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Preface

The overall aim of ENERGee Watch is to launch an easy and replicable peer to peer learning program to enable regional and local authorities to timely and accurately define, monitor and verify their sustainable actions. The learning focuses on regional/provincial authorities and their agencies that are responsible for collecting and overseeing the monitoring of mitigation and adaptation measure indicators in order to empower them to make use of best practices. The learning programme is structured into four (4) courses: i) data collection, ii) monitoring & verification, iii) indicators for adaptation to climate change, iv) data display, dissemination and validation by final users. ENERGee Watch launched 3 learning cycles between 2020-2023 offering these 4 courses (twelve in total) to a total of 70 participating mentees. The learning programme entailed tools such as mentoring, site visits, tailored guidebooks and guided practice exchanges to enable the proper matching of peer groups and proper knowledge replication.

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5	Energy Agency of Savinjska, Šaleška and Koroška region (KSSENA)	SLOVENIA	SI	KSSENR
6	lle de France Regional Energy and Climate Agency (IAU IDF)	FRANCE	FR	PARIS RECION ACENCE RECIONALE ENERGIE-CLIMAT
7	South East Energy Agency (SEEA)	IRELAND	ΙE	SOUTH EAST ENERGY AGENCY
8	Energy Agency of Plovdiv (EAP)	BULGARIA	BG	EHEPTUЙHA ATEHLIKI NAOBĄUB EMERGIES
9	Alba Local Energy Agency (ALEA)	ROMANIA	RO	alea 🛟
10	Cyprus Energy Agency (CEA)	CYPRUS	CY	Cyprus Energy Agency



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List of abbreviations

BEI - Baseline Emission Inventory

CoM – Covenant of Mayors

EEW - ENERGee Watch

GHG – Greenhouse gases

GPP – Green Public Procurement

LC - Learning cycle

LP – Learning programme

MEI – Monitoring Emission Inventory

MS – Member States

MRV – Monitoring, Reporting, and Verification

REDII - Renewable Energy Directive II

RES - Renewable Energy Sources

SEAP - Sustainable Energy Action Plan

SECAP – Sustainable Energy and Climate Action

Plan





Executive Summary

This report "Report on exploitation and replication activities" provides an overview of the exploitation potential and replication activities and exchanges throughout the H2020 ENERGee Watch project. It details the exploitation plans of the partners and their external collaborators for both the project learning programme and the tools and approaches presented during the sessions. It also provides analysis and assessment of the replication impact within and outside the project which sets out the replication potential far beyond the project and presents specific replication cases to be implemented in the future. Shining examples and success stories from the ENERGee Watch learning programme are showcased to highlight the joint efforts of partners and their collaborators in bringing the project exploitation and replication exchanges to tangible results.





1. Introduction

The report on exploitation and replication activities" details the exploitation as well as internal and external replication activities carried out by the project partners within the ENERGee Watch project. It presents the exploitation and replication perspectives related to the ENERGee Watch learning programme and its tools and approaches and assesses their scalability and replicability through the experiences of the mentors and mentees alike.

The aim of the exploitation and replication activities is to engage stakeholders from regions outside the project, based on the replication plan. There are two types of activities that were implemented during the last months of the project – replication at the national level and the EU levels:

- Within the national/regional level, each energy agency participating in the consortium cooperated with their peers and/or municipalities to provide direct coaching and aimed at replicating the good practices from their own experience and the ENERGee Watch best practices;
- At the EU level, four replication webinars were conducted (one per module) which condensed
 the full Learning Programme (LP) into an MRV crash course for interested regions which were
 not able to attend the full programme. For each webinar, a fiche with module information was
 developed.

As a result, replication mentees transferred the experience and knowledge they gained and along with project partners' advice on how other stakeholders can implement similar practices.

This report provides a comprehensive overview of the exploitation and replication activities in terms of the topics addressed, lessons learnt, the level of progress achieved as a result of the exchanges, and further issues identified.

The report consists of 5 chapters:

- Chapter 1 Introduction presents the overall objective, structure and contents of the document;
- **Chapter 2** Exploitation and replication framework defines the assessment approach and presents the methodology used to provide a general assessment of the replication activities;
- **Chapter 3** Exploitation in Action provides an overview of the exploitation potential and plans of each project partner;
- **Chapter 4** Replication in Action assess the intra- and inter-project replication activities throughout all learning cycles on national/regional and EU level;
- **Chapter 5** Replication outcomes and conclusions provides a general overview of the impact of the exploitation and replication activities on the local communities, and also on the challenges and limitations of the replication activities and lessons learned from the process.





2. Exploitation and replication framework

This section describes the general exploitation and replication approach and assessment methodology in the ENERGee Watch learning programme, and how these activities come together. It outlines the methods used and steps taken to assess the exploitation and replication activities within and outside of the project.

2.1. Exploitation approach

Exploitation is the use of tangible results and outcomes of the project within and beyond the project lifetime by the partners and their mentees. The exploitation within the ENERGee Watch project has been defined in a two-fold way – through (1) its learning programme and (2) supporting materials, tools, and approaches presented during the learning modules. Each individual partner defined their strategy to promote and exploit the project results and materials by using their own means and channels.

To investigate the exploitation intentions of each partner, a screening of the project results was performed and an **interview** with each partner was conducted. The results cover topics such as the specific exploitation result to be utilized further, the target groups to be addressed, further adaptation of specific tools, cross-sectoral and cross-cutting applications, etc. How these results have originated from ENERGee Watch interactions was also discussed (i.e. transferring of knowledge and experience between the project partners). The outcomes of this investigation are summarized in **Table 1** and **Table 2**.

2.2. Replication approach

Replication is the process of transposing the results from one case to another within and across regions despite the different local backgrounds or contexts. Within the ENERGee Watch project, replication has taken place during scheduled interactions of different stakeholders with project partners, where the transfer of knowledge and experiences about the courses took place. These interactions took place at the national events organised by the ENERGee Watch energy agencies as well as the EU-wide webinars.

To investigate the replication that has taken place within these events, an **interview** and **reporting template** for each national partner and module leader has been developed. The analysis focuses on the role of the project partners in the transfer of practices, solutions, approaches and methodologies presented within the ENERGee Watch learning programme to other organisations. For each replication report, an analysis of the target groups and attendees, topics discussed, issues and concerns addressed, challenges and the perspectives of replication was performed. After completing the replication reporting template, an interview with each partner was held to clarify and gather further details of how their actions have been further taken up by other interested parties.





3. Exploitation in Action

The exploitation of project results is focused on the tangible outcomes of the project activities which includes the ENERGee Watch learning programme per se, as well as the tools, approaches and methodologies presented throughout the four courses.

3.1 Exploitation of the ENERGee Watch learning programme

The main outcome of the ENERGee Watch project is its learning programme and the corresponding supporting materials and resources.

During the project lifetime, the ENERGee Watch learning methodology has been adapted in numerous ways to better reflect the learning needs of the target groups during and after the COVID-19 pandemic outbreak. Thus, it currently offers multiple formats, languages and duration of the four courses which have proven successful in reaching out to a broader audience.

Since the project kicked off during the COVID-19 pandemic, in **LC1** the courses were offered online due to travel restrictions, allowing people to learn about MRV practices from the comfort of their own homes. Within **LC2** and **LC3**, a mix of in-person, online, and hybrid courses were offered, allowing for the participation of several new mentees who were unable to join LC1. For those who were able to travel and benefit from live networking, in-person events provided added value and motivation to join the courses. Still, those who could not join these events due to travel restrictions (health, budget, temporal, or managerial limitations) were also offered the opportunity to participate online. Also, those participants, who could not join the full courses due to scheduling conflicts, had the opportunity to join one of the cycles in their preferred format online.

Improvements in the operational aspects and content of the programme were also made possible from cycle to cycle. Additionally, the original learning content produced in English, meant for the international audience, was adapted and disseminated at the local and national levels in national languages during the **national events**, further increasing the reach of our content. Finally, offering condensed online replication courses or "crash courses" through the **EU webinars** meant that actors traditionally too busy to attend a 2-day training (such as public authorities) were able to increase their capacity on MRV practices through 4 half-day courses over a month that covered all 4 learning modules.

The combined attendance of the learning programme (70 mentees) and replication events (242 national and 342 EU attendees), therefore, resulted in the project exceeding its original outreach impact targets, while the lessons learned will be further used in future P2P and capacity building projects (like PROSPECT+ and RENOVERTY) and initiatives (like trainings for local action groups and civil society). Each of the project partners has exploitation plans for the ENERGee Watch learning programme beyond the project lifetime. The target groups for exploitation activities will be primarily local/regional/national authorities, city councils, associations of municipalities, energy agencies, SECAP practitioners, FEDARENE new members, etc. A full review of these is presented in Table 1.

Being energy agencies and supporting structures to the Covenant of Mayors (CoM), most of the project partners will further develop the contents of the learning materials. The learning content will be expanded with local and national specifics as well as other topics such as Green Public Procurement (GPP) and how the public procurers can develop GPP action plans for their organizations. The contents





of the modules will be further used to enrich the learning resources for local authorities and complement them with templates, visualising tools, interactive exercises, etc. The learning sessions will be coupled with on-site events such as study visits or demonstrations.

Success story FRANCE

Local authorities in Île-de-France region are confronted with the difficulty of carrying out local climate vulnerability analysis, so the ENERGee Watch work on data and indicators related to climate change will be useful and beneficial for them.

The partners will utilise the learning modules in regular learning sessions with their partnering local authorities, such as webinars, capacity building workshops. Specific events, such as the TerriSTORY® demo café, will be organised as well. The e-learning platform on the ENERGee Watch website, which differs from the Veri platform used throughout the project to conduct and monitor the learning cycles, will be used to build capacity beyond the project lifetime. It offers crash courses in all four project topics to allow energy agencies and municipalities to increase their MRV knowledge in a short period of time, with additional materials provided for in-depth personal studies.

The knowledge generated through the development of the learning programme and participation in its modules by the partners will be further integrated into their real-life work with their partnering local authorities to support the implementation of energy and climate policies. For example, IPR is entrusted with the implementation of the training activities to support the regional action plan for adaptation for the Île-de-France region. EAP is cooperating with the Association of municipal ecologists in Bulgaria and will conduct regular trainings during their annual assemblies. KSENNA is already very active in training local and regional authorities of East-European countries regarding energy development (Ukraine, Kosovo, etc.).

The partners will promote the ENERGee Watch learning programme among their networks of local authorities and partnering organisations. FEDARENE will integrate its contents and structure on its webpage following the expiration of the project webpage. IEECP intends to co-organise workshops or webinars with projects (such as REGIO1st) to guide energy agencies to use available materials such as the best practices table, the observatory list, as well as the e-learning platform to overcome existing issues related to data. UPRC will promote the learning programme through TEESlab's website and social media channels and will use the materials in future lectures/workshops/thematic seminars for undergraduate and postgraduate students at the University of Piraeus. The project materials will be also used in other interregional and local/regional projects (H2020 CEESEU, H2020 PROSPECT+, LIFE RENOVERTY, LIFE REGIO1st).



Table 1: Exploitation of the ENERGee Watch learning programme

Partner	Exploitation approach	Exploitation target group
ALEA	- Conduct new webinars, and capacity building workshops within other local/regional projects	Local authorities, energy experts
AURA EE	 Support local authorities in the use of the TerriSTORY® visualization tool Use the content of Module 3 to enrich the observatory dedicated to the effects of climate change Organise every month an online TerriSTORY® demo café. 	Local authorities, energy experts
CEA	 Organise annual training sessions for local authorities Adapt the material and methodology to other topics, i.e. Green Public Procurement (GPP) 	Municipalities and Local Community Councils
EAP	 Adapt the ENERGee Watch Learning programme to the Bulgarian context, Supplement more case studies and practical exercises to the programme, Organise regular trainings and on-demand events 	Local authorities, energy agencies, energy experts, environmental experts
FEDARENE	 Promote the learning programme Promote materials for onboarding energy agencies Promote the know-how of energy data and its role in BEI/MEI development 	FEDARENE network, energy agencies, local/ regional authorities
IEECP	 Promote the learning programme methodology Continue to use the project materials to build capacity Continue to use the e-learning platform Use the data in the observatory within other projects Co-organise capacity building sessions with other projects to promote the project outcomes (best practices table, observatory list, e-learning platform) 	Public authorities, energy agencies; partner networks and fellow projects
IPR	 Train local authorities and other local stakeholders to improve awareness on issues related to climate change adaptation Support local authorities to carry out local climate vulnerability analysis Help local authorities identify data sources and determine indicators to monitor their activities in relation to climate change adaptation. 	Local authorities (technical staff and elected officials), local energy agencies and the regional natural parks.
KSENNA	 Train local and regional authorities, organise study tours Adapt and develop further the learning materials 	Municipalities, regional authorities, energy agencies, energy managers
SEEA	 Monitor the progress of local climate action plans towards 2030 GHGs targets Develop Regional climate action plans Produce Baseline Emissions Inventory for community groups 	Local authorities, climate action staff, sustainable energy communities; local planning staff
UPRC	 Use the project materials in future lectures/ workshops/ thematic seminars Promote the learning programme via TEESlab's website and social media channels 	Local and regional authorities, university students



3.2. Exploitation of specific ENERGee Watch resources

Throughout the implementation of the ENERGee Watch learning programme, the learning content has been enriched with methodologies, approaches, tools, templates, and other resources, that have been further taken up both by the project partners and their mentees. <u>Table 2</u> presents an overview of the specific ENERGee Watch resources to be exploited.

In the first place, the approaches, climate datasheets, and energy and climate templates presented in Modules 1 and 3 on obtaining, structuring and processing data on energy and climate will be further used by the partners in their everyday work on SEAP/SECAPs. There are methodologies for developing BEI/MEI, including how to make better estimations, scale down data, fill in data gaps, etc. Furthermore, the collection of indicators related to climate adaptation will be used by the partners when developing their SECAPs. The sheets and methodologies will also be presented and used by the partners in their work with local authorities and in preparing their strategic documents on energy and climate. Some partners will dedicate efforts to developing their own local online databases in which climate data packages will be embedded.

The gamification approach in the "Climate at Stake" game (IPR) from Module 3 is considered a success by both mentors and mentees and is one of the outstanding ENERGee Watch approaches to be further exploited. It encompasses the learning content of the courses and practical knowledge and skills by the participating professionals. Thus, the knowledge is easily acquired and embedded in the personal capacities of the participants. The game also allows for interaction mediated by the facilitator and will be used by the project partners in their learning sessions with local authorities after the project's end.

The video series in Module 3 will be used to illustrate best practices examples for adaptation to climate change.

The **business canvas model** (CEA) is another resource considered useful by the partners and will be further used in their work.

The **TerriSTORY® tool** (AURA EE) has proven to be versatile and has either been adapted by partners or has inspired other tools. Its transferability to different levels and territories is impressive and so it will be promoted to the French community to view and monitor their climate indicators. The work on TerriSTORY® has inspired some partners to develop and expand their observatories with similar visualization tools.

Finally, various participatory and collaborative online tools (e.g. Veri, Tableau, Mural, e!Sankey, etc.) will be used in the future by the partners in relevant sessions and events.





Table 2: Exploitation of ENERGee Watch specific tools.

Partner	Exploitable results	Application/Use of project result	Target group
ALEA	 Roleplay game for the climate hazard scenarios TerriSTORY®, business canvas model 	Integrated into future trainings and other courses related to the CoM and ANERGO observatory	Local authorities, fellow projects
AURA EE	- Module 3 contents	Information from Module 3 on obtaining and structuring climate data will be used to improve the observatory	Technicians of the Observatory
CEA	- TerriSTORY®®, Tableau, E!Sankey - Cyprus data collection example	SECAP development	Local Authorities; Community groups
EAP	- Knowledge, tools and templates from Modules 1-4	Embed the knowledge on emission inventories in ClimAct tool, Embed the knowledge on BEI/MEI in the biomass estimation tool SustainEnBio, Apply visualisation approaches from Module 4 to a GIS-based tool for visualisation	Energy and environmental experts, local authorities, national authorities
FEDARENE	 TerriSTORY®, business model canvas, e!Sankey diagram software Administrative or collaboration online tools (e.g. Veri platform) 	Organise participatory conferences/webinars	FEDARENE's network of energy agencies and local/regional authorities, participants in events
IEECP	 ENERGee Watch programme in its multiple formats (course formats, times, languages, and duration) TerriSTORY® tool Observatory data 	Organise sessions, monitor climate results, promote best practices	Public authorities, energy agencies, scientific community
IPR	 Serious game "Climate at Stake" A collection of indicators related to adaptation to climate change TerriSTORY® tool Video series to illustrate best practices examples for adaptation to climate change 	Organise sessions, outreach to potential users, establish video series	Local authorities, regional authorities, public bodies
KSENNA	 Climate tools and maps Tools and formulas for the BEI development Data sheets for energy audits from Module 1 	Development of SECAPs, esp. the climate part	Local authorities
SEEA	- TerriSTORY®, climate datasheets, and the CEA BEI database	Online energy local database with a strong climate data package	Local authorities
UPRC	- Methodological approach of the learning programme	Organise future capacity buildings	Local authorities, university students



3.3. Expansion of energy observatories

The ENERGee Watch partners have and will continue to further utilise the project resources and outcomes to expand their energy and climate observatories. Energy and climate data availability is crucial for the project energy agencies in their daily operations with SEAP/SECAP development and monitoring, and for this reason, the tools and experiences developed within and during the project need to be embedded in the existing observatories. Moreover, FEDARENE is in touch with 5 additional organisations that might create or have just established an energy agency.

The majority of the partnering energy agencies will expand their observatory with software tools that will boost their capabilities, support processing and visualising data, and improve the monitoring and reporting of SECAP actions. With the help of ENERGee Watch's resources, partners' templates and methodologies for SECAP development and monitoring will be further improved.

Additionally, the data observatory developments will be used as sources for other EU-funded projects facing data availability issues to prevent the stagnation of their progress via the replication of MRV methods, such as in REGIO1st.

The complete overview of the expansions of the observatories is presented in <u>Table 3</u>, while a summary is given below for each of the energy agencies.

AURA-EE has continued developing new functionalities for the TerriSTORY® data visualization tool. T The latest update allows better monitoring of the regional plan for planning and sustainable development of the territory (SRADDET). The focus of the monitoring is the evolution of PV energy production for which AURA EE has developed a quarterly barometer. The first barometer data was published in early June 2023, and will be published every quarter from then onward. AURA-EE consolidated the SDES data for each quarterly period.

CEA will utilize and upgrade its existing energy database to make it publicly available, with open access, under its website. Thus, the database will provide key energy figures to local authorities in Cyprus and will increase their awareness of the energy use in their territories. With the data publicly available, it is considered that the local authorities will identify priorities in actions reducing the energy consumption and production which will result in 500 MWh of energy savings and 300 MWh of energy production from RES.

EAP is in the process of making its bioenergy assessment tool – SustainBioEn – publicly available to support local authorities and other energy practitioners in performing assessments of the local biomass utilisation scenarios. The tool provides simulations of the biomass sustainability criteria under the REDII and thus supports better sustainable energy planning on the local level. Due to the increasing demand for developing alternative scenarios for residential firewood use, the Observatory will provide the tool in the public domain for local authorities to use. It will increase the capacity of municipal experts to make fast and accurate estimations for the use of local biomass, along with its alternatives. The information can also be used in SECAP baseline and monitoring estimations for the residential sector as well as local forestry management plans.

IPR is in the process of improving its data visualization tool ENERGIF of the ROSE observatory platform. It will organize another national replication event targeted at the regional natural parks and prepare a new session for Paris Saclay and their local energy agency. The tool will also improve the data quality by integrating the district heating networks database.





KSENNA is in the process of expanding its energy database for the region and improving its data collection process. The knowledge and skills for this will be transferred further to the local authorities which will also participate in SECAP development. The improved data and SECAPs will provide ground for better planning of investments as they will also include action plans with mitigation and adaptation measures. It is estimated that the proposed energy measures for one municipality (heating and cooling, electricity, transport) could potentially trigger energy savings of 29.000 MWh per year in the next 10 years. The RES production will be increased by around 17% for heating and cooling, 48% for electricity, and 11,4% for transport.

SEEA is improving its Energy Hub with a visualisation tool and license data processing software. The Energy Hub is an open database for the Southeast region of Ireland for energy consumption, RES, GHG reduction and is used for SECAP development. The data upload for the 4 counties in the Southeast region (Carlow, Kilkenny, Wexford, Waterford) may be used to inform decision making in respect of renovation activities. It will outline gaps to target by 2030 by sector of activities. This will be used as input in the 4 action plans that have been developed by the local authorities as well as in a regional action plan, while the amount of investment required to close the gaps will be quantified.

Table 3 Expansion of the ENERGee Watch Observatories

Partner	Observatory expansion	Purpose	Target groups
AURA EE	Develop new functionalities in the TerriSTORY® data visualisation tool to better monitor the regional plan for planning and sustainable development of the territory (SRADDET).	Monitor the PV production within the SRADDET	Local authorities, energy producers
CEA	Utilisation and upgrade of an existing energy database with the purpose of allowing 'open access', providing key energy figures to local authorities.	Increase energy awareness for energy consumption	Local authorities, policy/decision makers
EAP	Publish SustainBioEn online to provide simulation software of the biomass sustainability criteria according to the REDII directive.	Support biomass scenario development for SECAPs	Local authorities, energy and forest practitioners
IPR	Improve the data visualisation tool ENERGIF within the ROSE observatory and platform.	Improve data quality and availability	Local authorities, national parks
KSENNA	Upgrade and expand the data collection process for the region's energy database for the preparation of SECAPs of local authorities.	SECAP development	Local authorities
SEEA	Improvement of the open database for South-East Ireland for energy, RES and GHG emissions Energy Hub , including visualisation tool, licence data processing software.	Data provision for action plan monitoring	Local and regional authorities, decision makers



3.4. External replication and exploitation of the ENERGee Watch resources

During the three learning cycles, the project partners, mentors and mentees reported 55 different cases from 22 countries in which they could apply their knowledge and know-how gathered through the project. Currently, there are 22 innovative practices, 19 good practices, and 14 promising practices listed in the <u>ENERGee Watch best practices database</u>. The work around energy and climate data is crucial to set the energy and climate baseline in their territories and to monitor it. So, through the established partnerships with the mentors, further support and assistance in SECAP delivery was provided and they managed to help mentees through their data journey. The most notable mentions are presented in **Table 4**.

Some **mentees already have had experience** in developing energy and climate plans for local and regional governments, thus through the ENERGee Watch learning programme, they could deepen their knowledge and transfer it to their colleagues and involve them in SECAP preparation. The acquired knowledge can be applied in all stages of SECAP development, more precisely, from data collection and creation of a base inventory, definition of risks and vulnerable groups for planning adaptation measures, and definition of mitigation measures. The mentees will further implement the process of setting energy and climate objectives and targets in the future activities of their municipalities, and they will develop monitoring and assessment processes for energy and climate data. Additionally, they will be able to explain to city representatives in a simpler way what SECAP is, what are the tasks of the city in the implementation of measures, what are the risks of climate change and what are the vulnerable groups defined within the city's borders. They will introduce and promote citizen engagement and organise neighbourhood activities in line with energy and climate targets.

Success story IRELAND

The course will assist in the development of the multi-purpose Digital Twin City for Waterford, particularly the calculation, tracking, verification and visualization of the necessary Energy Transition and Carbon Neutral actions

The mentees will review the **data collection methods** and consider the new data sourcing approaches. Based on these, they will adapt their existing tools and develop new specific tools for data visualisation for their observatories. They will also be able to process data more efficiently and present it more effectively to their stakeholders.

Success story BULGARIA

When developing the scenarios for sustainable energy development of the Municipality of Brezovo, emphasis is placed on baselines and forecasts for energy consumption and production, and not so much on climate issues. Following the course, our main objective is to pay special attention to climate-related issues by implementing specific policies and measures to adapt to climate change in development scenarios.





One important aspect was the introduction of the **climate part** of the SECAP and building capacity for its development. Knowledge of the climate challenges and the monitoring framework for climate impacts is essential for mentees to lay the basis for proper monitoring of their climate actions. The use of the different climate indicators can be a means to communicate the causes and effects of climate change so that they encourage the active participation of different stakeholders. Mentees will use visual communication for data collection and communication activities and refer to the good practices for inspiration.

The data **communication and dissemination tips** by the ENERGee Watch mentors will be applied by mentees to improve the efficiency of the communication processes and to provide better quality information. They will be used for communication and organising participatory processes, especially for climate risks and vulnerability evaluation results, SECAP investments, energy savings, etc.

Mentees highlight that the courses provided them not only with knowledge but also with **useful materials, instructions and guides** for the preparation of SECAPs. Most of them point out that they will use the knowledge and resources to develop or monitor their SECAPs and transfer it to other experts in their municipalities.

The mentees will also **apply the tools** provided in their current projects. For example, the business canvas method is applicable in the development of business plans, feasibility and environmental analysis for sustainable energy projects and climate mitigation actions. There are observatories that will use the tools and charts and will review the report templates to adapt them to their audience's needs. The mentees came to know the datasets provided by the observatories (e.g., the ANERGO, OPTEER and Rose observatory) and will thus further use them in their SECAP development and monitoring.







Table 4 Notable replication and exploitation cases by mentees

Name of practice	Mentee	Objective	
Smart Waterford	Waterford, Ireland	Provide a roadmap for the development of a "Smart Waterford" over the 5 years up to 2026 in setting the framework of support for communities and businesses to reap the full rewards of a digitally enabled society.	
CCAP Ireland	Dún Laoghaire-Rathdown County Council	Document the occurrence of past climatic events, their frequency, the specific areas in Dún Laoghaire-Rathdown that are most vulnerable, and the risks associated with such events. This adaptation baseline also highlights the need for emergency planning to be continually updated in line with extreme weather events.	
BEACON	Dorida Municipality, Region of Central Greece	Provide an overview of the successes and learnings of the project. The interactive brochure zooms in on the specific stories of how schools and municipalities across Europe have created impact in the BEACON project.	
GENOA 2050 Action Plan	Liguria Region, Genoa municipality	Achieve better governance of the city system, to strengthen the urban fabric and to innovate the development of infrastructures, networks, services and communications.	
RESPONSE Lighthouse	Dijon, Bourgogne-Franche-Comté, France	Accelerating the decarbonisation, strengthen capacity to adapt to unavoidable climate change impacts and allow citizens to access secure, sustainable and affordable energy.	
SIMPLA	Alba County, Romania	Support local authorities in harmonising their SEAPs and SUMPs through dedicated training and coaching sessions.	
Regional Energy Plan Piemonte	Piemonte Region	Ensure that the measures and priorities defined at the regional level are compliant with the overall European and National strategies aiming at a greenhouse gas emissions reduction target of at least 55% by 2030 and a long-term vision to reach climate neutrality by 2050.	
SECAP for Sveti Juraj na Bregu Municipalities	Medjimurje County	Raise capacity of cross-border public institutions in sustainable energy planning and management and climater change mitigation.	
PESPKA-PDE	Patras, Region of Western Greece	Identify and prioritize the necessary measures and actions to adapt the Region to the upcoming climate changes.	
Sustainable Energy and Climate Action Plan 2021-2030	Sofia, Bulgaria	Develop an information system and the monitoring and analysis of the "adaptation" indicators as part of the Cohesion and Development Tools for Strengthening the Interregional Cooperation in the Balkan area.	
LOCARBO	Alba Iulia, Alba County, Romania	Improve the energy efficiency, smart energy management and renewable energy use in public infrastructures. Promote best practices in green public buildings and inform and engage the population to participate actively. Embed low carbon into decision-making processes at the city/regional level, related to green public buildings.	





4. Replication in Action

4.1. National events

In total, 10 national events were held across the partnering countries – one per energy agency partner (ALEA, CEA, EAP, KSENNA, SEEA), and five in France conducted by IPR and AURA EE. The events spanned throughout one full day, with one exception. Most of them were held live while only one was online (FR) and one was held in hybrid format (RO). An overview of all national replication events is presented in **Annex 1**.

The partners were free to choose the aim and contents of their national replication events based on the ENERGee Watch learning courses. A cornerstone of the replication events was the transfer of knowledge and exchange of experience and know-how between the national partners and their replicating organisations. One major issue with SECAP development as stated by municipal experts is their lack of knowledge and capacity to work on the climate aspects. Although they are familiar with the energy part of the SECAP due to their previous work with SEAP development, they often do not have such advanced knowledge on the climate part. Thus, the ENERGee Watch events also aimed at helping these local authorities improve the way climate change barriers are tackled and integrated into their strategic documents.



Figure 1 ALEA national event



Figure 2 AURA-EE demonstration of TerriSTORY®

All national events replicated either the entire ENERGee Watch learning programme or a selected number of learning courses and modules. In addition, some of the partners extended the learning programme with applications to regional contexts and national aspects (BG, FR, SL) as well as guidance and support on how to approach SECAP development, especially on the climate adaptation and mitigation aspects. In some cases, demonstrations of specific tools were made to the wider audience (i.e. TerriSTORY®). Some additional topics covered within the events included information on funding schemes for sustainable projects as well as discussion about climate data and information.





Figure 3 Most common topics discussed during the national events

The national events were organised as lectures with time for discussions. A few of them also had practical parts and/or demonstrations (FR).

The main targeted audience of these national events were local authorities and their respective departments on energy or climate and energy agencies. The extended target groups included energy companies, experts in urban development, environmental NGOs, etc.



Figure 4 EAP national event



Figure 5 KSENNA national event

In total, there were **242 participants** in all national events, with an average of 24 participants per event, attending from 125 organisations (**Annex 2**). In France, 5 events were held by two partners and thus their number of participants accounts for more than 50% of all experts reached. The main invitees to the events were municipal experts and energy and urban development agencies. In addition, representatives of energy service providers, natural park authorities, and other public bodies attended.





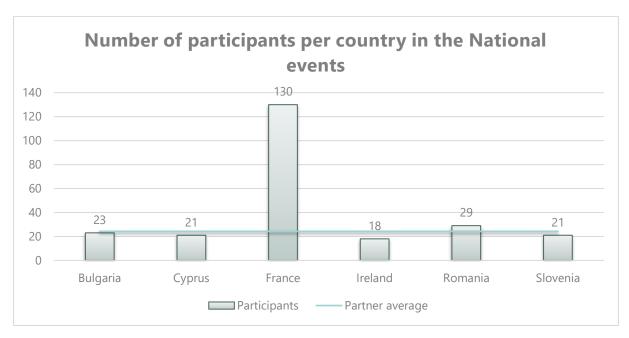


Figure 6 Number of participants per country in the National events

Take-aways from the national events

The impacts of the national events were mostly related to the better understanding of the participating local authorities about the **SECAP development process and its linkages to other local strategies** and their importance.

Another main take-away for the participants was regarding the **tools and methodologies** that they were not aware of and can be easily adapted and used in their work. Some of the sessions included demonstration and testing of these, such as the TerriSTORY® tool.

Success story FRANCE

Several participants gave us feedback that the materials from the learning course are relevan to their work and will be used in the SECAP process.

The sessions not only provided knowledge and capacity to the attendees, but also facilitated **peer learning and exchange of experiences**. Each of the events left room for discussion which was not only an essential part of the learning process, but also encouraged personal exchanges and sharing of real-life cases of SEAP/SECAP development and implementation.

After the lectures, one of the main discussion points was the issue of **data availability and the lack of access** to it. The sessions gave insights into the publicly available data on climate and how these datasets may be invested in the SECAP development, as well as the importance of standardisation of energy data collection and aggregation for preparing BEI/MEI and climate analyses. The energy data providers were discussed and collaboration with them was marked as an essential part of the data access process.





Success story BULGARIA

The participating experts from energy agencies agreed that cooperation between them is needed to build a sound methodology and guidance for development of the climate part in the SECAPs.

Finally, the attendees gained a better understanding of the **impacts of climate change** and how the climate part of SECAPs may be shaped given the scarcity of data availability. A general consensus was made that climate hazard indicators must be used to be able to quantify the impact of climate change at the local level.

Additional take-aways for participants were:

- Increased awareness of the role and benefits of regional energy observatories as well as their promotion.
- Improved transversality between municipal departments is needed.
- Understanding the importance and benefits of implementing integrated policies and actions.
- Understanding various funding mechanisms for implementing sustainable actions.

Success factors

The **availability of the national courses** themselves was a success as a wide audience of interested municipalities that could not attend the regular ENERGee Watch learning programme for various reasons benefitted from the learnings of the project through these events.

Success story CYPRUS

Many of the participating local authorities understood why it is important to develop SECAPs and given this, many of them submitted applications for funding in the domain of the energy transition.

The national events, being an integral part of a wider training course, enabled participants to build capacity in a more comprehensive manner. They **expanded their knowledge on SEAP development with topics related to climate adaptation and mitigation**. They reiterated the topic of data availability and data access, which is fundamental to the SECAP baseline and monitoring process.

The participants were keen on the presented **real-life case studies as well as tools** for mapping, data collection, etc. These can be replicated in their territory and have a high potential for participants to use them in their daily work. **Gamification approaches** such as the serious game ClimaStory® were also positively received. Participants were all directly involved in the demonstration of the tool, so this made it possible to discuss the difficulties they are facing as well as their needs regarding the issue covered.

Inspiring **knowledge exchanges and storytelling** were also a result of the sessions, speaking to the success of the events. On one hand, the sessions provided a 'crash' course which required attention and





focus on behalf of the participants for the theoretical aspect, but on the other, the discussions brought up the practical aspects and the real-life challenges in SECAP implementation.

Finally, the **international and European setting** was also in favour of the national events, such as the publication of the latest IPCC report and the launch of the EU mission on adaptation. This also helped local actors prioritise this issue and have a vision on how they can access funding to develop new projects.

Challenges

One of the challenges was to **adapt the full ENERGee Watch learning programme** into a one-day session. The content to be delivered was dense, so the focus needed to be more on key take-aways, while in addition, the content had to be adapted to suit the heterogeneous levels of knowledge of the participants. Some participants were already working on a strategy for adaptation to climate change and looking for tools to help them, while others came to learn about the notions and concepts related to adaptation without any prior experience. Moreover, small municipalities **lack the technical expertise and resources** to develop relevant action plans and implement them. Given that the events were live, the attendees wanted to discuss for as long as possible and thus the allotted discussion time may have been insufficient.

The **climate topic is cross-sectorial and complicated**; it requires deep knowledge of the environmental status of the communities which often involves a number of different experts. It is a paradox that in some cases municipal experts find the climate topic interesting and important, but as it is not on the top priority list of the authorities (unlike new infrastructure development, improving energy efficiency, deployment of RES, etc.) less time and resources are dedicated to building capacities related to climate adaptation and mitigation. It is still not well-understood by the decision makers that the **climate actions** may be embedded in other policies and not necessarily be separate actions.

Finally, there are still **inconsistencies in the access to energy and climate data**. There are difficulties in gathering the precise datasets in the specific granularity needed for the analyses. The data owners are reluctant to process the data and provide only raw datasets. Some local authorities lack the staff and/or skilled personnel to collect and process the data.

Lessons learned

The interest in the courses was high on behalf of the CoM municipalities and energy agencies, this also set **high expectations** for the national events. However, it was difficult to get their full engagement, because they have limited time and resources to commit to long events.

It is **difficult to balance** between covering very extensive learning material without overwhelming the participants and leaving enough time for discussion. Therefore, better timing, a narrower scope, and a hybrid option could be applied. It is also possible to break the ENERGee Watch programme down into smaller sessions for improved attention span and performance of the attendees.

Another lesson learned is that **theory needs to be tied to real-life cases** to produce tangible results from the training. As the national 'crash' courses were designed to be short, without follow-up, the **theoretical knowledge gained may be lost without practice**. It is of great importance to involve





participants actively; moreover, showcasing practical examples/activities that support them in overcoming the common difficulties in elaborating a SECAP (also by sharing experience with other municipality representatives) ensures the success of the learning activity. So, it is reasonable to provide follow-up or on-demand support to the participants, especially if they joined the courses to deal with specific SECAP cases.

The climate adaptation and mitigation topic needs to be reinforced. On one hand, it is promoted and assumed to be important in the long-term, and on the other, there is a lack of clarity on how to specifically address it. It is a cross-sectorial issue and requires wide participation of experts with different backgrounds. There is still great demand for climate training as many participants were unaware of the tools available to them or the approaches presented. Communication with regard to these tools should take place more widely while training intermediary actors (such as local energy agencies) to be able to support local authorities on this topic is also necessary. Finally, even though climate challenges may not be on the top priority list of the decision makers, this does not make them unimportant. In fact, an early start of actions to adapt to or mitigate climate challenges is essential for the long-term vision of the cities.

4.2. EU webinars

The EU webinars were designed as 'crash' courses of the broader ENERGee Watch learning programme. They were conducted by the ENERGee Watch mentors as half-day lecture sessions throughout May 2023.

The main target group for the webinars was the local authorities throughout the EU as well as cities from the Global Covenant of Mayors that had not been part of the regular learning programme. Attendance was also open to energy agencies, academic institutions, other types of public authorities, companies, private organisations, individual researchers, etc. The promotion of the webinars was online, through the webpage, the social media channels, the information channels of FEDARENE and the other partners. Dedicated graphics were used and disseminated through social media, mailing lists and individual communication.





Table 5: Themes and topics per module.

N	Module	Partner	Aim and themes of the module
1	Data collection (acquisition and treatment)	KSENNA	The course "Data collection" is dedicated to understanding the importance of systematic, timely, and periodic gathering of energy data. Data collection and management are crucial for identifying trends, defining and monitoring strategies, and prioritising energy efficiency improvements. The course helps participants learn how to establish an effective energy management system for the public sector, as well as how to identify sources and facilitate access to territorial aggregated, and non-identifying energy data.
2	Data monitoring and validation	CEA	Local authorities are facing significant barriers when it comes to implementing actions included in the SECAPs: limited competences, limited financial resources, difficulties in accessing European funds, and limited capacity (technical knowledge). The course emphasises on enhancing the capacity of local authorities to implement sustainable projects through the development of internal administrative structures, processes to verify energy data, improve data quality, development of business plans, feasibility, and environmental analysis for sustainable energy projects.
3	Indicators for adaptation to climate change	IPR	The module dedicated to adaptation aims to clarify the concept, provide keys to understanding this discipline and shed light on the methodologies, systems and tools to support public actors. The aim is to guide participants in building their own roadmap to ensure that adaptation to climate change is fully integrated into energy-climate action plans.
4	Data display, dissemination, and validation by local authorities	AURA EE	This course on data display, dissemination and validation by local authorities educates and provides a sound knowledge base and understanding of the principles and best practices of data communication and presentation. Throughout the course, the participants learn how to best identify their target audience and the key considerations to make in order to communicate a message, through the use of data, most effectively. Alongside this, the key modes of data communication are identified with a detailed breakdown of how these modes can be replicated for any respective geographic area and audience.

In total, **342 people from 78 unique organisations (Annex 3) registered** for all 4 modules and 168 participants attended the sessions, resulting in a 49% attendance rate. Modules 1 and 3 were visited by almost twice the number of participants of Modules 2 and 4.

Participants were mostly from **local authorities and energy agencies** – around 30% (Figure 7). There were also representatives from academic institutions and consultancy companies, while a few networks also joined the events (Figure 8).





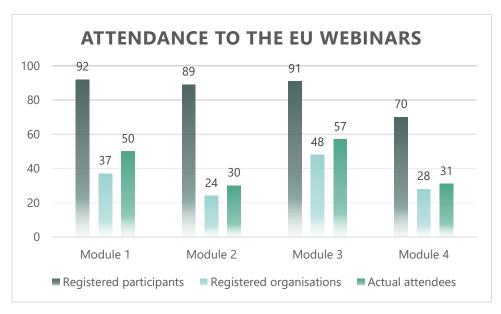


Figure 7 Attendance to the EU webinars

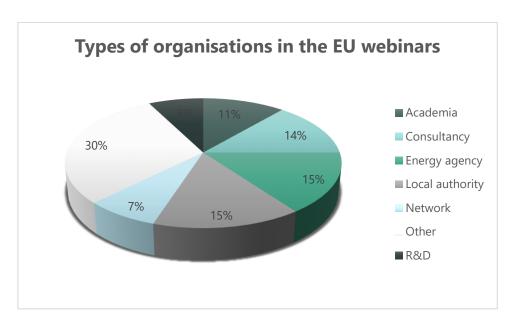


Figure 8 Types of organisations in the EU webinars

Around two thirds of the participants were from EU Member States (MS), while the others originated from non-EU countries, including Albania, Serbia, Georgia, and Turkey. There were also participants from India, Israel, Mexico, Pakistan, Tunisia, and Vietnam (Figure 9).



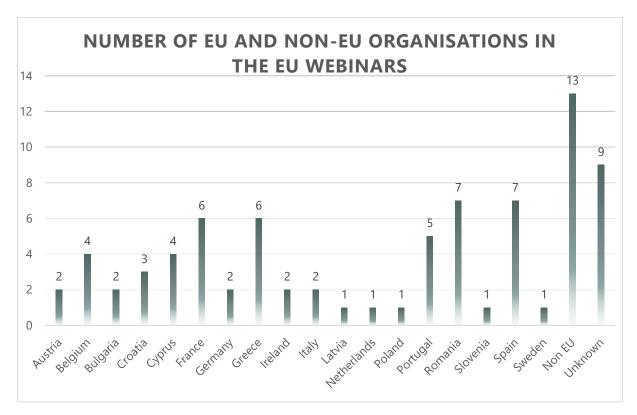


Figure 9 Number of EU and Non-EU organisations in the EU webinars

Following the courses, participants were able to access the learning material and, in some cases, over 50 downloads were made.



5. Exploitation and replication outcomes

5.1. Main results and outcomes

The exploitation and replication activities of the ENERGee Watch project have achieved:

- Impacts created on the energy and climate policies in 60 cities and regions across the EU, including actions related to mentee's SEAPs, SECAPs, urban development plans, EE and RES strategies, etc.
- Expansion of 6 energy observatories with concepts supplied by the EEW project;
- Prospects for the establishment of **5 new energy agencies** and their observatories;
- 10 national events with over 240 participants from 125 organisation;
- **4 EU webinars** with **342 participants** from **78 unique organisations** from EU and non-EU countries.

5.2. Lessons learned

The lessons learned throughout the exploitation and replication events are:

- The ENERGee Watch learning programme provides versatile knowledge and tools with high degree of applicability, transferability and scalability;
- Municipal experts still do not have the full range of knowledge and capacities to develop, implement and monitor SECAP, especially when it comes to the climate part;
- The ENERGee Watch learning programme may be further broken down into sessions to be offered individually by the partners;
- Learning materials need to be tied to real-life specific cases;
- Gamification and role play such as the "Climate at stake" game and ClimaSTORY® are suitable for fast learning;
- Tools that provide a high level of data processing features such as the TerriSTORY® are in demand by SECAP practitioners;
- Communication and discussion among the participants are essential;
- Follow-up communication and mentoring are needed to ensure the success of the learning programme;
- The climate topic needs to be further developed for local authorities to better understand and apply in their daily work with SECAP implementation;
- Tools and methodologies for climate assessment are needed;
- Data availability is still a topic of interest and demand among the SECAP practitioners;
- Improved communication and intensive support for local authorities is needed.





Annex 1 – Template and summary for project-wide national replication events

Introduction and context

It the national and regional levels, energy agencies partners will have the possibility to work with their peers and/or municipalities to provide direct coaching and aim at replicating the best practices from their own experience and from the ENERGee-Watch best practices. In total **10 national replication events took place** in BG, FR, SI, IE, CY and RO.

N	Partner	Country	Type of Event		Duration of Event	Targe group attendees	Event proceedings and topics covered)	External lecturers
1	ALEA	RO	Live	Joint event (national)	Half-day	Municipalities, energy agencies, regional authorities, financing organisations	The introductory part of the Replication event started with the brief presentation of the EEW project given by ALEA putting emphasise on the results and the implemented activities of the project. Then, the presentation about SECAP preparation as per agenda followed. The agenda item: Presentation of EEW project Collecting data necessary for SEAPs/SECAPs Monitoring inventories for GHG emissions for SEAPs/SECAPs Obtaining indicators for climate hazards Optimising the data visualisations for SEAPs/SECAPs	Yes
2	AURA-EE	FR	Live	Joint Event	Half day	Local authorities, regional government, energy network operators, towns and communes	The event gave demonstration of the TerriSTORY® tool to interested municipalities. It presented the capabilities of the tool to manage the energy and ecological transition, constructed alongside local territories. The AURA-EE experts also provided onsite technical expertise and questions-and-answers session.	No





3	AURA-EE	FR	Live	Stand- alone	Half day	Local authorities, regional government, energy network operators, towns and communes	 EEW Module on Data Visualisation (topics on TerriSTORY® tool and other tools) Other topics on other in-house expertise The event was live with the presence of local municipal representatives and covered these topics: a reminder of the challenges of mobility policy framework mobility diagnostic of the territory (indicators, infrastructure, dashboard) analysing of the territory transition pathway, action plan (impacts and projections) 	No
4	CEA	CY	Live	Joint event	Half-day	Local authorities, governmental departments, NGOs	The event replicated the EEW learning programme and informed the local authorities about different funding schemes that can use for implementing sustainable projects. The agenda covered topics from Courses 2 and 3 along with energy poverty presentations. As a final session, different funding opportunities were presented, i.e. National schemes, RRF schemes, EUCF and EPAH.	Yes
5	EAP	BG	Live	Joint event	Half-day	Local authorities, energy experts	The event focused on the BEI/MEI development and the data availability for them, and also on the climate part of the SECAPs. The session had a discussion part for the join policies and how to ensure good sync between energy, environmental and climate aspects. The agenda and discussion topics were: • Clarity over the energy data sets needed for BEI/MEI • Better understanding of the data needed for the climate part • Insight into the public data on climate and how these datasets may be invested in the SECAP development • Common understanding that the climate issues may not be the priority of the Bulgarian municipalities, but this does not make them unimportant; early start for their application is	No





							needed so that when disasters happen, it is not too late	
6	IPR	FR	Live	Stand- alone event	More than 1 day (1,5)	Local public authorities, energy and climate agencies (local partners of local public authorities)	The event aimed at extending the EEW learning programme with data and examples related to the regional context of the Île-de-France region and providing assistance and information on how to integrate an adaptation strategy into the SECAP.	Yes
7	IPR	FR	Live	Stand- alone event	Two days	Regional Natural parcs, energy and climate agencies (local partners of local public authorities)	The event aimed at extending the EEW learning programme with national specifics. The agenda covered: Day 1: Introduction and presentation of EEW project Fundamentals on adaptation to climate change Evaluation methodology for a climate change adaptation strategy Climate change vulnerability assessment carried out for the Île-de-France region Presentation of the regional action plan for climate change adaptation Methods and example for the use of data and mapping tools to assess local vulnerabilities, monitor and evaluate a local climate adaptation strategy Methods to design a climate change adaptation strategy and action plan. Presentation of case studies and examples of indicators to monitor the action plan. Focus on nature-based solutions. Day 2: Presentation of the TACCT methodology developed to aid local climate adaptation strategies by the national energy agency. Serious game "ClimaStory®": Immersive experience to help participants imagine an adaptation strategy for a fictional territory.	Yes





8	IPR	FR	Online	Joint event	Half-day	Energy agencies, local authorities and other public authorities	The event aimed at supporting regional natural parks integrate the issues of climate change adaptation into their local charters, encourage peer-learning by sharing case study of projects developed the Park Normandie-Maine, as well as help them better understand the vulnerabilities of their natural environments.	Yes
9	KSSENA	SI	Live	Stand- alone event	Half day	Local public authorities, energy agencies, local energy providers (public utility company), energy experts	The event extended the EEW learning programme with national specifics. It provided SEAPs/SECAPs development guidelines and transferred knowledge and capacities to the participating local authorities. It presented a crash Course 1 and focused was on the importance of systematic data collection as well as the national specifics in Slovenia. The main difficulties in data collection were pointed out.	No
10	SEEA	IE	Live	Stand- alone event	Half Day	Local authorities, local agencies, community group	The event delivered a condensed run-though of the four EEW courses to give attendees a feel for the topics and the key learnings from each. The agenda covered: Introduction to EEW project Course 2: Monitoring, Reporting, Verification: follow up on the implementation of actions and Q&A Course 3: Indicators and strategies on adaptation to Climate Change and Q&A Course 4: Data display, dissemination and validation by end users and Q&A Course 1: Energy Data collection (acquisition and treatment) and Q&A Wrap up and ENERGee Watch Resources	No





Annex 2 – List of organisations to have participated in national replication events

Organisation Names						
ALEC-MVE, France	Cerema, France	ACER, Bulgaria	Community council of Palaiomylos, Cyprus			
CAMVS, France	Ville de Paris, France	CIEC, Bulgaria	Community council of Agios Dimitrios, Cyprus			
Communauté d'agglomération de Cergy-Pontoise, France	CC Brie des Rivières et Châteaux, France	ENEFEKT, Bulgaria	Community council of Pachnas, Cyprus			
Communauté de Communes Carnelle Pays- de-France, France	Agence d'Urbanisme et d'Aménagement de Toulouse, France	Energy Agency of Plovdiv, Bulgaria	Community council of Platres, Cyprus			
CA Versailles Grand Parc, France	Urba Demain, France	AISVJ, Bulgaria	Community council of Lemithou, Cyprus			
Communauté d'agglomération de Marne & Gondoire, France	ARB îdF, France	SC TRACTEBEL ENGINEERING SA, Bulgaria	Community council of Vouni, Cyprus			
Agence Parisienne du Climat, France	EIFER, France	ABEA, Bulgaria	Troodos Development company (Regions of Troodous), Cyprus			
ville de Vitry sur seine, France	Mairie de Montigny-le- Bretonneux, France	SEC, Bulgaria	Community council of Kaminaria, Cyprus			
Métropole du Grand Paris, France	Saint Quentin en Yvelines, France	SOFENA, Bulgaria	Troodos Tourism Development and Promotion Company (Community council of Platres), Cyprus			
Etablissement public territorial Paris Ouest La Défense, France	FNCCR, France	ALEC Pays de Rennes, France	Community council of Treis Elies, Cyprus			
Ville de Levallois, France	GRS Valtech, France	ADEME Martinique, France	Community council of Kyperounta, Cyprus			
Est Ensemble, France	Département des Yvelines, France	BE, France	OZS, Slovenia			
SEMAVO, France	INATER, France	Université de Brest, France	KSENNA, Slovenia			
EPT Boucle Nord de Seine, France	CA Saint Germain Boucles de Seine, France	Ville de Villeurbanne, France	MoCelje, Slovenia			
CA Plaine Vallée, France	Ville de Paris - Direction Transition Ecologique et Climat, France	Watèa, France	Obcina Prebold, Slovenia			
Plaine Vallée Agglomération, France	CA Marne & Gondoire, France	CONNECTCIR, France	Obcina Decica ob Savinji, Slovenia			
CA Roissy Pays de France, France	SPSE, France	Tenergie, France	Obcina Sendur, Slovenia			





Deliverable 5.3 - Replication assessment and planning

Région Île-de-France, France	Audiar, France	Nextstep solutions, France	Obcina Ealec, Slovenia
Ville de Montigny le Bretonneux, France	laboratoire SATIE, France	Ib vogt, France	RA Savinja, Slovenia
ADEME, France	Conseil départemental du Val d'Oise, France	Cabinet de conseil, France	Zavod CMCC, Slovenia
IPR - AREC, France	TERRE DE TERRITOIRES, France	OSER ENR (actionnaire Région 51%), France	Obcina Lasko, Slovenia
IPR - DEUR, France	AE3R Ploiesti, Romania	Indépendante, France	Obcina Dobrna, Slovenia
IPR - ARB, France	Primăria Municipiului Sibiu, Romania	ISARA (école d'ingénieurs agronomes), France	Petrol d.d. , Slovenia
IPR - PLANIFICATION, France	Primăria Municipiului Oradea, Romania	Econocom / financement de projets EnR par leasing, France	Energetika Celje, Slovenia
EPT Grand Orly Seine Bievre, France	Primaria Targu Mures Biroul Energetic, Romania	Indépendant, France	RASR, Slovenia
Opendatafrance, France	Oras Cugir, Romania	Mairie de Courzieu, France	Obcina Vransko, Slovenia
Reveleo, France	Primaria Municipiului Fagaras, Romania	EPCI de Centre Val de Loire, France	IBJ D.o.o, Slovenia
ville de Cergy, France	Primaria Municipiului Alba Iulia, Romania	EPCI des Ardennes (Grand Est), France	Dom ob Savinji Celje, Slovenia
Nantes Métropole, France	SERVELECT, Romania	EPCI Nouvelle-Aquitaine	Mestna obcina Celje, Slovenia
Ville de Lognes, France	ALEA, Romania	Rennes Métropole, France	
Grand Paris Sud Est Avenir, France	Primaria Craiova, Romania	Community council of Statos - Agios Photios, Cyprus	
Choose Paris Region, France	Primăria Municipiului Botoșani, Romania	CEA, Cyprus	





Annex 3 – List of organisations to have participated in the EU replication events

Organisation Names						
Smart Cities and Communities, Spain	Polytechnic University of Tirana, ALBANIA	AISVJ, ROMANIA				
WGIC, Belgium	AE3R Ploiesti-Prahova, ROMANIA	Renewables first, PAKISTAN				
Renovate Europe, Belgium	Cartif, SPAIN	ORAȘ CUGIR, ROMANIA				
CEA, Cyprus	E3Modelling, GREECE	Researcher, India				
SC TRACTEBEL ENGINEERING SA, Romania	Alba Iulia Municipality, Romania	Servelect, Romania				
pmu SAUDI, Arabia	GIZ Viet Nam, VIETNAM	AREC / IPR, France				
Sakarya Metropolitan Municipality, Turkey	Marquardt Group, TUNISIA	UPRC, Greece				
Institut Paris Region, France	Vassiliko Cement Works Public Company Ltd, CYPRUS	Independent Power Transmission Operator (IPTO) S.A, Greece				
ATMO BFC, France	Energy Efficiency and Management Association (EYODER), TURKEY	Opstinska uprava Priboj, Serbia				
namR, France	Medjimurje Energy Agency Ltd., CROATIA	Technical University of Vienna, Austria				
Ministry of Physical Planning and Urban Development, Nigeria	Urząd Marszałkowski Województwa Mazowieckiego w Warszawie, POLAND	Zlatibor Regional Development Agency, Serbia				
Energy and Environment Agency of Lower Austria, Austria	University of Naples Federico II, ITALY	IST-UTL/IN+, Portugal				
Energikontor Norr, Sweden	Municipality of Thessaloniki, GREECE	Municipality of Figueira da Foz, Portugal				
Irish Green Building Council, Ireland	REA Kvarner, CROATIA	National Technical University of Athens, Greece				
Certh, Greece	ENERGAP, SLOVENIA	Jcyl, Spain				
Self – employed, Greece	JRC, SPAIN	RTU, Latvia				
IEECP, Netherlands	EnDev Benin, BENIN	ESCAN sl, Spain				







Kilkenny County Council, Ireland	ENTE PUBLICO REGINAL DE LA ENERGIA DE CASTILLA Y LEON, SPAIN	Oeste Sustentável, Portugal	
Istanbul Bilgi University, Turkey	EY Cyprus, CYPRUS	Energy Agency of Plovdiv, Bulgaria	
Pantin, France	FUNDACION ASTURIANA DE LA ENERGÍA, SPAIN	MENEA, Croatia	
AURA-EE, France	AGENCE PARISIENNE DU CLIMAT, FRANCE	Freelance, Mexico	
SANA & SANA SARL ARCHITECTURE, France	National Technical University of Athens, GREECE	Municipality of Thessaloniki, Greece	
Infosys United Kingdom	Arava Institute, ISRAEL	FEDARENE, Belgium	
University Iran – Germany, Germany	ICLEI Europe, GERMANY	Infosys, Belgium	
Independent researcher, India	QUEST University for engineering, science & technology (Department of mechanical engineering), PAKISTAN		
CPC Center for Participation and Collaboration, Georgia	ATTCEI, PORTUGAL		
Independent Power Transmission Operator (IPTO) S.A., Greece	Area Science Park, ITALY		





Annex 4 – Template for partners' national replication events

At the national and regional levels, energy agencies partners have the possibility to work with their peers and/or municipalities to provide direct coaching and aim at replicating the best practices from their own experience and from the ENERGee-Watch best practices. In total **10 national replication events took place** in BG, FR, SI, IE, CY and RO.

Report on the National Replication event Partner NAME, COUNTRY DD / MM / 2023

National event: Nam	e of Partner (Country)
Type/format of event:	National Replication event Online / Live meeting Conference / Working Meeting /
Name of event:	
Dates:	dd/mm/2023
Location:	Online/Live (recording available?) City, Country
<u>Audience</u>	
Targeted attendees/audience:	 List the targeted audience for the National replication event Main target group and/or extended target group (if the submissions under the main group are insufficient)
Procedure to apply/participate in the event:	 Is there a specific procedure to apply/participate in the event? If, yes, please, explain: Application/Registration needed to participate Participant filter: priority given to unsuccessful EEW applicants, "sister" projects' representatives, local/regional authorities, energy agencies, etc.
Attendees (Participant list): (post-event)	 Provide the number and a list of participants (photo, print screen, etc. is also OK)
Aim of the event	
Aim of the event:	 What is the general objective of the event – replicate the EEW learning programme, extend the EEW learning programme with national specifics, SEAP/SECAP development guidelines and promotion, transfer of knowledge/peer learning, exchange of capacities, etc.?
Agenda/content of the event:	 Topics to be covered Modules that will be represented







Communication plan:	 Aims of the communication (recruitment of participants, promotion of the EEW learning programme, etc.) Timing of the communication events Promotional mailing or messages on the webpage/social media Promotional visuals/designs
Communication channels:	 Identify here potential channels, sister projects, networks, etc. to disseminate the invitation
External participants:	 Are there external lecturers/ experts foreseen? Potential sister projects, speakers, and board members that you would like to involve or invite.
<u>Proceedings</u>	
Description of event activities: (post-event)	Briefly describe the proceedings of the event and the activities covered.
<u>Results</u>	
Results/outputs of the event: (post-event)	Present in bullet points the major results of the replication event.
Success factors: (post-event)	What were the successful factors and stories from the National replication event?
Challenges identified: (post-event)	 Were there any challenges along the way? Identify potential solutions for the challenges
Lessons learned: (post-event)	Share your experience and recommendations: What did you learn from this event? How would you do it in another way? What could be improved?
Supporting material	<u>s</u>
Materials submitted: (post-event)	Photos/presentations/brochures/leaflets/etc. Attachments or uploads to the project internal SharePoint possible





Annex 5 – Template for EU replication events

The objective of an EU replication event is to have **constructive exchanges** with other cities, regions, agencies and ensure the exploitation of ENERGee Watch.

One replication webinar per module was organised by each module leader with the involvement of all partner agencies to provide content and support. **4 replication webinars were organised** in total to explain the implementation of the project and showcasing the outcomes to other interested regions. Mentees could also be invited to the replication activities, as they will transfer the experience and knowledge they gained during the project and along with partners will advise other stakeholders on how to implement similar practices as those deployed during the project.

At least 25 other organisations (with a particular focus on organisations from countries that will not hold national replication events) will be involved in these replication activities.

EU Replication Even	t: Name of Module (Leading partner)
Type/format of event:	Online session
Module:	 Data collection (acquisition and treatment) (KSSENA) Data monitoring and validation (CEA) Indicators for adaptation to climate change (Ile de France Regional Energy and Climate Agency) Data display, dissemination, and validation by local authorities (AURA EE)
Date:	dd/05/2023
Location:	Online Zoom link:
<u>Audience</u>	
Targeted attendees/audience:	List the targeted audience for the EU replication
Procedure to apply/participate in the module:	 Open registration: date Application form: (link) Registration form (zoom link):
Attendees (Participant list): (post-event)	Provide the number and a list of participants (photo, print screen, etc. is also OK)
Objective of the rep	<u>lication</u>
Objective of the replication:	Example- Module: DATA COLLECTION The module is dedicated to systematic, temporary and periodic collection of energy and climate data at the local level. Data management is key in identifying energy improvement trends sector and its impact on climate







	change, definition of monitoring strategies and priority energy measures efficiency and RES on the territory of the municipality.
Agenda/content of the module:	Topics and themes to be covered
Communication of t	he event
Communication plan:	 Aims of the communication (recruitment of participants, promotion of the EEW learning programme, etc.) Timing of the communication events Promotional mailing or messages on the webpage/social media Promotional visuals/designs
Communication channels:	 Social media Channels of the project partners (mailing lists, social media) Partner networks FEDARENE members Sister projects CINEA representatives Etc.
Lecturers and external participants:	 Participating lecturers Will there be external lecturers/ experts foreseen? Potential sister projects, speakers, board members that you would like to involve or invite.
<u>Proceedings</u>	
Description of event activities: (post-event)	Briefly describe the proceedings of the event and the activities covered.
Supporting material	<u>s</u>
Materials submitted: (post-event)	Photos/presentations/brochures/leaflets/etc. Attachments or uploads to the project internal SharePoint possible





Annex 6 – Results of the 1st EU replication event (Course 1)

EU Replication Even	t: Data collection (acquisition and treatment) (KSSENA)
Type/format of event:	Online session
Module:	Data collection (acquisition and treatment) (KSSENA)
Date:	09/05/2023
Location:	Online. Zoom link: Microsoft Teams link
<u>Audience</u>	
Targeted attendees/audience:	Municipalities, local authorities, regional authorities, energy agencies, energy sector
Procedure to apply/participate in the module:	 Open registration Application form: https://forms.gle/J7d8UK6xLg2hcpBy9 Registration form: https://forms.gle/J7d8UK6xLg2hcpBy9
Objective of the rep	<u>lication</u>
Objective of the replication:	Module: DATA COLLECTION The module is dedicated to systematic, temporary and periodic collection of energy and climate data at the local level. Data management is key in identifying energy improvement trends sector and its impact on climate change, definition of monitoring strategies and priority energy measures efficiency and RES on the territory of the municipality.
Agenda/content of the module:	 SECAP: data collection for baseline inventory Energy management Energy supply and production Transport
Communication of t	<u>he event</u>
Communication plan:	 Promotion was implemented by the communication partners of the Energee Watch project. All visuals were prepared by the communication team of the project. Additionally, each partner sent out invitations to EU replication courses through their company's databases.
Communication channels:	 Social media Channels of the project partners (mailing lists, social media) FEDARENE members
Lecturers and external participants:	no
<u>Proceedings</u>	









Description of event activities:	The event was held as an online event. The lecture was divided into 4 topics with one break after the first two topics. The event lasted 3 hours and some time was reserved for discussion at the end.
<u>Results</u>	
Results/outputs of the event:	There was a major inquiry by participants to be able to obtain learning material after the event. We provided a link to the learning material and more than 50 people downloaded it. • 92 registered participants • 37 registered organisations • 50 attendees
Supporting materials	
Materials submitted:	Uploaded to the project SharePoint: Crash course materials (including. Full Module 1), Attendance list, Session recording





Annex 7 – Results of the 2nd EU replication event (Course 2)

EU Replication Event: Data monitoring and validation (CEA)		
Type/format of event:	Online session	
Module:	Data monitoring and validation (CEA)	
Date:	15/05/2023	
Location:	Online. Teams link: Click here to join the meeting	
<u>Audience</u>		
Targeted attendees/audience:	 List the targeted audience for the EU replication 1. Municipalities / Local Authorities 2. Energy Agencies 3. CoM supporters 4. Consultants 	
Procedure to apply/participate in the module:	 Open registration: 10/04/2023 Application form: https://forms.office.com/e/A44TKGyt5n Registration form (team link): Click here to join the meeting 	
Objective of the rep	<u>lication</u>	
Objective of the replication:	Replication Event: Data monitoring, reporting and validation The module "Monitoring, revision and verification of data" gives emphasis on enhancing the capacity of local authorities to implement sustainable projects through the: • Development of internal administrative structures for the successful implementation and monitoring of sustainable energy action plans (roles, support, prioritization, budgeting, and tools) • Process to verify energy data • Data quality improvement	
Agenda/content of the module:	Uploaded to the Sharepoint	
Communication of t	<u>he event</u>	
Communication plan:	 Recruitment of participants, promotion of the ENERGee Watch learning programme, etc. Timing of the communication events Promotional mailing or messages on the webpage/social media Promotional visuals/designs 	
Communication channels:	 Social media Channels of the CEA (mailing lists, social media) CEA's networks FEDARENE members 	
Lecturers and external participants:	N/A	





Proceedings

Description of event activities:

The activities of the event started with an Introduction session by FEDARENE and then the below topics were presented by the CEA:

- Vision setting: The vision serves as the uniting component that all stakeholders can refer to; meaning everyone from leading politicians to citizens and interest groups. It can also be used for marketing the local authority to the rest of the world.
- Establishing a team: A clear organisational structure and assignment of responsibilities are prerequisites for the successful and sustainable implementation of the SECAP. A lack of coordination between the various policies, local authority departments and external organisations has been a considerable shortcoming in the energy or transport planning of many local authorities.
- Energy Modelling and Scenarios: Based on the data collected, their quality and the different sets of hypotheses, it is important to establish scenarios: how would energy consumption and CO2 emissions evolve under current policies, what would be the impact of the projected actions, etc.? It is appropriate to build a Business as Usual (BAU) scenario, to forecast the level of energy consumption and CO2 emissions during the target year(s) in a scenario without SECAP but also to count a scenario with SECAP.
- Data Processing and Verification: Baseline and biannual monitoring review and emission inventories creation require energy and CO2 emissions data acquisition at the local level. It is not enough just to collect data: data needs to be analysed and interpreted in order to inform policy. The data's quality is dependent on many factors and therefore data processing and verification are important to ensure an accurate and clear picture of 'where we are?', and 'where we go?', a description of the city's current and future situation in terms of energy and climate change.
- Implementation and Monitoring: The implementation of the SECAPs is the main activity that leads to sustainable policies, projects and actions. Time, effort and financial means are needed; thus, the mobilisation of stakeholders and citizens is important. Monitoring is an essential step for identifying the progress of the main targets, individual projects, best practices, barriers and mistakes. It allows for continuous improvement of the process through implementation.

Results

Results/outputs of the event:

The replication events are a short version of the Courses. During the presentation of the topics a discussion with the participants was developed covering any questions and clarifications.

- 89 registered participants
- 24 registered organisations
- 30 attendees

Supporting materials

Materials submitted:

The material of the event was uploaded on the project SharePoint: agenda, presentations, session recording, promotional materials





Annex 8 – Results of the 3rd EU replication event (Course 3)

EU Replication Event: Indicators for adaptation to climate change (Ile de France Regional Energy and Climate Agency)		
Type/format of event:	Online session	
Module:	Indicators for adaptation to climate change (Ile de France Regional Energy and Climate Agency)	
Date:	22/05/2023	
Location:	Online. Teams link: https://events.teams.microsoft.com/event/26d739b2-ea48-434c-b7ee-a66492884106@a03ec1aa-81fc-4359-a02a-796d9c25c28e	
<u>Audience</u>		
Targeted attendees/audience:	Local authorities, energy agencies	
Procedure to apply/participate in the module:	Registration form (TEAMS link): Microsoft Virtual Events Powered by Teams	
Objective of the replie	<u>cation</u>	
Objective of the replication:	The module is dedicated to systematic, temporary and periodic collection of energy and climate data at the local level. Data management is key in identifying energy improvement trends sector and its impact on climate change, definition of monitoring strategies and priority energy measures efficiency and RES on the territory of the municipality.	
Agenda/content of the module:	Topics and themes to be covered: fundamentals of climate change and assessment, establishing diagnosis, establishing a strategy and action plan, examples of the Cities of Paris (FR) and Cascais (PT)	
Communication of th	<u>e event</u>	
Communication plan:	Invitations sent through mailing lists	
Communication channels:	Social media, mailing listsFEDARENE members	
Lecturers and external participants:	• N/A	
<u>Proceedings</u>		
Description of event activities:	Recording of the session available.	
<u>Results</u>		
Results/outputs of the event:	 91 registered participants 48 registered organisations 57 attendees 	
Supporting materials		
Materials submitted:	Uploaded to the project SharePoint: Module materials, presentation, participant list	





Annex 9 – Results of the 4th EU replication event (Course 4)

EU Replication Event: Data display, dissemination, and validation by local authorities (AURA	
EE)	
Type/format of event:	Online session
Module:	Data display, dissemination, and validation by local authorities (AURA EE)
Date:	30/05/2023
Location:	Online. Zoom link: https://us02web.zoom.us/j/86740031224?pwd=WnluOHdHcmxCYWZFcllzQURo MHd0Zz09
<u>Audience</u>	
Targeted attendees/audien ce:	Local and regional authorities and energy/climate agencies in Europe
Procedure to	Open registration: until May 26th
apply/participate	Application form: (link)
in the module:	Registration form (zoom link):
	https://us02web.zoom.us/meeting/register/tZlqc-
	morTooGNB1B2pVpGiaAxcuQctl1OA #/registration
Objective of the r	<u>eplication</u>
Objective of the replication:	Present the Learning material from Module 4
Agenda/content	What determines the effective communication of data?
of the module:	 Identifying the information needs of the end-users
	Manipulating and presenting data
	Implementing data display tools
	 TerriSTORY®, a deeper insight Data dissemination
	• Data dissemination
Communication	
Communication o	of the event
Communication	Invitations and agendas sent out through mailing lists and published on
Communication plan:	Invitations and agendas sent out through mailing lists and published on social media
Communication plan: Communication	Invitations and agendas sent out through mailing lists and published on social media Social media
Communication plan:	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media)
Communication plan: Communication	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media) Partner networks
Communication plan: Communication	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media) Partner networks FEDARENE members
Communication plan: Communication	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media) Partner networks
Communication plan: Communication channels:	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media) Partner networks FEDARENE members Sister projects
Communication plan: Communication channels:	Invitations and agendas sent out through mailing lists and published on social media Social media Channels of the project partners (mailing lists, social media) Partner networks FEDARENE members Sister projects





<u>Proceedings</u>	
Description of event activities:	presentation support and replay available
Results	
Results/outputs of the event:	 70 registered participants 28 registered organisations 31 attendees
Supporting mater	<u>ials</u>
Materials submitted:	Uploaded to the SharePoint: session recording, participant list, presentation, session recording

