



# MonitorEE Interregional Event 2 Dossier



GREEN



PP05\_ Paris Climate Agency

November the 22<sup>nd</sup> and 23<sup>rd</sup>

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## Aim of the document

The aim of the Interregional Events' Dossier is to summarise the main interregional activities held during the event for publication and dissemination in the project website.

The document includes the agenda, a description of the main activities developed, conclusions of the interregional learning and event photos.

## Project identification

**Acronym:** MonitorEE

**Title:** Improving energy efficiency through smarter management systems

**Project ID:** 01C0208

**Project duration:** 48 months + 3 months for project closure

**Core Phase:** From 01/03/23 until 28/02/2026.

**Follow-up Phase:** From 01/03/26 until 28/02/2027.

**Closure Phase:** From 01/03/27 until 31/05/27

## Partners / associated policy authorities

### Project partners

LP01 - Consortium Extremadura Energy Agency – AGENEX (Spain)

PP02 - Environmental Protection and Energy Efficiency Fund (Croatia)

PP03 - Regional Development Agency South-West Oltenia (Romania)

PP04 - Lappeenranta Municipality (Finland)

PP05 - Paris Climate Agency (France)

PP06 - Marshal Office of Świętokrzyskie Voivodeship (Poland)

### Associated policy authorities

APA01 – City of Paris/ Department of Ecological Transition and Climate (PP05)

APA02 - Ministry of Physical Planning, Construction and State Assets (PP02)

APA 03- Directorate General for Industry, Energy and Mines - Regional Government of Extremadura (LP01)

## Project summary

Buildings are currently considered to be in the eye of the storm due to the current standards imposed by Europe regarding energy matters. The Renovation Wave strategy developed by the European Commission, as part of the European Green Deal, has settled an action plan that establishes different measures to boost and accelerate building renovation. Its main goal is to double the annual energy renovation rate of buildings by 2030.

However, to achieve this, many European regions are still facing barriers such as: the lack of capabilities in the energy sector and the need for specific training; the high prices of construction materials and the increasing prices of energy; the lack of financial products available to face the upfront investments; and slow administrative procedures when dealing with grants and licences. These reasons, among others, develop in delays in the implementation of the European road map set for 2050, which foresees to reduce 80% of the GHG emissions.

At EU level, the Building Energy Performance Directive 2018/844/EU and the Energy Efficiency Directive 2012/27 promote policies to help decarbonize the building stock by 2050 by (i) creating a stable environment for decision-making and (ii) enabling consumers to make better choices towards energy and economic savings. At national level, long-term renovation strategies have been developed.

At local and regional level, public authorities can also help achieve the new standards of buildings energy performance. Even if a lot of progress has been done and innovative solutions have been introduced, there is still a long way to go; not only regarding investments in energy but also in monitoring these investments to analyse the work done, compare the real savings to those estimated in the project phase, and to use this information in future investments with the aim of optimizing the leverage of public funds.

## 1. Event Agenda

### Agenda Second Interregional Event 22<sup>nd</sup> /23<sup>rd</sup> November 2023

#### 22<sup>nd</sup> November

09:00 - 09:15	Registration
09:15 - 10:15	Presentation City of Paris Climate Plan - Objectives in terms of decarbonization and energy transition and the measures implemented to achieve these objectives & MonitorEE partners
10:15 - 10:30	Coffee break
10:30 - 11:30	Master Class: Presentation CoachCopro & EnerSiG
11:30 - 11:40	Coffee break
11:40- 13:00	Workshop Best Practices
13:00 - 14:00	Lunch
14:15 - 15:45	Steering Committee
16:00 - 17:30	Technical visit to the City Council building
18:00 - 19:00	Breaking time
19:30 - 22:30	Dinner

**23<sup>rd</sup> November**

08:50 – 09:00	Registration
09:20 – 11:15	1 <sup>st</sup> Study visit: Green District Clichy Batignolles
11:30 – 12:00	Travel time
12:00 – 13:00	Lunch
13:15 – 15:00	2 <sup>nd</sup> Study visit: Visit of 2 retrofitted residential buildings
	End of the visit

## 2. Summary

The second Interregional Event took place in Paris on the 22<sup>nd</sup> and 23<sup>rd</sup> of November. This meeting aimed at tackling technical aspects of the MonitorEE methodology.



The first day took place within the City Council of Paris and started with the presentation of the Paris Climate Agency, the policy instrument, and the current energy situation in Paris. The Local Authority welcomed the participants to the meeting and presented the heat network which is provided at 55% with renewable energy and heat recovery. Then, through a master class, the Paris Climate Agency presented its two main tools: CoachCopro, a web platform dedicated to the information, accompanying and the follow up of retrofit projects and EnerSIG, a mapping application developed with the Local Authority and the Paris Urbanism Agency that offers cross-data about buildings characterization, energy consumption and potentials. We ended the morning session with a best practices workshop, allowing each partner to present a local and innovative project related to monitoring.

The afternoon session was dedicated to the steering committee first and second to the study visit of the City Council. During this first visit, the Local Authority presented the energy supervision of public buildings developed on some buildings and smart heating control system and showed us the boiler room connected to the heat network of Paris.

The second day was only dedicated to study visits. In the morning, we visited the Eco district of Clichy Batignolles. The afternoon, we visited two condominiums which realised ambitious retrofit works.



This event was a successful work in progress point for MonitorEE project to achieve its objectives of developing a methodology to estimate and monitor energy investments and over time and improve energy efficiency.



### 3. ROUND TABLE/ WORKSHOP

The Workshop session was dedicated to the presentation of one good practice by each partner. It was a real opportunity to discover innovative and local monitoring projects that can inspire us to improve energy efficiency strategies.



It was an opportunity to tackle technical aspects of the monitoring methodology. Presentations dealt with several issues :

- Innovative and sustainable materials to develop low energy building with low carbon footprint
- Calculation to estimate and predict energy reduction after energy retrofit
- Sustainable development and architectural retrofit for public buildings
- Return flow of district heating to produce heating and cooling for buildings
- Fossil-free steam or heat storage
- Heat pumps in public buildings

## 4. SC Meeting

On the afternoon of the first day, the Lead Partner organised the 2<sup>nd</sup> steering Committee to review some aspects of the projects concerning the management, the workplan and communication activities.

## 5. Study Visits

On the first day, the Local Authority presented the energy situation of the City Council and organised the study visit of this boiler room. The City Council is a historical monument and a huge public building of 55 000 sq. m (including offices, meeting, and conference rooms). Therefore, it is a big energy consumer (159 kWh/ sq. m/ year).



First, the Local Authority presented the heating system, provided by the Paris heat network and the freshness system, located to the City Council basements. Heating represents 65% of the total energy consumption for the City of Paris. The distribution of heating is based on a historical technology: low pressure steam. According to the Paris Climate Plan aiming at reducing the energy consumption and phasing out fossil fuel, the Local Authority is currently developing several initiatives to develop renewable energies and reducing its energy consumption. A sobriety plan has notably been implemented.

Since 2022, the City Council, has installed around a hundred of wireless temperature sensors connected to the automat related to the network of the building. This supervision system, applied on some equipment, offers fast and accurate control of heating installations remotely. Energy savings realised thanks to this system are estimated at 7% for the moment. We ended with the visit of the boiler room to see its organisation, the steam system, and exchangers.



On the second day, in the morning, we visited one of the biggest urban projects led in Paris, the eco district Clichy-Batignolles, planned by the City of Paris and the Metropolis.

This project embodies the Local Authority decision to build a more sustainable city. It was a good study case that tackles many innovative aspects:

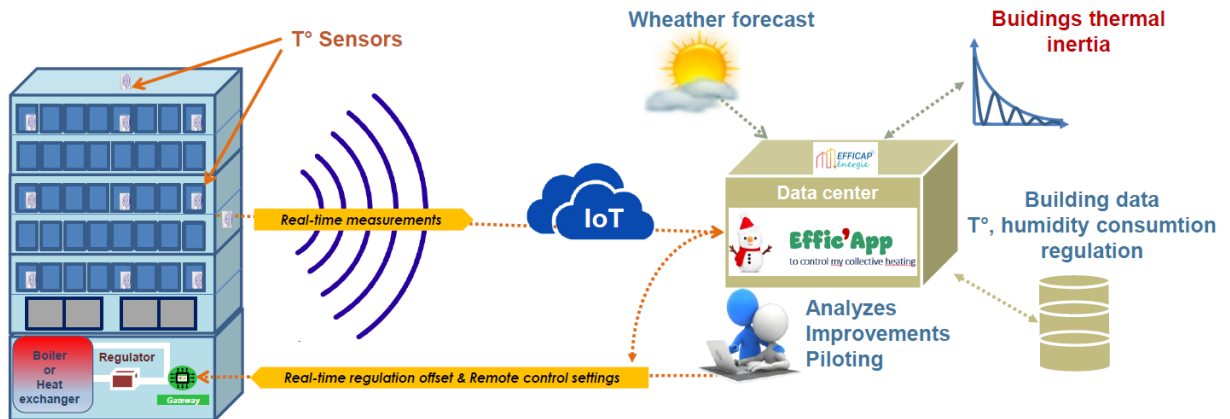
- Ambitious strategy in terms of energy efficiency and low carbon emissions
- Development of renewable energies (geothermal and solar energy)
- Implementation of a specific service dedicated to the monitoring and to optimise energy efficiency through the European project CoRDEES
- Bioclimatic conception
- Architectural quality
- Development of a rich biodiversity
- Functional and social diversity



It is important to emphasize on energy production within the district. Indeed, 85% of heating and hot water are provided by geothermal system and supported by the heat network if necessary. 40% of electricity is provided by the photovoltaic solar panels.



In the afternoon, we visited two condominiums which were awarded which for the ambitious energy retrofit works they realised. They are also appropriate study cases to develop and experiment the monitoring methodology. Both condominiums installed a predictive and controlling heating system, developed by Efficap and based on forecast, location, sun exposure and building inertia and inside and outside temperature sensors.



The first condominium applied to a specific retrofit programme financed by the Local Authority called Eco-Rénovons Paris 1 that offers to accompany condominiums in their retrofit project: authority support, project management support, financial engineering. The co-ownership realised its works in two times between 2015 and 2022. This condominium, provided with gas energy replaced its former boilers with condensing boilers financed by an energy savings contract and installed the Efficap system, insulated the whole building, retrofitted the ventilation, replaced lamps by LED in car parks and changed almost all carpentries with double glazing. After all these works, the buildings realised 55% of energy savings and is now certified as a low energy building (under 104 kWh/ sq.m/ year – primary energy). On heating, the building realises around 20% of energy savings each year.



The second condominium, connected to the heat network, only replaced its boiler room because of a lack of thermal comfort especially during winter and installed the Efficap system. They also replaced lamps with LED and installed motion detectors, insulated heating, and hot water networks, insulated the roof terrace and changed almost all carpentries with double glazing.

Since the end of the works and especially the replacement of the boiler room, the condominium realises around 20% of energy savings each year.

Both condominiums realised satisfactory energy savings and gained thermal comfort. They consider going further in the retrofit installing solar panels or greening some parts of the buildings for instance. Eventually, it is important to highlight that these condominiums received subsidies to finance their retrofit project, coming from the State, the Local Authority or Energy savings Contract.

