



MonitorEE Interregional Event 1 Dossier



GREEN



LP01 - Consortium Extremadura
Energy Agency (AGENEX)

September 2023

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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 analyze 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

Interreg
Europe

MonitorEE

Interreg
Europe

ShareRES

MonitorEE

Improving energy efficiency through smarter management systems

ShareRES

SHARing REnewable eneRgy through Energy communities

First Interregional Event / 24-25th May 2023

AGENDA

24th May 2023_Badajoz**Interregional Event.** *El Hospital Centro Vivo, Pl. Minayo, 06002 Badajoz.*

| | |
|----------------|--|
| 09:00-09:30 h | Registration. |
| 09:30-10:15h | Introduction Welcome from AGENEX. Brief presentation of both projects (MonitorEE and ShareRES) |
| 10:15-10:45 h | Partners presentation. |
| 10:45-11:00 h | Coffee break |
| 11:00-12:00h | Master class Exchange and monitoring Methodology & Learning Strategy |
| 12:00-13:00 h | Workshop Initiating the Interexchange of experiences Identification of Good Practices |
| 13:00 -14:00 h | Networking Lunch |
| 14:00h-16:30 h | Steering Committee (only project partners) |
| 19:00 | Project dinner + City centre walk Meeting point TBC. |

**25th May 2023_ Badajoz & Cáceres**

| | |
|----------------|---|
| 08:45 | Meeting point at Agencia Extremeña de Energía (AGENEX) Av. Antonio Masa Campos, 26, 06011 Badajoz |
| 08:45-09:30 h | Study Visit 1. Sharing RES among public buildings in Badajoz. |
| 09:30h-11:00 h | Travel to Study Visit in Cáceres |
| 11:00-11:15h | Coffee Break |
| 11:15-13:15 h | Study Visit 2. Monitoring innovative EE measures in buildings. EDEA experimental demonstrators. Cáceres. |
| 13:15-13:45 h | Travel to Lunch venue. |
| 13:45-16:30 h | Lunch + City centre walk. |
| 16:30-18:00 h | Return to Badajoz. <i>We could drop off partners traveling from Badajoz airport if necessary.</i> |

2. Summary

The Kick-off meeting of MonitorEE took place in Badajoz on the 24th and 25th of May, and it was organized by AGENEX. The main objective of the project is to improve the policies that enable to reduce the amount of energy consumed by buildings, and not only replacing the source of its generation with renewables.

On the first day of the event, AGENEX's director, Mr Cosme Segador, welcomed the participants to the meeting and presented the energy situation in Extremadura as well as the regional impact of participating in cooperation projects like MonitorEE.



The event took place in a quaint building called "El Hospital Centro Vivo," where 30 attendees from different parts of Europe shared their experiences regarding the project's topic. After a welcome and an Energy Context introduced by AGENEX Director, Cosme Segador, Daniel Encinas, AGENEX Technical Coordinator, introduced the event programme and explained the technical visits planned for the next day. Then, Rachel Tully, Head of the EU Projects Department, presented the main features of both projects. Furthermore, a Masterclass on the exchange of experience was conducted by the lead partner to give the consortium a solid basis to implement the learning activities planned throughout the project.

ShareRES project partners also participated in the meeting and the result was that the merging of knowledge between both projects allowed for a deep exchange of best practices, which were discussed in the second part of the event. Themes such as citizen empowerment, integration of smart technologies, mitigation of energy poverty, decentralization of energy systems and more, were covered during the discussions.

On the second day of the event, two study visits took place. The first one was a pilot project developed thanks to INNOINVEST project, financed by Interreg POCTEP program, through which AGENEX developed an innovative pilot scheme located in the vicinity of several public buildings. All of them share the energy produced and stored based on their different consumption profiles,

allowing to optimize the use of renewable energy produced and therefore, minimize the excess energy sold into the grid. The solar PV panels installed have a total power of 132 kWp distributed among 5 building rooftops and one building facade.

Image



For the second study visit, project partners travelled to Cáceres to visit the EDEA demonstrators, which exemplify a methodology for designing and constructing sustainable social housing in Extremadura. This was the end of the interregional event and that afternoon most of the partners started their return trip back home. The event was a successful starting point for MonitorEE project to achieve its objective of improving 6 policies that will allow to monitor energy investments.

3. Master Class

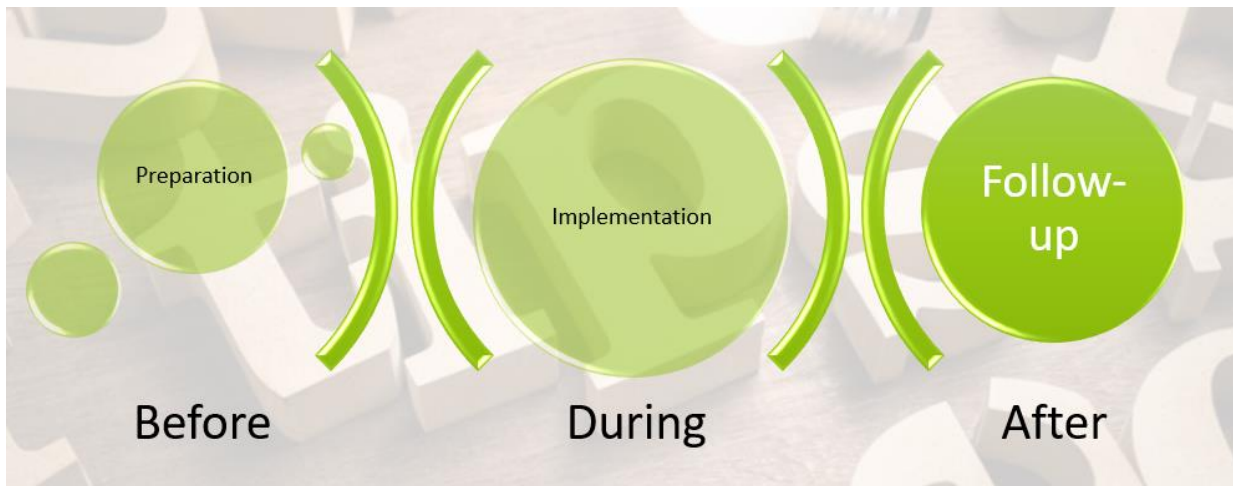


The Master Class “Exchange and monitoring Methodology & Learning Strategy” was driven by Beatriz Rico, AGENEX. The idea was to discuss with partners the Methodology for the exchange of experiences and the learning strategy and share some tips and tools to ensure:

1. Learning at DIFFERENT LEVELS.



2. QUALITY of each learning activity.



3. An INTEGRATED APPROACH.



After the presentation, partners and stakeholders were divided into groups per project to work in an exercise. Partners had to arrange interregional activities in the project timeline, identifying the type of learning that the individuals and the organisations would gain.



4. Workshop

During the event, a workshop “Initiating the Interexchange of experiences: Identification of Good Practices” was held.

The main objective was to establish the methodology for the Good Practices identification, the criteria, and the main characteristics to consider a regional example an interregional Good Practice.



Ana Martinez, AGENEX, shared some tips for identification, common pitfalls, and recommendations for a successful analysis.

RELEVANCE

relevant to the needs of the region or sector it is meant to address

TRANSFERABILITY

easily transferable to other regions or sectors, with appropriate adaptation to local conditions

IMPACT

have a proven impact in terms of improving the economic, social, or environmental conditions of the region or sector

INNOVATION

innovative and demonstrate a new approach or solution to a particular challenge

SUSTAINABILITY

sustainable in the long term, with clear plans for continued implementation and maintenance

PARTICIPATION

involve active participation and engagement of stakeholders, including local communities, businesses, and public authorities

EVALUATION

regularly evaluated to ensure that it continues to meet its objectives and remains effective

Then, partners of both projects presented a regional example focusing on the potential for transfer to other partners regions.



After the fruitful presentations, a workshop to comment on the GPs shared was held. Partners and stakeholders had the opportunity of exchanging experiences reviewing if the presented examples complied with the Interreg Europe GP criteria.

SLIDE 2

Good Practice name: *Bongel experience*
 Project: *herkes*
 Partner: *Bongel county council*

CHECKLIST

- GP is linked to the Project topic
- It is a GP: a Project, a methodology, a process or a technique
- Already implemented
- Proven successful and tangible res. Its Evidence of success described in measurable quantitative/qualitative
- Clear public intervention or, in case that is promoted by a private company, it is clear how a public authority could learn from it
- Reference to financial resources
- Easily transferred to other partners regions

GOOD PRACTICE EVALUATION

yes

no

maybe

Explain your choice:
Match criteria.

This exercise helped participants to understand the type of good practices that are targeted for the regional analysis and the added value for the international cooperation.

5. SC Meeting

Project partners participated in the 1st Steering Committee Meeting.

As the main topics were shared during the kick-off meeting, this in-person meeting focused on the reporting principles, clarifying the participants' doubts regarding the eligibility costs, budget lines, spending plan and reporting procedures. Other points of attention were to comment on the Communication Activities and the visibility rules.



6. Study Visits

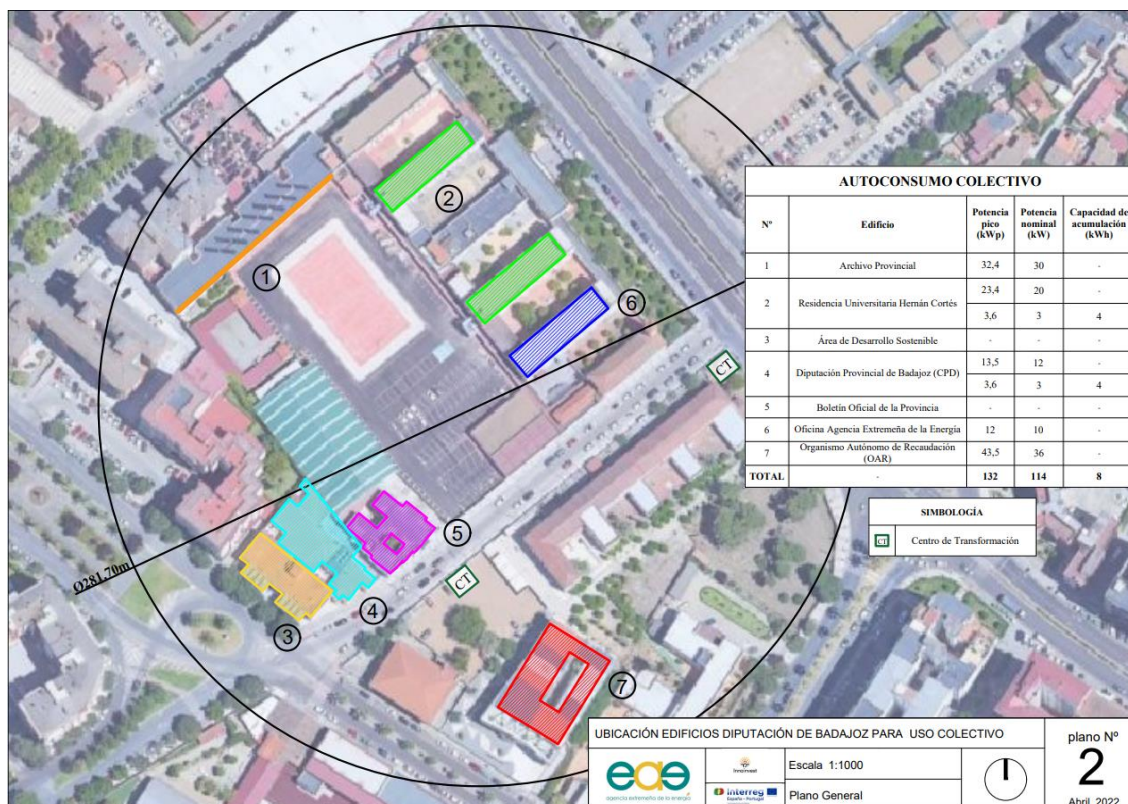
On the 25th of May, 2 study visits were planned related to the projects topics, one in Badajoz and the other one in Cáceres:

STUDY VISIT 1_ INNOINVEST pilot action_ (Shared energy self-consumption with storage)

Within the INNOINVEST project framework, The Consortium Extremadura Energy Agency has developed two pilot actions of “Share energy self-consumption with storage” in collaboration with the Provincial Councils of Badajoz and Cáceres.

On the 25th of May, the Badajoz’s prototype was visited, which is located in the vicinity of several public buildings near the Hernán Cortés University Residence in Badajoz.

The buildings will share the energy produced and stored based on their different consumption profiles. To share this energy, they will use the nearby electrical grid, as they are within a radius of less than 1 km.



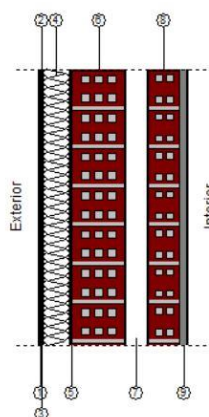
The INNOINVEST project is aimed to promote Energy storage and innovative materials. Therefore, the project installed on the façade of the Provincial Archives in Badajoz an External Thermal Insulation System (ETICS).

The Badajoz prototype has the following technical data:

Buildings: 7 (Hernán Cortés University Residence, Provincial Archive, headquarters of the Rural Development and Sustainability Area, Data Processing Center, Extremaduran Studies Center, office of the Autonomous Collection Agency (OAR), and office of the Extremaduran Energy Agency Consortium)

Solar field: 132 kWp distributed among 5 different buildings.

- Hernán Cortés University Residence: 27 kWp
- Provincial Archive: 32.4 kWp
- Data Processing Center: 17.1 kWp
- OAR: 43.5 kWp
- AGENEX Consortium: 12 kWp
- Nominal power: 114 kWh
- Storage: Lithium-ion batteries.



| | |
|-----------|--------------------------------------|
| 1/2/3 | Mortero |
| 4 | Panel rígido de EPS |
| 5 | Mortero para fijación de aislamiento |
| 6 | Fabrica de bloque cerámico 11,5 cm |
| 7 | Cámara de aire sin ventilar 5 cm. |
| 8 | Tabicón de LH doble 7 cm. |
| 9 | Enlucido 1,5 cm |
| <u>Um</u> | 0,42 W/m2k |

STUDY VISIT 2_ EDEA CICE

The construction sector plays a significant role within the European Union, **consumes 40% of materials, generates 40% of waste, and accounts for 40% of primary energy consumption.** These statistics highlight the significant impact of this sector on the economic, ecological, and social aspects of our environment, ultimately rendering it unsustainable.

Recognizing the significance of the construction sector, it becomes evident that a shift is necessary in the way buildings and their surroundings are designed, constructed, maintained, renovated, and demolished. In a nutshell, we need a **more sustainable construction model.**

To address this need, the Ministry of Development developed a new methodology for designing and constructing social housing in Extremadura. The aim is to create housing that adheres to sustainable criteria, exhibits superior energy performance, incorporates renewable energies, and ensures overall improvement in construction quality.



This concept will materialize through the construction **of two detached single-family homes,** following the housing typology outlined in the Special Plan.

The Special Housing Plan, initiated by the Council of Extremadura, intends to build homes across the region that are affordable for social groups with limited incomes. This plan encompasses the construction of various types of housing.

Both isolated single-family homes will face the same orientation and adopt the same structural system, exposing them to identical weather conditions.

- The **first one**, will mirror the construction specifications currently employed in Extremadura for the Special Plan's 80 m² housing units, serving as the "**reference house.**"
- The **second one**, referred to as the "**experimental housing,**" will incorporate various sustainable measures and renewable energies. Both houses will fully comply with the Technical Building Code.

Monitoring both buildings' results will enable the "EDEA CICE" to obtain comparative data on the passive/active systems implemented in our housing units in real-time. Moreover, a rigorous methodology will allow us to analyze how each modified variable affects the experimental house's energy demand.

Uniqueness and innovation are derived from the following characteristics of the project:

1. Tailored to the specific climate of the Extremadura region.
2. Designed for a particular type of building and population, namely social housing for low-income individuals.
3. Acquisition of real data on the efficiency of methods employed in the experimental housing, compared to the "reference" house utilizing conventional construction systems typically found in social housing projects in Extremadura.

The visit was really fruitful for all participants although MonitorEE partners could see how this example could potentially be a GP of the project that could help to improve their policy instruments.

The visit started with a brief presentation of the main features of the demonstrators. Active and passive solutions were introduced.



Then, partners could visit the EDEA demonstrators:

