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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 will focus 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 in 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 will launch 4 courses per year (one per each topic, twelve in total) with a total of 72 participating mentees. The learning program will entail tools, such as mentoring, site visits, tailored guidebooks and guided practice exchange will enable the proper matching of peer groups, and proper knowledge replication.

No	Participant Name	Short Name	Country Code	Logo
1	Institute for European Energy and Climate Policy (IEECP)	NETHERLANDS	NL	<b>ELECP</b> WHICH THE EXPLANABLE AND COMMITTALE
2	European Federation of Regions and Agencies for Energy and the Environment (FEDARENE)	BELGIUM	BE	FEDARENE
3	Technoeconomics of Energy and Environmental Systems Laboratory – University of Piraeus (UPRC – Teeslab)	GREECE	GR	TEES lab Technoconomics of Energy Systems
4	Auvergne-Rhône Alpes Energy Environment (AURA-EE)	FRANCE	FR	Auvergne Rhône-Alpes Energie Environnement
5	Energy Agency of Savinjska, Šaleška and Koroška region (KSSENA)	SLOVENIA	SI	KSSENR
6	Ile de France Regional Energy and Climate Agency (IAU IDF)	FRANCE	FR	PARIS RECIONAL ENERGIE-CLIMAT
7	3 Counties Energy agency (3 CEA)	IRELAND	IE	3Cea driving sustainability
8	Energy Agency of Plovdiv (EAP)	BULGARIA	BG	EHEPTUЙHA ATHILIMA ATHILIMA THOO BAUB THOO BAU
9	Alba Local Energy Agency (ALEA)	ROMANIA	RO	alea 📢
10	Cyprus Energy Agency (CEA)	CYPRUS	CY	Cyprus Energy Agency



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# **Executive Summary**

The overall aim of ENERGee Watch is to enable peer-to-peer learning for regional and local authorities and their energy agencies in order to precisely define, monitor and verify their sustainable energy and climate actions. Public authorities have varying levels of knowledge, skills, and capacity for sustainable energy solutions. As such, it is important to meet the diverse needs of different public authorities and to strengthen collaboration and engagement among them.

In order to do so and also to further replicate and exploit the results of the learning programme, a series of Replication Webinars is envisaged to take place at EU level. The scope of these webinars is to disseminate and diffuse to other regions, outside of the learning programme, the results, best practices and lessons learnt throughout ENERGee Watch.

To facilitate the organisation of these webinars a variety of material will be produced. The focus of this deliverable is to present the conceptualisation and creation of the central material employed for the webinars, the project fiches.

The goal is to create four project fiches, one for each of the four thematic courses of the learning programme. These project fiches comprise general information about each course, the personal experience of the course's mentees, alongside information about their regional organisation and the already existing and planned sustainable energy projects of the mentees. Moreover, various best practices and lessons learnt will be included in order to facilitate the knowledge exchange of the Replication Webinars.

Finally, focus is placed upon the visual design of the project fiches so as to achieve a visually pleasing and engaging result. The final project fiches are also presented in the final section of this deliverable.





## 1 Introduction

Public authorities have varying levels of knowledge, skills, and capacity for sustainable energy solutions; from planning to financing and successful implementation (Salvia et al., 2021). As such, it is important to meet the diverse needs of different public authorities and to strengthen collaboration and engagement among them. Also, the policies for monitoring and verification are often formed on a national level and cities oftentimes do not have the capacity for setting up proper Monitoring, Reporting and Verification (MRV) practices and do not properly monitor the impact of their policies and implemented actions (Marques et al., 2016).

The overall aim of ENERGee Watch is to enable peer-to-peer learning for regional and local authorities and their energy agencies in order to precisely define, monitor and verify their sustainable energy and climate actions. The learning programme's main target are associations and networks of cities and regions and the learning process will be focused on how different sustainable energy and climate mitigation projects have been monitored and evaluated.

As part of the Replication and Exploitation Plan outlined in the ENERGee Watch Deliverable D5.1, it is envisaged to organise a set of events which are the Replication Webinars that will take place on EU level and will be mainly focused on disseminating and diffusing best practices and lessons learnt during ENERGee Watch to other regions, alongside sharing the experiences of the mentees that already participated successfully in the ENERGee Watch learning programme. More specifically, the EU Webinars are planned for Months 32 and 33 of the project.

In order to support and facilitate the organisation of the EU Replication Webinars, a variety of auxiliary material will be synthesised, such as promotional material for the dissemination of the Replication Webinars through the social media channels of the project. The centrepiece of the Replication Webinars will be the creation of four (4) project fiches, one for each of the four (4) thematic courses of the learning programme.

The four project fiches are designed with the aim to present an overview of each of the four courses that were developed, the personal experiences of the mentees alongside information on each regional organization, such as size, services provided, vision and resources and availability and finally, the best practices and lessons learnt during the learning programme.

The rest of this deliverable is structured as follows:

- > **Section 2** provides an overview of the working approach that was followed to synthesise the project fiches.
- > **Section 3** presents the visual design that was employed to produce the template for the project fiches.
- Finally, **Section 4** collects the end results of the project fiches.





# 2 Working Approach

Since the aim of the project fiches is to present the four courses of the ENERGee Watch learning programme alongside the mentees' experience and the best practices and lessons learnt collected throughout the learning programme and in order to then synthesise the four project fiches, a two-step process was followed. The two steps that ran in parallel, involved (i). the gathering of the necessary information that would comprise the content of the project fiches and (ii). the visual design of the project fiches.

First of all, the process of gathering the relevant information for the content of the project fiches was a crucial one. All the necessary information was collected through various means and channels. The three main sources of information were (i). the already produced content for the four courses of the learning programme, (ii). the mentees' personal experiences and lessons learnt that were collected throughout the learning programme and, finally, (iii). online resources that are publicly available about the mentees' regions and sustainable energy projects that have already been or are planned to be implemented.

The first source of information, i.e., the existing content of the four learning courses, was used for the section of the project fiches concerning the presentation of the scope and aim of each course, while also detailing some of the topics covered throughout the course.

The personal experiences of the mentees were used in the form of quotes to present in a more direct manner how the course has helped each mentee and how do they plan to implement the knowledge gained in their day-to-day processes. Moreover, the best practices and lessons learnt that were collected throughout the learning programme were used to synthesise a section of the project fiches that illustrates how the knowledge of the course can enable even more participants that are willing to enhance their monitoring, reporting and verification processes in other European regions.

Finally, the online recourses, when available, that are relevant to the mentees' own regions and organisations, alongside their own sustainable energy projects, present and future, were used to enhance the project fiches and bring real life examples that the ENERGee Watch programme can have an impact on.

In parallel, the visual design of the project fiches was developed in order to structure all these information in a succinct and visually pleasing way. The approach to the visual design of the project fiches is further explained in the following Section 3.

All the aforementioned details are presented visually in Figure 1, below:

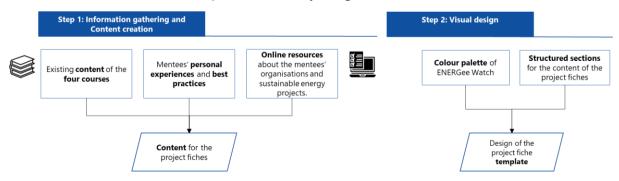


Figure 1 Working approach for the creation of project fiches.





# 3 Design of the Project Fiches

The aim of the design of the project fiches is to present in a structured and succinct manner the relevant information about the ENERGee Watch learning programme and its four thematic courses, while maintaining visual interest and being aesthetically pleasing. Each project fiche is comprised from two pages. The content of each fiche across the two pages is structured into four main sections:

- An **introductory section** detailing the scope and aim of each course, alongside some general information about the topics and methods covered in each course. This introductory section serves as an entrance point to the rest of the project fiche; hence it is placed at the top of the first page.
- A **second section** placed at the left side of the first page of the fiche presents the mentees of each course and the sustainable energy projects that they are responsible for in their respective region, present and/or future.
- The **third section** located at the right side of the first page of the fiche collects various quotes from the mentees, thus presenting their experiences and best practices acquired from the learning programme.
- The **last section** that covers the second page of the fiche presents best practices and lessons learnt that were collected throughout the learning programme.



Figure 2 Project fiche template.

The visual approach for the project fiches aims at being aesthetically pleasing and engaging for the viewer, while also enhancing the overarching visual identity of the ENERGee Watch project.

In order to do so, the colour palette that has been developed for each of the courses was used so that each project fiche is distinguished from the rest. Moreover, the course logos that were produced were







employed in order to further facilitate the unique visual identity of each project fiche. Finally, the ENERGee Watch logo is clearly placed at the top of each project fiche so that the connection between all the fiches can be indicated.

All the above design details and sections can be easily viewed in the example of a project fiche template presented in Figure 1.





In this final section the project fiches in their current state are presented. It is noteworthy that the content in these fiches is derived from the first learning cycle, and it is expected that the fiches will be updated and further developed to reflect on the experiences and best practices of the following learning cycles.

Project Fiche

Course: Data Collection (Acquisition and Treatment)





The course on **Data Collection (Acquisition and Treatment)** 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 prioritizing **energy efficiency improvements**.

As the collection of reliable and complete energy data often shows to be a difficult task, this course helps participants to 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**.

#### Our participants:

- Kilkenny city region aims to replace natural gas boilers with biogas boilers and then implement the successful actions to other cities as well.
- Montreuil, Région Île-de-France is developing the Sustainable Energy and Climate Action Plan (SECAP) for the Est Ensemble public establishment (EPT Est Ensemble).
- Chişinău, Republic of Moldova is creating the first SECAP. The region has also developed and implemented a Development Strategy for period 2017-2022 to the small village of Palanca.
- ANERGO Energy Observatory from Centru
  Development Region of Romania, as part of
  the Alba Local Energy Agency ALEA. The
  SECAP of Alba Iulia municipality Alba
  County, RO. The SECAP is under
  implementation since 2019 and is currently
  being monitored.



"With the help of this course in the future if we are doing any projects in which we need to calculate energy consumption, energy savings and other data analysis part. This course helped me get more accurate results than before."

"The course helped me and my agency to frame our activity and serve better the needs of the territory thanks to advice of our mentor."

"By ensuring a better quality of the SECAPs and that all of them will be approved and will attract more investors."



The ENERGee Watch project has received funding from the European Union's Horizon 2020

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Course 1 on Data Collection enabled the participants to:

Consolidate their SECAP stakeholder network, since these types of activities rely on multiple categories of stakeholders to carry out the European vision for decarbonisation at local and regional level. Stakeholder consolidation is thus essential to maintain a high level of engagement and support a strong implementation course for current and future mitigation and adaptation actions that are part of SECAPs and other strategic documents. Stakeholders representing energy data providers are also part of the process for maintaining reliable data sources for SECAPs. Extending, updating, and finding new opportunities of cooperation/signing new agreements with regional data providers is a key process. Inter-regional consolidation of stakeholders' network through the ENERGee Watch network of European energy agencies and Regional GHG and climate observatories is another important priority that is facilitated by the partnership with the ENERGee Watch project.

<u>Improve energy and climate data and data management for SECAPs.</u> Data reliability can be improved by adjusting current statistical sources and the identification/use of new scaling factors. Information provided by ENERGee Watch training courses will be used to expand the current capabilities of the participating organisations, enabling the usage of new data analysis and visualization models while also filling some gaps in existing statistical models.







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## **Course: Data Monitoring and Validation**



The Local Authorities are facing significant barriers when it comes to implementing actions included in the SECAPs: limited competences, limited financial resources, difficulties to access European funds, limited capacity (technical knowledge).

The peer-to-peer learning course on **Data Monitoring and Validation** will give emphasis to enhance the **capacity** of local authorities **to implement sustainable projects** through:

- **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
- Development of business plans, feasibility, and environmental analysis for sustainable energy projects.

#### Our participants:

- The region of Piemonte, Italy has developed a Regional Energy Plan and is moving now to the stage of implementation.
- The town of Prelog, Croatia has developed, since 2020, and is now implementing the Sustainable Energy and Climate Action Plan (SECAP).
- The municipality of Nea Ionia, Greece is currently revising its SECAP, after the duration of the Sustainable Energy Action Plan (SEAP) ended in 2020.
- Chişinău, Republic of Moldova most recently developed the plan for the town of Nisperoni.
- The Energy Agency of Plovdiv is currently preparing the SECAP for the city of Burgas and have already developed the monitoring for the SEAP.





"...it will be much easier for us to identify problems faced by our end users and accordingly advise them in selecting and prioritizing projects which enable the use of available renewable energy sources in their area."

"This course will definitely help me and my municipality in the development of internal administrative structures for the successful implementation and monitoring of sustainable energy action plans (roles, support, prioritization, budgeting)."

"The course will help me to provide qualitative support for municipalities, a strategic approach and a better understanding of the needs of the communities."







## **Course: Data Monitoring and Validation**





Course 2 on Data Monitoring and Validation enabled the participants to:

**Develop internal administrative structures**, by gaining insights into additional key elements that are important in the development of energy and climate plans such as the distribution of roles, support to the local communities, prioritization, and budgeting. All this gained knowledge facilitates the identification of problems faced by the end-users and the development of tailored advice in selecting and prioritizing projects which enable the use of available renewable energy sources in their respective region, thus providing quality support for local authorities, a strategic approach and a better understanding of the needs of the communities

<u>Conceptualise climate analysis and monitoring actions</u>, since for some local authorities these activities are a new niche. This initialization process provides a clear and comprehensive framework for defining the climate actions and their monitoring in future so that the actions to be implemented bring positive change in these regions.

Improve monitoring and evaluation of SECAPs. The monitoring process requires allocation of constant resources and cyclic activities. Maintaining the consistency of energy and climate data is one of the many challenges that arise in long-term monitoring of SECAPs and other similar planning tools. New energy and climate data standardization concepts, as well as refined SECAP elaboration methodologies and improved networking will be integrated as a result of participating in ENERGee Watch project and attending the training courses. For example, a good operational model regarding SECAPs elaboration and monitoring will greatly improve the capacity of ALEA to support more municipalities for a longer period, after initial elaboration of their local planning tools and provide a better example of vision and long-term strategy for SECAPs.









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### **Course: Indicators for Adaptation to Climate Change**





The course dedicated to **Indicators for Adaptation to Climate Change** aims to **clarify the concept**, provide insights to **understanding this discipline** and shed light on the **methodologies**, **systems and tools** to support public actors. The aim of the exercise is to guide participants in building their own roadmap to ensure that adaptation to climate change is fully integrated into energy-climate action plans. The course will provide insights on:

- **Setting the basics**: climate change adaptation and assessment
- Establishing the diagnosis: methods and data
- Drawing up a strategy and action plan: methods and roles of indicators

#### Our participants:

- The **Kent region** has developed the **Climate Adaptation Programme** with a focus on adaptation, rather than emissions reduction.
- The municipality of Kranj, Slovenia has developed and is implementing the Sustainable Energy and Climate Action Plan (SECAP), which is now being evaluated. The effects of the implemented measures are constantly under monitoring and are reported to the Covenant of Mayors platform every 2 years.
- In Dijon, France, the Schémas régionaux d'aménagement, de développement durable et d'égalité des territoires (SRADDET) is being implemented and monitored annually.
- The Energy Agency of Plovdiv as initiated the development of the SECAP for the city of Vidin, Bulgaria, with EE and RES plans already in place.





"The course provided [my agency] with expertise on how to obtain and structure climate data on local level to provide better climate adaptation and mitigation consultancy services to the [...] municipalities."

"The course brought important building blocks on the mental map of climate adaptation strategies and will help us to structure the action plan of development of services we can provide for the territories using the observatory tools."

"It helped with the design, content, and framing of adaptation."







## Course: Indicators for adaptation to climate change





Course 3 on Indicators for Adaptation to Climate Change enabled the participants to:

**Obtain and structure climate data on local level**, as one of the main barriers to the development of SECAPs is the lack of data to support climate actions, providing better climate adaptation and mitigation consultancy services to local authorities. By bringing important building blocks on the mental map of climate adaptation strategies, the course enabled the development of services provided to the regions for the structuring of their action plans, by specifically providing knowledge about how to collect data and where to search for more information.

**Improve the indicators and strategies on adaptation to climate change**, especially regarding the information provided to the regional and local authorities. As this is a new area for some regions, the knowledge and insights gained from this course have facilitated the development, orchestration and implementation of climate action plans, by providing a better understanding of new adaptation measures.









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Course: Data Display, Dissemination, and Validation by local authorities





This course on **Data Display, Dissemination and Validation** by local authorities will educate and provide a sound knowledge base and understanding of the **principles and best practices** of **data communication and presentation**. The course provides insights on 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.

#### Our participants:

- ANERGO Energy Observatory from Centru
  Development Region of Romania, as part of
  Alba Local Energy Agency ALEA. <u>The SECAP</u>
  of Alba <u>Iulia municipality</u> <u>Alba County</u>, <u>RO</u>.
  The **SECAP** is under implementation since
  2019 and is currently being monitored.
- In Pesaro, Italy a plan is under development for the energy efficiency refurbishment of school buildings.
- The Provincial Energy Management Agency of Cádiz (APEC) is currently developing the Provincial Climate Adaptation Strategy and Plan (PACCA). This plan will include the evaluation of the climatic risks and the vulnerability of all the municipalities of the province.
- Energyhub supervised the Sustainable
   Energy Action Plan (completed in 2016) and the Adaptation Plan (completed in 2019) for the Kilkenny County Council.





"Enhancing data communication and visualization in our agency will definitively contribute to improve dissemination and information activities with a more attractive and intelligible content but also to a better engagement of stakeholders in our projects. An effective participation is crucial to ensure the stakeholders support to different agency's initiatives."

"The course equipped me in terms of preparing more science-based reporting for the municipalities."

This course will help the agency review its process regarding regional delivery of projects: identify the stakeholders, and the end-user, review and adapt our communication to find new clients and new partners







Course: Data Display, Dissemination, and Validation by local authorities





### Course 4 on Data Visualisation and Validation enabled the participants to:

**Enhance data communication and visualization,** which will contribute to the improvement of dissemination and information activities with a more attractive and intelligible content but also to a better engagement of stakeholders. For example, the Provincial Climate Adaptation Strategy and Plan (PACCA), currently on development, will produce a large data set related to climate risk and vulnerability. These data would need to be presented in a succinct way to ensure that the target groups are properly informed and could understand the main conclusions of the local climatic analyses. Moreover, the course enables the optimum use of already existing communicating channels and methods (e.g., social networks, workshops, etc.).

<u>Prepare more science-based reporting for local authorities,</u> This course will help the agency review its process regarding regional delivery of projects: identify the stakeholders, and the end-user, review and adapt our communication to find new clients and new partners. It would help us monitoring the progress regarding energy and climate actions and report the findings in ways different target group can understand.

<u>Improve</u> the <u>efficiency</u> of <u>communication</u> <u>processes</u>, and to provide better quality information, by strengthening the methods and processes employed for the data visualisation and dissemination. The insights and knowledge gained will become especially useful during communication and participatory activities, where climatic risks and vulnerability evaluation results are made public.













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