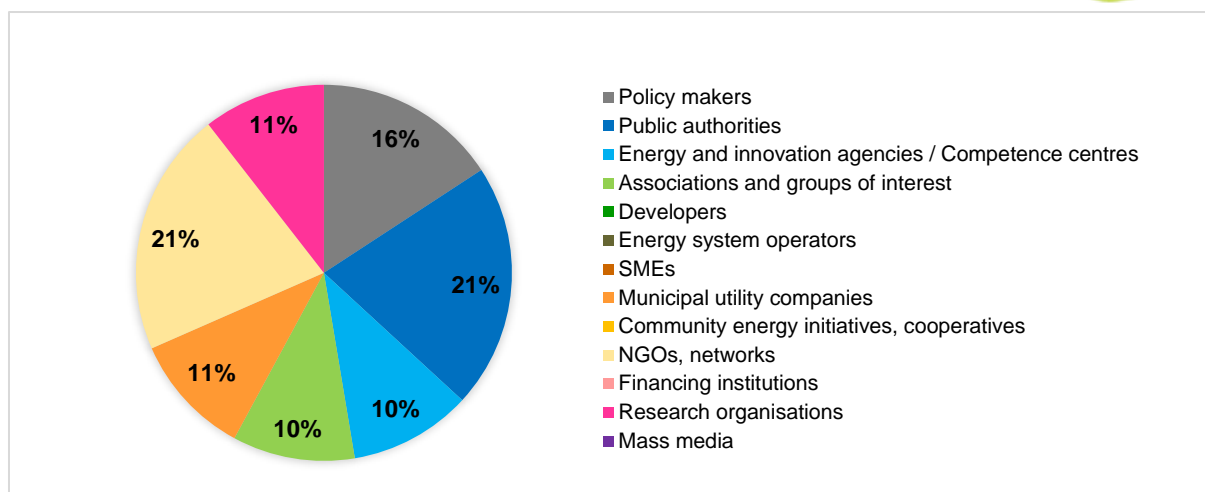
#### 3.4.1. ACTIVITY 1: Kick-off Meeting of the Latvian Desk

The kick-off meeting was organized by LEIF and IPE on January 27, 2021. The purpose of the kick-off meeting was multi-fold:

- to present the COME RES project – objectives, work packages and tasks, planned key deliverables and results achieved so far;
- to initiate the first discussion regarding provisions of the renewable energy community's legal framework, based on the Draft of the Amendments to the Law on Energy;
- to initiate the first discussion regarding definition and interpretation of key criteria defined by REDII for REC in Latvia;
- to present the citizens (flat owners of apartment buildings) co-operation examples for common solar PV technologies at Mārupe municipality, and, based on this experience, to draw and conclude on the lessons and challenges relevant for the RECs development in Latvia;
- to elicit possible topics of the thematic workshops for 2021 and to plan further steps.

The core group of stakeholders was invited to participate in the event. In total, the meeting gathered 19 stakeholders and markets actors, including representatives from the municipalities, regional planning regions and different ministries. 45% of the attendees were female.

The date of the kick-off meeting coincided with the open public discussion on the Draft Amendments to the Latvian Law on Energy. Thus, the responsible person of the Ministry of Economics could use the kick-off meeting also as a platform to activate the discussion among stakeholders interested in REC development.



**Figure 18 - Breakdown of participants in the Kick off meeting per stakeholder group**

The kick-off meeting was opened by A.Zučika from LEIF, who introduced the COME RES project objectives, work packages, tasks and expected results, and the implementation time frame. I. Kudreņickis from FEI presented “The European legal framework for energy communities” and the representative of the ministry of Economics, E.Cilinskis, continued with a presentation about the “Transposition of the provisions of the RED II Directive in Latvia: planned changes in the legal framework and the planned timetable for transposition”. I. Francis from Riga planning region was invited to talk about the project “Co-creation and co-financing of Community renewable energy projects: Experience and lessons in Mārupe municipality”. Afterwards, an active discussion developed on the legal forms of REC. The discussion was preceded by the presentation of the representative of IPE on the options for legal forms for REC.

The main findings were:

- The kick-off meeting revealed the critical challenges for REC development in Latvia and, at the same time, marked a range of important suggestions how to meet them.
- The participants noted other energy communities’ projects in which they participate. COME RES partners from Latvia will look for mutually beneficial cooperation. For instance, Zemgale Region Energy Agency currently participates in the project on energy community as an instrument to reduce energy poverty (H2020 project POWERPOOR). Zemgale planning region envisages the implementation of renewable energy communities in the wider frame of citizens’ cooperation and community’s development in the region.
- Aija Zučika (LEIF) on behalf of all Latvia COME RES team thanked the participants for their active participation, especially the representatives of the Ministry of Economics and Riga planning region and Marupe municipality, and expressed her strong conviction about a future fruitful cooperation in the frame of COME RES and about the participants’ contribution to the success of the project.
- The representative of the Ministry of Economics encouraged to provide comments and proposals for the Draft Amendments to the Law on Energy.

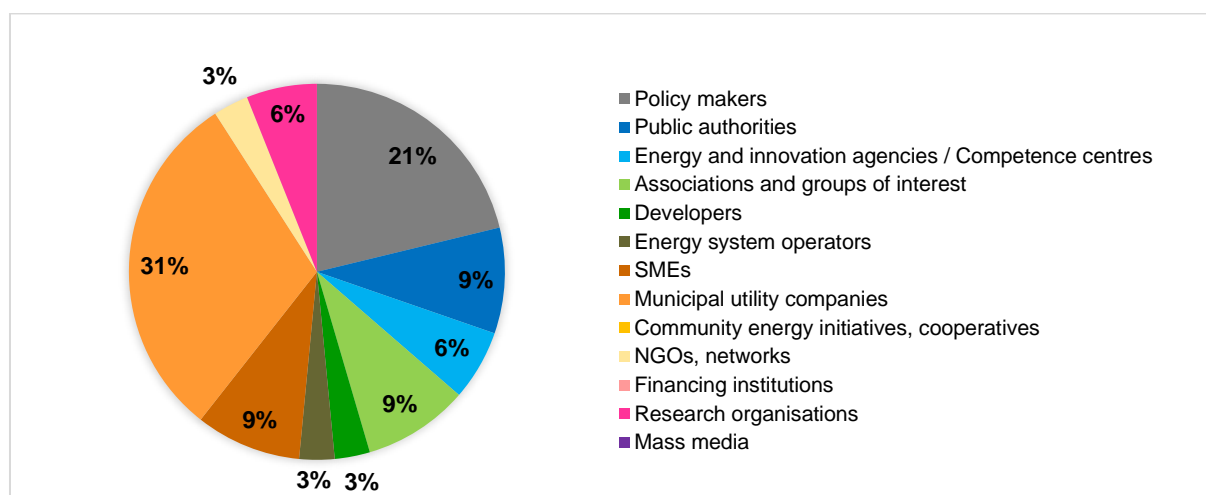
### 3.4.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

The first thematic workshop and policy lab of the Latvian Desk was organized by LEIF and IPE on the 17 June 2021.

The purpose of the combined event was manifold:

- In the first part (Policy Lab) the event took a closer look at the on-going transposition of REDII and IEMD in Latvia and the challenges of legal framework development regarding RECs. The Policy Lab served as an interface between COME RES and the actual policy formulation process in Latvia and facilitated a policy dialogue with policy makers.
- The second part of the event dealt with the REC potential in Latvia and the challenges on how to implement this potential to provide contribution in meeting national renewable energy targets.

The extended group of stakeholders was invited to participate in the event. In total, 36 participants had made the preliminary registration and 28 of them participated in the online event. Including COME RES partners, the event gathered 33 participants, including representatives from the municipalities, regional planning regions and different ministries. 40% of the attendees were female.



**Figure 19 - Breakdown of participants in the 1<sup>st</sup> thematic workshop and policy lab per stakeholder group**

A.Zučika (LEIF) opened the meeting presenting the COME RES project status.

The first part of the event was dedicated to the policy lab. E.Cilinskis, from the Ministry of Economics, presented “Renewable Energy Communities: Draft Amendments to Energy Law (Transposition of RED II), current state and expected implementation”; COME RES project partner I. Azevedo, from INEGI, presented “Legal framework for REC in Portugal and first practices of RECs implementation” and L. Rozentale, from Ministry of Economics, presented “Planned Amendments to Electricity Market Law concerning energy communities (transposition of RED II and IEMD)”. Afterwards, an interactive discussion moderated by COME RES project partners took place.

The second part focused on the development perspectives of REC in Latvia. Energy expert J. Ozoliņš presented “Step-by-step development practice of solar PV project: lessons and challenges relevant for RECs” and I.Kudreņķis (FEI) introduced the REC potential in Latvia and their perspective contribution in meeting national renewable energy targets, as a result of the evaluation performed in the context of the COME RES project. A moderated discussion took place and to conclude this part of the event.

The main highlights of the event are:

- The exchange of experiences with INEGI provided a basis of comparison of the legislative framework implementation process and allowed to learn more on the pilot projects. This was a fruitful addition to Latvia experience. The focused comments done by COME RES coordinator FUB-FFU representative allowed to link the discussions from the workshop with the ongoing tasks of the COME RES project.
- The event revealed and discussed several critical challenges for RECs development in Latvia and, at the same time, marked range of important suggestions to meet them.
- The responsible person of the Ministry of Economics showed his interest in the COME RES potential inputs and encouraged the provision of proposals for the Draft Amendments to the Law on Energy and to the Electricity Market Law.
- It was planned for the Autumn Event of the Latvian Desk to discuss the role of municipalities in organizing the RECs and their perspective on the legal participation in RECs. Also, the results of WP4 – organisational and legal forms and business models will be presented and discussed, as far as possible.
- Currently, the use of PV technology in RECs looks more promising due to various factors (easier installation, lower available installation capacity, etc.). Additionally, there is a solar PV support programme envisaged by the National Development Programme 2021-2027 whose beneficiaries might be RECs as well. On the base of these two factors, the Ministry of Economics representative noted that RECs based on solar PV are the most probable choice.

### 3.4.3. OUTCOMES AND LESSONS LEARNED

The establishment of the Latvian desk has been successful<sup>4</sup>. Both organized events have enjoyed high interest from the stakeholders which have been indicated as the target audience. Events have become informal dialogue forums where, in addition to COME RES project results, current topics such as barriers, drivers and development opportunities for RECs are regularly discussed with relevant actors and stakeholders.

Currently the transposition of REDII and IEMD provisions regarding energy communities are ongoing in Latvia.

Both events have supported the transposition of the provisions by:

- encouraging input to the drafts of the national regulations and policy documents;
- sharing experience and findings from the COME RES project on REC enabling framework;

The solution-oriented stakeholder dialogues offered by the desk provide a unique opportunity for the stakeholders and offer a platform to discuss the COME RES results and their adaptation in Latvia.

---

<sup>4</sup> The Latvian Stakeholder Desk is composed of a core group of 15 stakeholders which is widened up to 30-40 stakeholders for the thematic workshops and policy labs. The core partners of the Stakeholder Desk are ministries (Ministry of Economics; Ministry of Environmental Protection and Regional Development), planning regions, energy agencies, municipalities, the Latvian Association of Local Governments, as well as local partnerships and NGOs.

### 3.5. NORWAY

Within the first 14 months, the Norwegian Desk organised two online events: the kick-off meeting and an event which combined a thematic workshop with a policy roundtable (Table 9).

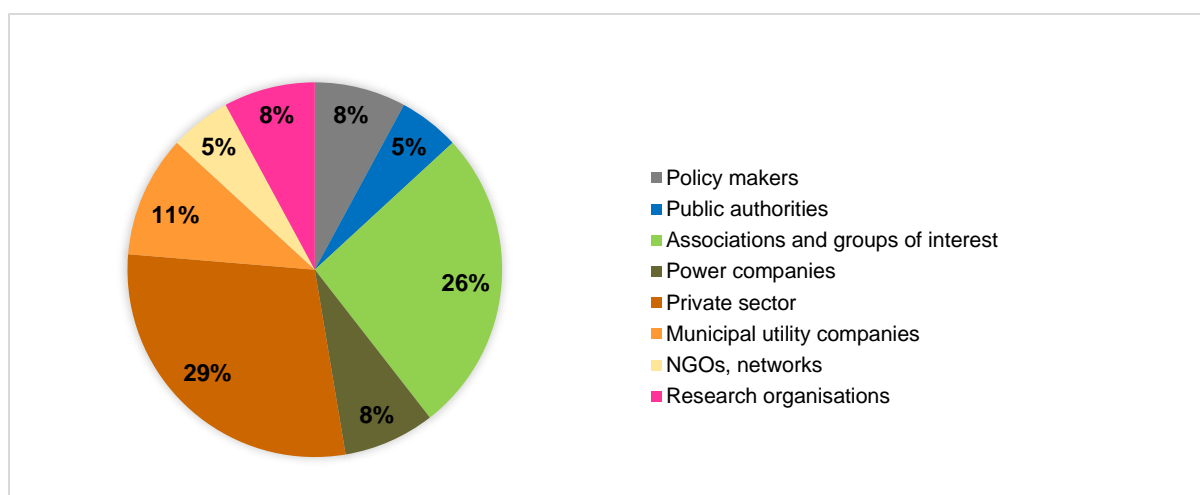
*Table 9 - Overview of COME RES activities held by the Norwegian Desk*

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	14.01.21	Online	Information about COME RES + CICEROs and NVEs role in the project.	38
1 <sup>st</sup> thematic workshop + policy lab	02.06.21	Online	REC in Norway: Opportunities and challenges	80

#### 3.5.1. ACTIVITY 1: Kick-off Meeting of the Norwegian Desk

The kick-off meeting of the Norwegian Desk was held on January 14<sup>th</sup> 2021, online. The main goal of this meeting was to present the COME RES project to the group of stakeholders that integrated the Norwegian Desk and to kick-off the discussion on how to promote the implementation of Renewable Energy Communities in Norway.

The meeting was attended by 38 people, among stakeholders and markets actors, including small scale energy associations, research organisations and energy cooperatives.



*Figure 20 - Breakdown of participants in the kick-off meeting of the Norwegian Desk per stakeholder group*

The meeting started with an introduction of the COME RES project and the purpose of the Norwegian country desk, by Karina Standal, CICERO.

The Norwegian Water Resources and Energy Directorate (NVE), by Anton Eliston also talked about their role in the project, and the current Norwegian regulation for renewable energy communities.

Then some of the participants brought forward about challenges related to the development of renewable energy communities in Norway today and possible business concepts. Particularly challenges related to rooftop solar PV in housing cooperatives and limitations in the current legal framework was taken up.

The meeting participants were given the chance to ask questions after each of the presentations. When all the presentations were over, they were followed by group discussions, where the meeting participants were divided into three groups that each discussed one specific topic:

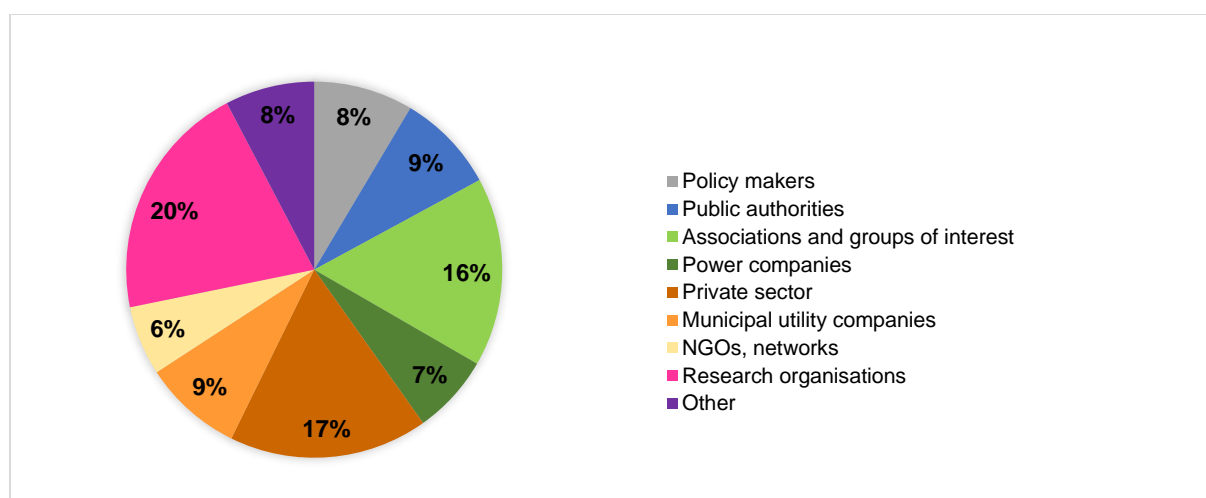
Group 1: In the Norwegian context, how/what would a renewable energy community be? And how does this compare with the EU's definition of a renewable energy community?

Group 2: What kind of business models are possible, which both involve open participation for local citizens and where no single actor would have effective control in decision-making processes?

Group 3: What kind of local competencies would be required for enabling the establishment of renewable energy communities and ensuring good and inclusive processes?

### 3.5.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

The 1st Thematic Workshop and Policy Lab was held on June 2nd 2021, online. There were 116 participants registered. The purpose of the day was to identify current framework conditions in the Norwegian context with relevant stakeholders from local governance, energy sector institutions, research institutions and civil society.



**Figure 21 - Breakdown of participants in the Thematic Workshop of the Norwegian Desk per stakeholder group**

The event had three sessions: An introductory section, where Karina Standal (Senior researcher CICERO) presented the COME RES project, including coming activities and the latest research findings. This was followed by a roundtable organized in two thematic sessions, where stakeholders had the opportunity to discuss selected topics in further detail, including what measures could help facilitate the development of renewable energy communities in a Norwegian context.

#### Part 1: Framework conditions and opportunities for renewable energy communities in Norway

Senior researcher from Fridtjof Nansens Institutt; Marie Byskov Lindberg, presented findings from a study on solar energy production (prosuming) in apartment residential buildings. Tore Meinert from Utsira municipality (both an island and Norway's most isolated municipality) gave a presentation on how municipalities can take the role as facilitators for renewable energy communities.

#### Part 2: Local energy communities and the effect on the electricity system in Norway

Advisor with the regulator RME/NVE, Kjell Rune Verlo, gave a presentation on the establishment of local energy communities in Norway, with a focus on current regulation of grids and energy communities. Researchers Henning Taxt and Andrei Morch from Sintef Energy presented the research projects FINE (funded by Norwegian Research Council) and eNeuron (H2020). The projects research flexible integration of local renewable energy communities into the Norwegian electricity distribution system and tools for optimal design and operation of energy communities in Norway.

Roundtable discussion and panel debate participants: The above mentioned presenters, The Norwegian Solar Energy Cluster Association, The Association of Small-scale Hydropower, The Norwegian residential building country association, Gaia Architects and NELFO (trade association for electro, it, ecom). General audience were also represented, by Grid and power companies, Statkraft, civil society organisations, representatives from political parties, municipalities, technology companies, branch associations, researchers and students in the field.

### 3.5.3. MAIN FINDINGS AND LESSONS LEARNED

The different activities held by the Norwegian Desk were successful in gathering different stakeholder groups involved in the implementation of RECs. Norway is a country that spans different geographies, needs and preconditions regarding renewable energy communities: Energy transition in Arctic Svalbard; energy security and supply in Island communities, growth of local businesses in areas where expanding or upgrading transmission is costly as well as local energy production in cities where there is a rapid increase of Electric Vehicles that give new challenges for supply and flexibility of the electricity system. Therefore, it is so much to learn from the large variation of perspectives and stakeholders that are relevant for renewable energy communities in Norway.

Based on the presentations and the discussions in the panel debates, some aspects stands out and require further work: 1) Knowledge needs. We need to understand better social, financial and technical dimensions, and how these are connected to promote local renewable energy communities into practice; 2) Responsibility. There is a different understanding of who is responsible for driving the development further. 3) Dialogue. To ensure good regulations and framework conditions further, it is important that dialogue is created between different actors and decision-makers to avoid silos thinking or unfortunate consequences for individual industries, consumers and society.

### 3.6. POLAND

Within the first 14 months, the Polish Desk organised two events: the kick-off meeting with national scope and the thematic workshop in the target region (Table 10). Furthermore, the Desk has liaised with complementary projects on energy communities and has been active within an informal group of experts who regularly discuss current topics on citizen energy development in Poland.

**Table 10 - Overview of COME RES activities held by the Polish Desk**

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	27.01.2021	Online	Conditions for development of community energy in Poland	85
1 <sup>st</sup> Thematic Workshop	28.10.2021	Olsztyn	PV installations – a key element of energy communities in Poland	13

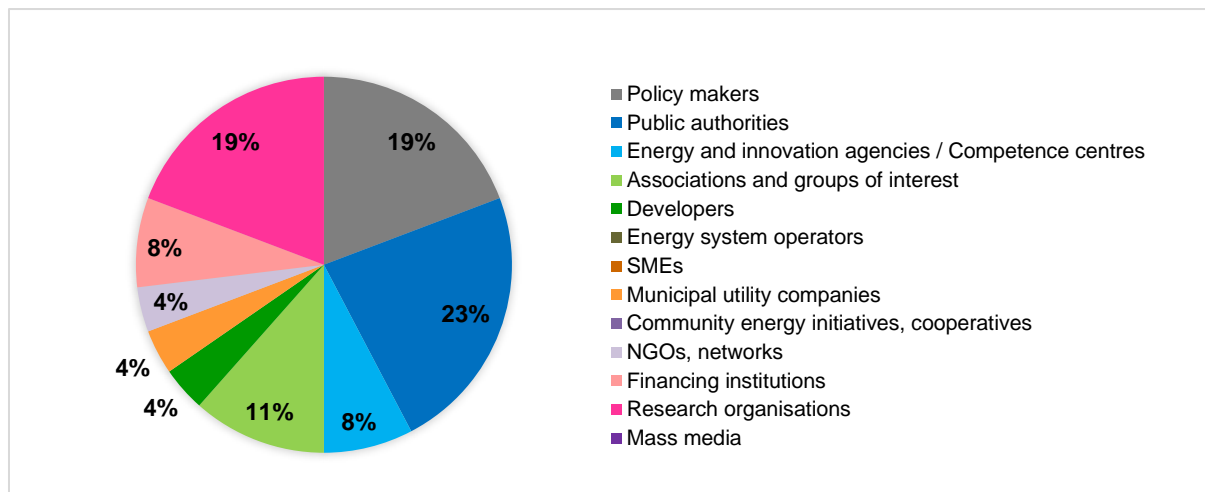
#### 3.6.1. ACTIVITY 1: Kick-off Meeting of the Polish Desk

The kick-off meeting of the Polish Desk was held on 27.01.2021. The main aim of the event entitled “Conditions for development of community energy in Poland” was to present the COME RES project, its objectives, activities and approach, and to discuss the status quo of community energy in Poland in the context of the REDII provisions. The meeting was attended by 85 stakeholders, from the following groups:

- Policy makers (Ministry of Economic Development, Labour and Technology, Ministry of Climate and Environment, and Ministry of National Defence);
- National renewable energy organisations (Alliance of Associations Polish Green Network, Polish Wind Energy Association, and Polish Green Building Council);
- Regional energy organisations (Baltic Agency of Energy Agency);
- Metropolitan areas (Agglomeration Opole Trust, and Gdansk-Gdynia-Sopot Metropolitan Area);
- Energy clusters (Żywiecki Klaster Energii);
- Academia (Warsaw University of Life Sciences, and Silesia University);
- Scientific Institutes (Institute of Power Engineering, Interdisciplinary Division for Energy Analyses of National Centre (IDEA) for Nuclear Research);
- Civic and Social Organisation (Association “SPRING”);
- Banks (Bank of Environmental Protection);
- Regional Fund for Environmental Protection and Water Management – energy advisers;
- PV industry (Bison Energy);
- Technical universities (Silesian University of Technology);
- Public utilities (GPEC Group – Leader of Thermal Industry in Pomerania);

- Local authorities (Municipality of Zalewo, Municipality of Gorlice, Municipality of Bytom, and Municipality of Kościelisko);
- Parliament representatives.

The group of participants was also diverse in terms of the geographical scope of action, having local and national actors. Figure 22 represents the breakdown of the event participants per stakeholder group.



**Figure 22 - Breakdown of participants in the Kick-off Meeting of the Polish Desk per stakeholder group**

During the discussion, several RES community energy research projects and initiatives were presented. One of them, KlastER (Development of distributed energy within energy clusters), is being realised by the consortium composed of the Ministry of Development, the University of Science and Technology (AGH) and the Interdisciplinary Division for Energy Analyses of National Centre (IDEA) in the framework of the GOSPOSTRATEG programme from 2019 to 2021. One of the project's objectives is to develop viable business models for community energy. It was emphasised that a current problem for developing business models is the lack of regulations that would enable any business models for community energy, which would ensure competitiveness in the energy market.

The three factors that influence the development of energy communities were underlined:

- Enabling a regulatory framework;
- Support schemes;
- Awareness and social acceptance.

The network of energy advisors that operates in every voivodeship in Poland, under the Regional Funds for Environmental Protection and Water Management, acts to promote RES and energy efficiency on a local level. This network is an effective tool to raise awareness of local actors and facilitate the development of community energy. The energy advisors are doing so by consulting, advising and participating in conferences, workshops and training for municipal energy managers. The services of energy advisors are free of charge because they are funded by the European Operational Programme Infrastructure and Environment.

It is worth noting the cooperation of KAPE with the Regional Fund for Environmental Protection and Water Management in Olsztyn was already started within the project "WinWind - Winning social acceptance for wind energy in wind energy scarce regions" (2017-2020), and this lively cooperation has

been continued under the COME RES project. This regional fund is from Olsztyn, the target region of the Polish desk.

One of the most valuable inputs was provided by the Director of the Low-Emission Economy Department of the Ministry of Development, Labour and Technology, Mr. Przemysław Hofman. He presented the current status of the regulatory work in detail. He also informed that the work on a proposal for a framework for collective prosumers is almost finished. The Ministry is currently in the stage of receiving confirmation from the Energy Regulatory Office (ERO) and the Ministry of Climate and Environment regarding the project.

There are two models for collective prosumers that are intended to be introduced:

- Virtual prosumption – dedicated to installations that are not physically connected with the owners (energy consumers). A similar model was introduced in Lithuania. In this model, prosumers will have access to some of the privileges that regular prosumers have (e.g. net-metering scheme);
- Collective prosumption – dedicated to multifamily buildings. This model will operate on the same basis as individual prosumers (with the same rights and obligations).

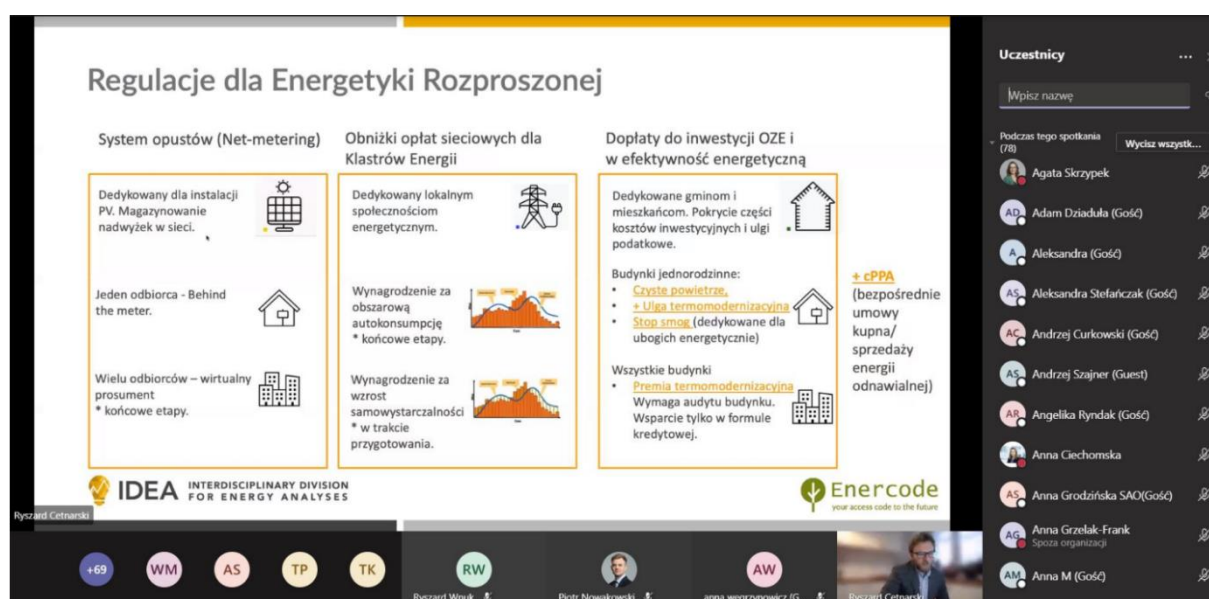


Figure 23– Screen shot of the webinar

At the moment, the draft regulatory framework is being prepared by the Ministry. The authorities want to confirm the impact of such solutions on the budget for the billing manager and RES fees (included in energy bills of final consumers) with the ERO. There is an initial agreement with the institutions that should introduce these solutions in the third quarter of 2021<sup>5</sup>.

### 3.6.2. ACTIVITY 2: First Thematic Workshop

The first thematic workshop was organised by The Polish National Energy Conservation Agency (KAPE) in cooperation with The Regional Fund for Environmental Protection and Water Management in Olsztyn

<sup>5</sup> Currently, the respective Ministries are working on an extensive amendment of the RES Act which should contain solutions for energy clusters, energy cooperatives and also provisions on collective prosumption.

(provider of the LoS and located in the target region). The event was held on the 21<sup>st</sup> October 2021, as a physical meeting in Olsztyn. The workshop targeted the regional energy advisors working for The Regional Fund for Environmental Protection and Water Management in the Warmian-Masurian Province and gathered 13 energy advisors.

The workshop entitled “PV installations – a key element of energy communities in Poland” began with an introduction given by Dr. Ryszard Wnuk, Senior Expert for Renewable Energy Sources (RES) and Energy Efficiency (EE) at KAPE, who introduced the participants to the issues of RES utilisation through different technologies. He presented a variety of RES technologies that could be utilised in order to create self-sustainable energy communities. Furthermore, he presented the synergies resulting from combination of selected technologies. He also illustrated the European PV market in terms of total capacities installed, new capacities and energy produced in selected countries.

As the next agenda item, Piotr Nowakowski, Expert for RES at KAPE, described the origin of COME RES project, underlying the importance of the activities and outcomes that resulted from the previous initiative (WinWind project) conducted by the consortium. He presented an overview of the COME RES project, its objectives, and methodology, explaining the links between the different activities. Piotr Nowakowski also presented the results of the analysis on potential assessment of RECs in target regions. Afterwards, Piotr Nowakowski gave a speech on the topic: “Economic profitability of PV installations – investments being realised by individuals, public entities, small and medium enterprises”. He emphasised the key aspects having impact on economic performance of the investment, i.e.:

- Annual electricity demand;
- Profile of energy consumption;
- Electricity cost;
- Escalation of electricity prices.

He also presented and described business models that are utilised by different entities. These business models include:

- Net-metering scheme;
- Energy auctions;
- Full self-consumption;
- Self-consumption combined with electricity sales.

Then, he presented a model PV installation – prosumer PV installation integrated with the passive building. The results of technical – economic analysis, carried out with the use of a number of technical indicators, calculated on the basis of measurement data from the on-site monitoring system were also presented. The discussion of economic profitability of the investment was based on static (Simple Payback Time) and dynamic economic indicators (Net Present Value, Internal Rate of Return).

The remaining part of the workshop was devoted to a broad discussion on the topic of future of energy communities in Poland.

The first topic discussed with the energy advisers was the provisions for energy cooperatives and energy clusters stipulated by the RES Act. It was pointed out that, at the beginning of this year, the Ministry of Development was responsible for the roll-out of the enabling framework for energy cooperatives, virtual and collective prosumers. The head of the department at the Ministry of Development responsible for

this task was actively involved in the Polish national desk activities. However, in the meantime, this responsibility was hand over to the Ministry of Climate and Environment. The new ministry has started working on a rather new approach, namely further development of energy clusters, and the previous and quite advanced solutions were stopped or postponed.

During the discussion with the energy advisers, the following topics were extensively talked through:

- Energy clusters and community-driven initiatives in the region;
- RES technologies often utilised within energy communities;
- Key drivers for creation of energy community;
- Key actors involved in energy communities;
- Business models available;
- Impact of grants and other incentives on market and prices of RES technologies.

The energy advisors also gave details of several biogas installations which initiated the cooperation of many entities at a local level and became a starting point for the creation of energy clusters. These examples were based on the model where electricity is produced jointly with heat in a CHP unit (fuelled with biogas). In such a model, electricity produced is fed to the grid (sold for the fixed price – Feed in Tariff scheme) and heat is utilised in many cases for heating purposes of public buildings or by private buildings. Such utilisation of heat from the biogas installation decreases public opposition and creates favourable conditions for further cooperation.

Further, the discussion focused on the Investment Programme within the framework of the National Recovery Plan dedicated to RES investments being realised by energy communities. The programme was recently revealed and presented by the Ministry of Development and Technology.

The programme foresees:

- Pre-investment support;
- Horizontal support;
- Investment support.

Estimated number of energy communities benefiting from pre-investment stage is 139 and from investment stage is 10. The first call is foreseen for the first half of 2022.

During the discussion, the assumptions of the programme were also discussed:

- Type of beneficiaries;
- Time horizon;
- Scope of support (eligible activities).

### 3.6.3. ADDITIONAL ACTIVITIES

#### Presentation at the International Seminar of POVERTY project

On 17<sup>th</sup> July 2021, Piot Nowakowski took part as a speaker in the third international seminar organised within the framework of the POVERTY project. During the event entitled “Social Innovation for the energy

transition to tackle energy poverty“, he introduced the COME RES project and gave the presentation “Development of citizen energy in Poland: state of the art and upcoming changes”.

The seminar focused on how to engage local authorities and citizens to raise awareness of the problem of energy poverty and to create systemic solutions beneficial for vulnerable groups. Citizen participation and community co-ownership schemes play an increasingly societal role by fostering citizens’ participation in energy matters and raising acceptance of renewable energy. They can bring tremendous benefits for citizens and communities by bringing them closer to the energy transition and fulfilling Europe’s decarbonisation goals.

### **Liaison with the RENALDO project**

The RENALDO project supports the development of renewable energies by piloting the establishment of energy cooperatives in rural areas and improving the regulatory framework for further disseminating the cooperative model. To do so, the project team is producing a manual on how to set up energy cooperatives and how they work. The specific expertise of the project partners and the practical experience from implementation in Poland itself are discussed and shared through various workshops and conferences with interested participants from the sector who are involved in the project. The project is supported by Poland’s Ministry of Agriculture and Regional Development and Ministry of Climate and Environment.

The Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH is responsible for the overall project management and works closely with the implementation partners: from Germany, the 100 prozent erneuerbare Stiftung (‘100 percent renewable foundation’) and, from Poland, the ACTIVUS Institute of Community Development and the agricultural extension centre in Kuyavia-Pomerania KPODR.

KAPE has liaised with the agricultural extension centre in Kuyavia-Pomerania, responsible for the execution of the RENALDO project. KAPE conducted a series of conversations with KPODR, explaining the approach, objectives and activities of the COME RES project. Given the converging objectives, KAPE and KPODR exchanged the materials on both projects and expressed willingness to cooperate on future events, workshops and transfer activities.

### **Participation in a working group on citizen energy**

In March 2021, Piotr Nowakowski and Ryszard Wnuk joined an informal group of experts of RES and citizen energy in Poland. Within the group there are discussions mainly on upcoming regulatory changes having impact on prosumers and community energy in Poland. The group serves as a platform for exchange of information and opinions on given legislative provisions, technical solutions, strategies in the area of RES and citizen energy.

### **3.6.4. OUTCOMES AND LESSONS LEARNED**

Without a doubt, the Investment Programme can be considered as a strong driver for the development of energy communities. One of the final conclusions was that energy communities need “live” legal provisions and clear regulations for implementation and operation, along with financial support for, at least, the pre-investment stage in order to assess the potential benefits and viability of the investment.

PV is the fastest-growing RES technology in Poland, especially on a micro-scale. This current development is highly stimulated by a dedicated support scheme for prosumers (net-metering scheme) and by additional programmes (mainly the “My Electricity” programme), giving an opportunity to receive investment support either in grant or loan form. The high interest in PV installations, as expressed by many stakeholders, is reflected by the total installed capacity, which according to the Polish Transmission System Operator (PSE) reached 3.66 GW in December 2020.

### 3.7. PORTUGAL

Within the first 14 months, the Portuguese Desk organised two online events: the kick-off meeting and an event which combined a thematic workshop with a policy roundtable (Table 11).

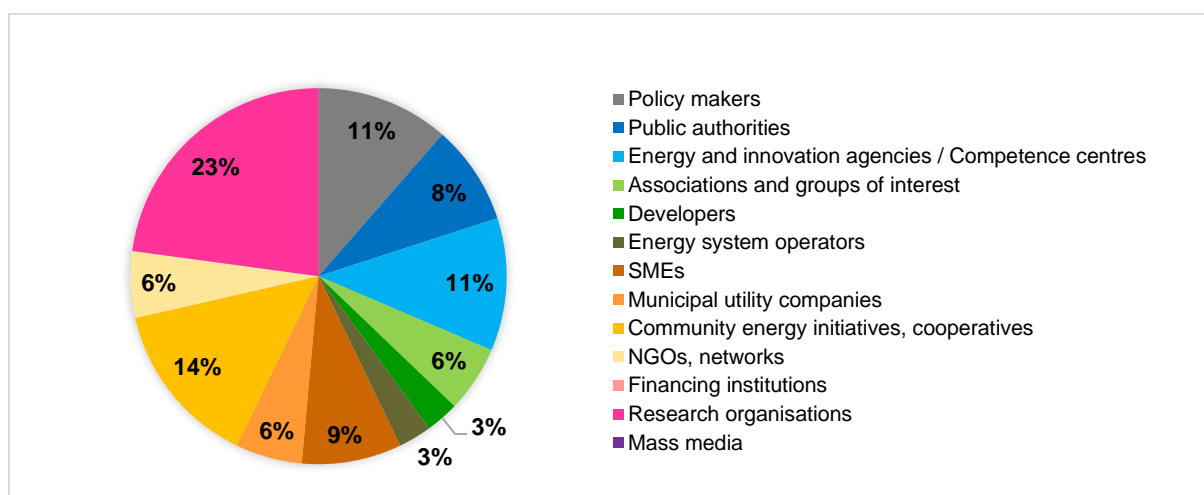
*Table 11 - Overview of COME RES activities held by the Portuguese Country Desk*

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	29.01.2021	Online	RECs in Portugal: Status quo	35
1 <sup>st</sup> Thematic Workshop and Policy Lab	22.06.2021	Online	RECs in Portugal: current context and prospects for the future	132

#### 3.7.1. ACTIVITY 1: Kick-off meeting of the Portuguese Desk

The kick-off meeting of the Portuguese Desk was held on January 29<sup>th</sup> 2021, online. The main goal of this meeting was to present the COME RES project to the group of stakeholders that integrated the Portuguese Desk and to kick-off the discussion on how to promote the implementation of Renewable Energy Communities in Portugal.

The meeting was attended by 35 people, among stakeholders and markets actors, with around 25% of female audience. The group of participants included energy cooperatives, local authorities and energy agencies, systems operators, energy suppliers, research organisations, policy makers and other. Figure 24 shows the disaggregation of the participants per stakeholder group. The group of participants was also diverse in terms of the geographical scope of action, having local and national actors.



*Figure 24 - Breakdown of participants in the Kick-off meeting of the Portuguese Desk per stakeholder group*

The event started with a presentation by Isabel Azevedo (INEGI), focusing on the COME RES project, its objectives and expected results. The intervention also covered the main objectives of the desk itself and the planned desk activities for the project duration. Then, all participants were invited to present themselves, their institution and a small statement on their interest/involvement with community energy

initiatives. The meeting also had space for an intervention by Coopérnico, an energy cooperative, represented by Ana Rita Antunes, who launched an open discussion about the status quo of RECs in Portugal. The discussion between the participants focused mainly on the barriers and challenges to its implementation as well as identifying the potential contributions of the COME RES project.

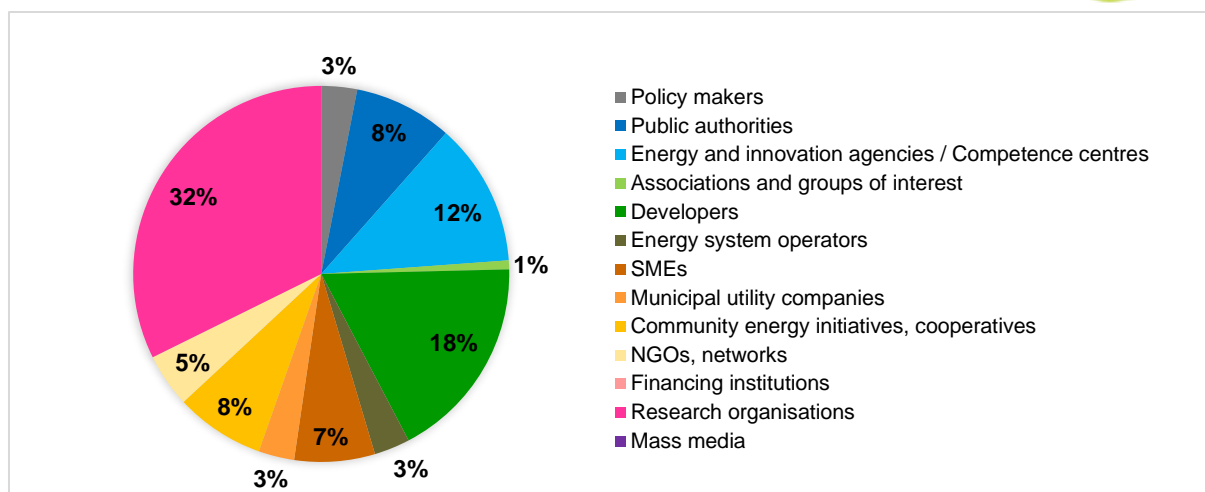
Throughout the discussion, different participants identified **opportunities** for the promotion of RECs, as e.g. potential synergies with energy efficiency and energy poverty related policies. Combining the implementation of RECs with actions towards sustainable mobility, including electric mobility, was also seen as an opportunity to promote RES integration at the local level.

Regarding the main **challenges and barriers** to the implementation of RECs in Portugal, there were identified regulatory, technical, economic and capacity-related barriers as follows:

- **Regulatory barriers:** The lack of a clear definition of key concepts as proximity, energy sharing and the difference between collective self-consumption and REC was mentioned as one of the main regulatory challenges for the implementation and operation of RECs, along with the regulatory uncertainty regarding the rules for connection with the grid and the applicable tax rebates.
- **Technical barriers:** The mostly centralised management of the grid may prompt some challenges to the implementation of local energy initiatives, including RECs. The participants have also identified the delay in the roll-out of smart meters as a potential challenge to the deployment of energy community initiatives.
- **Economic and financing barriers:** The fact that RECs need to fulfil the same requirements as any other market agent to provide system services, including the payment of the global warranty, may be an obstacle to the participation of RECs in the market, even though this could be overcome with the dissemination of the aggregators' role. Alongside, the financing of RECs may be challenging, due to the risks involved in this type of initiatives, centred on collective investments and active participation of individual citizens.
- **Information gaps:** The lack of clear and accessible information may constitute a barrier to massive uptake of citizens in setting up and/or participating in RECs. Information on criteria for establishing a REC, key points on internal contracting rules, available funds and support mechanisms, among others, was mentioned to be essential to democratise the creation and participation in this type of initiatives.

### 3.7.2. ACTIVITY 2: First thematic Workshop and Policy Lab

The 1<sup>st</sup> Thematic Workshop and Policy Lab was held on June 22<sup>nd</sup> 2021, online. There were 132 registered participants, representing over 60 different entities. The audience was composed by a wide set of stakeholders and markets actors, from policy makers to local authorities, energy agencies, systems operators and other, consisting of 22% female and 78% male participants.



**Figure 25 - Breakdown of participants in the Thematic Workshop of the Portuguese Desk per stakeholder group**

The workshop started with a brief presentation of the COME RES project and intermediate results by Isabel Azevedo (INEGI). This was followed by a session dedicated to the topic "RECs in Portugal: from theory to practice", presenting research projects and pioneer initiatives that explore the concept of CER in Portugal. This sharing of experiences allowed for the identification and dissemination of different forms of implementation in the Portuguese context, respective opportunities and difficulties. The speakers included: (1) Inês Campos, Researcher at the cE3c of the University of Lisbon, who presented the main results of the European project PROSEU; (2) Ana Rita Antunes, Coordinator of Coopérnico, who presented the European project Compile, in which Coopérnico will implement a REC in a private condominium, where residents have jointly invested in the installation of PV solar panels; (3) Bruno Carvalho, Project Manager in AdEPorto, presented the Asprela+Sustentável project and the REC concept that will be implemented in the municipality of Porto within this project; and (4) Francisco Gonçalves, CEO of CSide, a software company investing in the development of solutions for the management of RECs. The workshop also included an interactive session where all participants were invited to perform a SWOT analysis of the legal and policy framework applicable to RECs in Portugal. As a starting point for this interactive session, Filipe Pinto, Director of Electricity Services at DGEG, presented the current framework applicable to RECs and collective self-consumption, as well as what are the legal and regulatory actions planned for the near future. Figure 26 shows the result of the SWOT analysis performed by the workshop participants.

The event ended with a policy roundtable, moderated by Jorge Vasconcelos, President of NEWES and former President of ERSE, focused on the transposition of the Directive EU 2018/2001 to Portuguese legislation. The panel was composed by: Filipe Pinto, Director of DGEG's Electricity Services; Margarida Ramires Ramos, pbbbr Consultant in Administrative Law; Manuel Casquijo, Director of ADENE's Programmes and Initiatives Department; and Susana Seródio, Head of APREN's Technical Department. The debate led to the identification of barriers that persist to the implementation of RECs, as well as to the suggestion of incentives and measures which are necessary to ensure the large-scale deployment of community energy initiatives in the Portuguese context.

A more detailed summary of the event is available in the project official website and the full recording of the event can be accessed here (<https://mkt.inegi.up.pt/go/b-84655be875b2bc17b1505fad3703c3086646b5cea7a93273c1e5e22jVeTDSle4keR4>).

Enquadramento legal e político aplicável às Comunidades de Energia Renovável

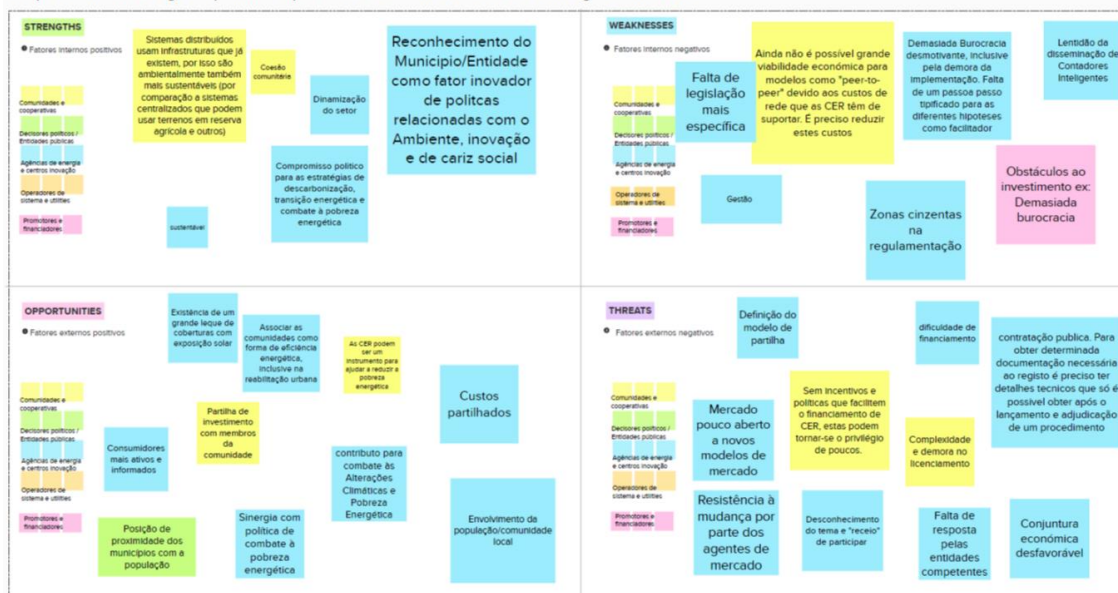


Figure 26– Result from the interactive session held during the Thematic Workshop of the Portuguese Desk

### 3.7.3. OUTCOMES AND LESSONS LEARNED

The different activities held by the Portuguese Desk were successful in gathering different stakeholder groups involved in the implementation of RECs in Portugal, and fostering the discussion on how to develop an appropriate enabling framework, in line with the requirements from REDII. The events also fostered the dialogue between policy makers and different market actors (from local authorities to energy cooperatives), enabling the discussion on the alternative actions that may be taken under the process of transposition of the REDII.

The discussions showed that despite the advances regarding the definition of RECs and the establishment of an appropriate regulatory framework, Portugal is still behind in setting up an enabling framework that promotes and facilitates the development of RECs. Indeed, the first experiences of REC initiatives started appearing in 2021, when the legal concept of RECs was established already in the end of 2019.

Some of the recurring suggestions on the improvement of local conditions and the development of an appropriate enabling framework are as follows:

- The clarification of key definitions concerning RECs, as e.g. “proximity” and “energy sharing among community members”
- The simplification and agility of licensing procedures
- The dissemination of clear information on RECs targeting both individual and collective consumers
- The creation of stable support schemes dedicated to the promotion of RECs

### 3.8. SPAIN

Within the first 14 months, the Spanish Desk organised three online events: the kick-off meeting and two events combining thematic workshops with policy roundtables in the Spanish target regions. Additionally, the desk also held an online focus group consultation.

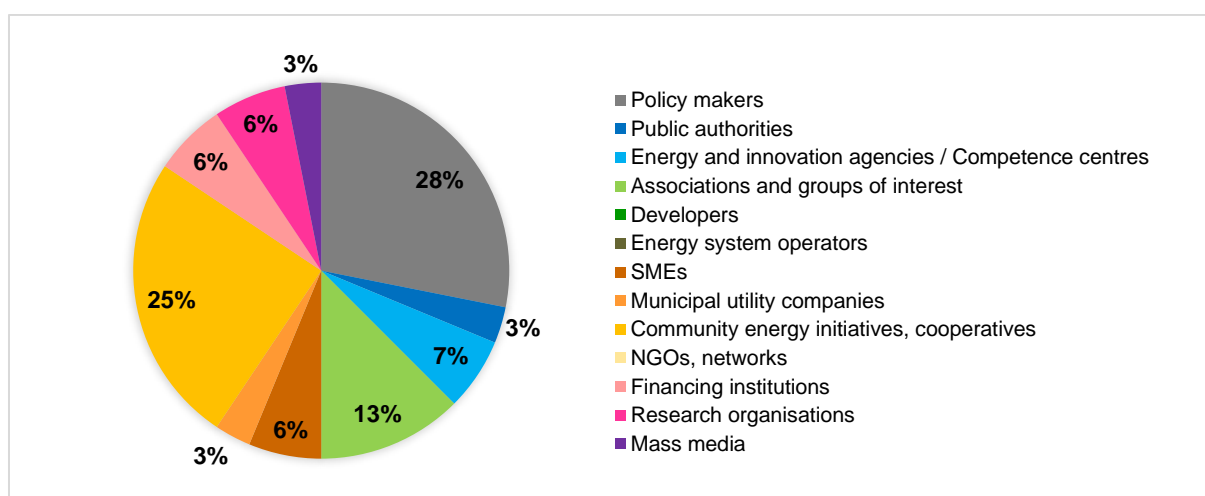
**Table 12 - Overview of COME RES activities held by the Spanish Desk**

Type of Activity	Date	Location	Topic	# of Participants
Kick-off meeting	26.01.2021	Online	State of play of RECs in Spain	37
1 <sup>st</sup> Thematic Workshop and Policy Lab (Canary Islands)	25.05.2021	Online	Policy, regulations and first steps toward REC development in the Canary Islands	75
2 <sup>nd</sup> Thematic Workshop and Policy Lab (Balearic Islands)	30.06.2021	Online	Policy, regulations and first steps toward REC development in the Balearic Islands	51

#### 3.8.1. ACTIVITY 1: Kick-off Meeting of the Spanish Desk

The kick-off meeting of the Spanish Desk was held on January 26<sup>th</sup> 2021, online. The aim of the opening event was to discuss the current status and obstacles to the development of energy communities in Spain with a core group of stakeholders.

The meeting was attended by 37 stakeholders and markets actors, including with around 35% female audience and 36% female speakers. The core group of participants included policy makers at national and regional level, energy cooperatives, research organisations and other. Figure 1 shows the disaggregation of the participants per stakeholder group. The group of participants was also diverse in terms of geographical scope of action, with local, regional and national actors.



**Figure 27 – Breakdown of participants in the kick-off meeting per stakeholder group**

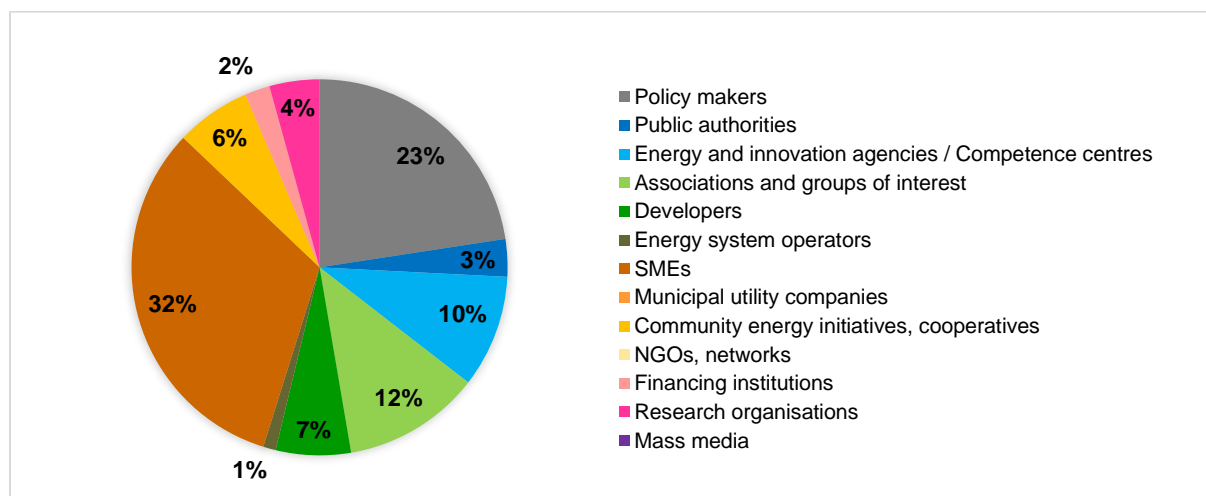
During this first gathering, the Spanish Desk coordinator, Nicoletta del Bufalo (Ecorys Spain) welcomed all participants and briefly introduced the COME RES project. Pouyan Maleki (Ecorys Spain) presented COME RES objectives and highlights. The EU and national legal framework for community energy was addressed by Sara de la Serna, representative of the Spanish Ministry for Ecological Transition's Institute for Energy Diversification and Saving (IDAE).

Regional government representatives of one of the model regions, Comunidad Valenciana, and the two target regions, the Balearic and Canary Islands, presented the status of development of RECs and the main barriers perceived. Moreover, three community energy initiatives and cooperatives from the model region (Comunidad Valenciana) and Navarre were highlighted as ground-breaking, innovative experiences.

An interactive session, moderated by Enrique Rodríguez de Azero (ACER), allowed participants to exchange their views on the existing barriers for REC development in Spain. Irene Alonso (Ecorys Spain) presented the plan of foreseen activities and topics to be addressed in 2021.

### 3.8.2. ACTIVITY 2: First Thematic Workshop and Policy Lab (Canary Islands)

The 1<sup>st</sup> Thematic Workshop and Policy Lab was held on May 25<sup>th</sup> 2021, online. The main goal of the meeting was to identify and study the existing potentials and barriers for the development of RECs in the Canary Islands, as defined in the EU Renewable Energy Directive; to analyse them with the open participation of all stakeholders and to support the process of their acceptance at political-social, community and market level.



**Figure 28 - Breakdown of participants in the 1st Thematic Workshop and Policy Lab per stakeholder group**

To this end, the main processes aimed at the constitution of RECs in the Canary Islands were identified and showcased and, subsequently, a dialogue was generated between the main actors involved to strengthen these experiences, considering that their implementation is still incipient in the archipelago.

The meeting was attended by 75 stakeholders and markets actors (102 registered), including around 31% of female audience and 33% female speakers. The core group of participants included policy makers at regional and island level, who constituted the "target" group of the session; energy and innovation associations and agencies; associations and interest groups; electricity system operators;

SMEs; community energy initiatives and cooperatives; financial institutions, as well as universities. Figure 1 shows the disaggregation of the participants per stakeholder group. The group of participants was also diverse in terms of geographical scope of action, with local, regional and national actors.

The workshop was structured in four thematic blocks, with a cascading approach: firstly, the workshop focused on clarifying key concepts and addressing the confusion (one of the main barriers identified at the beginning of the project) around the definition of a Renewable Energy Community, highlighting its constitutive elements and analysing them in contrast to other actors and legal figures. During this first session, Nicoletta del Bufalo (ECORYS) introduced the objectives and working methodology of the COME RES project, presenting the concept of Renewable Energy Community and the preliminary findings of the first report produced in the framework of the project on the starting conditions at technical, legislative, institutional and political level for the development of RECs. Myriam Castanié (REScoop.eu) focused her CER through the presentation of various case studies in European countries such as the Netherlands, the United Kingdom and Ireland.

Secondly, having established the basic approaches, the question of the legislative framework applicable to RECs was addressed, as well as the existing enabling policy framework, with a "bottom-up" approach: from the European framework, through the national framework, to the regional level:

- 1) Ana María Sánchez Infante (DG ENER), responsible for Renewable Energy Policy and CCS in the European Commission's Directorate-General for Energy, presented the "Clean Energy Package for all Europeans", which aims to place end consumers at the heart of the energy transition. To achieve this, he explained, Member States must provide an "enabling framework" to promote renewable energy communities and ensure access to participation for all consumers;

- 2) Sara de la Serna (IDAE), reported that the transposition of the aforementioned directive, whose deadline is set for 30 June, is still pending in Spain. However, Spanish legislation already includes the figure of renewable energy communities in Royal Decree 23/2020, which in turn provides for the controversial criterion of "proximity" between renewable energy projects and the legal entity that controls them. Over the last year, IDAE has deployed the first support mechanisms, including the expression of interest on renewable energy communities launched during the first quarter of 2021. Likewise, the Recovery, Transformation and Resilience Plan (PRTR) also includes in its policy lever 3 the deployment and integration of renewable energies through the creation of renewable energy communities, for which an amount of 100 million euros has been allocated.

- 3) José Luis Figueroa de la Paz, Head of Cabinet of the Canary Islands Government's Councillor for Ecological Transition, Combating Climate Change and Territorial Planning, summarised the actions in which the Canary Islands Government is currently involved in the field of community energy. Firstly, the issue has been addressed in the draft bill on Climate Change in the Canary Islands, which will be submitted to the government in the near future, article 38 of which provides for the development of energy communities.

Thirdly, through practical examples of both pilot experiences and more developed REC projects, the context of community energy in the Canary Islands was illustrated through different perspectives, including a first case of RECs being developed on the island of Gran Canaria. The CER project Energia Bonita led by La Palma Renovable on the island of La Palma is being given priority by the government.

Finally, a "Policy Lab" interactive session was held with a moderator and 5 participants (representatives from insular governments), aimed at analysing possible synergies between local policies and the

development of RECs. The main barriers and drivers identified during the Policy Lab are presented below:

Barriers identified
There is a mix of concepts (shared self-consumption, distributed generation, micro-grids) that the regulation should help to clarify. The examples given are of great interest.
At present, the concept of RECs is not fully developed in legislation, which is a first barrier to their creation, given the limitations of the current Royal Decree 244/2019 on self-consumption of energy. The establishment of fixed distribution coefficients by legislation means that surplus energy production is returned to the grid with minimal compensation. Since storage is not currently a viable option due to its high cost, the profitability of this type of installation depends on subsidies.
The power limit of 100 kW does not allow, for example, the use of large roofs of public buildings. Also, the limit of 500 m for shared proximity self-consumption could exclude areas with few renewable resources from participating in RECs.
Lack of harmonisation of local regulations, especially as regards criteria and requirements for photovoltaic installations.
Opportunities and drivers for the development of RECs
Proximity and direct line of communication between the regional government and the different projects underway, which are given political priority.
Submission of projects to the Recovery, Transformation and Resilience Funds. For example, the Council of Gran Canaria is strongly committed to the creation of RECs in all the municipalities of the island, having presented projects that amount to a total of 41 MW of power to be installed and 35 MW from industrial estates. Possibility of using the roofs of public buildings.
Growing interest from the local private sector, particularly from business associations on industrial estates, in the constitution of renewable energy communities. Potential benefits associated with the figure of the demand aggregator in distributed energy generation.

### 3.8.3. ACTIVITY 3: Second Thematic Workshop and Policy Lab (Balearic Islands)

The 2<sup>nd</sup> Thematic Workshop and Policy Lab was held on June 30<sup>th</sup>, 2021, online. The main goal of the meeting was:

- To provide clarity and information on the figure of Renewable Energy Communities, the applicable legal framework and the routes for their processing, with a comparative approach at European and national level.
- Describe the current panorama of community energy in the Balearic Islands, giving a voice to the representatives of those initiatives that may represent a "first step" or pave the way towards the constitution of RECs.
- To organise a "Policy Lab" with different social agents at regional level to discuss the existing barriers to the development of Energy Communities in the region, and the relevance of promoting them from the public sector.

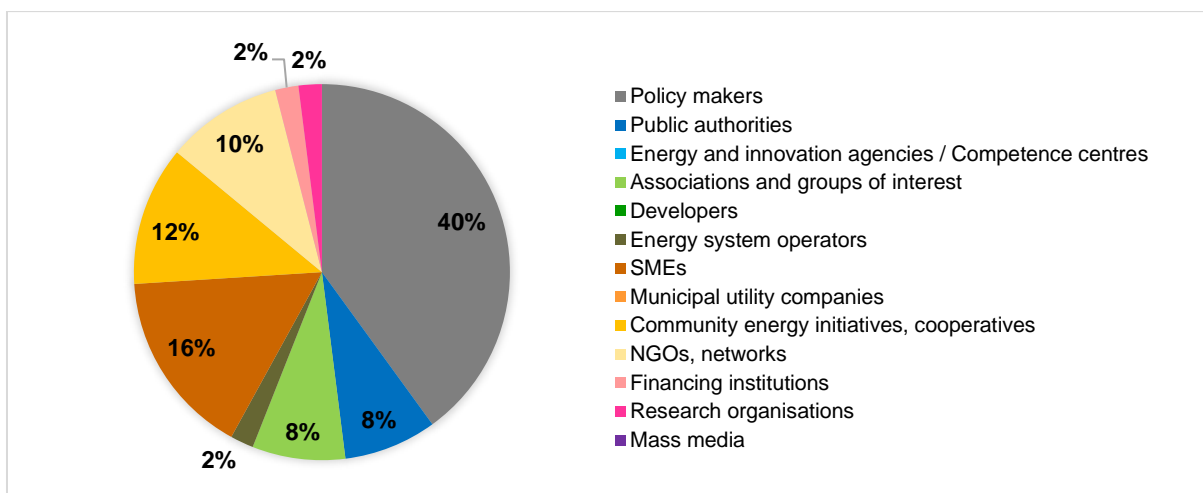


Figure 29 - Breakdown of participants in the 2<sup>nd</sup> Thematic Workshop and Policy Lab per stakeholder group

The meeting was attended by 51 stakeholders and markets actors, including with around 30% of female audience and 50% female speakers. The core group of participants included policy makers at regional and island level, who constituted the "target" group of the session; energy and innovation associations and agencies; associations and interest groups; electricity system operators; SMEs; community energy initiatives and cooperatives; financial institutions, as well as universities. Figure 29 shows the disaggregation of the participants per stakeholder group.

Similarly to the 1st Thematic workshop, the event was structured in four thematic blocks, with a cascading approach: firstly, the workshop focused on clarifying key concepts and addressing the confusion around the definition of Renewable Energy Community (one of the main barriers identified at the beginning of the project), highlighting its constitutive elements and analysing them in contrast to other actors and legal figures.

Secondly, having established the basic approaches, the question of the legislative framework applicable to RECs was addressed, as well as the existing enabling policy framework, with a "bottom-up" approach: from the European framework, through the national framework, to the regional level.

Thirdly, through practical examples of both pilot experiences and more developed REC projects, some of the most commonly observed models in the COME RES model regions in Spain (in particular in the Valencian Community) were illustrated, such as RECs with local government participation through the transfer of public spaces; residential cooperative and agro-photovoltaic models. As an example of the first steps towards the creation of RECs in the Balearic Islands, the case of the incipient initiative developed within the industrial estate of Sant Lluís (Menorca) was taken as a model.

Finally, an interactive discussion session or "policy lab" was held with a moderator and 6 participants, structured around a series of questions aimed at analysing possible synergies between local policies and the development of RECs, with the following conclusions:

Question 1: What do you consider to be the main barriers to the development of Renewable Energy Communities in the Balearic Islands at present?
Lack of information and lack of knowledge on the part of the different actors who should be promoting this type of initiative is considered the most recurrent barrier.
Lack of previous experience in public-private partnerships and other new initiatives, which are poorly rooted in the legal tradition of the autonomous community.
Stakeholders are stuck in a way of understanding energy as either grid consumption or individual installations, which constitutes a cultural barrier.
Lack of interest from different actors, be they public or private entities Small municipalities face legislative barriers related to the uses that can be made of municipal public spaces which, in the case of needing modifications, cause delays in the processing of this type of projects.
Territorial tension in the Balearic Islands due to the scarcity of developable areas
Lack of human resources with the necessary training and technical skills in small municipalities Excessive bureaucracy that hampers processing, where the lack of harmonised/unified procedures in different regions and municipalities stands out, as well as the lack of clarity in the information transmitted by the administration.
"Fear" of the apparent complexity of such projects
Definitive and concrete regulations are developing very slowly, leading to confusion about the role of different actors (e.g. marketers).
There is a lack of pedagogical momentum and examples of RECs in the region that would help the partner to understand what the direct benefits of RECs could be and lead to the creation of new projects with replicability potential. To this end, local councils are a key lever.
Strong lack of cooperative tradition and individualism.
Difficult access to RECs for economically vulnerable people, who lack the resources/savings to make the necessary investment.

**Question 2: Do you think that Energy Communities should receive a boost or support at regional, island and/or local level? What should this support consist of and why?**

Yes, the Balearic Energy Institute is actively involved in providing technical, administrative and legal advice on the projects submitted to them. A framework document has also been drawn up, which could serve as the basis for a model internal agreement in an energy community, and a web page will soon be made public. There are also plans to publish guidelines for citizen projects, as well as the possibility of investing as a stakeholder in REC projects, which is foreseen in the IBE statutes, with returns being reinvested in new projects. A call for pilot grants for energy communities has also been launched. Finally, the possibility of ceding public spaces and roofs for renewable installations is foreseen.

Yes, what is public belongs to everyone, therefore, if there is a popular petition in favour of the creation of RECs, the minimum is that public entities make available the spaces of all for these uses and be subsidiary to the energy facilitation. In the same way that street lighting is guaranteed, it could also be considered a public service to guarantee a minimum energy supply to vulnerable families and groups in need. This would contribute to building a sense of community and belonging to society.

Yes, guaranteeing energy supply to vulnerable households is a great advantage. Municipalities could play a role by being beneficiaries of part of the production of a REC, and distributing it to the neediest sectors (based on socio-economic data that only these entities have). This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953040. The sole responsibility for the content of this document lies with the COME RES project and does not necessarily reflect the opinion of the European Union. Also, municipalities have an important role to play in informing citizens, enabling them to be self-convinced.

Yes, the public administration should be a benchmark for this type of project. Especially in solar self-consumption, there are many public areas that can be used to supply energy to citizens in the surrounding area (currently within a radius of 500m, which is expected to be extended). From a practical point of view, if the public administration implements these projects, citizens will be able to check their viability, producing a "call effect". As good practices in other autonomous communities, the creation of energy advice offices for citizens stands out. The MES (Mechanism for Sustainable Energy) programme in Barcelona is a good example of this.

Yes, municipal urban planning regulations must be adapted, assuming the declaration of a climate emergency, in order to be able to promote this type of project as a matter of urgency. Municipalities in Mallorca such as Sóller, for example, make self-consumption difficult due to this type of regulation.

Yes, public administrations should inform about what RECs are, about existing aids, mainly through local councils and aimed at raising awareness among private actors at the micro level (SMEs, homeowners' and residents' associations). A good practice to take into account is the experience of the Balearic Housing Institute in advising on the constitution of housing cooperatives.

### 3.8.4. OUTCOMES AND LESSONS LEARNED

As main outcomes of the activities carried out in year 1, the Spanish Desk has ensured the active involvement of a wide range of actors across the stakeholder spectrum matrix, with a focus on (local) policy makers, associations, energy cooperatives, NGOs and networks, SMEs specialised in renewable energy, etc. From a geographic point of view, different levels of stakeholders have been mobilised (national, regional -Autonomous Communities-, insular and local).

Moreover, thanks to the activities of the Spanish Desk, an array of relevant processes leading to the creation of RECs in both target regions have been identified. For instance, in the Canary Islands, a REC project "Energía Bonita" in La Palma is ongoing, along with discussions to create additional RECs in rural and industrial areas. In the Balearic Islands, evidence has been collected on an early-stage REC project in the industrial park "Sant Lluís" in Menorca. As a follow-up and in order to build strong links with the promoters of these projects, informal brainstorming meetings are being scheduled in October-November 2021.

The regional-based Thematic Workshops and Policy Labs have provided insights on the possible improvement of local conditions and the development of an appropriate enabling framework. These findings are intensely nurturing the work carried out in the framework of work packages running in parallel (WP2, WP4 and WP5), and they include:

- **Legal:** Despite the current institutional climate of support and promotion for the development of RECs, consulted stakeholders repeatedly refer to the need for urgent regulatory development to provide actors with the necessary legal certainty to undertake community energy projects (many of which are already in the planning and development phase). Although the government has promoted different support measures, the transposition of RED II directive is still pending in Spain.
- **Social:** It is also widely acknowledged that local institutions need to make an intense effort to disseminate this type of initiative, given the general lack of knowledge. In this sense, a local dissemination initiative with great potential for replicability is currently being set up in the Canary Islands, which is supported by the Associations of Property Administrators.
- **Technical:** In the target regions, both of which are island regions, the territorial limitation calls for innovative solutions for the development of RECs. As main alternatives, stakeholders point toward the already built urban space (e.g. PV on the roofs of public buildings, parking, etc.), or profiting from marine renewable energies (e.g. offshore wind).

## 4. CONCLUSIONS AND NEXT STEPS

Overall, the events and activities held by the country desks within the first 14 months of the project have successfully accomplished their proposed objectives (as described in the Grant Agreement and in the Deliverable D3.1), including the active involvement of a wide range of stakeholders in order to:

- Gather and share relevant information – Within the multiple activities held by the country desks, partners were able to gather information on the status quo and existing framework applicable to RECs, as well as on potential barriers and drivers. An effort was made to allow the sharing of information with a wide range of stakeholders, through the inclusion of invited speakers on the events' agendas and by fostering open discussion between the different stakeholders.
- Offer insight on context-appropriate approaches – Desks have shown to be useful to collect context-specific information, namely regarding existing barriers and drivers in the different COME RES countries. The assessment of the adequacy of different technologic solutions, business models, and the role of the different stakeholders in the establishment of RECs has also been accomplished within the different desks.
- Disseminate findings – Besides the contribution to various project tasks and activities, country desks have also supported the dissemination of project findings at the regional and national level. This has been achieved through the presentation of project's results in the activities held by the desks and through the contribution of the desks in the preparation and dissemination of the communication and dissemination materials.

The level of **involvement of stakeholders** in the activities carried out has been considerable, and has been characterised by the active participation of a wide set of stakeholder groups in all the eight desks. Most desks have been able to involve a large number of policy makers and public authorities, as well as energy community initiatives and cooperatives. Associations and groups of interest, and research institutions, have also adhered to the country desks' activities. Financing institutions and mass media seem to be the groups with the smallest level of participation. Moreover, a relatively gender balanced participation was achieved, with a minimum of 22% of female attendees, ensuring a gendered perspective on the different topics discussed within the country desks' activities.

In terms of **expected outputs, milestones and impacts**, the accomplished activities of the country desks are fully aligned with the expected indicators, as described in the Grant Agreement, namely:

- Number of regular desk meetings – All desks already held at least one of the three expected regular desk meetings, the kick-off meeting. The German desk held an additional meeting, the Status Meeting to provide feedback to stakeholders on recent project developments and discuss possible policy changes and their impact on RECs following the national election.
- Number of thematic workshops – The first series of thematic workshops was successfully carried out by the end of month 14 (Milestone MS5), with a thematic workshop being held by each of the country desks. The Spanish desk carried out two thematic workshops, one in each of the target regions.
- Number of active participants in the country desks – The level of participation in all the country desks' activities exceeded the KPI of at least 15 per country. Additionally, the involvement of relevant stakeholders in the organised workshops also exceeded the minimum of 20 per country.

- Political recognition of the project – Desks were able to involve politicians, administrations and policy advisory organisations in the country desks and policy labs, exceeding the minimum of 2 policy makers per country being involved in the policy labs. Indeed, **the level of participation of policy makers ranged from 3 to 19 policy makers in the policy labs.**

Country desks' activities have been accompanying the development of the remaining project activities, **nurturing the work carried out within the other work packages**, namely WP2, WP4, WP5 and WP7. This close link with the other project activities is key to ensure the continuous dialogue with stakeholders and market actors throughout the whole project.

Furthermore, the country desks have provided relevant **inputs into policy making**, directly contributing to the ongoing policy developments associated with the transposition of REDII into national legislation. The policy roundtables have created a forum for the discussion of the national transposition processes, allowing other stakeholders and market actors to express their perspective on the current framework and future developments. Policy makers were also engaged in activities focusing on the development of an adequate enabling framework, adapted to the context and able to create a level playing field for the implementation of REC initiatives. Within these events, policy makers were able to communicate expected future development (including e.g. the creation of specific support schemes) and other stakeholders could share their perspective on those specific actions, as well as to proposed additional actions, which they consider to be necessary.

## What comes next?

On the second half of the project, the country desks are expected to continue contributing to the engagement of a wide range of market actors and stakeholders, ensuring the relevance and robustness of the project outputs. This will be accomplished through the organisation of additional activities including: regular desk meetings, a new series of thematic workshops and policy labs, and the co-creation of action plans for the implementation of RECs in at least four target regions. Additionally, it is planned to launch a stakeholder consultation process in each of the COME RES countries.

Moreover, desks activities are expected to continue contributing to the work carried out within the other work packages, namely WP4 (supporting the assessment of new business models), WP5 (approving the selection of best practices), WP6 (testing the sustainability scorecard and the RECs platform) and WP7 (keeping up to date with policy developments).

Regarding the provision of inputs to policy making, previous desk activities hinted that the major contribution to policy making in the future must be associated with the definition of enabling frameworks, adapted to the local contexts.

# ANNEXES

## A1. AGENDAS FROM BELGIUM-NETHERLANDS DESK ACTIVITIES

### A1.1. ACTIVITY 1: Kick-off Meeting

10.00 – 10.10 | Welkom & praktische afspraken  
(Erika Meynaerts, VITO)

10.10 – 10.30 | Voorstelling van het COME RES project  
(Erik Laes, TU Eindhoven & Erika Meynaerts, VITO)

10.30 – 11.50 | Energiegemeenschappen in Vlaanderen: huidige en toekomstige status  
(Janka Vanschoenwinkel, VITO)

10.50 – 11.00 | Vragen

11.00 – 11.10 | Pauze

11.10 – 11.30 | Beleidskader hernieuwbare energiegemeenschappen in Nederland  
(Simone van Sligter & Marije Veer, Ministerie van Economische Zaken)

11.30 – 11.40 | Vragen

11.40 – 11.50 | Pauze

11.50 – 12.40 | Break-out sessies: barrières en drijfveren voor hernieuwbare energiegemeenschappen in Vlaanderen en Nederland

12.40 – 13.00 | Wrap up & volgende stappen  
(Erik Laes, TU Eindhoven)

## A1.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

9u00 – 9u10: Welkom & agenda van de dag

9u10 – 9u30: LICHT Vlaams-Brabant: Lokaal Initiatief voor Hernieuwbare Transitie  
(Hilde Hacour – Provincie Vlaams-Brabant)

9u30 – 9u50: Burgerparticipatie en publiek-private samenwerking versnellen klimaattransitie  
in Oost-Brabant  
(Leo D’haese – ECoOB)

9u50 – 10u10: Aanjagen – exploiteren – verbinden  
(Martijn Messing – projectleider Programma sociale innovatie, Samenwerking provincie  
Brabant/Enpuls)

10u10 – 10u30: Verschillende kijken op de stimulering van energiegemeenschappen in de  
Nederlandse context van meerlagig bestuur  
(Rien de Bont – TUEindhoven)

10u30 – 10u50: Panel debat

11u00 – 11u10: Inleiding van het policy lab

11u10 – 11u50: Policy lab break-out sessies

11u50 – 12u0: Plenaire feedback & verdere stappen

## A2. AGENDAS FROM GERMANY DESK ACTIVITIES

### A2.1. ACTIVITY 1: Kick-off Meeting

# Agenda

**Moderation:** Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit

- |              |  |
|--------------|--|
| <b>09:30</b> | <b>Begrüßung</b><br>Dr. M. Rosaria Di Nucci, Freie Universität Berlin, Forschungszentrum für Umweltpolitik<br>Prof. Dr. Dieter Sell, Thüringer Energie- und GreenTech-Agentur (ThEGA)  |
| <b>09:40</b> | <b>Kurzvorstellung der Teilnehmenden durch die Moderatorin</b>   |
| <b>09:50</b> | <b>Das Projekt COME RES: Zielsetzungen, Aufgaben, Einordnung und Rolle des Ländertisches</b><br>Dr. M. Rosaria Di Nucci, Freie Universität Berlin, Forschungszentrum für Umweltpolitik   |
| <b>10:00</b> | <b>Der europäische Rechtsrahmen für Energiegemeinschaften</b><br>Michael Krug, Freie Universität Berlin, Forschungszentrum für Umweltpolitik   |
| <b>10:10</b> | <b>EEG-Novelle 2021 – die Perspektive der Energiegenossenschaften auch mit Blick auf die Erneuerbare-Energien- und Elektrizitätsbinnenmarkt-Richtlinie</b><br>René Groß, Bundesgeschäftsstelle Energiegenossenschaften, Deutscher Genossenschafts- und Raiffeisenverband e.V. (DGRV) |
| <b>10:25</b> | <b>Diskussion</b>  |
| <b>10:35</b> | <b>Rahmenbedingungen für Bürgerenergie in der COME RES-Zielregion Thüringen</b><br>Ramona Rothe, ThEGA, Servicestelle für Windenergie  |
| <b>10:45</b> | <b>Impuls 1: Hemmnisse, Problemfelder und Beispiele guter Praxis in Thüringen</b><br>Prof. Reinhard Guthke und Marcel Schwalbach, BürgerEnergie Thüringen e.V.   |
| <b>10:55</b> | <b>Diskussion</b>  |
| <b>11:05</b> | <b>Rahmenbedingungen für Bürgerenergie in der COME RES-Modellregion Schleswig-Holstein</b><br>Angelika Behlig und Milena Schulz-Gärtner, Ministerium für Energiewende, Landwirtschaft, Umwelt, Natur und Digitalisierung Schleswig-Holstein  |
| <b>11:20</b> | <b>Impuls 2: Hemmnisse, Problemfelder und Beispiele guter Praxis in Schleswig-Holstein</b><br>Nicole Knudsen, BWE Landesverband Schleswig-Holstein   |
| <b>11:30</b> | <b>Diskussion</b>  |
| <b>11:45</b> | <b>Pause</b>   |
| <b>12:00</b> | <b>Interaktive Sitzung zu Rahmenbedingungen, Hemmnissen, Problemlösungen</b><br>Moderation: Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit   |
| <b>13:00</b> | <b>Identifizierung von möglichen Themen für die kommenden Sitzungen und thematischen Workshops in 2021 und 2022</b><br>Michael Krug, Freie Universität Berlin, Forschungszentrum für Umweltpolitik   |
| <b>13:10</b> | <b>Diskussion</b>  |
| <b>13:30</b> | <b>Resümee</b><br>Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit<br>Dr. M. Rosaria Di Nucci, Freie Universität Berlin, Forschungszentrum für Umweltpolitik   |
| <b>13:45</b> | <b>Ende der Veranstaltung</b>  |

## A2.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

# Agenda

**Moderation:** Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit

<b>09:15</b>	Eröffnung des Konferenzraums, Technikcheck
--------------	--

## Begrüßung und Einführung

<b>09:30</b>	Begrüßung <i>Dr. M. Rosaria Di Nucci, Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i> <i>Prof. Dr. Dieter Sell, Thüringer Energie- und GreenTech-Agentur (ThEGA)</i>
<b>09:40</b>	Einführung in den Workshop <i>Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit</i>
<b>09:50</b>	Einführung in das COME RES-Projekt, Erkenntnisse der Auftaktveranstaltung im Dezember 2020, aktuelle Projektaktivitäten <i>Dr. M. Rosaria Di Nucci, Michael Krug, Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i>
<b>10:10</b>	Anforderungen der Erneuerbare-Energien-Richtlinie in Bezug auf Energiegemeinschaften <i>Ana Maria Sanchez Infante, Europäische Kommission, GD ENER</i>
<b>10:30</b>	Umsetzung der Energiewende in den Regionen, Städten und Gemeinden <i>Bernd Voß, Europäischer Ausschuss der Regionen, MdL Schleswig-Holstein</i>
<b>10:45</b>	Diskussion

## Umsetzung der Erneuerbaren-Energien-Richtlinie: Fokus Energiegemeinschaften

<b>11:10</b>	Bewertung und Ausblick zur Umsetzung der Erneuerbare-Energien-Richtlinie und deren Bestimmungen zu Energiegemeinschaften in Deutschland <i>Klaus Mindrup, MdB, SPD, Beauftragter für Genossenschaften</i>
<b>11:20</b>	Umsetzung der Erneuerbare-Energien-Richtlinie: Vorschläge zum Energy-Sharing <i>Malte Zieher, Bündnis Bürgerenergie</i>
<b>11:35</b>	Werden die Besonderheiten von Erneuerbare-Energie-Gemeinschaften bei der Förderung erneuerbarer Energien ausreichend berücksichtigt? <i>Dr. Philipp Leander Wolfshohl, Bundesnetzagentur</i>
<b>11:50</b>	Diskussion
<b>12:15</b>	Mittagspause

## Interaktive Sitzung: Bedeutung der EE-Richtlinie für die Entwicklung von Erneuerbare-Energie-Gemeinschaften in Thüringen und Schleswig-Holstein

<b>12:45</b>	<p>Diskussion von gemeinsamen Leitfragen</p> <ul style="list-style-type: none"> <li>- Welchen <b>Handlungs- und Optimierungsbedarf</b> besteht in Bezug auf die konkrete Umsetzung der EU-Richtlinie?</li> <li>- Welches sind <b>Entwicklungspotenziale</b> für EE-Gemeinschaften in Thüringen und Schleswig-Holstein im Bereich der Windenergie und darüber hinaus?</li> <li>- Wie können <b>Bundesländer</b> und <b>Kommunen</b> die Entwicklung von EE-Gemeinschaften unterstützen?</li> </ul>
--------------	---

## Virtueller Runder Tisch mit EntscheidungsträgerInnen aus Politik und Verwaltung

<b>13:45</b>	<p><b>Thema: Wie können Bund, Länder und Kommunen die Entwicklung von Erneuerbare-Energie-Gemeinschaften unterstützen und voranbringen?</b></p> <p><i>Ana Maria Sanchez Infante, Europäische Kommission, GD ENER</i>  <i>Tobias Goldschmidt, Staatssekretär im Ministerium für Energiewende, Landwirtschaft, Umwelt, Natur und Digitalisierung des Landes Schleswig-Holstein</i>  <i>Klaus Mindrup, MdB, SPD, Beauftragter für Genossenschaften</i>  <i>Markus Gleichmann, MdL Thüringen, Die Linke und Europäischer Ausschuss der Regionen</i>  <i>Laura Wahl, MdL Thüringen, Bündnis 90/Die Grünen</i>  <i>Hans-Jürgen Weidt, Bürgermeister der Gemeinde Werther, Thüringen</i>  <u>Moderation:</u> <i>Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit</i></p>
<b>15:30</b>	<p>Zusammenfassung der Ergebnisse</p> <p><i>Dr. M. Rosaria Di Nucci, Michael Krug</i>  <i>Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i></p>
<b>15:45</b>	<p>Ende der Veranstaltung</p>

## A2.3. ACTIVITY 3: Status Meeting

# Agenda

## Statustreffen des Ländertisches im Rahmen des Horizon 2020-Projektes COME RES

*Energiegemeinschaften - Potenziale, Geschäftsmodelle, Good Practice*

**ORT/DATUM:** Online-Veranstaltung am Donnerstag, den 30. September 2021, 13:00-17:30 Uhr

**Moderation:** Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit

<b>12:50</b>	Eröffnung des Konferenzraums, Technikcheck
--------------	--

### Begrüßung und Einführung

<b>13:00</b>	Begrüßung <i>Dr. M. Rosaria Di Nucci, Freie Universität Berlin, Forschungszentrum für Umweltpolitik Prof. Dr. Dieter Sell, Thüringer Energie- und GreenTech-Agentur (ThEGA)</i>
<b>13:10</b>	Einführung in die Veranstaltung <i>Dr. Bettina Knothe, Beraterin für Teilhabeorientierte Nachhaltigkeit</i>
<b>13:20</b>	Aktueller Stand des COME RES-Projektes und Ziele des heutigen Treffens <i>Dr. M. Rosaria Di Nucci, Michael Krug, Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i>

### Zwischenergebnisse und aktuelle Aktivitäten im Projekt COME RES

<b>13:35</b>	Analyse von Potenzialen für Erneuerbare-Energie-Gemeinschaften in den COME RES-Zielregionen <i>Michael Krug, Vincenzo Gatta, Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i>
<b>13:55</b>	Modelle für Erneuerbare-Energie-Gemeinschaften <i>Dr. Dörte Fouquet, Johannes Vollmer, Becker Büttner Held</i>

### Energiegemeinschaften: Good Practice-Beispiele

<b>14:15</b>	Windpark Uthleben: Kooperation von Stadtwerken und Energiegenossenschaften <i>Thomas Mund, Stadtwerke Nordhausen</i>
<b>14:35</b>	Bürgerprojekte im hohen Norden: Wind und Sonne gemeinsam nutzen <i>Horst Leithoff, BWE-Landesverband Schleswig-Holstein, Bürgerwindpark Grenzstrom Vindtved</i>
<b>14:55</b>	Die Energielandwerker eG in Nordrhein-Westfalen <i>Thomas Voß, Die Energielandwerker eG</i>
<b>15:15</b>	Pilotprojekt zur Umsetzung von Energy Sharing <i>Prof. Jens Lowitzsch, Viadrina-Universität Frankfurt (Oder)</i>
<b>15:35</b>	Diskussion

16:25	Pause
-------	-------

### **Förder- und Regulierungsrahmen für Erneuerbare-Energie-Gemeinschaften**

16:40	Umsetzung der Erneuerbare Energien-Richtlinie: Perspektiven nach den Bundestagswahlen <i>Dr. Julia Verlinden, Bündnis 90/Die Grünen</i>
17:00	Anforderungen an einen Bürgerenergiefonds in Thüringen <i>Prof. Dieter Sell, Thüringer Energie- und GreenTech-Agentur (ThEGA)</i>

### **Zusammenfassung und Ausblick**

17:20	Zusammenfassung der Ergebnisse und Ausblick <i>Dr. M. Rosaria Di Nucci, Michael Krug</i> <i>Freie Universität Berlin, Forschungszentrum für Umweltpolitik</i>
17:30	Ende der Veranstaltung

### A3. AGENDAS FROM ITALY DESK ACTIVITIES

#### A3.1. ACTIVITY 1: Kick-off Meeting

##### Programma

**COME RES – KICK OFF MEETING DESK ITALIANO  
COSTRUIAMO LE COMUNITA' ENERGETICHE RINNOVABILI  
21 gennaio 2021**

Orario	PROGRAMMA
09:55	Avvio della connessione da remoto
10:00	Introduzione ai lavori - Giorgio GRADITI, Direttore Dipartimento Tecnologie Energetiche e Fonti Rinnovabili (TERIN) ENEA
<b>Sessione 1 – Stato dell'arte e Prospettive Modera Elena De Luca, ENEA</b>	
10:05	Il progetto COME RES -Maria Rosaria Di Nucci, Coordinatrice progetto COME RES, Freie Universität Berlin (FUB)
10:10	Il DESK nazionale per le comunità energetiche - Elena De Luca, ENEA
10:20	Verso il recepimento della REDII in Italia - Gianni Girotto, Presidente della X Commissione Industria Commercio e Turismo del Senato
10:30	Policy per l'autoconsumo collettivo e le comunità energetiche – Stefano Raimondi Ministero per lo Sviluppo Economico (MISE)
10:40	Iter procedurale per la costituzione delle comunità energetiche - Gennaro Niglio, Direttore Sviluppo e Innovazione Gestore Servizi Energetici (GSE)
10:50	Le comunità energetiche in Italia: buone pratiche e modelli di business - Fabio Armanasco, Project Manager Ricerca di Sistema Elettrico (RSE)
11:00	L'integrazione delle tecnologie da fonti rinnovabili - Arturo De Risi, Presidente Distretto Tecnologico Nazionale sull'Energia (DITNE)*
11:10	Question Time - Domande e Risposte
<b>Sessione 2: Un territorio in movimento Modera Massimo Bastiani, Ecoazioni</b>	
11:20	Il coinvolgimento attivo delle Comunità locali: strumenti di dialogo e partecipazione - Massimo Bastiani, Ecoazioni
11:30	Il percorso intrapreso in Piemonte - Silvia Riva, Dirigente Settore Sviluppo Energetico Sostenibile Regione Piemonte
11:40	Il percorso intrapreso in Puglia - Domenico Laforgia, Direttore Dipartimento Sviluppo Economico Regione Puglia
11:50	Le ricadute ambientali e sociali delle comunità energetiche - Katiuscia Eroè, Responsabile Energia di Legambiente
12:00	Progetti pilota ed esperienze sul campo - Sara Capuzzo, ènostra
12:10	Iniziative di comunità locali ed uso di strumenti digitali–Stefano Pizzuti, ENEA
12:20	Question Time - Domande e Risposte
12:50	Conclusioni e Prossime tappe - Elena De Luca ENEA e Massimo Bastiani Ecoazioni

\* non presente

## A3.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

### Desk Nazionale I Incontro tematico



Agenzia nazionale per le nuove tecnologie,  
l'energia e lo sviluppo economico sostenibile



## Comunità energetiche: forme, modelli giuridici e business plan

Scambio di esperienze tra la Regione Piemonte e la Regione Puglia

6 maggio 2021

L'obiettivo del progetto COME RES "Community Energy for the uptake of RES in the electricity sector: Connecting long-term visions with short-term actions" è quello di facilitare la diffusione sul mercato delle tecnologie energetiche basate su fonti rinnovabili attraverso la costituzione delle Comunità Energetiche Rinnovabili (CER). In questo incontro si farà il punto sulle iniziative in corso nelle Regioni interessate dal progetto con un particolare focus sui modelli organizzativi per la costituzione delle CER.

Orario	PROGRAMMA
09:45	Avvio della connessione da remoto
	<b>Moderatore Massimo Bastiani, Ecoazioni</b>
10:00	<b>Introduzione ai lavori e aggiornamento sul progetto COME RES</b> - Elena De Luca, Dipartimento Tecnologie Energetiche e Fonti Rinnovabili, ENEA
10:10	<b>Il manifesto delle Comunità Energetiche</b> - Romano Borchellini, Energy Center Politecnico di Torino, Presidente Advisory Board
10:20	<b>Recon: una nuova piattaforma per le comunità energetiche</b> - Matteo Caldera, Laboratorio Smart Cities and Communities, ENEA
10:30	<b>Stato dell'arte delle iniziative in Piemonte</b> - Alexia Boulanger, Envipark
10:40	<b>La "CER" di Magliano Alpi (CN)</b> <b>Il ruolo del Municipio</b> - Marco Bailo, Sindaco di Magliano d'Alpi <b>Il modello business</b> - Sergio Olivero, Presidente del Comitato Scientifico della CER
11:00	<b>Stato dell'arte delle iniziative in Puglia</b> - Salvatore Tomaselli, DITNE
11:10	<b>La Comunità Energetica di Roseto Valfortore (FG)</b> <b>Il ruolo del Municipio</b> - Lucilla Parisi, Sindaco Roseto Valfortore <b>Il ruolo delle imprese</b> - Michele Raffa, Friendly Power S.r.l.*
11:30	<b>Il Progetto CREAREE per lo sviluppo delle aree interne</b> - Elena Torri, UNIPOL
11:40	<b>SWOT partecipata: barriere e opportunità dei diversi approcci</b> - Virna Venerucci, ECOAZIONI
12:20	<b>Conclusioni</b> - Elena De Luca ENEA e Massimo Bastiani ECOAZIONI

## Scenari per le comunità energetiche rinnovabili

6 maggio 2021

L'obiettivo del progetto COME RES "Community Energy for the uptake of RES in the electricity sector: Connecting long-term visions with short-term actions" è quello di facilitare la diffusione sul mercato delle tecnologie energetiche basate su fonti rinnovabili attraverso la costituzione delle Comunità Energetiche Rinnovabili (CER). In questo incontro si farà il punto sul recepimento della REDII e sulle iniziative in corso in Italia e a livello comunitario.

Orario	PROGRAMMA
14:45	Avvio della connessione da remoto
<b>Moderata Elena De Luca, Dipartimento Tecnologie Energetiche e Fonti Rinnovabili ENEA</b>	
15:00	<b>Saluti di benvenuto</b> – Federico Testa, Presidente ENEA*
15:05	<b>Introduzione lavori e aggiornamento attività del Desk</b> - Massimo Bastiani, Ecoazioni
15:10	<b>Stato dell'arte del recepimento della REDII in Italia</b> - Gianni Giroto, Presidente della X Commissione Industria Commercio e Turismo del Senato*
15:20	<b>Consultazione su autoconsumo collettivo e comunità di energia rinnovabile e potenziale in Italia</b> – Davide Valenzano, Responsabile Unità Affari regolatori, GSE
15:30	<b>Le smart cities nei nuovi programmi di ricerca comunitaria</b> – Eleonora Riva Sanseverino, Rappresentante Nazionale Partnership Driving Urban Transition
15:40	<b>Sharing economy, comunità energetiche, aree interne e formazione</b> - Maurizio Sasso, Dipartimento di Ingegneria Università degli Studi del Sannio
15:50	<b>La "CER" di Magliano Alpi (CN) come modello di organizzazione e di partecipazione</b> - Marco Bailo, Sindaco di Magliano d'Alpi, e Sergio Olivero, Presidente del Comitato Scientifico della CER
16:05	<b>Le piccole e medie imprese come attori delle comunità energetiche</b> - Claudio G. Ferrari, Presidente FEDERESCO
16:15	<b>La visione delle associazioni ambientaliste</b> - Luca Iacoboni, Responsabile della campagna Clima e Energia di Greenpeace Italia
16:25	<b>Le piattaforme digitali per lo sviluppo delle economie locali</b> - Mauro Annunziato, Direttore Divisione Smart Energy ENEA
16:35	<b>Prospettive per le comunità geograficamente marginali</b> – Marco Bussone, Presidente Unione nazionale comuni comunità enti montani, Uncem
16:45	<b>Le comunità energetiche: uno sguardo sull'Europa</b> – Jens Lowitzsch, Europa-European University Viadrina (ODER)
16:55	<b>Buone pratiche per le comunità di energia rinnovabile</b> – Daniela Patrucco, Consulente per l'attivazione di Comunità Energetiche - Giornalista freelance Qualenergia.it
17:00	<b>Conclusioni</b> – Giorgio Graditi, Direttore Dipartimento Tecnologie Energetiche e Fonti Rinnovabili ENEA

## A4. AGENDAS FROM LATVIA DESK ACTIVITIES

### A4.1. ACTIVITY 1: Kick-off Meeting

Time	Topic
09:30 – 10:00	Registration of participants, technical connection to the meeting
10:00 - 10:30	<b>Welcome</b> <b>COME-RES project: objectives; work packages, tasks and expected results; implementation time frame.</b> <b>Role of the Country Desk.</b> Aija Zučika, Latvian Environmental Investment fund, project COME RES leader
10:30 – 10:50	<b>The European legal framework for energy communities.</b> <b>Renewable Energy Community in EU 2018/2001 (11 December 2018) Directive on the promotion of the use of energy from renewable energy sources (recast, RED II).</b> Ivars Kudrenčiks, Institute of Physical Energy, COME RES project expert
10:50 – 11:20	<b>Transposition of the provisions of the ED II Directive in Latvia: planned changes in the legal framework and the planned timetable for transposition.</b> Einārs Cilinskis, Ministry of Economics, Sustainable Energy Policy Department
11:20 – 11:30	<b>Questions and Answers</b>
11:30 – 11:40	<b>Break</b>
11:40 – 12:00	<b>Project "Co-creation and co-financing of Community renewable energy projects: Experience and lessons in Mārupe municipality"</b> Ilgvars Francis, Riga planning region, project coordinator
12:00 – 13:30	<b>Discussion: How the key aspects for Renewable Energy Community (REC) model should look like in Latvia: legal forms of REC, application of proximity criterion, effective control, sources for financial support of REC</b> <ul style="list-style-type: none"> <li>• Introduction on noted key aspects, by Gaidis Klāvs, Institute of Physical Energetics, COME RES project expert</li> <li>• Discussion</li> <li>• What could the COME-RES project provide for enabling framework. Recommendations on the issues to be discussed in the planned thematic seminars</li> </ul>
13.30 – 13.40	<b>Summary</b> , Aija Zučika, Latvian Environmental Investment fund.

## A4.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

09:45 – 10:00	<b>Opening of on-line event</b> Participants registration, on-line connections.
10:00 – 10:10	<b>Opening of Event. Where we are in the COME RES project course. Objectives of the day.</b> Aija Zučika, Latvian Environmental Investment Fund, COME RES lead
<b>PART I. Policy Lab</b>	
<b>Renewable Energy Communities (REC): transposition of REDII and IEMD Directives and challenges of legal framework development in Latvia</b>	
10:10 – 10:40	<b>Renewable Energy Communities: Draft Amendments to Energy Law (Transposition of RED II), current state and expected implementation</b> Einārs Cilinskis, Ministry of Economics, Dept. of Sustainable energy policys
10:40 – 11.10	<b>COME-RES partners experience:</b> <b>Legal framework for REC in Portugal and first practices of RECs implementation</b> Isabel Azevedo, INEGI
11:10 – 11:40	<b>Planned Amendments to Electricity Market Law concerning energy communities (transposition of RED II and IEMD)</b> Līga Rozentāle, Ministry of Economics, Deputy director, Dept.of Energy Market and Infrastructure
11.40 – 12.10	<b>Interactive discussion.</b> Moderated by COME-RES Latvia partners.
12.10- 12.25	Break
<b>PART II. Development perspectives of REC in Latvia</b>	
12:25 – 13:00	<b>Step-by-step development practice of solar PV project: lessons and challenges relevant for RECs.</b> Juris Ozoliņš, energy expert
13:00 – 13:30	<b>REC potential in Latvia and their perspective contribution in meeting national renewable energy targets: evaluation by COME-RES project.</b> Ivars Kudrenickis, Gaidis Klāvs, Institute of Physical Energetics
13:30 – 13:50	<b>Interactive discussion.</b> Moderated by COME-RES Latvia partners.
13:50- 14.00	<b>Summary of the Day.</b>

## A5. AGENDAS FROM NORWAY DESK ACTIVITIES

### A5.1. ACTIVITY 1: Kick-off Meeting

#### AGENDA FOR MØTET

TID	PROGRAM
09.30	<b>Velkommen og kort introduksjon av COME RES-teamet ved CICERO og NVE /</b> ved Karina Standal, forsker ved CICERO Senter for klimaforskning
09.40	<b>Introduksjon av møtedeltakerne /</b> ved Iselin Rønningsbakk, kommunikasjonsrådgiver ved CICERO
09.50	<b>Presentasjon av COME RES-prosjektet og formålet med referansegruppen +</b> <b>svare på eventuelle spørsmål fra deltakerne /</b> ved Karina Standal, forsker ved CICERO Senter for klimaforskning
10.20	<b>NVEs rolle i prosjektet, gjeldende regelverk for lokale energisamfunn + svare</b> <b>på eventuelle spørsmål fra deltakerne /</b> ved Anton Eliston, seksjonssjef for virkemidler og internasjonale rammer i Energi- og konsesjonsavdelingen ved NVE
10.40	<b>Kaffepause</b>
10.50	<b>Utfordringer knyttet til utvikling av lokale energisamfunn i Norge i dag og</b> <b>mulige forretningskonsepter for lokale energisamfunn /</b> ved Karina Halstensen Birkelund, direktør for forretningsutvikling ved Småkraft AS
11.00	<b>Utfordringer knyttet til solceller på borettslag og sameier, og planer og</b> <b>tanker for fremtiden når det gjelder desentraliserte energiløsninger /</b> ved Birgitte Molstad, miljødirektør i OBOS
11.10	<b>Betraktninger om nåværende rammeverk og om hvordan man bør legge til</b> <b>rette for utvikling av lokale energisamfunn /</b> ved Ole-Petter Halvåg, seniorrådgiver –rammebetingelser ved Agder Energi AS
11.20	<b>Diskusjoner i grupper om hovedutfordringer, forretningskonsepter og</b> <b>muligheter når det gjelder utvikling av lokale energisamfunn i Norge</b>
11.40	<b>Kaffepause</b>
11.50	<b>En fra hver gruppe presenterer for resten av deltakerne det som ble diskutert</b> <b>under gruppearbeidet</b>
12.15	<b>Oppsummering og veien videre /</b> ved Karina Standal, forsker ved CICERO Senter for klimaforskning
12.30	<b>Møte slutt</b>

## A5.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

10:00 Velkommen og agenda

10:15 - 10:35 Karina Standal, seniorforsker CICERO Senter for klimaforskning: Politiske målsetninger og rammevilkår for lokale energisamfunn i Europa: Forskningsfunn fra COME RES-prosjektet.

### **Del 1: Rammevilkår og muligheter for lokale energisamfunn i Norge**

10:35 - 10:55 Marie Byskov Lindberg, Seniorforsker FNI: Egenproduksjon av strøm i boligselskaper - Drivere og barrierer i Norge. Funnt fra forskning i FME INCLUDE.

10:55 - 11:15 Tore Meinert, Næringsutvikler Utsira Kommune: Kommunens rolle som pådriver og tilrettelegger for lokale energisamfunn

11:15 - 11:50 Paneldebatt

Jon Evang, fagansvarlig energi og miljøstiftelsen Zero  
Knut Olav Tveit, daglig leder for småkraftforeninga  
Trine Kopstad Berentsen, daglig leder Solenergiklyngen  
Tore Meinert, Næringsutvikler Utsira kommune  
Marie Byskov Lindberg, Seniorforsker FNI  
11:50 - 12:25 Pause

### **Del 2: Lokale energisamfunn: Reguleringer og virkninger på kraftsystemet**

12:25 - 12:45 Rådgiver Kjell Rune Verlo RME/NVE: Etablering av lokale energisamfunn i Norge

12:45 - 13:10 Forsker Andrei Morch og forskningsleder Henning Taxt, Sintef Energi: Fleksibel integrasjon og verktøy for design og drift av lokale energisamfunn i Norge: Forskningsfunn fra prosjektene FINE og eNeuron

13:10 - 13:45 Paneldebatt

Andreas Strømsheim-Aamodt, fagsjef næringspolitikk NELFO  
Ketil Krogstad, spesial rådgiver, Norges Boligbyggelags Landsforbund SA (NBBL)  
Rolf Jacobsen, Gaia Arkitekter  
Karl Erik Navestad, Direktør forretningsområde Ski Høegh Eiendom  
Kjell Rune Verlo, rådgiver RME/NVE  
Henning Taxt, forskningsleder, Sintef Energi  
13:45 - 14:00 Karina Standal, seniorforsker CICERO Senter for klimaforskning: Oppsummering og takk for nå

14:00 Møtet slutt

## A6. AGENDAS FROM POLAND DESK ACTIVITIES

### A6.1. ACTIVITY 1: Kick-off Meeting



## CONDITIONS FOR DEVELOPMENT OF COMMUNITY ENERGY IN POLAND

### The Polish National Stakeholder Desk kick-off meeting

**DATE:** 27.01.2021

**PLACE:** Online, Teams platform

#### SHORT DESCRIPTION

The online conference is as a kick-off meeting of the National Desk in Poland, aimed at bringing together relevant stakeholder groups and initiating a nation-wide dialogue platform. The country desk is a tool to ensure wide and live engagement of market actors and stakeholders throughout the project. The meeting is addressed to a wide range of relevant stakeholders in Poland, representing: public administrators/decision makers, respective ministries, energy clusters, public authorities, metropolitan areas, branch associations, universities, research institutes, experts and technicians and distribution system operators.

#### AGENDA

TIME	PROGRAMME	SPEAKER
10:00-10:10	Introduction. Main objective of the event. Topics for discussion.	<i>Ryszard Wnuk, KAPE S.A.</i>
10:10-10:25	Objectives and activities of COME RES project.	<i>Piotr Nowakowski, Ryszard Wnuk KAPE S.A.</i>
10:25-10:45	Development of dispersed energy within energy clusters - self-balancing system services.	<i>Ryszard Cetnarski, IDEA - Interdisciplinary Division for Energy Analyses, NCBJ</i>
10:45-11:05	Support for community energy by Regional Fund for Environmental Protection and Water Management (WFOŚiGW) in Olsztyn (target region).	<i>Tomasz Koprowiak, WFOŚiGW in Olsztyn</i>
11:05-11:15	Potential for development of community energy in Municipality of Zalewo (target region).	<i>Rafał Konicz, Municipal Office in Zalewo</i>
11:15-11:35	Technical performance indicators for micro-scale PV systems, case study.	<i>Piotr Nowakowski, KAPE S.A.</i>
11:35-11:55	Introduction to DRES2Market project. Objectives, approach and potential outcomes.	<i>Hanna Bartoszewicz-Burczy, Institute of Power Engineering</i>
11:55-12:30	<i>Discussion</i>	



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953040. The sole responsibility for the content of this document lies with the COME RES project and does not necessarily reflect the opinion of the European Union.

## A6.2. ACTIVITY 2: First Thematic Workshop

CZAS	ZAGADNIENIE	OSOBA
11:00-11:15	Wprowadzenie, przedstawienie projektu COME-RES	<i>Piotr Nowakowski, KAPE S.A.</i>
11:15-11:45	<p>Efektywne technicznie i ekonomicznie wykorzystanie OZE w budynkach:</p> <ul style="list-style-type: none"> <li>• Instalacje fotowoltaiczne;</li> <li>• Kolektory słoneczne;</li> <li>• Pompy ciepła.</li> </ul>	<i>Ryszard Wnuk, KAPE S.A.</i>
11:45-12:00	<p>Opłacalność mikro i małych instalacji fotowoltaicznych</p> <ul style="list-style-type: none"> <li>• Inwestycje realizowane przez osoby fizyczne, JST, MŚP.</li> </ul>	<i>Piotr Nowakowski, KAPE S.A.</i>
12:00-12:30	<p>Techniczno – ekonomiczna analiza funkcjonowania prosumenckiej instalacji PV zintegrowanej z jednorodzinnym budynkiem pasywnym.</p> <ul style="list-style-type: none"> <li>• Prezentacja instalacji, objętej 4 letnim okresem monitoringu parametrów;</li> <li>• Analiza przeprowadzona z wykorzystaniem szeregu technicznych wskaźników, wyliczonych na podstawie rzeczywistych danych pomiarowych z systemu monitoringu instalacji.</li> </ul>	<i>Piotr Nowakowski, KAPE S.A.</i>
12:30-13:00	<p>Aktualne uwarunkowania energetyki obywatelskiej w Polsce, z przykładami:</p> <ul style="list-style-type: none"> <li>• Klastry energii;</li> <li>• Spółdzielnie energetyczne;</li> <li>• Prosumenci.</li> </ul> <p>+ Proponowane zmiany legislacyjne w tym zakresie.</p>	<i>Ryszard Wnuk, KAPE S.A.</i>
13:00-13:30	<i>Dyskusja</i>	

## A7. AGENDAS FROM PORTUGAL DESK ACTIVITIES

### A7.1. ACTIVITY 1: Kick-off Meeting

29 janeiro 2021

1º Encontro do Grupo de Discussão Nacional  
em Comunidades de Energia Renovável



## PROGRAMA

9:00 ACOLHIMENTO

### COME RES: ADVANCING RENEWABLE ENERGY COMMUNITIES

Objetivos e Principais Ações

Apresentação do Grupo de Discussão Nacional

*Isabel Azevedo (INEGI)*

### COMUNIDADES DE ENERGIA RENOVÁVEL EM PORTUGAL

Perspetiva e Experiência de uma Cooperativa

*Ana Rita Antunes (Coopérnico)*

### CERs: COMO POTENCIAR A SUA IMPLEMENTAÇÃO EM PORTUGAL?

Principais barreiras e desafios

Potenciais contributos do Grupo de Discussão Nacional

*Discussão*

13:00 CONCLUSÕES



## A7.2. ACTIVITY 2: First Thematic Workshop and Policy Lab

<b>14:15</b>	Welcome
<b>14:30</b>	COME RES project <i>Isabel Azevedo (INEGI)</i>
<b>14:45</b>	PROSEU: Promoting energy communities in Portugal <i>Inês Campos (cE3c U. Lisboa)</i>
<b>15:00</b>	Compile: Renewable Energy Community in Lisbon <i>Ana Rita Antunes (Coopérnico)</i>
<b>15:15</b>	Asprela + Sustentável <i>Bruno Carvalho (AdEPorto)</i>
<b>15:30</b>	EnergyRing: Supporting the implementation of Renewable Energy Communities <i>Francisco Gonçalves (CSide)</i>
<b>15:45</b>	Questions and Discussion
<b>16:00</b>	Legal framework applicable to Renewable Energy Communities <i>Filipe Pinto (DGEG)</i>
<b>16:15</b>	SWOT Analysis   Interactive session
<b>16:30</b>	Roundtable: Renewable Energy Communities and the Transposition of the Directive Moderator: <i>Jorge Vasconcelos (NEWES)</i> Pannel: <i>Filipe Pinto (DGEG)</i> <i>Margarida Ramires Ramos (pbbr.a)</i> <i>Manuel Casquiço (ADENE)</i> <i>Susana Serôdio (APREN)</i>

## A8. AGENDAS FROM SPAIN DESK ACTIVITIES

### A8.1. ACTIVITY 1: Kick-off Meeting

#### Reunión de Lanzamiento de la Mesa de Stakeholders COME RES

FECHA: martes, 26 de enero 2021

LUGAR: online

HORA	PROGRAMA
10:00	Bienvenida y registro de participantes
10:05-10:30	<p><b>Sesión A – Las Comunidades de Energía Renovable: Qué son y cómo pueden contribuir a la transición energética</b></p> <p>Nicoletta del Bufalo, Ecorys España</p> <p>Myriam Castanié, REScoop.eu</p>
10:30-11:30	<p><b>Sesión B – Estableciendo un marco jurídico y político para las Comunidades Energéticas Renovables</b></p> <p>Ana María Sánchez Infante, Responsable de Política de Renovables y CAC, DG de Energía, Unidad C1, Comisión Europea</p> <p>Sara de la Serna, Técnico del Departamento de Gestión de la Demanda e Integración de Renovables en Red, Instituto para la Diversificación y el Ahorro de la Energía (IDAE)</p> <p>José Luis Figueroa de la Paz, Jefe de Gabinete del Consejero de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial del Gobierno de Canarias</p> <p>Q&amp;A</p>
11:30-12:30	<p><b>Sesión C – Contexto de la energía comunitaria en Canarias</b></p> <p>Gonzalo Piernavieja, Instituto Tecnológico de Canarias</p> <p>Nuria Albet, La Palma Renovable</p> <p>Rafael Sánchez, Mancomunidad de Sureste de Gran Canaria</p> <p>Joaquín Hernández Brito, Plataforma Oceánica de Canarias (PLOCAN)</p> <p>Q&amp;A</p>
12:30-13:00	<p><b>Debate – Cómo impulsar la energía comunitaria desde lo local</b></p> <p><i>Moderador: Enrique Rodríguez de Azero, Presidente de ACER</i></p> <p>Joaquín P. Mas Belso, Grupo Enercoop (Cooperativa Eléctrica Crevillent)</p> <p>Aquilino Miguélez, Cabildo Insular de Lanzarote</p> <p>Domingo Alberto Hernández Barrios, Cabildo Insular de La Palma</p> <p>Pedro Apeles, Cabildo Insular de Tenerife</p> <p>Alexis Lozano, Cabildo Insular de Gran Canaria</p>
13:00	<b>Cierre de la jornada</b>

## A8.2. ACTIVITY 2: First Thematic Workshop and Policy Lab (Canary Islands)

### LAS COMUNIDADES ENERGÉTICAS RENOVABLES

#### Clave para el Desarrollo Energético y la Sostenibilidad en Canarias

**FECHA:** martes, 25 de mayo 2021, 10:00-13:00 (Canarias) / 11:00-14:00 (Península)

**LUGAR:** online

HORA	PROGRAMA
10:00	Bienvenida y registro de participantes
10:05-10:30	<p><b>Sesión A – Las Comunidades de Energía Renovable: Qué son y cómo pueden contribuir a la transición energética</b></p> <p>Nicoletta del Bufalo, Ecorys España</p> <p>Myriam Castanié, REScoop.eu</p>
10:30-11:30	<p><b>Sesión B – Estableciendo un marco jurídico y político para las Comunidades Energéticas Renovables</b></p> <p>Ana María Sánchez Infante, Responsable de Política de Renovables y CAC, DG de Energía, Unidad C1, Comisión Europea</p> <p>Sara de la Serna, Técnico del Departamento de Gestión de la Demanda e Integración de Renovables en Red, Instituto para la Diversificación y el Ahorro de la Energía (IDAE)</p> <p>José Luis Figueroa de la Paz, Jefe de Gabinete del Consejero de Transición Ecológica, Lucha contra el Cambio Climático y Planificación Territorial del Gobierno de Canarias</p> <p>Q&amp;A</p>
11:30-12:30	<p><b>Sesión C – Contexto de la energía comunitaria en Canarias</b></p> <p>Gonzalo Piernavieja, Instituto Tecnológico de Canarias</p> <p>Nuria Albet, La Palma Renovable</p> <p>Rafael Sánchez, Mancomunidad de Sureste de Gran Canaria</p> <p>Joaquín Hernández Brito, Plataforma Oceánica de Canarias (PLOCAN)</p> <p>Q&amp;A</p>
12:30-13:00	<p><b>Debate – Cómo impulsar la energía comunitaria desde lo local</b></p> <p><i>Moderador: Enrique Rodríguez de Azero, ACER</i></p> <p>Joaquín P. Mas Belso, Grupo Enercoop (Cooperativa Eléctrica Crevillent)</p> <p>Aquilino Migúelez, Cabildo Insular de Lanzarote</p> <p>Domingo Alberto Hernández Barrios, Cabildo Insular de La Palma</p> <p>Pedro Apeles, Cabildo Insular de Tenerife</p> <p>Alexis Lozano, Cabildo Insular de Gran Canaria</p>
13:00	<b>Cierre de la jornada</b>

### A8.3. ACTIVITY 3: Second Thematic Workshop and Policy Lab (Balearic Islands)

## LAS COMUNIDADES ENERGÉTICAS RENOVABLES

### Contexto y oportunidades de desarrollo en las Islas Baleares

**FECHA:** miércoles, 30 de junio, 10:00-13:30h

**LUGAR:** online

HORA	PROGRAMA
10:00	Registro y bienvenida
10:05-10:30	<p><b>Sesión A – Las Comunidades de Energía Renovable: Qué son y cómo pueden contribuir a la transición energética</b></p> <p>Nicoletta del Bufalo, Ecorys España</p> <p>Myriam Castanié, REScoop.eu</p>
10:30-11:30	<p><b>Sesión B – Estableciendo un marco jurídico y político para las Comunidades Energéticas Renovables</b></p> <p>Ana María Sánchez Infante, Responsable de Política de Renovables y CAC, DG de Energía, Unidad C1, Comisión Europea</p> <p>Sara de la Serna, Técnico del Departamento de Gestión de la Demanda e Integración de Renovables en Red, Instituto para la Diversificación y el Ahorro de la Energía</p> <p>Pep Malagrava, Director General de Energía y Cambio Climático del Govern de las Islas Baleares</p> <p>Q&amp;A</p>
11:30-12:30	<p><b>Sesión C – Cómo conformar una comunidad energética: modelos existentes y primeros pasos en las Islas Baleares</b></p> <p>Modelo cooperativo I: Cesión de espacios públicos. Joaquín P. Mas Belso, Grupo Enercoop (Cooperativa Eléctrica de Crevillent)</p> <p>Modelo cooperativo II: Edificios residenciales y proyectos agro-fotovoltaicos: Juan Sacri, Sapiens Energía</p> <p>Modelo industrial: Polígono Industrial de Sant Lluís (Menorca). Jesús Cardona, Coordinador Directrices Estratégicas Menorca</p>
12:30-13:30	<p><b>Policy Lab – Cómo las políticas locales pueden impulsar la energía comunitaria (y viceversa)</b></p> <p>Modera: Pau de Vilchez, Laboratori Interdisciplinari sobre Canvi Climàtic (UIB)</p> <ul style="list-style-type: none"> <li>Ferran Rosa, Instituto Balear de la Energía</li> <li>Irene Estaún, Reserva de la Biosfera Menorca</li> <li>Pere Joan Llompart, Ajuntament de Llubí</li> <li>Margalida Ramis, Grupo Ornitológico Balear</li> <li>Isabel Gorgosa, Iberdrola</li> <li>Àlex Duran, Som Energia</li> <li>Flor dell'Agnolo, consultora</li> </ul>

# CONTACT

COME RES Project

info@come-res.eu

www.come-res.eu

# PARTNERS



This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 953040. The sole responsibility for the content of this document lies with the COME RES project and does not necessarily reflect the opinion of the European Union.