Deliverable 4.1

Planning the Main Pilot Typologies

June 2024

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Table of Contents

1. Introduction 8
1.1. The ENERGATE platform 8
1.2. The scope of this report 9
2. Overall pilot description and methodology 11
3. ENERGATE Platform use cases and data entries 13
3.1. Use cases 13
3.2. Required input data 14
4. Main Pilot Typologies 16
4.1. Pilot Typology 1: Residential building 16
4.2. Pilot Typology 2: Office Building 19
4.3. Pilot Typology 3: Industrial Buildings 22
4.4. Pilot Typology 4: Hospital Buildings 24
4.5. Pilot Typology 5: Retail Stores 24
4.6. Pilot Typology 6: Public building 26
5. Pilot Engagement process 27
5.1. COMMUTY Pilot 27
5.2. LDK Pilot 27
5.3. Enerbrain Pilot 28
5.4. RPR Pilot 29
5.5. Greenesco Pilot 32
6. Conclusions 34

List of Figures

Figure 1-1 ENERGATE pilots, partners, stakeholders and process 9
Figure 3-1. Description of use cases 13

List of Tables

Table 2-1 ENERGATE pilots partners 11
Table 4-1. Pilot Typology 1 – Residential Building - COMMUTY 16
Table 4-2. Pilot Typology 1 – Residential Building - Greenesco 16
Table 4-3. Pilot Typology 1 – COMMUTY – Building 1 17
Table 4-4. Pilot Typology 1 – COMMUTY – Building 2 17
Table 4-5. Pilot Typology 1 – Greenesco – Building 1 17
Table 4-6. Pilot Typology 1 – Greenesco – Building 2 18
Table 4-7. Pilot Typology 1 – Greenesco – Building 3 18
Table 4-8. Pilot Typology 1 – Greenesco – Building 4 18
Table 4-9. Pilot Typology 2 – Office Building - LDK 19
Table 4-10. Pilot Typology 2 – Office Building - Greenesco 19
Table 4-11. Pilot Typology 2 – LDK – Building 1 20
Table 4-12. Pilot Typology 2 – Greenesco – Building 1 20
Table 4-13. Pilot Typology 2 – Greenesco – Building 2 20
Table 4-14. Pilot Typology 2 – Greenesco – Building 3 20
Table 4-15. Pilot Typology 2 – Greenesco – Building 4 21
Table 4-16. Pilot Typology 2 – Greenesco – Building 5 21
Table 4-17. Pilot Typology 2 – Greenesco – Building 6 21
Table 4-18. Pilot Typology 2 – Greenesco – Building 7 21
Table 4-19. Pilot Typology 2 – Greenesco – Building 8 22
Table 4-20. Pilot Typology 2 – Greenesco – Building 9 22
Table 4-21. Pilot Typology 3 – Industrial Building - Enerbrain 22
Table 4-22. Pilot Typology 3 – Industrial Building - Greenesco 23
Table 4-23. Pilot Typology 3 – Enerbrain – Buildings 1 - 3 23
Table 4-24. Pilot Typology 3 – Greenesco – Building 1 23
Table 4-25. Pilot Typology 4 – Hospital Building - Enerbrain 24
Table 4-26. Pilot Typology 4 – Enerbrain – Buildings 1 - 10 24
Table 4-27. Pilot Typology 5 – Retail Store - Enerbrain 24
Table 4-28. Pilot Typology 5 – Retail Store - Greenesco 25
Table 4-29. Pilot Typology 5 – Enerbrain – Buildings 1 - 5 25
Table 4-30. Pilot Typology 5 – Greenesco – Building 1 25
Table 4-31. Pilot Typology 6 – Public Building - RPR 26

List of Abbreviations

Abbreviation	Full term
EE	Energy Efficiency
EPC	Energy Performance Certificate
ESCO	Energy Services Company
EU	European Union
HVAC	Heating, Ventilation, and Air Conditioning
ICT	Information and Communication Technology
ID	Identity
JV	Joint Venture
KPIs	Key Performance Indicators
LED	Light Emitting Diode
PPP	Public Private Partnerships
Q&A	Questions and Answers
RE	Real Estate
REITs	Real Estate Investment Trusts
RES	Renewable Energy Sources

Executive Summary

The ENERGATE platform, developed within the framework of the ENERGATE project, aims to facilitate the communication between market actors and building owners to support energy efficiency investments. The aim of this report is to ensure the strategic deployment and validation of the ENERGATE platform across six European pilot countries, namely Spain, France, Italy, Austria, Greece, and Latvia to showcase the platform's applicability and effectiveness in facilitating energy efficiency investments in buildings.

The ENERGATE platform is structured around seven use cases, four for private buildings and three for public buildings. The pilots are designed to cover a range of different building typologies with the aim to advance energy efficiency across Europe. For instance, projects in Spain and Greece focus on residential buildings, with energy efficiency measures planned for building envelopes, lighting systems, HVAC upgrades, as well as renewable energy sources. Office buildings of variable sizes (e.g. small to large office complexes) are targeted predominantly in Greece for similar interventions. Industrial buildings are also targeted, such as a car industry site in Italy and a winery in Greece, especially for HVAC and lighting upgrades, alongside renewable energy sources. Hospitals are targeted in France for efficiency upgrades, including HVAC system optimizations, whilst retail stores are targeted across Italy, France, and Greece for similar interventions. Finally, public buildings are targeted in Latvia, including schools and municipal facilities, for comprehensive energy efficiency improvements. These preliminary projects illustrate the platform's broad scope and the diverse building typologies considered so far.

For each pilot, specific stakeholder engagement activities are planned, targeting a wide range of stakeholders, to promote the platform's capabilities across various sectors. For example, in Spain building owners and architecture firms are currently being engaged, whilst in Greece real estate companies, research institutes, and municipalities are being targeted.

In summary, this report provides an overview of how the ENERGATE platform intends to trigger energy efficiency investments in buildings, through its pilots in six European countries.

1. Introduction

1.1. The ENERGATE platform

Energy efficiency in buildings is considered of vital importance, as the building sector is responsible for a considerable share of global energy consumption and carbon emissions. However, the rate of building renovations in Europe remains low, due to the lack of effective tools to support decision-making and sustainable financing. In this context, the ENERGATE project aims to facilitate the communication between market actors and building owners, through an ICT (Information and Communication Technology) enabled marketplace, the so called ENERGATE platform. The ENERGATE platform enables the effective collection of projects, the aggregation of projects and business matchmaking to support energy efficiency investments. It provides services for facilitating the financing of building renovations.

The success of the ENERGATE platform is strongly connected with the engagement of the various stakeholders, including building owners, implementors and financial institutions, so that it can provide through the aggregation and matchmaking process products that can be successfully financed.

The ENERGATE target stakeholders can be divided in two main groups:

1) **Building owners and implementors (Group A – supply side)**: Stakeholders who own buildings and/or are active in the building industry. These stakeholders typically have access to, or own data related to, one or more building projects and can provide technical, commercial, and/or risk-related project information on the platform. Based on their inputs, the ENERGATE platform can provide feedback on possible financing opportunities and on performance when compared to other building projects.
   The specific stakeholders identified within this group include:
   a) Energy Services Companies (ESCOs)
   b) Project Developers
   c) Building Owners & associations representing owners
   d) Asset Managers
   e) Energy Consultants
   f) Public/Local Authorities.
2) **Financial stakeholders (Group B – demand side)**: Stakeholders who are market actors and want to use the ENERGATE platform to identify renovation projects to finance. They **are** financial stakeholders that make use of the available data on buildings and projects to look for investment opportunities such as on-bill financing, project financing, leasing etc.
   The stakeholders within this group include:
   a) Private Financial Bodies
   b) Public Financial Bodies
   c) Fund Managers
   d) Investment Consultants
   e) Private Investors
   f) Energy Services Companies (ESCOs)
   g) Project Developers.

Some stakeholders such as ESCOs and Project Developers, can be relevant to both categories, as they can have access and/or own data of building projects and also look for the right investment opportunities for projects. Given their impact on both groups, they are stakeholders that are crucial and should be involved at every step of the engagement process.

More details on the stakeholders' engagement in the ENERGATE project can be found in D5.1 Stakeholder Engagement Plan with Consultation Guide[1].

The aforementioned target/stakeholder groups are being engaged for the implementation of the different pilots of the ENERGATE project. The objective of the pilots is to demonstrate the applicability, functionality and effectiveness of the ENERGATE platform through. The ENERGATE pilots, partners and stakeholders are depicted in the Figure below, along with the overall ENERGATE process.

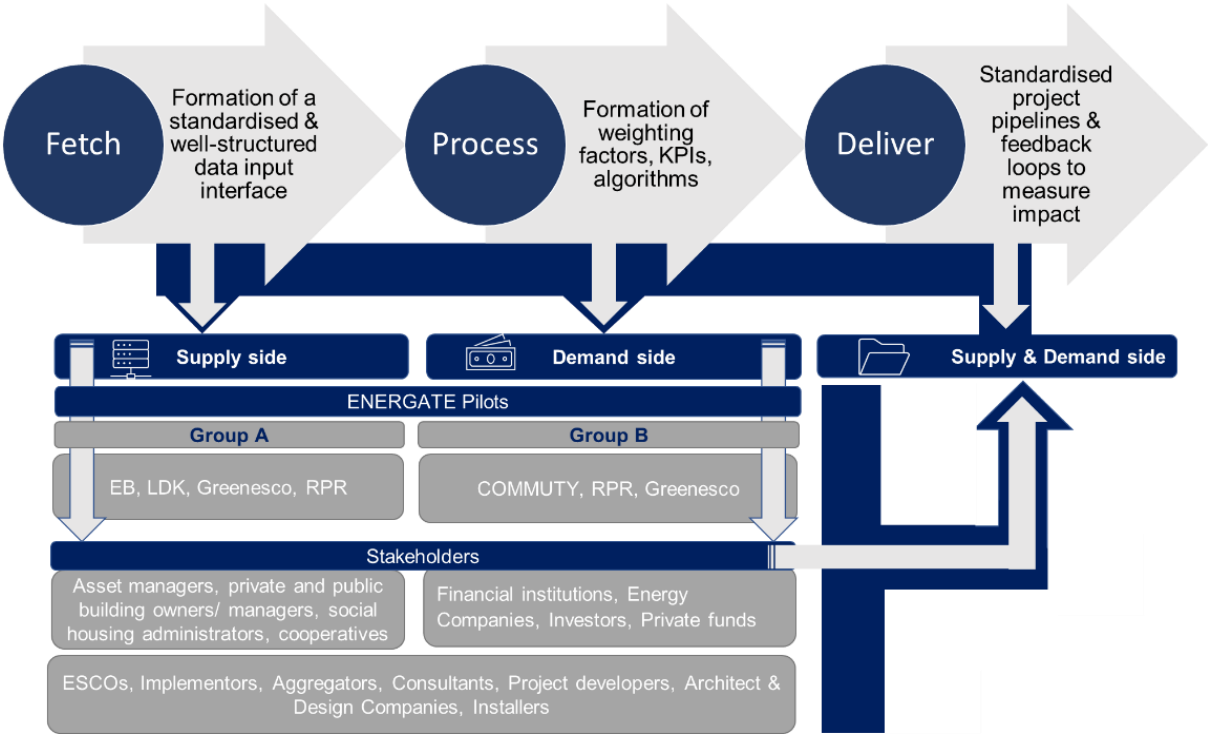


Figure 1-1 ENERGATE pilots, partners, stakeholders and process

1.2. The scope of this report

The aim of this report is to effectively plan the pilot projects and allow for the fine-tuning and validation of the ENERGATE marketplace. Thus, this report presents the various pilot cases planned to be included in the ENERGATE platform. An overview of the background that is necessary to understand the pilot planning process is also presented, in line with D2.2-Report on Specifications for Project Entries, UserProfiles, UseCases and User Ranks-v1-v1.00 website.pdf (energate-project.eu).

Apart from the introduction that briefly explains the purpose and structure of the deliverable, the rest of the report is structured as follows:

- Section 2 provides an overall description of pilots and relevant methodologies employed

[1] https://energate-project.eu/sites/default/files/results/ENERGATE_D5.1-Stakeholder%20Engagement%20Plan%20with%20Consultation%20Guide-v1.00.pdf

- Section 3 provides a brief description of the use cases in the ENERGATE platform, and the necessary input data for the different building typologies
- Section 4 presents the different building typologies that will be used as the basis for the pilot cases to be registered within the platform. In each building typology, the responsible pilot partner(s) is identified, along with a list of the first pilot building cases per typology
- In Chapter 5, the stakeholder engagement plan of each pilot partner is described
- Finally, conclusions and next steps are presented.

2. Overall pilot description and methodology

The ENERGATE platform will be tested and validated through six pilot cases across different European countries. More specifically, the pilots will be implemented in:

- Spain
- France
- Italy
- Austria
- Greece
- Latvia

Five ENERGATE partners are responsible for these six pilot cases. For the implementation of the pilots, each pilot partner needs to identify relevant stakeholders and engage with them. The different stakeholders will be assisted in registering buildings from their portfolio as pilot cases. The successful implementation of the pilot projects relies on a well-structured engagement process with the various stakeholders. Table 2-1 presents the five pilot partners of ENERGATE, along with their target stakeholder groups.

Table 2-1 ENERGATE pilots partners

Pilot	Target stakeholders
COMMUTY	Building owners and implementors & Financial stakeholders
LDK	Building owners and implementors
ENERBRAIN	Building owners and implementors
GREENESCO	Building owners and implementors & Financial stakeholders
RPR	Building owners and implementors & Financial stakeholders

Commuty Stakeholder Portfolio includes building owners, implementors and financial stakeholders in Spain. Commuty has a pool of residential energy efficiency rehabilitation projects under different sources of equity financing: private investors, real estate funds and joint venture (JV) structures.

LDK Stakeholder Portfolio includes building owners in Greece, mainly private companies with an interest in increasing the energy efficiency of their office buildings, and implementors.

Enerbrain Stakeholder Portfolio includes building owners and implementors in Italy, France, Austria. Enerbrain has a large pool of different stakeholders under different building typologies, focusing on energy efficiency rehabilitation actions.

Greenesco Energy S.A. Stakeholder Portfolio includes building owners, implementors and financial stakeholders in Greece. Greenesco has a large pool of large-scale energy efficiency projects under different building typologies, whilst in parallel it also has strong connections with financing bodies that can be engaged within the framework of the ENERGATE project.

RPR Stakeholder Portfolio is mainly municipalities (public building owners and managers) in Latvia. RPR maintains regular cooperation contacts and interacts with EU and public funding administering bodies.

As it can be seen, each partner has connections with stakeholders of different building typologies. Consequently, the five pilot partners will aim to bring to the ENERGATE platform **15 to 30 pilot building cases in each of the six pilot countries.**

Overall, the pilots will follow a well-elaborated process that will encompass:

- Definition of the use case(s) that each pilot belongs to, according to the definition of use cases available in D2.2-Report on Specifications for Project Entries, UserProfiles, UseCases and User Ranks-v1-v1.00 website.pdf (energate-project.eu)
- Engagement of relevant stakeholders
- Registration of the pilot building case(s) to the ENERGATE platform with relevant technical and financial metrics/key performance indicators (KPIs) identified. Using realistic metrics in the platform will increase users' trust, and help test and validate the effectiveness of the services provided by the platform, in accordance with the use cases defined, so that project aggregates are created that seek finance
- Testing of inputs and outputs
- Fine-tuning and determination of standardised procedures and tools.

3. ENERGATE Platform use cases and data entries

3.1. Use cases

A use case is a comprehensive and organised written description of the way users interact with the ENERGATE platform. Four distinct use cases have been identified regarding private buildings, for the initial launch of the ENERGATE platform. An additional three use cases relate to public buildings. The different use cases are presented in [D2.2-Report on Specifications for Project Entries, UserProfiles, UseCases and User Ranks-v1-v1.00 website.pdf (energate-project.eu)](#).

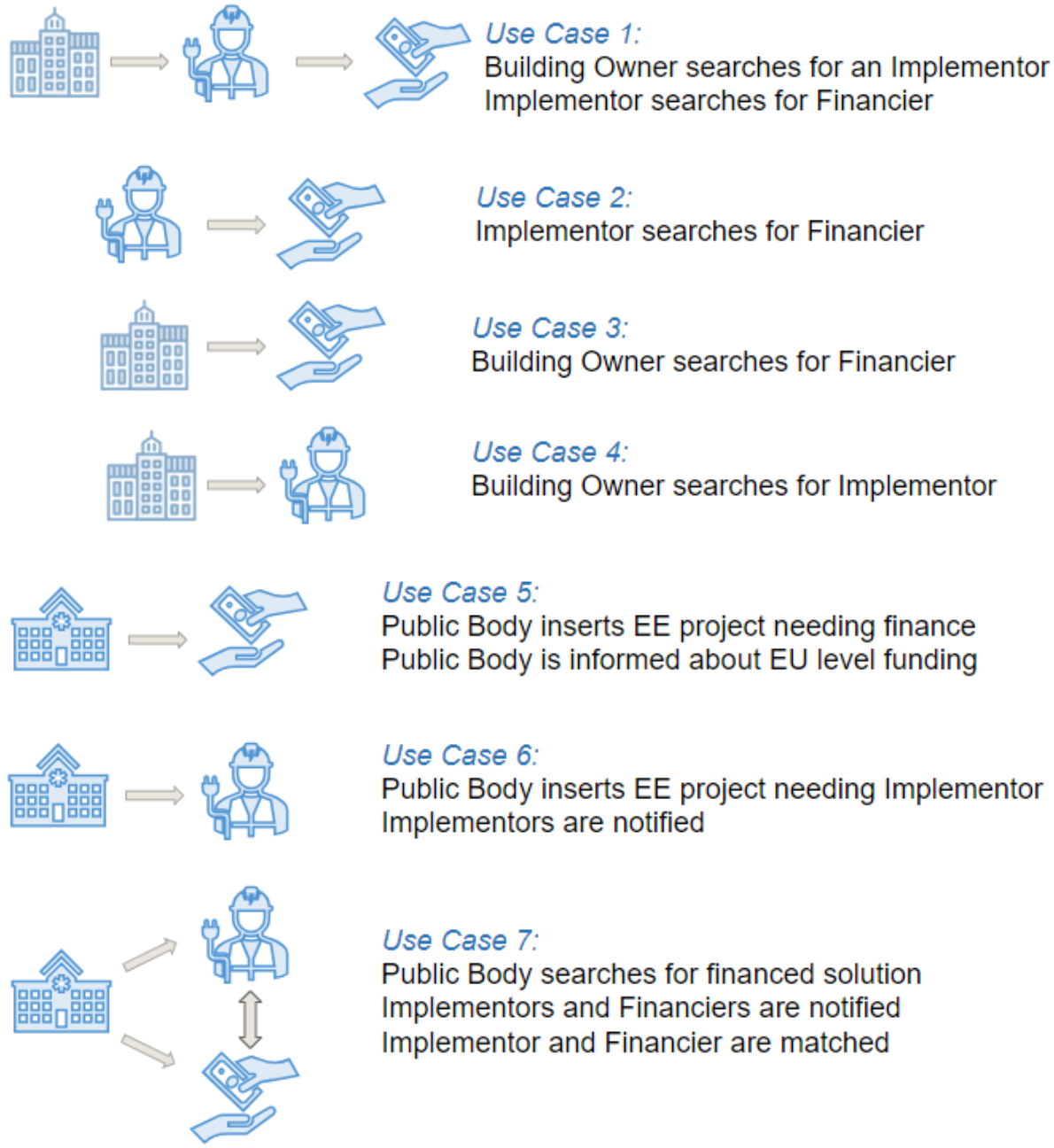


Figure 3-1. Description of use cases

The presented use cases consider three broad stakeholder categories:

- Building Owner (Public or Private) (asset manager, property manager etc.)
- Implementor (project developer, ESCO etc.)
- Financier (investor, fund manager etc.).

3.2. Required input data

A dedicated template was created to map and describe all the necessary input data required for the registration of pilot cases within the ENERGATE platform. Within the template, specific indicators were identified, relevant for the registration of the pilot cases. Consequently, each pilot building case registered within the platform should provide the following information:

- Building Details
    - Building description
    - Building ID
    - Country/location/region
    - Climate zone
    - Ownership status: Owned or rented
- Building typology
    - Building type:
        - Commercial
        - Industrial
        - Office building
        - Residential
        - Shared space
        - Accommodation resort
        - Other
- Technical information:
    - Project types that have been implemented in the past:
        - Building envelope improvements
        - Lighting improvements
        - Automation systems
        - HVAC systems
        - Renewable Energy Sources (RES)
    - Year of construction
    - Building size
    - Number of levels
    - Hours of operation
    - Number of occupants
    - Energy Performance Certificate (EPC) level
- Current status of the building
    - Type of energy sources used
    - Energy bills for all types of energy sources
    - Desired Energy Efficiency (EE) measures
        - Building envelope improvements

        - Lighting improvements
        - Automation systems
        - HVAC systems
        - Renewable Energy Sources (RES)

- Building Financing
    - Type of financing required: No finance needed or a specific financed solution is sought.

These information entries are constantly updated based on the feedback being received during the stakeholder consultation process, as well as when new needs are identified from the feedback received.

4. Main Pilot Typologies

4.1. Pilot Typology 1: Residential building

Table 4-1. Pilot Typology 1 – Residential Building - COMMUTY

Pilot Typology 1	Residential Building
Responsible pilot partner	COMMUTY
Pilot Country	Spain
Pilot area	Madrid
Ownership Status	Private
Building size (m^2)	1,000 – 5,000
Year of construction	1920 - 1960
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-2. Pilot Typology 1 – Residential Building - Greenesco

Pilot Typology 1	Residential Building
Responsible pilot partner	Greenesco
Pilot Country	Greece
Pilot area	Athens
Ownership Status	Private
Building size (m^2)	200 – 800
Year of construction	1960 - 2010
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.1.1. First Pilot cases to be registered

COMMUTY aims to register **five pilot building cases** after the launch of the ENERGATE platform in July 2024.

Table 4-3. Pilot Typology 1 – COMMUTY – Building 1

Building 1	COMMUTY
Description	Renovation of a residential building into a senior living in San Sebastián.
Building size (m^2)	1,230
Estimated Investment cost (EUR)	1.6 m€
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-4. Pilot Typology 1 – COMMUTY – Building 2

Building 2	COMMUTY
Description	Renovation of a building in Madrid
Building size (m^2)	650
Estimated Investment cost (EUR)	800 k€
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

An additional three building cases are expected to be finalised in order for COMMUTY to register these on the ENERGATE platform.

Greenesco has identified four residential buildings in Greece to register on the ENERGATE platform.

Table 4-5. Pilot Typology 1 – Greenesco – Building 1

Building 1	Greenesco
Description	Residential building with four levels
Building size (m^2)	790
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-6. Pilot Typology 1 – Greenesco – Building 2

Building 2	Greenesco
Description	Residential building with four levels
Building size (m^2)	242
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-7. Pilot Typology 1 – Greenesco – Building 3

Building 3	Greenesco
Description	Single-family house
Building size (m^2)	200
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-8. Pilot Typology 1 – Greenesco – Building 4

Building 4	Greenesco
Description	Two-storey apartment building
Building size (m^2)	450
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.1.2. Pilot Planning

To date, preliminary conversations have taken place between COMMUTY and several stakeholders. COMMUTY is awaiting confirmation to schedule calls with stakeholders, such as building owners, asset managers and developers to follow up.

The engagement strategy of COMMUTY needs to consider the following risks:

- A 40% drop in Real Estate investment volumes, hence investors are still in a ”wait and see” position
- Lack of alignment between cost of capital, cost of debt and building & construction prices
- Higher preference for greenfield developments considering buildings’ prices in Madrid.

4.2. Pilot Typology 2: Office Building

Table 4-9. Pilot Typology 2 – Office Building - LDK

Pilot Typology 2	Office Building
Responsible pilot partner	LDK Consultants SA
Pilot Country	Greece
Pilot area	Athens
Ownership Status	Private
Building size (m^2)	500 – 5,000
Year of construction	1960 - 2000
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-10. Pilot Typology 2 – Office Building - Greenesco

Pilot Typology 1	Office Building
Responsible pilot partner	Greenesco
Pilot Country	Greece
Pilot area	Athens
Ownership Status	Private
Building size (m^2)	200 – 11,500
Year of construction	1960 - 2010
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.2.1. First Pilot cases to be registered

LDK is focusing on registering two pilot building cases after the launch of the ENERGATE platform in July 2024. The first case will be the LDK office building in Athens. The second case will be an office building provided either by a real estate company or a research institute.

Table 4-11. Pilot Typology 2 – LDK – Building 1

Building 1	LDK
Description	LDK Office building
Building size (m^2)	1,500
Estimated Investment cost (EUR)	To be determined
EE measures	• Replacement of windows • Lighting improvements • HVAC systems • External shading

Greenesco has identified 9 private office buildings in Greece to register on the platform.

Table 4-12. Pilot Typology 2 – Greenesco – Building 1

Building 1	Greenesco
Description	Private Office building
Building size (m^2)	11,500
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-13. Pilot Typology 2 – Greenesco – Building 2

Building 2	Greenesco
Description	Private Office building
Building size (m^2)	800
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-14. Pilot Typology 2 – Greenesco – Building 3

Building 3	Greenesco
Description	Private Office building
Building size (m^2)	1,682
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-15. Pilot Typology 2 – Greenesco – Building 4

Building 4	Greenesco
Description	Private Office building
Building size (m^2)	235
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-16. Pilot Typology 2 – Greenesco – Building 5

Building 5	Greenesco
Description	Private Office building
Building size (m^2)	422
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-17. Pilot Typology 2 – Greenesco – Building 6

Building 6	Greenesco
Description	Private Office building
Building size (m^2)	189
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-18. Pilot Typology 2 – Greenesco – Building 7

Building 7	Greenesco
Description	Private Office building
Building size (m^2)	805
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-19. Pilot Typology 2 – Greenesco – Building 8

Building 8	Greenesco
Description	Private Office building
Building size (m^2)	1,635
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-20. Pilot Typology 2 – Greenesco – Building 9

Building 9	Greenesco
Description	Private Office building
Building size (m^2)	1,480
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.2.2. Pilot Planning

LDK has initiated a second engagement campaign to secure physical or online meetings with real estate companies that have not been responsive during initial engagement actions. Furthermore, additional stakeholders will be identified with office buildings, such as architectural firms or other building management companies from the client list of LDK, to initiate engagement.

Moreover, from the pool of real estate companies that have shown interest in the ENERGATE platform, further discussions will be arranged to help these companies identify building cases that can be registered on the platform before the end of the project.

4.3. Pilot Typology 3: Industrial Buildings

Table 4-21. Pilot Typology 3 – Industrial Building - Enerbrain

Pilot Typology 3	Industrial Building
Responsible pilot partner	Enerbrain
Pilot Country	Italy
Ownership Status	Private
EE measures	• Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

Table 4-22. Pilot Typology 3 – Industrial Building - Greenesco

Pilot Typology 3	Industrial Building
Responsible pilot partner	Greenesco
Pilot Country	Greece
Ownership Status	Private
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.3.1. First Pilot cases to be registered

Enerbrain has identified an industrial pilot case to be registered on the platform. This is an Italian car industry that has **3 buildings** with a total area of 35,000 m^2.

Table 4-23. Pilot Typology 3 – Enerbrain – Buildings 1 - 3

Buildings 1- 3	Enerbrain
Description	Car Industry in Turin
Building size (m^2)	35,000
Estimated Investment cost (EUR)	To be determined
EE measures	• HVAC systems

Greenesco has identified an industrial (winery) pilot case in Greece to be registered on the platform with a total area of 4,650 m^2.

Table 4-24. Pilot Typology 3 – Greenesco – Building 1

Building 1	Greenesco
Description	Winery in Greece
Building size (m^2)	4,650
Estimated Investment cost (EUR)	To be determined
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.4. Pilot Typology 4: Hospital Buildings

Table 4-25. Pilot Typology 4 – Hospital Building - Enerbrain

Pilot Typology 1	Hospital Building
Responsible pilot partner	Enerbrain
Pilot Country	France
Ownership Status	Private
EE measures	• Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.4.1. First Pilot cases to be registered

Enerbrain has identified **10 hospitals** in France under the same private company with an area of approximately 4,000 m^2 each.

Table 4-26. Pilot Typology 4 – Enerbrain – Buildings 1 - 10

Buildings 1 - 10	Enerbrain
Description	Hospital Building
Building size (m^2)	4,000
Estimated Investment cost (EUR)	To be determined
EE measures	• HVAC systems

4.4.2. Pilot Planning

Enerbrain aims to include **40 more hospitals** from the same private company in France within the ENERGATE project lifetime.

4.5. Pilot Typology 5: Retail Stores

Table 4-27. Pilot Typology 5 – Retail Store - Enerbrain

Pilot Typology 5	Retail Stores
Responsible pilot partner	Enerbrain
Pilot Country	Italy and France
Ownership Status	Private
EE measures	• Lighting improvements • HVAC systems

Table 4-28. Pilot Typology 5 – Retail Store - Greenesco

Pilot Typology 5	Retail Stores
Responsible pilot partner	Greenesco
Pilot Country	Greece
Ownership Status	Private
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.5.1. First Pilot cases to be registered

Enerbrain has identified **5 supermarkets** in Italy and France under the same private company with an area of approximately 15,000 m^2 each.

Table 4-29. Pilot Typology 5 – Enerbrain – Buildings 1 - 5

Buildings 1 - 5	Enerbrain
Description	Super Market
Building size (m^2)	15,000
Estimated Investment cost (EUR)	To be determined
EE measures	• HVAC systems

Greenesco has identified **1 retail store in Greece**.

Table 4-30. Pilot Typology 5 – Greenesco – Building 1

Buildings 1	Greenesco
Description	Retail store
Building size (m^2)	2,565
Estimated Investment cost (EUR)	To be determined
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.6. Pilot Typology 6: Public building

Table 4-31. Pilot Typology 6 – Public Building - RPR

Pilot Typology 6	Public Building
Responsible pilot partner	RPR
Pilot Country	Latvia
Pilot area	Riga
Ownership Status	Public
Building size (m^2)	1,000 – 5,000
Year of construction	1970 - 2000
EE measures	• Building envelope improvements • Lighting improvements • HVAC systems • Renewable Energy Sources (RES)

4.6.1. First Pilot cases to be registered

The approach and method for the identification of pilot buildings has been developed during the initial consultations with key stakeholders–municipalities and their energy managers. The number of pilot cases will be obtained from the consultation process with municipalities interested in registering their buildings based on their investment plans for energy efficiency renovations and/or energy efficiency improvement project pipeline.

It is expected that during the actual data collection phase for registering buildings to the ENERGATE platform, the total number of pilot cases to be included may amount to up to 10 projects: up to 1-2 projects per municipality of 9 municipalities in the region. For the registration of first pilot cases, entry data categories of ENERGATE platform are sent to the stakeholders of 9 municipalities to identify potential pilot buildings and start data collection.

The pilot buildings from the Riga region will include public buildings/buildings used for delivering public services, such as, schools, kindergartens, hospitals, sport and recreation facilities, social houses, and libraries. Municipalities will be responsible for selecting and registering pilot projects on the ENERGATE platform, with the support of RPR.

5. Pilot Engagement process

5.1. COMMUTY Pilot

COMMUTY performed the following activities to initiate the pilot engagement process:

- **Listing the stakeholders** with close relationships and making sure they're active in brownfield developments
- **Mailing key persons** directly detailing the value creation of the platform for each company
- **Scheduling one-to-one meetings** to explain the purpose and use of the platform and collect preliminary feedback
- **Scheduling one-to-one follow-up meetings** to collect final feedback and send the survey.

COMMUTY engagement status with stakeholders:

- **20 stakeholders** already engaged
- **9 building owners** – Real Estate Investment Trusts (REITs) & Real Estate (RE) funds
- **3 implementors architects**, engineering consultants.

Preliminary outcomes & feedback:

1. **Building owners:**
    - Lack of an existing pipeline given the market's outlook. Expected rebound by the second semester of 2024
    - Potential risk of delays in the expected pipeline in 2024
    - Requesting a corporate account in order to have multiple users for the same building owner
    - Requesting to have access to public aids and financing solutions.
2. **Architecture & engineering firms**:
    - Lack of existing projects. Expected rebound by the second semester of 2024
    - Potential risk of delays in the expected pipeline in 2024.

5.2. LDK Pilot

LDK's engagement process focused on identifying potential stakeholders from the real estate sector that have an existing and close collaboration with LDK executives. A short list of five real estate companies was identified for the initial engagement process, along with a public research institute focusing on energy efficiency projects in buildings.

The first step of the engagement process was to create a formal email and send this to each stakeholder in order to introduce the ENERGATE project, describe the scope and objectives of the project and request a physical or online meetings to explore the potential for further engagement and identify pilot building cases. Supplementary to the emails, phone calls were made to communicate the added value in further engaging within the ENERGATE project.

Three out of the five stakeholders approached replied that they were interested in organising follow-up physical or online meetings.

A physical meeting was organised at LDK's office building in Athens with the first real estate company that replied to LDK's initial communication in March 2024. During the meeting, the ENERGATE project was presented, along with the overall ENERGATE methodology and the functions of the platform. The representative from the real estate company explained that their primary focus is new constructions and that at this point of time there is limited interest in energy efficiency retrofits in existing buildings.

Another meeting was also organised at the LDK office building in Athens in April 2024 with the second real estate company that expressed interest. During the meeting, of the ENERGATE project and platform was presented in detail. The overall methodology was explained, along with the use cases, and a step-by-step walkthrough of the platform was performed. In addition, a more active involvement of the real estate company was discussed, more specifically registering an office building from their portfolio as a pilot case. It was agreed that after the meeting, the real estate company will internally evaluate the possibility of providing an office building as a pilot and registering this in the platform by providing all the necessary input data required. Moreover, the real estate company agreed to provide detailed feedback on the ENERGATE platform use.

Finally, two online meetings were organised between LDK and a public research institute in May of 2024. In each meeting, a different representative from the institute participated. The aim of the meetings was to present the ENERGATE project in detail, describe the overall methodology and objectives of the project, and provide a very detailed walkthrough of the ENERGATE platform. Considering the experience of the institute in other projects focusing on the energy efficiency rehabilitation of existing buildings, this stakeholder provided significant feedback for improving the structure of the platform. In addition, the possibility of using the institute's building office as a pilot case within the ENERGATE platform was discussed. Finally, the discussion focused on identifying building cases from other projects that the research institute is participating in, so as to use these as pilot cases.

5.3. Enerbrain Pilot

Given that the ENERGATE platform has not been officially launched, informing stakeholders and encouraging their participation requires a strategic and phased approach. The engagement process was carefully planned to ensure stakeholders are not only informed but also motivated to join once the platform is operational.

- Phase 1: Initial Engagement with Selected Stakeholders

Enerbrain started by reaching out to stakeholders that were more accessible, willing to participate, or had close ties with partner organisations. This included early adopters, existing partners, and those that have previously expressed interest in similar innovations. The following actions were implemented:

- Personalised Communication: Enerbrain sent tailored emails or held bilateral meetings to introduce the ENERGATE platform's concept, highlighting its potential benefits and how it aligns with stakeholders' specific interests or needs.
- Feedback Solicitation: Enerbrain engaged stakeholders in discussions to gather initial feedback, understand better expectations, and collect suggestions, which can be instrumental in refining the platform before its' wider launch.

This initial phase of engagement was crucial for establishing a foundation of trust and understanding each stakeholder. During this phase, Enerbrain focused on introducing stakeholders to the value proposition of the ENERGATE platform, highlighting how it aligns with their specific needs and objectives. This was achieved through targeted communication and informational sessions designed to elucidate the benefits and functionalities of the platform.

➢ Phase 2: Broad Awareness Campaign

Enerbrain is expanding the outreach to encompass all potential stakeholders, including industry associations, broader community groups, potential end-users, and other relevant entities. The following actions are being implemented:

- Digital Marketing Campaign: Social media, newsletters, and industry forums to raise awareness on ENERGATE, and communicate its unique selling propositions and the value it brings to different stakeholders
- Webinars and Workshops: Informational sessions to demonstrate the platform's features, benefits, and future roadmap, offering a platform for Q&A to address concerns and provide more tailored clarifications.

This step is particularly important as it allows stakeholders to visualise the practical application of the ENERGATE platform within their operations.

The culmination of this engagement process is the implementation of the pilot cases. These pilots are designed to showcase the platform's effectiveness, providing stakeholders with concrete evidence of its impact. The success of these pilots is instrumental in solidifying the stakeholders' commitment to the platform, transitioning from initial interest to active participation.

Throughout this engagement process, continuous communication and feedback mechanisms are being employed to ensure that stakeholders' concerns and suggestions are addressed promptly. This iterative dialogue is essential for refining the platform's offerings and ensuring it remains aligned with stakeholders' evolving needs.

5.4. RPR Pilot

RPR, within the context of the project, acts as an intermediary, to involve three primary target groups in testing and using the ENERGATE platform for facilitating energy renovations in public sector buildings. More specifically:

- National level authorities: EU funding intermediaries and agencies administering and granting EU funds and other financial instruments for energy efficiency renovations – Specific Support Measures either from the EU Cohesion Policy 2021-2027, the Climate Change Financial Instrument, and the Recovery and Resilience Financial Instrument

- National level agencies: owning and managing public buildings, such as the State Real Estate Agency
- Public authorities at the local level located within the territory of RPR, in particular two cities and seven municipalities that own and manage public buildings. Construction and real estate units, in close collaboration with Planning and Development units and energy specialists, are organising and implementing renovations to increase the energy efficiency of buildings where public services are delivered: schools, kindergartens, hospitals, sports facilities swimming pools and social services buildings. The financial sources that public authorities typically use for energy retrofits and renovation activities encompass EU-funded programmes and own public funding allocations at a yearly basis. In the first case, the renovation plans are aligned to the requirements of the respective EU funding Programme. The debt borrowing of municipalities according to the law cannot exceed the ceiling of 20% of their annual budget.

To inform stakeholders about the ENERGATE platform, RPR is taking the following actions:

- Direct e-mails with information on the ENERGATE platform, its features and use cases
- Dissemination of informative material at meetings
- Social networks: videos presenting the platform, leaflets and project presentation
- Organizing live and on-line meetings to present the ENERGATE platform, discuss with stakeholders their expectations and limitations with regard participating in the platform as part of attracting funding and service providers for energy efficiency renovation projects in public buildings.

During the roll-out process of the platform, the municipalities of the Riga region will be approached directly and encouraged to provide data for energy renovation projects in the pipeline.

As noted, energy renovations of public buildings in the Riga region are mostly implemented using EU funding, therefore, consultations are in progress with EU funding intermediaries: the Ministry of Environmental Protection and Regional Development, and the Climate and Energy Ministry, to identify opportunities and exchange information on open calls for public building owners. The consultations will also govern what information should be available in the ENERGATE platform, since information about EU funding is typically available online from EU funding intermediaries, and information is also released to public bodies at a regular basis through public information platforms (websites), social media and seminars.

The following activities have already been carried out by RPR for the initial engagement of stakeholders:

1. Municipal level stakeholders:

- Participation in events and regular dialogue activities with the municipalities of the region - organized quarterly - to inform them about energy renovation projects
- Establishment of a network of representatives, from the Planning and Development units and energy specialists that are involved in the stakeholders' consultations. The ENERGATE project (presentation) and platform concept (videos) were disseminated

to municipalities to raise awareness on ENERGATE, its' aim and the ENERGATE platform

- Online survey to collect feedback on user requirements for the ENERGATE platform, publicized in RPR social media (Facebook) and sent by e-mail
- Individual interviews with specialists responsible for identifying and planning investments for energy renovations. These interviews will be continued until pilot renovation projects are identified and incorporated into the ENERGATE platform – interviews and fact-finding actions with municipalities and energy agencies, for example the Riga Energy Agency
- Collection of data from public building owners/asset managers on planned energy renovation projects to incorporate in the ENERGATE platform test phase.

2. National level stakeholders:

- Individual interviews and ENERGATE platform awareness-raising activities for national-level stakeholders, such as funding managers for energy renovations in public sector buildings, and representatives of the Climate and Energy Ministry, and the Environmental Protection and Regional Development Ministry. The interviews will aim to clarify the capacity and general interest of stakeholders to use the platform for announcing EU funding opportunities and grant conditions.
- Individual interview with the State Real Estate Agency on their role and practices in energy efficiency investments for public buildings and their interest in the ENERGATE platform.

Following the initial consultations the feedback signals:

- Energy renovations in public buildings are mainly implemented using EU funding instruments, typically with attractive co-financing rates (up to 85% of total project costs). Private funding or commercial borrowing is not a common practice for energy renovations in public buildings for municipalities
- To implement energy renovations in public buildings, compliance with the Public Procurement Law and regulations is required. This includes the selection of a service provider for a Technical Project, where all technical aspects are defined, and permits are obtained. Technical Projects are valid for 2 years and each project can cost 40-50 thousand EUR. Thus, energy renovations in public buildings need to be planned well in advance, to prepare good quality Technical Projects and to swiftly attract investments for renovations within the 2 years of the validity period of a Technical Project
- ESCO contracts are not a widespread practice since, according to the feedback, it is not possible to ensure that all needs and energy renovation requirements are properly considered during the contract conclusion process
- Public Private Partnerships (PPP) modalities for energy retrofits are currently being implemented, however, conclusions and lessons learned from this are yet to become available (in particular from the PPP for the energy renovation of a kindergarten)

- There are limitations regarding the borrowing capacity of municipalities (i.e. limited to up to 20% of the annual budget for co-financing and pre-financing investment projects)
- There is a pipeline of energy renovation projects for public buildings in municipalities. It should be noted though that the ranking and selection of projects is driven by the requirements of specific financial instruments/EU Programmes, for example, technical documentation is prepared to ensure the required investment readiness level, and is in line with the availability of funding (e.g. in terms of timelines) of a specific funding programme
- In general, support and interest in the ENERGATE platform was obtained during the stakeholder consultation process, as well as readiness to provide data for the pilot phase of the platform. However, further interest and involvement will depend to a great degree on the actual ENERGATE platform capacity to facilitate the accessibility of investments for energy renovations (funding programs, the attractiveness of financing conditions, ability to compare funding conditions, etc.)

5.5. Greenesco Pilot

Greenesco S.A., has a large portfolio of projects regarding the energy upgrade of building installations, cooling-heating installations, smart software monitoring, LED lamps, and net metering. As such, Greenesco aims to engage, test and promote the ENERGATE platform to three major targeted stakeholder groups:

- Public sector
- Municipal sector
- Private sector

Driven by European directives that promote decarbonization and zero energy building installations, all of the above sectors are in a process of renovating and restructuring their building stock, making it energy efficient. Consequently, building proprietors and administrators are all considered as potential stakeholders.

In Greece, renovations in public, municipal and privately owned buildings are mainly implemented using EU funding, which in some cases can cover up to 70% of the total project cost in the form of a subsidy. Private funding or commercial loans is not a common practice for the renovations of buildings.

Greenesco aims to engage with various stakeholders, acting primarily as a consultant to identify suitable projects to register in the ENERGATE platform, thus building up a stakeholder network.

The consultation process includes undertaking a detailed survey of the building. An energy audit can be carried out so that all aspects of a building, including the HVAC equipment, requiring energy efficiency interventions are identified. It also includes individual interviews with building owners and users in order to investigate the potential ways that the proposed interventions can be financed. Building owners will be informed about the benefits, functions and capabilities of the ENERGATE platform and will be encouraged to register their buildings, using the data gathered.

Moreover, information about the ENERGATE platform has been uploaded in Greenesco's site so that visitors of the site can learn about the platform and understand its' capabilities.

Until the official platform launch, the main goal is to create an interest in using the platform and to maintain this momentum until users can start testing and using it.

- Description of the initial activities undertake so far to inform stakeholders about the ENERGATE platform

Initial introductory meetings were held in person mainly with Banks and National Industrial Property Organisations, as well as building owners, to inform and explain the purpose and use of the platform. Detailed and extensive information was exchanged through e-mail. Additional online meetings were held where necessary for the provision of further information on the use of the platform.

- Outcome of the stakeholder engagement so far/Feedback received

All stakeholders engaged so far had an optimistic response to the ENERGATE platform. There were also requests for further engagement with the platform and the overall project. For instance, a Greek Bank has shown interest in participating as an implementor through their property management department. It also expressed its' strong inclination to be involved in the ENERGATE platform as financiers, as the bank is seriously interested in financing certain actions provided that these are within the private sector. Further clarification however is needed in financing projects that are taking state sponsorship. The bank has asked to access the platform to introduce itself and practice the procedures.

6. Conclusions

The ENERGATE project aims to address the low rate of building renovations in Europe by creating an ICT-enabled marketplace, the ENERGATE platform. The platform aggregates energy renovation projects and enables matchmaking, to help building owners and other relevant stakeholders pursue financing opportunities, whilst in parallel support financial institutions and project implementors to identify projects of interest.

This report sumarises the six pilot cases in Spain, France, Italy, Austria, Greece, and Latvia, led by five ENERGATE partners, i.e. COMMUTY, LDK, Enerbrain, Greenesco, and RPR. The pilots aim to demonstrate the platform's functionality and effectiveness by defining specific use cases, engaging stakeholders, registering building cases with relevant metrics, and testing the platform's processes.

For each ENERGATE pilot, a diverse array of stakeholders, including building owners, implementors, and financial entities, have been engaged so far to identify and register projects across various building typologies. In Spain, residential building owners, implementors, and financial stakeholders have been engaged, leveraging a diverse pool of energy efficiency rehabilitation projects. In Greece, private companies have been engaged, to improve the energy efficiency of office buildings, as well as large-scale project stakeholders and financial institutions. Stakeholders in Italy, France, and Austria have also been engaged, across different building typologies for energy efficiency rehabilitations. In Latvia, municipalities have been primarily engaged, with a focus on public buildings and leveraging EU and public funds. This multifaceted engagement approach can ensure that a wide range of building types and financing models are considered.

The engagement of stakeholders will continue throughout the project to ensure the successful registration and implementation of pilot-building cases, thereby validating and demonstrating the ENERGATE platform's effectiveness.

OUR TEAM

Project Coordinator

EPU N·T·U·A

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enerbrain For an intelligent use of energy

EnerSaveCapital

IEECP Institute for European Energy and Climate Policy

GREENESCO Energy Services

ΔΕΗ Ανανεώσιμες attica Finance

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