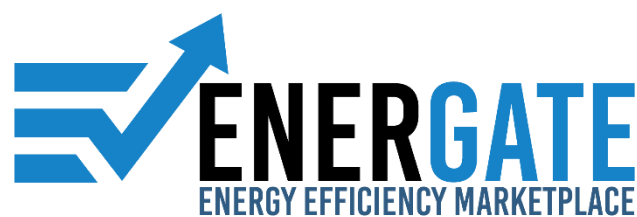




Deliverable 6.2

Standardisation activities and policy recommendations

December 2025



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Executive Summary

The ENERGATE project, co-funded by the LIFE Programme, aims to address a key challenge of the clean energy transition, i.e. the slow rate of energy renovations in buildings. It responds to this challenge through the development of an ICT - enabled marketplace, namely the ENERGATE platform, designed to aggregate projects and facilitate their financing by bringing together building owners, energy efficiency implementors and financiers.

From the outset, ENERGATE prioritised standardisation to ensure the platform's seamless operation, interoperability and efficiency, as well as ensure its quality and consistency. This report describes the project's standardisation efforts that informed the ENERGATE platform. More specifically, collaboration with the HSBooster and other EU funded projects like BIGG, DEEP, and MODERATE was pursued, and helped define common workflows and align the platform's operation with the EU Taxonomy Regulation. A dedicated standardisation workshop further helped ENERGATE exchange approaches with several other EU projects on standardisation and EU Taxonomy alignment.

This report also highlights how the ENERGATE platform can help trigger energy efficiency investments, by supporting project aggregation making small-scale projects more attractive, and helping building owners explore funding opportunities, as well as matching building owners, project developers, and implementors with financial institutions and private investors.

Moreover, the report presents ENERGATE's key findings, lessons learned, and policy-relevant insights. It describes a set of policy recommendations emerging from five European countries (Spain, Italy, Greece, Latvia and Hungary), as well as cross cutting recommendations that can be summarised as follows:

- Access to funding opportunities should be simplified and centralised.
- Project aggregation and financing of bundled projects should be enabled.
- Deep renovations should be prioritised and supported.
- Key stakeholders that can support the energy transition of buildings, such as Energy Service Companies (ESCOs), should be enabled.
- The measurement and verification of data from public buildings should be facilitated.

Recommendations emerging from Spain focus on the need for harmonised sustainability indicators and improved data availability to support real estate investments, as well as linking green financing to sustainability performance.

Recommendations emerging from Italy focus on open protocols and standardisation of Building Management Systems (BMS) integration, financial and structural support to smaller market players, energy efficiency policies aligned to Italy's unique architectural and cultural heritage, proactive market strategies through innovation incentives, and the ESCO sector.

Recommendations emerging from Greece focus on administrative and technical support to boost energy efficiency renovations of public buildings, policy and financial mechanisms to facilitate energy retrofits in the residential sector, as well as enabling ESCO-driven and bank investments.

Recommendations emerging from Hungary focus on building construction and renovation capacities, regulated energy prices and weak price signals, sustainable financing models, a

national housing data strategy and the use of digital solutions such as the ENERGATE platform.

Finally, the report presents targeted recommendations that were formulated and submitted in response to the call for evidence launched by the European Commission on 13 December 2024 for the evaluation of the Public Procurement Directives. These recommendations largely emerged from ENERGATE activities implemented in Greece and Latvia. More specifically, a number of changes to procurement rules were proposed to empower public authorities and help them benefit fully from digital marketplaces like ENERGATE so that the renovation of public buildings across Europe can be accelerated, namely:

- Increasing public procurement thresholds for simplifying procurement procedures for energy efficiency projects.
- Simplifying and streamlining procurement processes.
- Introducing specific exemptions for financed energy efficiency solutions.
- Enabling aggregation of projects and cost savings.

The ENERGATE platform demonstrates that digital solutions can play a transformative role in mobilising investments in the building renovation sector. However, such solutions need to go hand in hand with policy reforms, including reforms that enable the creation of new and strengthen existing financing mechanisms and instruments that are essential to unlock investments in energy efficiency across the EU. The lessons from the ENERGATE project provide a roadmap for strengthening Europe's renovation ecosystem and enabling the accelerated delivery of the EU's climate and energy objectives.

1. Introduction

1.1. The ENERGATE project

Energy efficiency is fundamental for achieving a cost-effective transition towards a decarbonised energy system. However, the energy renovation rates of buildings remain low, creating an urgent need to boost the implementation of energy efficiency measures and mobilise investments.

ENERGATE aims to address this need by creating an effective, ICT-enabled marketplace for energy efficiency investments in buildings. The ENERGATE marketplace is being implemented through a user-friendly platform that connects building owners, implementors of energy renovations and financial institutions to enhance project financing and accelerate renovation rates. The platform facilitates the collection of projects, including project-specific and technical information, the aggregation of similar projects, and their matchmaking with financiers.

1.2. The objectives of this deliverable

This report aims to communicate to stakeholders across Europe key findings and lessons learnt from the implementation of the ENERGATE project, with emphasis on the ENERGATE platform. It also aims to inform policy makers and future actions that aspire to trigger investments for the energy renovation of the building sector. At the same time, this deliverable aims to report on the standardisation activities implemented within the framework of the project.

In summary, this report describes:

- The standardisation activities implemented within the framework of the project. These activities have been key in informing the ENERGATE platform development and ensuring its interoperability and alignment with EU Taxonomy Regulation.
- The ENERGATE platform as a tool for triggering energy efficiency investments, including how to leverage ENERGATE and trigger further investments for implementing energy efficiency interventions in the building sector.
- Cross-cutting recommendations that have emerged during the implementation of the ENERGATE project, both in terms of increasing energy efficiency and using platforms and tools to trigger investments.
- Recommendations emerging from four ENERGATE pilot countries, namely Spain, Italy, Greece and Hungary.
- Recommendations linked to the EU Public Procurement Directives and their revision, largely informed by the ENERGATE pilots in Greece and Latvia.

2. Standardisation activities

2.1. Overview

Several activities were organised within the framework of the project, to determine how to best standardise the ENERGATE platform, in order to support its functions and ensure that it effectively aggregates projects and facilitates their financing. These are described in the following sections. One of the key results of findings of these efforts was that the importance of incorporating EU taxonomy elements within the ENERGATE platform. As a result, the platform was designed, giving users the opportunity to report on EU taxonomy compliance.

More information for the several activities presented below is available in deliverable D6.5 Joint Activities with Other Projects and Initiatives-final version.

2.2. REHVA Brussels Summit

During the REHVA Brussels Summit, an expert talk on standardisation was organised as part of the REHVA Supporters Committee to engage stakeholders. The expert talk focused on various types of standardisation, beginning with a keynote on standardising energy efficiency finance, followed by a discussion on the untapped opportunities of the EU Renovation Wave. The importance of standardisation across the renovation value chain and the crucial role of financial markets in driving the energy transition were emphasised. The need for a common language between financial institutions and implementors was also highlighted. The ENERGATE project was presented and a panel discussion followed, where the Heating, Ventilation, and Air Conditioning (HVAC) industry engaged in fruitful discussions.

2.3. Collaboration with other projects

Technical meetings were organised with relevant EU projects to inform the standardisation of different elements in the ENERGATE platform, most importantly with:

- The BIGG project to exchange knowledge and approaches on data harmonisation and other issues related to Information and Communication Technology (ICT) – based services for energy efficiency in buildings. Therefore, the discussions contributed to the standardisation of ENERGATE regarding data collection.
- The DEEP project to discuss the technical aspects of the two projects. Emphasis was given on how the DEEP platform could inform the ENERGATE platform for benchmarking and how ENERGATE could benefit from DEEP's de-risking services. The technical aspects of the collaboration, as well as the procedure that need to be followed, were discussed. This led to a collaboration between the two projects, allowing benchmarking of key economic indicators.
- The MODERATE project, focusing on the technical aspects of the collaboration including data-related workflows, de-risking services, benchmarking and monitoring processes, among others. This led to a collaboration between the two projects which contributes to the standardisation of ENERGATE regarding measurement and verification and follow-up on results of realised projects.

2.4. HSBooster platform

The HSBooster platform connects EU-funded projects with standardisation experts to guide their work. Therefore, collaboration with the HSBooster platform was actively pursued.

An expert was assigned in May 2024 to help ENERGATE develop the structure for standardisation and engage with the right bodies. During the first call with the HSBooster expert in June 2024, standardisation needs were discussed. Following the meeting, the HSBooster expert proposed different standardisation options. An internal meeting was set up to further discuss these options and the preferred options to pursue with the help of the HSBooster expert were agreed. The HSBooster expert emphasised that compliance with EU Regulations and Directives on sustainability should be a primary objective. There was an overall agreement that the EU Taxonomy and the Energy Performance of Buildings Directive (EPBD) were the most relevant frameworks for the ENERGATE platform, and that these should be effectively integrated into its design and operation.

Subsequently, the various design elements of the ENERGATE platform, including input and output parameters, were analysed, to identify how to best incorporate EU Taxonomy in the platform, resulting in new features that were added to the platform, which enable users to report on EU Taxonomy compliance.

2.5. Standardisation workshop with the Smart Energy Cluster

Standardisation and the integration of EU Taxonomy are becoming increasingly important for EU-funded projects, particularly those tackling climate, energy, and digital transitions. In this context, a dedicated workshop was organised to bring together representatives from ten EU-funded projects to share experiences, identify common challenges, and discuss how standardisation and EU Taxonomy are integrated within project in practice.

The workshop aimed to:

- Explore how projects address EU Taxonomy and standardisation.
- Highlight barriers and challenges in integrating EU Taxonomy and standardisation elements.
- Facilitate peer learning and exchange of practical recommendations.
- Lay the groundwork for future collaboration and potential joint actions.

A representative from each participating project had the opportunity to present the project's objectives and its standardisation efforts. In particular, presentations showcased how each project is integrating EU Taxonomy and standardisation elements, the practical steps being taken, and the barriers encountered, which included differences in national regulations that complicated technical alignment across countries. Namely the following projects delivered a presentation:

[ENERGATE \(organizer\)](#), [DECODIT](#), [Hycool it](#), [DEDALUS](#), [RESONANCE](#), [ENPOWER](#), [Weforming](#), [MODERATE](#), [DATAWISE](#), and [RESCHOOL](#)

An open discussion followed, providing a space for participants to reflect on the common challenges identified, exchange knowledge, and co-formulate ways to better align project activities with policy and regulatory frameworks.

Overall, the importance of a continued dialogue between projects working on similar issues was highlighted, with the workshop being a valuable first step towards building a sustained knowledge-sharing community and enhancing coordination across EU programmes.

3. ENERGATE as a tool for triggering energy efficiency investments

3.1. Leveraging ENERGATE to support energy efficiency policies

The Energy Efficiency Directive (EED) EU/2023/1791¹ and the Energy Performance of Buildings Directive (EPBD) EU/2024/1275² are central to the European Union's efforts to reduce energy consumption and promote sustainability. Meeting the ambitious targets set by these Directives requires innovative financial mechanisms, strategic investment approaches, and efficient allocation of resources.

The ENERGATE platform offers a structured, data-driven approach to unlocking financial opportunities, ensuring compliance, and bridging the investment gap in energy efficiency markets.

3.1.1. Unlocking buildings financing potential to achieve EED targets

Energy consumption targets and annual energy savings obligation

The EED EU/2023/1791 establishes binding energy efficiency targets for the EU. More specifically, Member States need to collectively ensure an additional 11.7% reduction in energy consumption by 2030 compared to the projections of the EU reference scenario 2020. This means that the EU's overall energy consumption by 2030 should not exceed 992.5 million tonnes of oil equivalent (Mtoe) for primary energy and 763 Mtoe for final energy.

The Directive also introduces an annual energy savings obligation on final energy consumption (Article 8 of the EED), increasing over time as shown in the table below, to ensure the overall target is met and energy savings are achieved in end-use sectors, such as buildings.

Table 1: Annual energy savings obligation on final energy consumption of the EED

Period	Annual Energy Savings Obligation
2024-2025	1.3% per year
2026-2027	1.5% per year
2028-2030	1.9% per year

This creates an urgent need for investment support systems, such as the ENERGATE platform, to mobilise finance towards energy-saving projects and contribute to achieving the

¹https://energy.ec.europa.eu/topics/energy-efficiency/energy-efficiency-targets-directive-and-rules/energy-efficiency-directive_en

²https://energy.ec.europa.eu/topics/energy-efficiency/energy-performance-buildings/energy-performance-buildings-directive_en

set targets. The ENERGATE platform helps building owners access funding opportunities that support cost-effective energy efficiency improvements. Furthermore, the ENERGATE platform supports project aggregation, making small-scale energy efficiency projects more attractive to implementors and large-scale investors. The platform also supports the development of public-private partnerships (PPPs) and Energy Service Company (ESCO) financing by matching project developers and implementors with financial institutions and private investors, ensuring that high-return-on-investment (ROI) projects receive funding.

Public Sector Energy Efficiency and Renovation Mandates

The Directive also emphasises the public sector's role in energy efficiency (Article 6 of the EED), requiring a 1.9% annual reduction in energy consumption for the public sector. Additionally, it extends the obligation to renovate 3% of central government buildings to all public buildings, at local, regional and national level which have a total useful floor area of more than 250 m².

The ENERGATE platform enables municipalities explore different financial instruments that are available and they can pursue. Furthermore, the ENERGATE platform facilitates the implementation of small municipal renovation projects, below public procurement thresholds, by matching such projects with implementors. It also enables public authorities to identify similar projects planned by other public authorities and explore whether these can be aggregated into investment-grade portfolios, attracting investors or enabling them to apply for specific funding opportunities.

3.1.2. Scaling up financing to support the implementation of the EPBD

Minimum energy performance standards

The EPBD EU/2024/1275 gradually introduces minimum energy performance standards for the non-residential building stock, based on nationally determined thresholds, triggering the renovation of the 16% worst-performing buildings by 2030 and of the 26% worst-performing buildings by 2033. For the residential building stock, the EPBD allows each country to adopt its own national trajectory to reduce the average primary energy use of residential buildings by 16% by 2030 and 20-22% by 2035. Member States can choose which buildings to target and which measures to take, if at least 55% of the decrease of the average primary energy use is achieved through the renovation of the worst-performing buildings. Furthermore, Member States must develop a national building renovation plan, building upon current long-term renovation strategies, which aims to decarbonise the building stock.

As such, the EPBD introduces new financial challenges and opportunities for energy efficiency in buildings. One of the most significant challenges in the building sector is the lack of large-scale investment-grade portfolios. ENERGATE addresses this issue by aggregating smaller renovation projects, and attracting investors looking for de-risked, long-term sustainable investments. It facilitates data-driven project matchmaking, helping building owners access funding for energy renovations. Additionally, ENERGATE connects project developers with sustainable finance solutions, such as Green Bonds, to support deep renovations.

Public sector provisions

The EPBD gives emphasis to the exemplary role of public buildings. More specifically, buildings owned or occupied by public bodies must be subject to energy certification on a regular basis and have an Energy Performance Certificate displayed in a prominent place

clearly visible to the public. In addition, public buildings also need to meet the minimum performance standards and install solar energy.

As mentioned above, the ENERGATE platform helps municipalities identify funding opportunities. For instance, the ELENA – European Local ENergy Assistance program,³ administered by the European Investment Bank (EIB), provides funding for technical assistance, feasibility studies, and project preparation, making it easier for cities to secure financing for large-scale renovations.

3.2. Bridging Financial Gaps in Energy Efficiency through the ENERGATE platform

The EED EU/2023/1791 and the EPBD EU/2024/1275 establish ambitious goals to accelerate the decarbonisation of buildings across the EU. However, several challenges hinder the effective implementation of these Directives.

The ENERGATE platform serves as a strategic enabler and supports the implementation of these Directives, by bridging financial gaps, ensuring that energy efficiency projects are financed.

3.2.1. SMEs and public authorities lack access to funds and financing

Lack of financial credit history, high financing costs and upfront costs often prevent SMEs and local government implement energy efficiency interventions and improve the energy performance of their buildings. Furthermore, many SMEs and municipalities struggle to navigate through the different funding opportunities available and the respective application processes.

The ENERGATE platform bridges this gap as it:

- Provides matchmaking services to connect SMEs with suitable financial institutions/financiers
- Assists municipalities in identifying relevant funding opportunities and structuring energy efficiency investment plans.

Table 2: Challenges and opportunities for SMEs and local authorities

Barrier	ENERGATE's Solution
SMEs and public authorities lack access to finances for energy renovation works	Facilitates access to financiers, through its matchmaking process
Scattered information on EU funding opportunities	Provides a streamlined digital access point for public authorities to explore various funding opportunities available

³ The ELENA programme provides technical assistance grants for public and private entities, covering up to 90% of the project's preparation costs. Support focuses in the following three areas: energy efficiency, the residential sector and sustainable transport. More information is available at: <https://www.eib.org/en/products/advisory-services/elena/index>

3.2.2. Split incentives of the rental market

Split incentives are a structural problem of the rental housing market that discourages energy-efficient renovations because the costs and benefits of such renovations fall on different parties. In particular, landlords are the ones that will have to pay for energy-efficient upgrades (insulation, heat pumps, efficient windows, etc.). Despite landlords having to ensure that their properties meet specific minimum energy performance standards, in line with EPBD requirements, costs can be prohibitive. On the other hand, tenants are the ones that will receive most of the financial benefits through lower utility bills. However, these upgrades may result in rent increases post-renovation, often referred to as the renovation problem, and the rent increase may be higher than the energy savings. As such, neither landlords nor tenants are strongly motivated to pursue energy renovations.

The ENERGATE platform bridges this gap as it:

Helps landlord access different financial instruments that can help lift split incentives, such as Energy Performance Contracting (EPC), which can be combined for instance with on-bill financing allowing tenants to repay efficiency investments through savings, and green lease models to align incentives.

Table 3: Challenges and opportunities for the rental market

Barrier	ENERGATE's Solution
Landlords cannot cover the cost for the energy upgrade of their properties	Facilitates access to financiers, through its matchmaking process
Tenants cannot finance retrofits	Landlords access to financing can be combined with other solutions so that tenants repay investments through energy savings, i.e. not disproportionately through high rent increases

3.2.3. Liquidity constraints for Energy Service Companies

Energy Service Companies (ESCOs) may face financial problems when implementing energy efficiency projects, for example, liquidity constraints due to the long payback periods in Energy Performance Contracts (EPCs), or difficulties in securing upfront capital for larger projects, especially smaller ESCOs. Therefore, structured access to funds and financiers is important.

The ENERGATE platform bridges this gap as it:

- Provides matchmaking services to connect ESCOs with suitable financial institutions/financiers
- Can help ESCOs aggregate projects into larger portfolios to attract financiers/investors.

Table 4: Challenges and opportunities for ESCOs

Barrier	ENERGATE's Solution
ESCOs lack upfront capital and liquidity	Aggregates projects for ESCOs and matches these with financiers

3.2.4. High transaction costs in energy efficiency financing

Financiers also face challenges when trying to fund energy-efficiency renovations, especially in buildings, which makes lending riskier, more expensive and less attractive, even when the projects themselves can deliver strong long-term savings. An important challenge is high due diligence costs, as energy efficiency projects are often small and technically complex. For instance, a renovation project may be time consuming to assess (e.g. energy audit and verification of savings) and may require nearly the same administrative and legal work as a multi-million investment, creating a poor cost-to-loan ratio. Moreover, energy renovations are often smaller projects, making it hard for financiers to standardise and scale up investments.

The ENERGATE platform bridges this gap as it:

- Bundles small-scale projects into larger investment portfolios
- Standardises project documentation, automates risk assessment and supports due diligence (by reducing the effort needed to collect and analyse project information to evaluate projects), reducing transaction costs.

Table 5: Challenges and opportunities for financiers

Barrier	ENERGATE's Solution
High legal and due diligence costs	Standardises project documentation
Small, fragmented projects	Aggregates projects into larger investment portfolios

4. Recommendations

4.1. Cross-cutting recommendations

Within the framework of ENERGATE, various stakeholders from different types of organisations and bodies, and from different countries, have been consulted and actively engaged.

Overall, the ENERGATE journey underscores the critical role of proactive stakeholder engagement, sustained stakeholder participation, access to reliable data, and tailored approaches for driving energy efficiency financing. Platforms and tools, like the ENERGATE platform, need strong user involvement and trust to have real impact. The ENERGATE experience also highlights the importance of understanding users' expectations, especially financiers minimum expectations for investing, to ensure its success.

Looking ahead, simplifying processes, creating clear local regulatory frameworks, bundling projects, and incentivising investment emerged as key strategies to boost the energy renovation of buildings. The cross-cutting recommendations formulated are presented below and focus on what national authorities can do to help trigger investments for energy efficiency interventions in buildings, including the design and operation platforms like the ENERGATE one.

ENERGATE platform related recommendation	For National policy makers
Policy Recommendation 1: Simplify and Centralise Access to Funding Instruments	
Develop (or support the development of) a streamlined national digital access point that consolidates diverse funding opportunities to enable more effective matchmaking between building owners and funding opportunities, for instance through platforms like ENERGATE. It is important to ensure that the funding opportunities included in this access point go beyond national programmes and funding schemes, and include different types of financial instruments and mechanisms, such as low-interest loans, green banking products, financial guarantees, or other credit enhancement mechanisms to boost energy efficiency investments.	
Challenges addressed: • Complex and variable funding streams at national level • Lack of awareness of different financial mechanisms/instruments.	

ENERGATE platform related recommendation	For National policy makers
Policy Recommendation 2: Enable project aggregation and financing	
Develop (or support the development of) a national matchmaking and aggregation tool that can successfully trigger investments for energy efficiency projects, for instance platforms like ENERGATE or other one stop shops. In order to ensure that such a tool is effective, it is imperative to provide investors and financial institutions with reliable and secure data for evaluating potential energy renovation projects. In particular, consider: • Developing standardised digital protocols and forms for integrating building information, especially key data required for assessing the energy performance of buildings, evaluating energy efficiency interventions including their financial feasibility and profitability. • Providing guidance on the inclusion of critical building documentation, such as relevant urban planning documents, ownership titles, energy performance certificates and maintenance records. • Putting measures in place to ensure the interoperability with other relevant tools and platforms, for instance tools used for energy performance audits and certifications and for obtaining permits for construction works. • Defining validation protocols to ensure that all data and information included in such a tool are valid, increase the credibility of the tool and win key stakeholders' trust. Although the importance of having matchmaking and aggregation tools is acknowledged it is equally important to combine these with supporting structures that aim to aggregate energy renovation projects and secure their financing. This could be in the form of an InfoPoint that provides guidance and support in designing, implementing and financing energy renovations of buildings, or one-stop-shops that offer integrated services for the energy renovation of buildings, bringing different communities together and removing barriers. These structures could also support the use of the aggregation and matchmaking tools.	
Challenges addressed: • Fragmented market for building renovations • High upfront costs that prevent property owners from investing • Low investments required for renovations that typically do not interest financiers.	

Energy efficiency related recommendation	For National policy makers
Policy Recommendation 3: Facilitate and support deep renovations	
Prioritise deep renovations of buildings in policy and financing by establishing regulatory frameworks and financial schemes that offer significantly higher incentives conditional on achieving deep renovation standards. Different tools, like the ENERGATE platform, can be used to facilitate deep renovations by helping building owners find the higher upfront investment required for these. Financing mechanisms could be designed, e.g. dedicated grant schemes, subsidised loans, or tax incentives, that are conditional on achieving deep renovation standards. Building codes could be updated to require more strict minimum energy performance standards for existing buildings, especially at trigger points (sale, rental, major renovation) and introduce mandatory renovation requirements for the worst-performing buildings (e.g., EPC classes G and F) with support tied to deep renovation outcomes.	
Challenges addressed: • Shallow measures that do not bring noteworthy results (e.g. energy savings) • Financiers not interested in low investment and small projects • Deep renovations are harder to finance, due to for example higher risks and low returns on investment.	

Energy efficiency related recommendation	For National policy makers
Policy Recommendation 4: Enable key stakeholders that can support the energy transition of buildings	
Enact supportive policy frameworks and market-based mechanisms that de-risk the market and incentivise key stakeholders, particularly implementors, such as Energy Service Companies (ESCOs), to design, finance and implement retrofitting projects at scale. Well-designed policy and financial mechanisms aimed at supporting implementors could stimulate these actors to proactively seek out energy efficiency opportunities, use digital platforms that aggregate building portfolios, and drive down upfront costs through economies of scale, acting as implementation catalysts.	
Challenges addressed: • Regulatory uncertainty, fragmented demand, and access to finance from ESCOs and other similar entities.	

Recommendation for the public sector	For National policy makers
Policy Recommendation 5: Facilitate the measurement and verification of data from public buildings	
Design and implement a robust measurement and verification system to monitor and verify energy savings from the renovation of public buildings. This will build market confidence, mobilise private finance and trigger further investments. In addition, explore whether this can be made mandatory. Reliable data on actual energy savings builds trust among investors, financial institutions, and building owners, helps de-risk investment decisions and enables the uptake of performance-based financing models, such as Energy Performance Contracts (EPCs) or Pay-for-Performance schemes, paving the way to scalable renovation programs.	
Challenges addressed: • Finance the renovation of public buildings with alternative or innovative financing mechanisms and not through subsidies.	

4.2. Recommendations emerging from Spain

4.2.1. Sustainable real estate investment

The lack of a harmonised EU definition for sustainable real estate and the differences in Energy Performance Certificate (EPC) standards across Member States present challenges for investors. The following policy recommendations address the need for clearer sustainability indicators, data-driven decision-making, and incentives for energy efficiency investments in real estate.

Establishing Standardised and Dynamic Sustainability Indicators for Real Estate

Challenge: EPC ratings vary across countries, making them an **inconsistent** benchmark for investors. Additionally, current sustainability assessments focus on energy consumption but do not fully account for the **whole life cycle** of buildings.

Recommendations:

- Develop an EU-wide standardised sustainability rating system that incorporates not only EPC scores but also:
 - Operational energy consumption per square meter
 - Carbon emissions throughout the building lifecycle
 - Circularity indicators (e.g., material reuse, recyclability, and embodied carbon)
 - End-of-life performance (demolition impact, material recovery).
- Promote dynamic performance models instead of static EPC ratings, ensuring sustainability assessments evolve with real-world building usage and material degradation over time.

Enhancing Data Availability for Sustainable Real Estate Decisions

Challenge: Investors need reliable, comparable data to assess sustainability performance, but data gaps hinder informed decision-making. The Corporate Sustainability Reporting Directive (CSRD) 2022/2464⁴ is expected to improve transparency, yet challenges remain in data standardisation and accessibility.

Recommendations:

- Require centralised, open-access databases where energy performance, carbon footprint, and material sustainability data for buildings can be shared with investors, financial institutions, and policymakers.
- Ensure harmonised data collection frameworks across EU Member States to facilitate comparisons and align with EU Taxonomy and Sustainable Finance Disclosure Regulation (SFDR) requirements.
- Promote smart metering and digital monitoring to assess real-time building performance and ensure that reported sustainability metrics reflect actual energy use.

⁴ <https://eur-lex.europa.eu/eli/dir/2022/2464/oj/eng>

4.2.2. Linking green financing to sustainability performance

Challenge: Some financial institutions are linking interest rates to green Key Performance Indicators (KPIs), but this approach is not yet widespread. Standardised financial incentives can accelerate the adoption of sustainable real estate investments.

Recommendations:

- Encourage EU-wide financial mechanisms where lower interest rates and better loan conditions are directly tied to sustainability criteria, such as:
 - Implementation of high-efficiency technologies
 - Verified reduction in operational carbon footprint
 - Use of recyclable and low-carbon materials in construction and renovation.
- Develop public-private partnership models where institutional investors and banks collaborate with national and EU-level funds to de-risk sustainable building investments.
- Introduce progressive sustainability-linked financing incentives, where the more a building aligns with Environmental, Social, and Governance (ESG) strategies and Sustainable Development Goals (SDGs), the greater the financial benefits for investors and owners.

4.3. Recommendations emerging from Italy

4.3.1. Promote open protocols and standardisation of BMS integration

The integration of new digital solutions into Building Management Systems (BMS)⁵ is hindered by their closed nature, the customisation required for each building, and technical complexities in system integration. The lack of interoperability standards and integration challenges slow down adoption and scalability.

Challenge: Many BMS systems operate on proprietary protocols, limiting the ability to integrate new digital solutions effectively.

Recommendations:

- Mandate the adoption of open communication protocols (e.g., BACnet) in new and existing BMS systems to improve compatibility with third-party solutions.
- Encourage collaboration between BMS manufacturers, and policymakers to create a common technical integration roadmap for smart buildings.

4.3.2. Increase implementation readiness of energy efficiency interventions

While European legislation, like the EPBD, set ambitious energy efficiency goals, national markets—such as the one in Italy—are not well prepared to significantly increase the energy efficiency of the building sector. Government incentives are often unclear in their eligibility criteria and with uncertain duration, leaving smaller businesses and building owners struggling to apply for funding. Additionally, Italy's architectural and cultural heritage presents unique challenges in implementing energy efficiency interventions across building types, particularly in historic buildings.

Expanding financial and structural support to smaller market players

Challenge: Smaller companies and building owners lack the financial resources and technical capacity to implement energy efficiency interventions.

Recommendations:

- Introduce dedicated financial instruments (grants, low-interest loans, guarantees) tailored for SMEs and smaller building owners.
- Create simplified administrative processes for smaller stakeholders to access incentives, reducing bureaucratic complexity.
- Support local energy cooperatives and regional innovation hubs that can help smaller actors pool resources and expertise to implement energy efficiency solutions.

Adapting energy efficiency policies to Italy's unique architectural and cultural heritage

⁵ A Building Management System (BMS) is a computer-based system that monitors and controls a building's mechanical and electrical equipment, such as heating, ventilation, air conditioning (HVAC), lighting, and security, to optimize energy efficiency, occupant comfort, and safety.

Challenge: Historic buildings and protected heritage sites and require specialised solutions that balance energy performance improvements with architectural preservation.

Recommendations:

Develop and implement tailored energy efficiency policies and guidelines specifically designed for historic and culturally significant buildings. These should:

- Integrate conservation and energy goals by promoting reversible, non-invasive, and compatible retrofit solutions (e.g., internal insulation, secondary glazing, Heating, Ventilation, and Air Conditioning - HVAC upgrades that preserve original features).
- Encourage the use of Building Information Modelling (BIM) and digital tools to simulate interventions and assess impacts before implementation.
- Offer dedicated funding schemes and technical support for heritage-sensitive retrofits, ensuring alignment with national and EU conservation regulations.
- Facilitate collaboration between energy experts, conservation authorities, and local stakeholders to ensure that energy upgrades respect historical value while achieving performance targets.

Encouraging proactive market strategies through innovation incentives

Challenge: While some companies are already preparing for future market demands, forward-thinking investments in future technologies are limited and new technologies can be economically unviable without funding.

Recommendations:

- Expand EU innovation funding for companies developing forward-looking energy solutions, ensuring long-term viability beyond initial subsidies.
- Establish public-private partnerships (PPPs) that provide market-entry support for emerging energy technologies.

4.3.3. Strengthen the ESCO sector and investment readiness

While small ESCOs are technically competent and benefit from incentive systems, their limited scale prevents consolidation and larger impact. Meanwhile, larger companies struggle to integrate energy efficiency investments alongside their traditional energy sector focus (e.g., oil and gas). Addressing market fragmentation, financial constraints, and geopolitical risks is critical to fostering a more robust energy transition.

Challenge: The ESCO market remains highly fragmented, and there is reluctance from stakeholders to collaborate. This limits their ability to scale up energy efficiency projects and attract large-scale investment. In addition, small ESCOs often lack access to capital for implementing energy efficiency projects.

Recommendations:

- Promote tailored investment approaches (e.g., venture capital for startups, private equity for scaling companies, and green bonds for large-scale projects).
- Introduce fiscal incentives for ESCOs, fostering a shift from small-scale technical projects to larger, high-impact energy efficiency initiatives.

- Provide technical assistance programs and capacity-building initiatives to help small and mid-sized ESCOs scale up operations and secure funding.
- Develop a unified framework for energy efficiency financing, helping investors evaluate and compare energy efficiency projects.

4.4. Recommendations emerging from Greece

Key barriers for financing energy efficiency interventions in Greece include amongst others complex procedures, a lack of suitable financing instruments, and limited awareness among stakeholders. During the ENERGATE project implementation, and the engagement and active involvement of different types of stakeholders, four recommendations have emerged, centered around mechanisms to support energy efficiency renovations of public and private buildings, as well as to unlock investments from key stakeholders, such as Energy Services Companies (ESCOs) and banks.

4.4.1. Strengthen administrative and technical support to boost energy efficiency renovations of public buildings

Challenge: In Greece, a number of public buildings do not comply with legal requirements, for instance, buildings constructed or modified without complying with safety standards, or construction codes, as well as extensions, partitions and other modifications in building structures that were undertaken without the required permits. Moreover, municipalities are often understaffed, with smaller municipalities typically also lacking in technical expertise, e.g. qualified ‘energy officers’ to track building consumption data as well as plan, secure funding and oversee energy efficiency interventions in public buildings.

Recommendations:

- Set up national programmes that deliver training to civil servants, develop training material and publish capacity-building guidelines. Training should focus on energy management, designing energy efficiency projects and developing funding applications under different public calls for the energy renovation of buildings, as well as understanding alternative financing mechanisms. Emphasis should also be given in proactively resolving legal issues and rectifying construction code violations, so that municipalities can respond to public calls and pursue alternative financing instruments in a timely manner.
- The gradual implementation of smart metering, along with digital platform monitoring interfaces, are cost-effective solutions to help municipalities monitor public buildings energy consumption and support the development of building retrofit projects.
- Equip public authorities with technical tools, such as digital platforms or toolkits, that help systematically collect and monitor building information and data (e.g. documenting ownership, legal compliance of buildings, building characteristics, energy supply meter number, and energy consumption), as well as plan energy interventions for municipal buildings. Systematically collecting and storing building data can help reduce the administrative burden for developing projects and costs from the operation of buildings if energy use is optimised.
- Support the digital and energy transition, by improving interoperability across e-procurement digital platforms (e.g. interoperability between the Publicity of Public Contracts (KIMDIS) and the National Electronic Public Procurement System (ESIDIS)).
- Improve access to bank financing, such as loans and bridge financing schemes, to support already approved, either partly or fully financed, public building retrofit projects. Short-term loans can help the implementation of projects, especially when these depend on gradual or delayed disbursements and notably help secure financial fluidity for the realisation of retrofits.

- Promote and facilitate public-private partnerships (PPPs) where financial institutions collaborate with public entities to co-fund energy efficiency projects.

4.4.2. Establish policy and financial mechanisms to facilitate energy retrofits in the residential sector

Challenge: Although the residential sector is systematically supported by national energy renovation schemes (especially the various «Εξοικονομώ» programs run throughout the years), this is not sufficient for meeting national climate and energy targets, whilst building and dwelling owners lack awareness of alternative financing mechanisms for financing energy retrofits. In addition, there are significant challenges that hinder the energy renovation of buildings, for instance obtaining consensus among all co-owners of apartments within a building. Other enabling factors are missing, such as monitoring processes to accurately estimate energy savings in buildings, which can help building owners better understand the benefits of such interventions and help trigger private investments.

Recommendations:

- Support the creation of new policy instruments and mechanisms, for example the establishment of green syndicates and other types of structures that enable citizen-led and grassroots projects at neighbourhood level, so that these facilitate collective decisions and initiate aggregated building renovation projects.
- Create or support existing digital platforms that facilitate the creation of clusters of buildings and aggregate projects to overcome fragmentation and unlock investments in residential buildings.
- Accelerate the roll out of smart meters and establish monitoring mechanisms (e.g. digital platform monitoring interfaces) that can help building owners accurately monitor their energy consumption, as well as the energy savings of interventions. Monitoring energy consumption and energy savings makes energy efficiency investments more robust and credible, so it can help shift private capital towards energy efficiency interventions, and help building owners secure better access to green banking products and retail bank financing due to ESG reporting obligations.
- Improve awareness on bank financing - to supplement current national funding schemes - such as low-interest loans, green banking products, financial guarantees, or other credit enhancement mechanisms to boost energy efficiency investments from building owners.
- Design additional national funding schemes and instruments to further boost energy efficiency in Greece, leveraging the Modernisation Fund (which supports investments amongst others for the generation and use of energy from renewable sources and interventions that improve energy efficiency of buildings, transport, etc.), the Social Climate Fund (that aims to support vulnerable households, small businesses, and transport users who may be disproportionately affected by increases in energy and transport costs, for example through energy efficient renovations of buildings and sustainable mobility interventions) and the Decarbonisation Fund (that seeks to make Greek islands' energy supply cleaner, more resilient, and aligned with climate-neutrality goals).
- Direct a significant amount of funding towards thermal insulation to unlock large-scale improvements in the residential sector and combine this with social targeting and building stock priorities. Policy mechanisms and energy efficiency schemes should

prioritise interventions that secure optimum energy performance. In this regard, the path to efficiency should begin with building envelope improvements, followed by Heating, Ventilation, and Air Conditioning HVAC, automation systems and renewable energy installations.

- Support the development of innovative and alternative financing schemes and guarantee mechanisms to trigger energy renovations in Greece. For instance, on-bill financing and on-bill repayment are key mechanisms that need to be further supported and implemented in Greece, as these can make energy efficiency interventions affordable, by enabling households implement interventions without upfront costs and paying gradually the costs of the interventions, removing an important barrier to building energy renovations.

4.4.3. Enable key stakeholders to become a vehicle for energy efficiency

Challenge: Energy Performance Contracts (EPCs) can help unlock private investments for the energy renovation of buildings in Greece, especially when these are built on a solid foundation of technical accuracy, fair performance measurement, and mutual trust on public and private related energy efficiency investments. As such EPCs, typically implemented by Energy Services Companies (ESCOs), need to be further supported and implemented. Law 3855/2010, followed by Law 4342/2015, define the legal framework for ESCOs in Greece. Subsequently, a number of ESCOs were established, and an ESCO registry was created (<http://www.escoregistry.gr/>), where ESCOs can register on an optional basis. To date, more than 100 companies are registered. However, the number of projects implemented, especially using an EPC, is very limited. This can be attributed to a considerable extent to the lack of access to financing, either of building owners or ESCOs.

Recommendations:

- Introducing incentives and financing schemes specifically aimed at supporting technology installers, contractors and ESCOs could stimulate these actors to proactively seek out energy efficiency opportunities, aggregate building portfolios to increase the size of projects and reduce transaction costs, and drive down upfront costs through scale, acting as implementation catalysts.

4.4.4. Unlock investments for building retrofits at small and large scale

Challenge: To further boost the implementation of energy efficiency projects, building owners should be able to access bank financing, such as low-interest loans, green banking products and credit enhancement mechanisms. However, banks typically evaluate individuals' creditworthiness, ability to repay and capital to be invested, as well as collaterals, rather than the viability and performance of the intervention they intend to implement, namely the energy project. Therefore, the focus needs to shift from individuals to projects and enable building owners to access bank financing.

Recommendations:

- Encourage banks and financial institutions to develop dedicated green financing mechanisms, based on the energy savings potential and return on investment of energy efficiency projects, rather than building owners credit scores. Greek banks should be encouraged to assess retrofit projects and their economic and technical

performance rather than solely focusing on the financial status and background checks of customers.

- Establish national guarantee funds or risk-sharing mechanisms to de-risk energy efficiency loans and encourage banks to invest in deep renovations.

4.5. Recommendations emerging from Hungary

4.5.1. Expand building construction and renovation capacities

Challenge: There is high market interest for energy improvements but there is also a shortage of skilled workforce, resulting in low renovation capacities.

Recommendations:

- Integrate the cost of specialised training certificates (for installers, auditors, etc.) into the renovation grant or loan applications.
- Establish formal agreements with vocational schools to update course content to focus on specific technologies (e.g., specific heat pump models, standardised insulation techniques).
- Delegate the definition and enforcement of quality standards and mandatory licensing to trade associations, ensuring that training leads to industry-recognised, market-relevant certification.
- Partner with municipalities to designate their public building retrofits as training sites, providing project managers and installers with supervised, real-world experience.
- Standardise the training for auditors to use the exact digital data collection format required by a financing platform (like the ENERGATE platform), guaranteeing consistent, bankable data quality from the start.
- Require trade associations and municipalities to offer guaranteed job interviews or short-term contracts for program graduates (training to employment).
- Advocate for simultaneous investments in workforce training, certification, and local manufacturing capacity through national and EU-level funding programs.

4.5.2. Address regulated energy prices and weak price signals

Challenge: State-subsidised energy prices significantly reduce the financial motivation to undertake energy efficiency renovations, particularly in the residential sector.

Recommendations:

- Form agreements with energy utilities or grid operators to gain access to the infrastructure and regulatory approvals needed to offer experimental, dynamic electricity tariffs to pilot participants.
- Install smart thermostats, home energy management systems (HEMS), and smart metering within retrofitted pilot buildings to enable real-time consumption response and data collection.
- Track and report the financial benefits derived from behavioural load shifting in addition to the physical energy savings from the renovation, clearly demonstrating the total value proposition to homeowners.
- Position the pilot's results as a benefit for grid flexibility and stability, using the data collected to advocate for broader policy adoption of variable pricing signals.

- Publish aggregated results demonstrating the verifiable financial impact of dynamic tariffs on renovated homes.
- Provide technical assistance to participating homeowners and facility managers on how to use smart devices and respond effectively to dynamic price signals.

4.5.3. Shift from grant dependency to sustainable financing models

Challenge: Households expect non-repayable subsidies and are reluctant to take on debt, undermining uptake of loan-based renovation schemes.

Recommendations:

- Reposition the grant as a guaranteed down payment that unlocks the commercial loan for the rest of the energy renovation intervention.
- Introduce financial incentives that are paid out after renovation and are directly tied to verifiable, measured energy savings over the first two years.
- Establish a scheme where loan repayments are automatically deducted from calculated energy savings, reducing perceived debt risk for households.
- Support financiers offering service-based models ("Heat as a Service") where the customer pays a fixed fee for comfort, eliminating large upfront debt.
- Design a single, streamlined application process that automatically calculates and bundles the optimal mix of grant, loan, and incentive funding for the homeowner.

4.5.4. Establish a national housing data strategy

Challenge: Outdated and incomplete housing data (e.g., from 2017) hampers policy design, and the creation of bankable renovation projects.

Recommendations:

- Assign a single, high-level government agency as the official custodian responsible for the ongoing maintenance, updating, and governance of the entire national housing dataset.
- Digitally link ministry and municipal registers to create a single national data source.
- Require all building data collectors (auditors, financial institutions) to use a single, standardised input template for technical attributes.
- Incentivise property owners to submit data on their actual metered energy consumption.
- Position a tool (such as the ENERGATE platform) to act as a secure, neutral data facilitator for sharing standardised project data among financial institutions.

4.5.5. Use digital solutions such as ENERGATE

Challenges:

- Individuals generally have limited knowledge and awareness about financial products offered in the market.
- There is a lack of reliable and up to date data on buildings.
- There is a lack of dedicated financial products for energy efficiency renovations
- Building owners lack adequate capital to invest on the energy renovation of their properties
- Fragmented and small-scale project pipelines increase transaction costs.

Solutions via ENERGATE Platform:

- Aggregation of small-scale projects into large-scale, bundled projects to unlock private capital
- Support functions to streamline matchmaking and project evaluation.

Establishing a country-wide one-stop shop network:

Setting up local “one-stop shops” (OSS) could:

- Make it easier for homeowners to find all services in one place
- Help reduce paperwork and upfront costs
- Attract more EU support and funding.

Hungary is now in the phase of establishing an OSS network applying a hybrid approach: the OSS will rely on an online matchmaking and aggregation platform and a physical network of OSS offices around the country. Implementation of the project is expected to start in 2026.

ENERGATE Declaration Adopted at the Budapest Regional Workshop

In July 2025, a workshop was organised in Budapest, titled “*Investing in Efficiency: Financing Pathways for Energy – Efficient Buildings in Hungary and Central and Eastern Europe*”. The workshop attracted different types of stakeholders, including energy renovation implementors and financiers. An important outcome of the workshop was that participants agreed on a common message – the ENERGATE declaration – where participants:

- Recognise the strategic role of energy efficiency in the residential sector for meeting EU climate and energy goals.
- Call for digital platforms to become integral tools in public-private partnerships
- Highlight the need for stable policy, clear rules, and technical innovation

4.6. Recommendations linked to the EU Public Procurement Directives (from Latvia and Greece)

ENERGATE developed recommendations to submit in response to the call for evidence launched by the European Commission on 13 December 2024 for the evaluation of the Public Procurement Directives.⁶ The recommendations were largely formulated from the pilots in Greece and Latvia that focused on the public sector. This section presents the recommendations developed along with the accompanying supporting text that was submitted.

⁶ https://ec.europa.eu/info/law/better-regulation/have-your-say/initiatives/14427-Public-procurement-directives-evaluation_en

Triggering investments for the energy renovation of public buildings

Recommendations

> **Increase Public Procurement Thresholds for Simplifying Procurement Procedures for Energy Efficiency Projects**

The European Commission should consider raising the financial thresholds for the procurement of public contracts implementing energy efficiency measures. Despite the already high thresholds at an EU level, increasing them further, along with simplifying procedures, would reduce administrative burdens while maintaining regulatory compliance. In addition, the European Commission should make recommendations and encourage Member States to increase financial thresholds at a national level to enable the renovation of public buildings, as these stricter thresholds impede the clean energy transition of the public sector. This would enhance the ability of one-stop shops and platforms like ENERGATE to support public bodies in designing, financing and implementing energy efficiency interventions in public buildings.

> **Simplify and Streamline Procurement Processes**

The European Commission should simplify the public procurement process for projects that meet rigorous environmental criteria, by defining “fast-track” pathways and providing standardised templates. This would reduce administrative burdens and complexity, accelerate the procurement process and facilitate public authorities’ efforts to renovate public buildings.

> **Introduce Specific Exemptions for Financed Energy Efficiency Solutions**

The European Commission should establish specific exemptions within procurement law to allow public authorities to access financed energy efficiency solutions either without undergoing standard public procurement procedures or by using simplified public procurement procedures. This would provide greater flexibility to public authorities in securing funding for and accelerating the implementation of energy efficiency projects, whilst ensuring that citizens enjoy the social, environmental, wellbeing and health benefits that stem from such interventions. At the same time, this would make it simpler, thus more appealing, for entities that offer financed solutions, like Energy Service Companies (ESCOs), to develop financed solutions for public authorities. This would also enhance the ability of one-stop shops and platforms like ENERGATE to support such efforts.

> **Enable Aggregation of Projects and Cost Savings**

The European Commission should facilitate the aggregation of projects, as this allows for better price negotiations and lower upfront costs due to higher volume purchases. Public procurement rules can limit the ability of one-stop shops and platforms like ENERGATE to fully facilitate the aggregation of public authorities’ projects. Addressing regulatory barriers would enhance one-stop shops and platform’s ability to support public authorities (especially local and regional authorities) in joint procurement, improving cost efficiency. While this approach may face challenges in inter-municipal communication, it remains a key opportunity for scaling energy efficiency investments.

Context

Energy efficiency is fundamental for achieving a cost-effective transition towards a decarbonised and reliable energy system. As such, the Energy Efficiency First principle is embedded in EU legislation; with the revised Energy Efficiency Directive (EU/2023/1791) giving it legal standing, so energy efficiency must be considered by EU countries in all relevant policy and major investment decisions taken in the energy and non-energy sectors. In addition, the revised Energy Performance of Buildings Directive (EU/2024/1275) aims to increase the rate of renovation in the EU, particularly for the worst-performing buildings in each country. However, the energy renovation rate of buildings remains low and insufficient to achieve set goals, even more so for deep renovations. The reasons are multifaceted and include the high investments needed and the long payback periods. High costs are a real barrier for building owners and businesses that do not have the necessary funds upfront, despite the long-term savings from the implementation of sustainable energy interventions.

Although the EU is taking tangible steps to increase the renovation rate of buildings, there is still limited capital flowing to the renovation of the current building stock. This reveals an urgent need for action, and for mobilising investments for the energy renovation of buildings. In this context, tools and methodologies are needed to attract and leverage private investments for energy efficiency projects, such as easily accessible one-stop shops that can aggregate projects, provide advice and packaged solutions for financing and implementing energy efficiency interventions in buildings.

The ENERGATE project, co-funded by the LIFE programme, aims to address this need by creating an effective, ICT-enabled marketplace for energy efficiency investments in buildings. **The ENERGATE marketplace is being implemented through a user-friendly platform that connects building owners, implementors of energy renovations and financial institutions to enhance project financing and accelerate renovation rates.** The ENERGATE platform was launched in October 2024, and it is designed to facilitate the collection of potential projects including project-specific and technical information, the aggregation of similar projects, and their matchmaking with implementors and financiers. Its success is strongly connected with effectively engaging key stakeholders, so that through the aggregation and matchmaking process it can provide energy renovation projects that can be successfully financed. Key stakeholders include building owners (including private and public bodies), implementors (e.g. Energy Service Companies, project developers, engineering companies and installers) and financiers (such as commercial banks, development banks, private investors, and investment funds). Currently, the ENERGATE platform is being tested through different pilots implemented across six European countries; with a strong focus on engaging stakeholders and encouraging them in actively participating and becoming users and actively contributing to the implementation of energy efficiency interventions. Interestingly, the pilots in Greece and Spain also target public authorities, so that the energy renovation of public buildings can be facilitated.

Learnings from the ENERGATE project

During the design of the ENERGATE platform, the different needs of different stakeholders were identified and analysed. From the start, it was clear that there are inherent differences between private building owners and public building owners, so these two target groups need to be treated differently within the platform. This is mainly because public bodies need to ensure compliance with national and EU public procurement laws and regulations when implementing energy efficiency interventions in buildings they own/manage.

The **complex and strict public procurement requirements** that public authorities need to comply with when implementing projects is a real barrier for such entities benefiting from one-

stop shops and platforms like ENERGATE that can help them design and finance energy efficiency interventions for their buildings. More specifically, public procurement rules must be followed when the cost of works, supplies or services exceed a specific threshold. EU legislation sets higher threshold, for instance €221,000 for local and regional government contracts (from 1 January 2024), however, most Member States have defined stricter national thresholds, such as € 20,000 and € 30,000 for Latvian and Greek local and regional government contracts respectively). These thresholds are very low, so these make it unlikely for any building renovations to be directly awarded to an implementor without a competitive tendering procedure.

In addition, there is a **lack of procurement flexibility for energy efficiency projects**. Therefore, public procurement rules prevent public authorities co-creating projects with implementors and ESCOs (Energy Service Company), therefore limiting further the value of platforms like ENERGATE that aim to facilitate the collaboration of implementors and ESCOs with building owners.

As a result, the public sector was treated as a special sector, and care was taken when this was incorporated within the ENERGATE platform. Due to the restrictions posed by public procurement rules, functionalities available for users that are public bodies in the ENERGATE platform are limited, when compared to those available for other building owners. In particular, public bodies can register on the platform and enter information about their buildings and types of interventions they are interested in implementing. However, implementors are not able to develop an offer for these buildings, outlining energy efficiency and other measures they are interested in taking on. This is only permitted for projects that do not exceed the maximum financial threshold set by regulations, which in turn limits the potential of any noteworthy energy efficiency projects. Instead, public bodies can gain information about possible funding programmes and financing mechanisms they can explore for the energy renovation of their buildings. In essence public bodies can be matched with financiers but not with implementors for projects, nor can they have access to financed solutions developed by implementors.

Given the significant role of public bodies in the energy renovation of buildings and how these can lead by example, it is important to ensure that barriers to such efforts are alleviated to the extent possible. To ensure that public bodies can in the future benefit in full from one-stop shops and platforms like ENERGATE, **public procurement rules need to facilitate the implementation of energy efficiency interventions and** not impede progress towards the clean energy transition.

5. Conclusions

Across Europe, investments in building energy efficiency face common barriers, including fragmented markets, complex regulations, limited access to finance, and shortages of skilled workers. Experiences from Hungary, Greece, Italy, Spain and Latvia highlight that effective solutions require a combination of workforce training, standardised data collection, harmonised sustainability indicators, and accessible financing mechanisms tailored to both residential and public buildings. Measures such as integrating professional training into grants or loans, standardising auditing protocols, and linking graduates to guaranteed employment can strengthen renovation capacity. Digital platforms like ENERGATE enhance project bankability by aggregating small-scale renovations, providing reliable building data, and connecting building owners with financiers and implementors. At the same time, tackling split incentives in rental markets, introducing performance-based rewards, and offering service-based models like “Heat as a Service” can reduce households’ financial barriers and encourage deeper, long-term renovations.

At the public sector level, EU Public Procurement rules and national procedures often slow energy renovations due to low thresholds and rigid processes. Recommendations focus on increasing thresholds, simplifying procurement, enabling exemptions for financed energy efficiency solutions, and aggregating projects to reduce costs. Public buildings’ energy performance monitoring and standardised data collection strengthen investor confidence and allow performance-based financing, while digital platforms and one-stop-shops streamline project implementation.

By aligning national policies with EU frameworks, supporting key stakeholders such as ESCOs, municipalities, and SMEs, and leveraging digital tools like ENERGATE, Europe can unlock private capital, accelerate building renovations, and meet ambitious climate, energy, and sustainability targets.

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