EPBDAASSE BRINGING EUROPEAN POLICY TO LIFE

What Is Needed for Effective EPBD Implementation?

Summary of policy needs

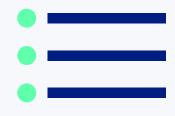
Author: Denisa Diaconu, BPIE



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LIST OF ABBREVATIONS

EED	Energy Efficiency Directive	
EPBD	Energy Performance of Buildings Directive	
EPC	Energy performance certificate	
EU	European Union	
MEPS	Minimum energy performance standards	
NBRP	National building renovation plan	
nZEB	Nearly zero-energy building	
ZEB	Zero-emission building	

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EXECUTIVE SUMMARY



The Energy Performance of Buildings Directive (EPBD) represents the most important legislative instrument for buildings decarbonisation across the European Union. On 15 December 2021, the European Commission submitted a recast proposal for the EPBD to the EU Parliament and the Council, as part of the "Fit for 55" package. The aim was to upgrade the existing regulatory framework to reflect higher climate ambitions coupled with further social attention while providing Member States with the necessary flexibility to consider the differences in the building stock across Europe.

After being amended by both the Parliament and the Council and negotiated in trilogues, the recast EPBD was formally adopted in April 2024 and published in the EU Official Journal on 8 May 2024. Member States have until 29 May 2026 to transpose it into national legislation and implement its provisions.

The EPBD implementation process provides the opportunity to create a coherent policy framework for buildings decarbonisation, develop a holistic approach towards renovations and advance a long-term vision to achieve a zero-emission building stock by 2050. For effective implementation, Member States should start identifying and mapping policy gaps and needs in relation to the 2024 EPBD's provisions.

The aim of this report is to provide an overview of Member States' policy needs for implementing the EPBD. This contributes to identifying the critical areas that need to be further addressed in the policy guidelines being developed within the EPBD.wise project.

This document is targeted at policymakers at the national and EU level. On the one hand, it will support national public authorities in better understanding the policy gaps that need to be addressed while preparing for the transposition and implementation process. On the other, it can help the European Commission to identify the sensitive policy spots where Member States need their guidance and assistance. Finally, this report is also useful for preparing the ground and setting the framework for the upcoming policy guidelines to be drafted within EPBD.wise project.

THE KEY CROSS-CUTTING POLICY NEEDS IDENTIFIED ACROSS EU MEMBER STATES ARE:

- Designing a coherent policy framework for building decarbonisation, using national building renovation plans (NBRPs) to align targets, national measures and financial tools in an integrated manner.
- Planning the implementation timeline for each policy instrument to ensure that EPBD provisions are transposed in a coherent, timely manner and enough time is allocated for public consultations and debate, especially when drafting the NBRPs.
- Promoting an inclusive and collaborative implementation that encourages public participation and stakeholder engagement throughout the whole process of preparing new and updating existing buildings-related legislation.
- Enhancing data collection and management to develop a robust overview of the national building stock and design more effective data-based policies.
- Developing training and upskilling programmes for various professional profiles to build a workforce equipped to meet the provisions and objectives of the 2024 EPBD.
- Designing an enabling framework that includes supporting policy instruments and financial incentives tailored to the needs of different target groups.
- Integrating feedback mechanisms to monitor and evaluate progress on EPBD implementation, as well as to assess its social impact, especially on vulnerable households.



INTRODUCTION

The Energy Performance of Buildings Directive (EPBD) represents the most important legislative instrument for buildings decarbonisation across the European Union. On 15 December 2021, the European Commission submitted a recast proposal for the EPBD to the European Parliament and the Council of the EU as part of the "Fit for 55" package. The aim was to upgrade the existing regulatory framework to reflect higher climate ambitions coupled with further social attention while providing Member States with the necessary flexibility to consider the differences in the building stock across Europe.

The EPBD (EU) 2024/1275 (hereafter 2024 EPBD) introduces new policy instruments to advance the decarbonisation of the EU building stock, such as a zero-emission building (ZEB) standard, national building renovation plans (NBRPs), minimum energy performance standards (MEPS) for non-residential buildings and national trajectories for the progressive renovation of residential buildings. In addition, existing policy instruments were revised and strengthened, such as renovation passports and energy performance certificates (EPCs).

Against this background, the EPBD.wise project aims to support Member States in the policy design, implementation, monitoring and evaluation of these instruments to avoid lock-in effects, to provide consistency with the EU's long-term energy and climate targets, and to ensure the measures are affordable and socially acceptable.

After being amended by both the Parliament and the Council and negotiated in trilogues, the recast EPBD was formally adopted in April 2024 and published in the EU Official Journal on 8 May 2024. Member States have until 29 May 2026 to transpose it into national legislation and implement its provisions.

In order to do so, the intervention logic of the project follows four phases: 1 understanding and mapping policy needs related to EPBD implementation, 2 drafting tailormade policy packages for focus countries, 3 replicating the policy guidelines to all EU Member States and 4 communicating and disseminating the project's findings.



This report provides a summary of the existing policy needs across EU Member States related to 2024 EPBD implementation. The aim of this document is to provide an overview of what Member States need for implementing each of the policy elements covered in the EPBD.wise project (i.e., ZEBs, NBRPs, MEPS and national trajectories, renovation passports and EPCs), so they can create the right framework for the decarbonisation of the building stock. The content of this document is meant to guide the future work and outcomes of the project, especially the policy guidelines.

The policy needs presented in this report are drawn from the first phase of the project,¹ which included desk research, surveys, bilateral calls with national stakeholders, and thematic workshops. Additional research was carried out to expand the geographical scope of this analysis across the EU. This included reviewing studies and reports assessing the implementation of previous versions of the EPBD or national strategic documents such as long-term renovation strategies and national energy and climate plans. The report also acknowledges the existing heterogeneity of the building stock across EU in terms of building type and age, property ownership and other factors that can impact EPBD implementation.

The report starts with a section explaining the methodological framework used in identifying and categorising the main policy needs to ensure they encompass and are relevant for all EU Member States. Many of the policy needs are cross-cutting and relevant for more than one policy instrument. The following section delves into the specific needs for each policy instrument. Finally, the last section presents the key conclusions and provides further direction in elaborating policy guidelines.

¹ For each of the focus countries in the EPBD.wise project, policy needs related to implementing EPBD provisions (ZEBs, NBRPs, MEPS and national trajectory, renovation passports and EPCs) were identified and compiled in separate reports.

AN INTEGRATED APPROACH FOR EFFECTIVE EPBD IMPLEMENTATION

The aim of this chapter is to provide a guiding framework to identify and categorise the main policy needs related to EPBD implementation across all EU countries. An integrated approach for effective EPBD implementation is key as many of the policy needs are relevant for multiple policy instruments.

The 2024 EPBD introduces and modifies many provisions, so it is crucial to identify linkages, synergies and overlaps across policy elements, as well as to understand how potential gaps and pitfalls can be addressed in a unified and coherent manner.

Despite having their own specificities, many of the provisions share the same policy needs (e.g., better data availability, enhanced institutional capacity, suitable financing mechanisms and feedback instruments etc.). The implementation process should consider all the provisions in a coordinated way, rather than in a siloed approach, or the synergies between policy instruments and between the solutions to different needs will be missed.

In other words, effective implementation of the EPBD requires a consistent approach that considers how different policy instruments and provisions interact and enforce each other, how different policy needs can be tackled together and how their solutions can be embedded in a coherent policy framework. Only through an integrated approach can a full transposition and successful implementation be achieved to put the EU on track for the decarbonisation of its building stock.

This section starts by identifying the key barriers² to effective implementation of the EPBD to establish corresponding policy needs categories. The main barriers can be divided in five main categories. The table below summarises the main barriers identified and offers specific examples for each category.

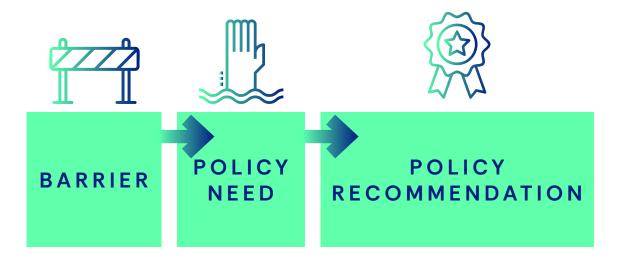
² The barriers identified are largely common across EU countries, although their weight in the overall transposition and implementation process can vary depending on specific national circumstances.

Table 1. Key barriers to effective EPBD implementation

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TYPE OF	BARRIER	EXAMPLE
	LEGISLATIVE & REGULATORY	 Inconsistencies or conflicting provisions within the existing legislation Regulatory and planning barriers Short-term vision Inappropriate monitoring and reporting frameworks
	INSTITUTIONAL	 Lack of technical expertise and capacities in national and local administration Lengthy and burdensome administrative processes Fragmentation of responsibilities Insufficient collaboration between local, regional and national levels
	TECHNICAL	 Lack of skilled workforce Lack of standardised processes and industrialised fast-track solutions Lack of accessible advisory and quality technical support for building owners
	FISCAL & FINANCIAL	 High upfront costs and split incentives Lack of access to public and/or private financial support Limited public funds, public financial support not sufficiently targeted towards worst-performing buildings and vulnerable groups
	INFORMATION & PERCEPTION	 Lack of knowledge, conflicting or lack of information on energy performance of buildings Perceived risk, attachment to incumbent technologies Perception that investments in energy efficiency are risky Lack of information on available funding opportunities

Determining the most important challenges Member States experience provides valuable insights into what national authorities need in order to upgrade their policy framework according to 2024 EPBD provisions and requirements. Following this logic, each barrier category was translated into a policy need.³ For each policy need a policy recommendation will be developed later on in the EPBD.wise project.



Our conceptual framework suggests five types of policy needs as interrelated processes and conditions for the successful implementation of the EPBD. These categories will guide the analysis of the policy needs for particular elements of the EPBD in the following chapters.

³ Only barriers that can be overcome through a policy response were selected.

¹¹

TYPE OF BARRIER





LEGISLATIVE & REGULATORY

Lack of enabling legislative framework, complex laws, overlapping and/or conflicting provisions.

POLICY NEEDS

 Close regulatory gaps and develop a strong enabling framework

e.g., Defining an effective ZEB definition to ensure legal certainty and clarity to both practitioners and investors.



INSTITUTIONAL

Lack of capacity among policymakers, administrative and enforcement authorities. Strengthen institutional capacity

 e.g., Building capacity at local and national
 levels for designing MEPS/measures to
 implement the national trajectory.



TECHNICAL

Lack of knowledge regarding the state of the existing building stock, lack of skills and expertise to identify and implement the necessary solutions. Increase knowledge, expand skills and create training programmes
 e.g., Enhancing data collection and management to give a better overview of the national building stock.

FISCAL & FINANCIAL

Lack of funds and funding instruments, high upfront costs, financing mechanisms not adapted to the necessities of target groups.

Enhance and develop innovative financial mechanisms

e.g., Developing tailored financial instruments and incentives for the roll-out of renovation passports.



INFORMATION & PERCEPTION

Lack of awareness on the benefits of renovation, insufficient or asymmetric information.

Develop and maintain ongoing awareness campaigns

e.g., Fostering an inclusive process for the elaboration and implementation of NBRPs through constant public participation and stakeholder engagement.

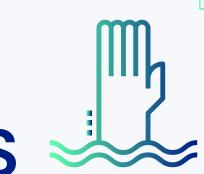
APPROACH TO IDENTIFY AND ANALYSE POLICY NEEDS

The primary purpose of this document is to compile and summarise the most important policy needs related to EPBD implementation. The main sources of information considered for this assessment are:

- Policy needs collected in initial baseline reports for each focus country through interviews, roundtables, policy forums etc.
- Desk research, including Concerted Action EPBD reports, long-term renovation strategies, available literature looking at previous implementation of the EPBD.
- Information provided on the national level through calls with our contact points in the focus countries.

The analysis will be guided by the policy need categories identified above to ensure a structured and comprehensive analysis.

This multi-faceted research approach helps ensure the replicability of the solutions to be developed within the upcoming policy guidelines as for each policy need identified a corresponding policy recommendation will be elaborated. It is important to go beyond the policy needs specific to the six focus countries and understand what other types of policy need exist in EU Member States in order to tailor policy packages for non-focus countries as well.



POLICY NEEDS

This chapter summarises the most important policy needs identified at national level for effective EPBD implementation. The process of identifying and mapping policy needs began during the initial proposal phase of the EPBD.wise project and was further enhanced through comprehensive desk research, interviews with stakeholders, surveys, workshops and policy forums. The intended aim was to have a better understanding of the actual buildings policy framework across the EU and determine the policy needs to be addressed for effective implementation of the EPBD.

3.1 NATIONAL BUILDING RENOVATION PLANS⁴

WHAT DOES THE EPBD REQUIRE?

The EPBD replaces the long-term renovation strategies with national building renovation plans (NBRPs), which are envisioned to be more comprehensive planning tools for national authorities. While drafting the NBRPs, Member States will need to follow a common EU template capturing for example an overview of the state of the building stock, a roadmap with national targets and measurable progress indicators, an overview of policies and measures to implement the roadmap, an outline of investment needs and an estimate of the expected benefits. The new template provides detailed specifications regarding the structure and content of the NBRPs, with a list of mandatory and optional indicators.⁵

The NBRP should be a repository for all the implemented and planned policies and measures as well as the necessary investments and financing sources, ensuring consistency between different strategic elements. The NBRP drafting process should therefore provide Member States with a better overview and understanding of the tools and provisions at hand, including the potential synergies and interlinkages between them. The NBRP must guide Member States in strategically designing national programmes to decarbonise the building stock in the long term and establish immediate measures for the short to medium term, implementing other EPBD articles.

⁴ For more NBRP-related policy needs and good practice examples, please see the EPBD.wise report: National Building Renovation Plans and Zero-Emission Buildings: Policy needs and best practices.

⁵ This represents an improvement from the long-term renovation strategy, which did not have a set structure, leaving space for omissions or incomplete submissions.

A critical aspect in setting up the NBRPs is timing, since the draft plans have to be submitted to the European Commission for assessment by the end of 2025, containing main EPBD provisions whose transposition deadline is in May 2026. It is therefore crucial to start already the planning process and ensure strong coordination among parallel workstreams when implementing the EPBD. Member States should use the drafting of the NBRP to coordinate their building policy measures and investments, enhancing its function as a strategic guidance document for the decarbonisation of the building stock.

In relation to drafting and implementing NBRPs, the following policy needs have been identified:

THERE IS A NEED FOR GUIDANCE ON DATA COLLECTION AND MANAGEMENT.

The EU building stock is highly diverse and fragmented, making it difficult to collect baseline data that can provide an accurate overview of the status of buildings. A lack of building stock data emerged as a common issue across all focus countries in EPBD.wise, as well as in other EU Member States. Official data is often missing and even when an official database exists, it is sometimes outdated or contains insufficient information. For example, renovation works that are carried out privately are usually not recorded in any database until their next EPC assessment is carried out.⁶

The data deficit makes it more difficult for policymakers and other stakeholders to plan and implement effective building decarbonisation strategies. There is a need for more detailed and reliable data so that priority areas for intervention can be identified and remedial action can be measured more accurately.

Quality and reliable data is essential for the elaboration of the NBRPs as they should build on a solid overview of the national building stock, which can be informed – at least partially – by the database on the energy performance of buildings according to Article 22 of EPBD 2024. Member States will benefit from having in place better processes and procedures to collect data on their national building stock as well as to update it on a regular basis.

THERE IS A NEED FOR GUIDANCE IN BUILDING INSTITUTIONAL CAPACITY FOR DRAFTING AND IMPLEMENTING THE NBRP.

Strengthening the capacity of the authorities responsible for delivering the NBRPs is a critical policy need. As NBRPs are complex documents encompassing all the measures and investments planned for the decarbonisation of buildings, their elaboration will require the involvement of different ministries, agencies and bodies with various expertise and skills. To develop an effective and practical NBRP, all those parties involved will need a good understanding not only of the EPBD provisions, but also of the synergies and interlinkages between them to accurately reflect these in the EPBD transposition and implementation process.

As many of the EPBD policy tools have been updated while others are newly introduced, Member States will need support in clarifying and understanding how the EPBD provisions can translate into practice. In this sense, national authorities will benefit from receiving information on potential implementation options and good practice examples⁷ that can be adapted to their national realities.

⁶ Besides the trigger points of construction, sale or rental to a new tenant, the 2024 EPBD increases the number of instances when an EPC must be issued to also include major renovations and renewal contracts. The EPC lifespan period remains at 10 years.

⁷ During the first phase of the EPBD.wise project, our work mainly focused on identifying policy needs and good practice examples across the EU.

► THERE IS A NEED FOR GUIDANCE IN IDENTIFYING THE MOST APPROPRIATE FINANCING SOURCES AND DEVELOPING TAILORED FUNDING SCHEMES.

Member States are required to provide within the NBRP an outline of the investments needed to implement the planned policies and measures. However, challenges related to identifying proper financing instruments and mobilising various streams of financing for renovation were among the most recurrent issues for which Member States need guidance and support.

The essence of the finance challenge is to draw out the financial resources potentially available on the supply side and develop suitable mechanisms to deliver them to the market. Leveraging these resources should stimulate and mobilise energy efficiency renovation at the right scale, pace and depth, sustained from short to long term, in line with overall energy efficiency targets.

NBRPs must not merely be an administrative document but also a practical, applicable plan for all Member States. This requires securing long-term support from both public and private investments, as well as from other available funding streams, with a clear strategy for increasing co-financing and private financing over time to reduce the burden on limited public funds.

THERE IS A NEED TO ENHANCE PUBLIC PARTICIPATION AND STAKEHOLDER INVOLVEMENT.

The 2024 EPBD emphasises the importance of public consultation in the elaboration of NBRPs. It requires Member States to hold a public consultation during the drafting process and to devote sufficient time to consult with stakeholders, in particular local and regional authorities as well as other socioeconomic partners, such as civil society and organisations working with vulnerable households. Building capacity for these groups to participate in the consultation processes is a key resource for the proper implementation of the EPBD.

Public participation results in better outcomes, better governance and greater acceptance of decisions, and brings new ideas and approaches into the discussion. A well-run and open public consultation process⁸ is the basis to achieve a common understanding among stakeholders and the general public about building renovation, which is a societal challenge that must be achieved through collective efforts. It is also an opportunity to gather input to further improve and complement planned measures.

Previously, from the assessment of submitted long-term renovation strategies, the obligation to carry out a public consultation was poorly addressed in most Member States. However, according to the 2024 EPBD, Member States must now publish and include in their NBRPs a summary of the main issues and outcomes raised during consultation.

Additionally, Member States should also make sure that the public and stakeholders are involved and regularly consulted in the implementation of the NBRP.

⁸ There are multiple methods to ensure broad public participation, ranging from surveys and questionnaires to roundtables and focus groups. For instance, when drafting their long-term renovation strategy, some Member States opted for a combination of these methods. The first step was to organise in-person meetings and roundtables to gather extensive input and information from stakeholders. Subsequently, this was followed by publishing a draft of the document with a request for online written feedback. Eventually, after integrating the comments and suggestions received, a further round of discussion can be held to inform stakeholders on how their concerns have been addressed in the final version of the strategy.

THERE IS A NEED TO ENSURE CONSISTENCY WITH OTHER NATIONAL OR EU STRATEGIES TOUCHING UPON BUILDING DECARBONISATION, ESPECIALLY THE NATIONAL ENERGY AND CLIMATE PLANS.

The EPBD makes a clearer link between NBRPs and national energy and climate plans, aligning their timelines so they will now be submitted together. A potential issue arises when the two documents are carried out by different ministries, which is the case in many Member States. In other countries, there is a division between state and federal responsibility that can aggravate the problem. Against this background, national policymakers will benefit from guidance on how to work closely with both central government and local authorities in identifying the synergies and common requirements of different strategies to ensure consistency and provide a long-term vision for the decarbonisation of the built environment.

THERE IS A NEED FOR GUIDANCE ON MONITORING AND EVALUATING THE MEASURES PLANNED.

The 2024 EPBD transformed the NBRP into a more holistic and practical planning tool. However, NBRPs represent not only a planning tool for building decarbonisation policies, but also a valuable reporting and monitoring instrument. Member States will therefore need to understand how to use NBRPs more strategically as an integrated planning, reporting and assessment instrument.

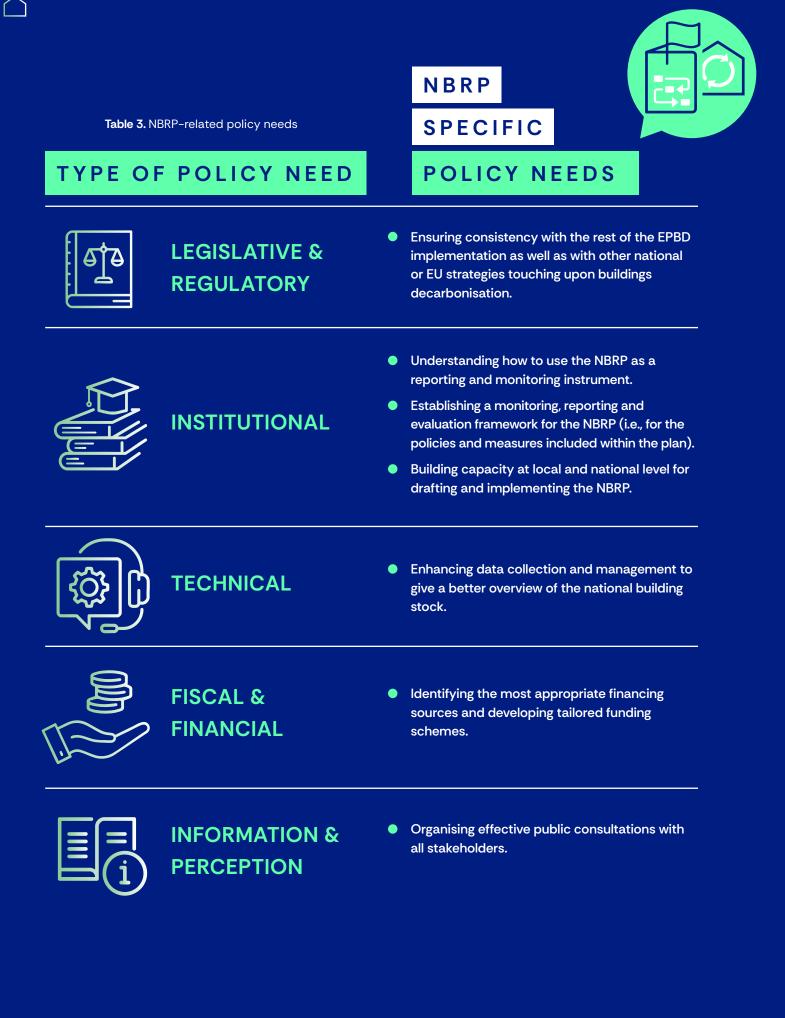
Since NBRPs are intended to cover all policies, measures and investments planned or implemented, if developed correctly, they will provide Member States with a means to assess progress towards national targets and the impact of the policy tools put in place.

As mentioned, one of the new additions to the NBRPs is the introduction of an EU-wide template. Following a common template should help Member States in their planning and reporting activities, as well as the European Commission in its monitoring and evaluation tasks.⁹ Nonetheless, Member States should also put in place their own evaluation mechanisms. The EPBD specifically requires Member States to annex the details of the implementation of their most recent long-term renovation strategy to their NBRP, indicating the progress achieved and whether the targets have been reached. Subsequently, every five years, Member States will have to draft and submit a new NBRP. This will require them to assess what was achieved through the previous plan and envision the necessary policies, measures and investments to reach a zero-emission building stock by 2050.

Against this background, to implement NBRPs effectively, Member States will need to integrate monitoring and evaluation mechanisms at national and local levels. They therefore need guidance on what monitoring and evaluation processes and tools to use and how to accommodate them in the NBRP framework.

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⁹ The draft NBRP should be submitted for assessment to the European Commission.



3.2 ZERO-EMISSION BUILDINGS¹⁰

WHAT DOES THE EPBD REQUIRE?

The 2024 EPBD introduces ZEBs as the new building standard across EU, requiring Member States to comply with it from 1 January 2028 for all new public buildings and 1 January 2030 for all new buildings. National authorities must establish ZEB definitions and methodologies, which should be designed and set with a view to achieving a zero-emission building stock by 2050.

Being an essential instrument of the EU's strategy towards climate neutrality, the concept of ZEBs must be carefully designed and implemented, avoiding the delays that characterised the initial nearly zero-energy building (nZEB) implementation.¹¹

In relation to implementing ZEBs, the following policy needs have been identified:

THERE IS A NEED FOR GUIDANCE IN DEVELOPING A NATIONAL ZEB DEFINITION.

The EPBD does not require a uniform approach for implementing ZEBs,¹² leaving Member States to detail their ZEB definitions, accounting for the variety of building types and climates. As was the case with nZEBs, Member States will have to develop national ZEB definitions in line with national, regional or local conditions for new buildings as well as existing ones.

THERE IS A NEED TO RECEIVE GUIDANCE ON HOW TO BETTER COMMUNICATE THE ZEB STANDARD.

Besides ensuring legal certainty regarding the ZEB standard through developing a clear definition and methodology, policymakers need guidance on how to better communicate the ZEB standard to the construction industry, investors and building owners.

THERE IS A NEED FOR GUIDANCE ON COORDINATION BETWEEN REDUCTION OF ENERGY NEEDS AND RENEWABLE ENERGY SOURCES.

According to the 2024 EPBD, sources of energy that may be eligible to supply a zeroemission building are (i) on-site or nearby renewable energy sources; (ii) renewable energy from a renewable energy community; (iii) energy from an efficient district heating and cooling system; and (iv) energy from "carbon free sources". While this definition is helpful, national authorities will benefit from receiving more information on the optimal balance between reduction of energy demand and renewable energy sources.

¹⁰ For more ZEB-related policy needs and good practice examples, please see the EPBD.wise report: National Building Renovation Plans and Zero-Emission Buildings: Policy needs and best practices.

¹¹ BPIE (2022). Ready for carbon neutral by 2050? Assessing ambition levels in new building standards across the EU

¹² Although the 2024 EPBD does not require Member States to comply with specific thresholds, there are still demands to achieve specific energy performance thresholds, to use eligible energy sources, and to calculate and disclose the global warming potential (GWP).

► THERE IS A NEED TO RECEIVE GUIDANCE ON DESIGNING TARGETED POLICIES AND FINANCING INSTRUMENTS TO ADVANCE THE TRANSITION TO ZEBS.

Having in place a definition and methodology for ZEBs does not guarantee that the standard will be implemented. It is therefore essential to embed it in a policy framework that will incentivise ZEB implementation. Such a framework should include regulatory measures, financial measures (subsidies, renovation grants, fiscal incentives etc.), and information and educational measures. Receiving guidance on the most suitable policies to support early implementation of ZEBs would prove beneficial for national policymakers.

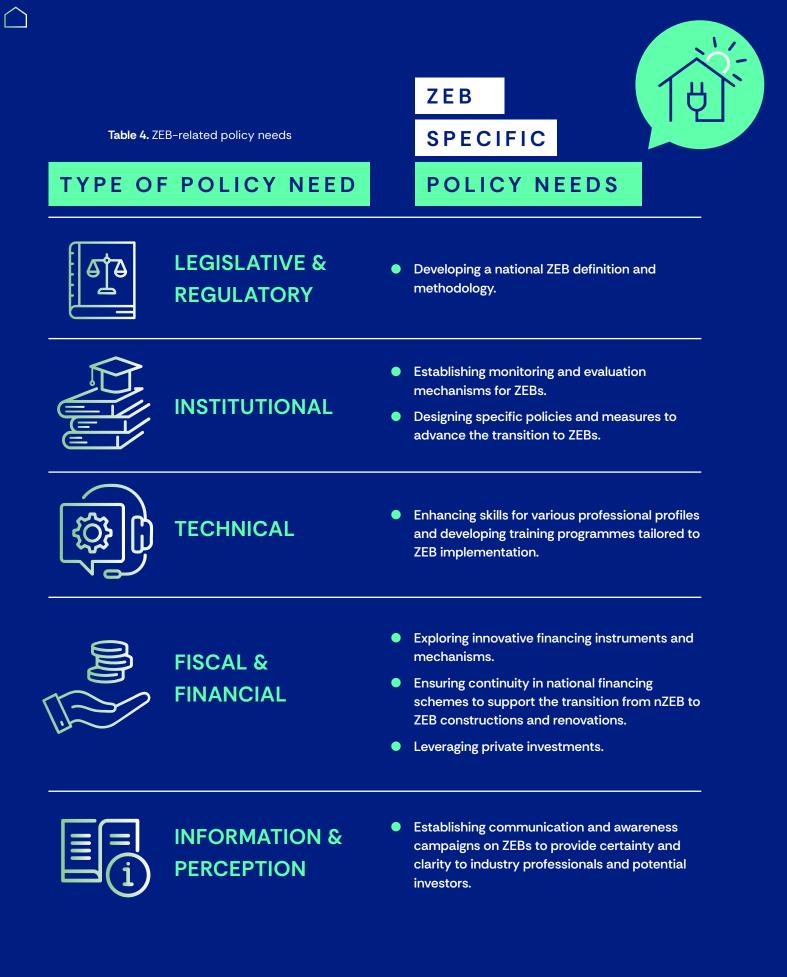
ZEB implementation also needs to be accompanied by strong and coherent financial mechanisms and appropriate incentives. Implementing ZEBs requires an effective mobilisation of public and private finance.

THERE IS A NEED TO UNDERSTAND WHAT TYPES OF SKILLS AND TRAINING ARE NECESSARY TO IMPLEMENT ZEBS.

National markets need to have a sufficient and adequately trained workforce available to properly implement ZEBs. Member States will need guidance to assess what resources are already available and what has to be built up. For instance, many of the Member States explained delays in implementing nZEBs through difficulties in building the necessary capacity among designers, architects and constructors. Similar concerns are foreseen regarding the implementation of ZEB.

THERE IS A NEED TO RECEIVE GUIDANCE ON ESTABLISHING MONITORING AND EVALUATION MECHANISMS FOR ZEBS.

Since the goal is to achieve a zero-emission building stock by 2050, Member States will need to constantly monitor and evaluate their progress in implementing the ZEB standard for both new and existing buildings. Additionally, according to the EPBD, Member States should report on the number of ZEBs (Annex II, NBRP template).



3.3 MEPS AND NATIONAL TRAJECTORIES¹³

WHAT DOES THE EPBD REQUIRE?

Under the EPBD, residential and non-residential buildings are addressed differently.

For **NON-RESIDENTIAL BUILDINGS**, Member States must put in place minimum energy performance standards¹⁴ (MEPS). The first step for Member States is to establish an overview, in primary or final energy use,¹⁵ of the status of the non-residential stock on 1 January 2020. Subsequently, Member States need to identify, based on statistical sampling or "available information", the 16% and 26% lowest-performing non-residential buildings from this established overview, which will have to be renovated by 2030 and 2033, respectively.

Further segments of the non-residential stock, identified against the 2020 baseline, will need to be renovated by 2040 and 2050 based on further thresholds defined at national level. The identification of these additional thresholds should factor in the target that the overall building stock should be ZEB standard by 2050. In order to avoid lock-in effects, Member States should consider these requirements well in advance and aim to deeply renovate the targeted buildings to a higher level of energy performance, rather than simply bringing them just above the required threshold. This can also help with meeting the additional milestones for non-residential buildings in 2040 and 2050.

Compliance with the requirements must be checked at individual building level, either based on EPCs or "where appropriate, other available means". In contrast to the previous European Commission's recast EPBD proposal, MEPS are not directly based on EPC classes. Member States may still use EPC thresholds to express which tranches of the building stock will be renovated and the level they need to achieve, as long as ensures compliance with the thresholds expressed in primary or final energy use.

For the **RESIDENTIAL SECTOR**, Member States have to establish a national trajectory for the progressive renovation of residential buildings from 2020 to 2050, with milestones every five years as of 2030. The trajectory should be expressed as a decrease in the average primary energy use, but additional indicators may be added (operational greenhouse gas emissions, non-renewable and renewable primary energy use). Member States have the flexibility to choose the tools with which they mean to achieve the required improvements, including MEPS.

¹³ There is much that EU and national policymakers can learn from existing models and design options of MEPS. For more details, please see the EPBD.wise report: Article 9 – MEPS and national trajectories for progressive renovation: Policy needs and analysis of good practice examples.

¹⁴ According to the 2024 EPBD, MEPS are defined as "rules that require existing buildings to meet an energy performance requirement as part of a wide renovation plan for a building stock or at a trigger point on the market such as sale, rent, donation or change of purpose within the cadastre or land registry, in a period of time or by a specific date, thereby triggering the renovation of existing buildings".

¹⁵ It is important for Member States to understand the implications of choosing primary or final energy as the parameter to set the threshold for worst-performing buildings.

When planning the national trajectory, Member States are required to identify the number of residential buildings and residential building units or the floor area to be renovated annually, starting with the 43% worst-performing residential buildings (by number or floor area). This is because Member States must ensure that at least 55% of the trajectory is achieved through the renovation of the 43% worst-performing residential buildings.

The methodology to estimate the trajectory should use data from statistical sampling and EPCs, but can also be combined with additional data sources such as cadastres, digital building logbooks, measured energy etc.

In relation to implementing both MEPS and the national trajectory, the following policy needs have been identified:

THERE IS A NEED FOR A GOOD UNDERSTANDING AND OVERVIEW OF THE NATIONAL BUILDING STOCK.

For both residential and non-residential buildings, Member States need to establish an overview of the national building stock and representative building types as of 1 January 2020.¹⁶

Designing and implementing MEPS requires the identification of individual buildings and their owners. To achieve the targets from national trajectories, specific policies and measures need to be established, tailored to national buildings stock realities such as ownership structure, ability to invest and specific sub-segment of the building stock (single-family home, multi-apartment building etc.). Member States should therefore have a good understanding and overview of their national building stock that goes beyond energy performance.

Most Member States lack statistically valid data on the energy-related and structural characteristics of buildings, making it challenging to assess their properties and align them with climate policy goals. However, the renovation obligations associated with MEPS and national trajectories require Member States to improve this knowledge and store information in a database¹⁷ to reliably determine the worst-performing building segments. Member States need support in collecting data on their building stocks and in identifying the worst-performing buildings within both residential and non-residential segments. As well as having a reliable and robust database on the national building stock, Member States need appropriate tools and methods to constantly update it and make sure it reflects the actual energy performance status of the buildings.

Assistance could be useful to understand the implications of using floor area or number of buildings when determining the buildings to be renovated under the 55% sub-target.

THERE IS A NEED FOR GUIDANCE ON HOW TO COMMUNICATE ABOUT MEPS/ NATIONAL TRAJECTORY.

During the 2024 EPBD negotiations, MEPS were seen as an intrusive policy instrument and received significant backlash at the national level. It is therefore important to gain local and national political support and raise overall awareness throughout the implementation

¹⁶ As mentioned in the previous section, this is also a requirement in the elaboration of the NBRPs.

¹⁷ Article 22 requires Member States to set up national databases to gather data on the energy performance of individual buildings and on the overall energy performance of the national building stock. National databases should be systematically and constantly updated.

process. A broader discussion about the benefits of MEPS specifically and of renovations in general needs to be encouraged.

Member States also need to set up a structure to implement MEPS/measures related to the national trajectory, including defining how to get in touch with building owners.

THERE IS A NEED FOR GUIDANCE ON ESTABLISHING AN ENABLING FRAMEWORK FOR MEPS AND NATIONAL TRAJECTORIES.

To implement both MEPS and national trajectories, Member States will need a strong enabling framework including technical assistance and financial support. In this sense, Member States need support to build up their institutional and administrative capacity at local and national levels. This can include empowering local and national authorities to establish inclusive renovation programmes, communicate the established regulations to building owners, check and enforce compliance, and monitor impacts, including social ones.

As MEPS and the national trajectory are new policy instruments for most EU Member States, countries will need guidance on designing appropriate options and the advantages and disadvantages of complementary or competing approaches.

Although both MEPS and national trajectories are useful tools for advancing the renovation of existing buildings, they do not provide an incentive for deep renovations. Member States will therefore need to accompany the MEPS and national trajectory schemes with stronger stimuli towards deep renovations (for instance, the funding volume should be proportionately linked to the depth of the renovation). While designing MEPS and establishing the national trajectory, Member States will need guidance in understanding how financial support should be tailored to the needs of different target groups, especially for vulnerable groups at risk of energy poverty.

THERE IS A NEED TO FURTHER INTEGRATE MEPS/NATIONAL TRAJECTORIES WITHIN NBRPS.

MEPS for non-residential buildings and national trajectories for the progressive renovation of residential buildings are important policy tools in national planning to achieve a zeroemission building stock by 2050. They should be given corresponding prominence in the policy space and especially in NBRPs, including in the drafts to be submitted to the EU Commission by the end of 2025.

THERE IS A NEED TO ENHANCE THE QUALIFIED WORKFORCE IN THE CONSTRUCTION SECTOR.

A dynamic rollout of energy renovation activities triggered by MEPS and the national trajectory needs to be supported by innovation and workforce upskilling in the construction sector. Many EU countries face shortages in qualified workers and lack the coordination needed to accelerate comprehensive, high-quality renovation approaches. Continuous education and training are needed to improve the skills of construction professionals to innovate and optimise energy renovation processes. Against this background, Member States will benefit from receiving support and guidance on measures and solutions to sustain a sufficiently qualified workforce.

THERE IS A NEED FOR GUIDANCE ON IDENTIFYING THE BUILDINGS THAT CAN BE EXEMPTED FROM RENOVATION.

The 2024 EPBD mentions some specific situations when an individual non-residential building can be exempted from MEPS, for example in case of planned demolition or an unfavourable cost-benefit assessment. National authorities will need additional guidance to put in place clear and stringent criteria for such exemptions to avoid a disproportionate share of exempted non-residential buildings. They should communicate these conditions in their NBRPs and compensate for the exempted non-residential buildings via equivalent energy performance improvements in other parts of the non-residential building stock. This will require an exact knowledge of the building stock and the energy performance of individual non-residential buildings.

THERE IS A NEED FOR GUIDANCE ON SETTING UP AN EFFECTIVE COMPLIANCE AND ENFORCEMENT SYSTEM.

For the effective implementation of MEPS and national trajectories, Member States need to establish an enforcement and penalty system to ensure compliance and a broader uptake of renovation measures. For that purpose, they need to understand (i) how authorities can efficiently ensure that building owners adhere to the established requirements, (ii) how building owners can demonstrate compliance, and (iii) what actions can be taken when building owners fail to meet requirements.

Since compliance with MEPS must be checked at individual building level, either based on EPCs or "where appropriate, other available means", Member States need a reliable and functional EPC scheme. Despite being the most obvious tool to ensure compliance, as they have been on the market for a long time and are easily recognised by building owners, EPCs need several improvements. Policymakers should use the MEPS rollout period to reinforce the EPC assessment process, expand their coverage and populate databases.

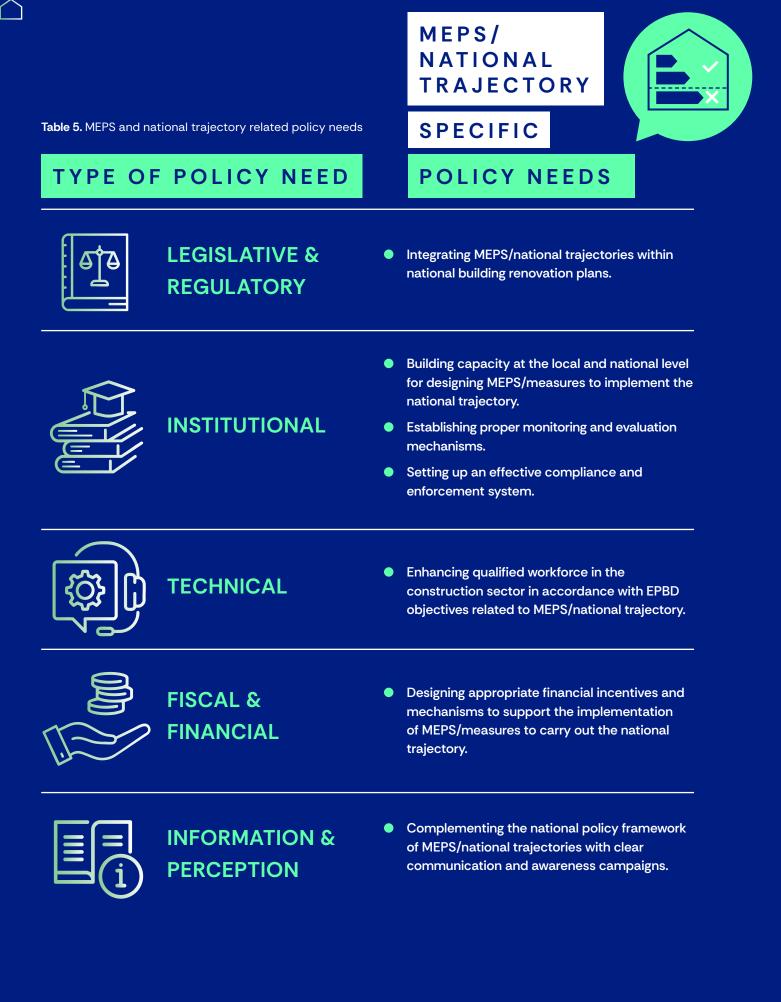
Expanding the instances when an EPC is issued could help increase the coverage of the building stock with EPCs. This would increase their value as a tool to monitor the progress of energy performance within specific segments of the building stock, most notably among the worst-performing buildings. This can also contribute to building a better and more comprehensive database for the national building stock.

When laying down the rules on penalties, Member States should consider homeowners' financial situation and access to financial support, in particular for vulnerable households.

THERE IS A NEED FOR SUPPORT IN ESTABLISHING PROPER MONITORING AND EVALUATION MECHANISMS.

Member States will need appropriate monitoring and evaluation mechanisms to assess the effectiveness and impact of measures to implement MEPS and national trajectories. Beyond monitoring target achievements, Member States will need guidance to properly monitor the social impacts the implemented measures.

As both MEPS and national trajectories are new policy instruments, monitoring and evaluating the progress made through their implementation to drive renovations is particularly important. Member States are supposed to report in their NBRPs the methodology used, and data gathered to estimate the required values (e.g., number of buildings to be renovated) to achieve their targets. In addition to this, a monitoring and evaluation system should be put in place at the national level to be able to attribute improvements in energy performance to the relevant policy instrument.



3.4 RENOVATION PASSPORTS

WHAT DOES THE EPBD REQUIRE?

The EPBD introduces a definition for renovation passports: "a tailored roadmap for the deep renovation of a specific building in a maximum number of steps that will significantly improve its energy performance". Additionally, the EPBD includes a common EU framework for renovation passports describing the main design features, distributed between mandatory and optional elements. Based on the EU framework, each Member State must introduce its own national renovation passport scheme. While national schemes are mandatory, the use of renovation passports at individual level by building owners is voluntary, unless Member States decide otherwise.

A supportive enabling framework should focus on capacity-building to ensure competence and skills among relevant staff, sufficient financing for rolling out renovation passports and implementing renovation measures, and integration with other building-related tools.

THERE IS A NEED FOR GUIDANCE ON DEFINING THE RENOVATION PASSPORT AND ITS INTENDED OUTCOMES.

The EPBD introduces a definition and common framework for the renovation passport that can help and guide Member States in establishing a coherent legislative framework in accordance with what is needed at the national building stock level. While having a national renovation passport scheme based on the EU framework is a legal requirement from the 2024 EPBD, Member States should consult with stakeholders when setting up their national renovation passport schemes so the way it is designed corresponds to the needs of the national building stock.

Member States will benefit from receiving support to design tailored renovation passport schemes depending on the building type. For instance, a first differentiation is necessary between residential and non-residential buildings; then, within the residential segment, a differentiation is necessary between single-family houses and apartment buildings. Within the non-residential segment, differentiation is needed between offices, educational buildings and other uses.

THERE IS A NEED TO DEVELOP COMMUNICATION AND AWARENESS CAMPAIGNS AROUND RENOVATION PASSPORTS.

Communication campaigns are needed to raise interest in staged deep renovations in general, as well as specific and targeted communication and awareness campaigns to promote renovation passports so building owners will seek them out when interested in renovation or deciding to renovate.

Member States need to organise information campaigns around renovation passports to promote their understanding, visibility and use among various stakeholders, in particular building owners and building managers. Carefully thought-out and targeted information campaigns could also increase public trust in renovation passports and make them a more effective tool to facilitate staged deep renovation. There is a need for guidance on how to integrate renovation passports with other policy instruments.

The EPBD also introduces renovation passports in coordination with other tools within the renovation ecosystem. Renovation passports are interrelated with other building tools and policy instruments, such as energy performance certificates (EPCs), one-stop shops and particularly digital building logbooks, which provide building owners with information about the building and support renovation measures. Also, data from the renovation passport should be used to populate the database on the energy performance of buildings according to EPBD Article 22.

Fostering synergies between these tools has the potential to improve data quality and availability for building owners and professionals alike. Possible synergies include, for example, integrating information from the digital building logbook to improve renovation steps in the renovation passport, storing information about stepwise measures, promoting renovation passports through one-stop shops, or setting goals for renovation passports in terms of EPC targets that must be achieved. Renovation passports could support NBRPs by (i) providing public authorities with information on the building stock and which types of renovation measures are primarily needed; (ii) assisting policymakers in identifying the most effective policies and financial incentives to increase the quality and volume of (staged) deep renovations; and (iii) providing the market, financial institutions and investors with a long-term projection on the type of refurbishments to be implemented.

THERE IS A NEED FOR GUIDANCE ON DEVELOPING TAILORED FINANCING MECHANISMS.

The renovation passport is a comprehensive instrument as it provides tailored recommendations on how to achieve deep renovation over time for each individual building. Issuing a renovation passport may therefore entail higher costs, and if these additional costs are transferred to building owners, they may become a barrier to its uptake. Member States need to ensure that renovation passports are affordable and should consider providing financial support for issuing them, especially for vulnerable households wishing to renovate their buildings. To boost both staged deep renovations and usage of the renovation passport, Member States need to understand what options and solutions exist for designing suitable financing tools.

In order to keep the cost of a renovation passport low, Member States will need guidance not only on how to design measures and policies for a national renovation passport scheme, but also on financing mechanisms to encourage their rollout. The 2024 EPBD does not make the use of renovation passports mandatory at building level, so the incentives Member States put in place to encourage building owners to use renovation passports are going to be crucial.

Additionally, as public money is limited and needs to be directed towards the worstperforming buildings and vulnerable groups, national authorities will need to closely cooperate with the private sector to develop and enhance financial products that will convince building owners to use renovation passports.

► THERE IS A NEED FOR GUIDANCE ON ENHANCING COMPETENCES AND SKILLS.

Successful implementation of renovation passports will depend on an increase in competences and skills of the construction workforce, especially certifiers. Schemes put in place at the national level need to be accompanied by a clear plan to address skills gaps.

Member States need guidance on measures and resources to train stakeholders responsible for carrying out the renovation passport scheme, including public authorities, energy (or EPC) assessors and auditors, and construction professionals.

For instance, auditors will need to develop their skills in building energy modelling to accurately model the impact of renovation measures. In addition, experts developing renovation roadmaps need access to affordable software tools to calculate the required indicators. Consequently, national authorities will need guidance to develop training and courses to help certifiers expand their knowledge on the technical specifications of renovation works.

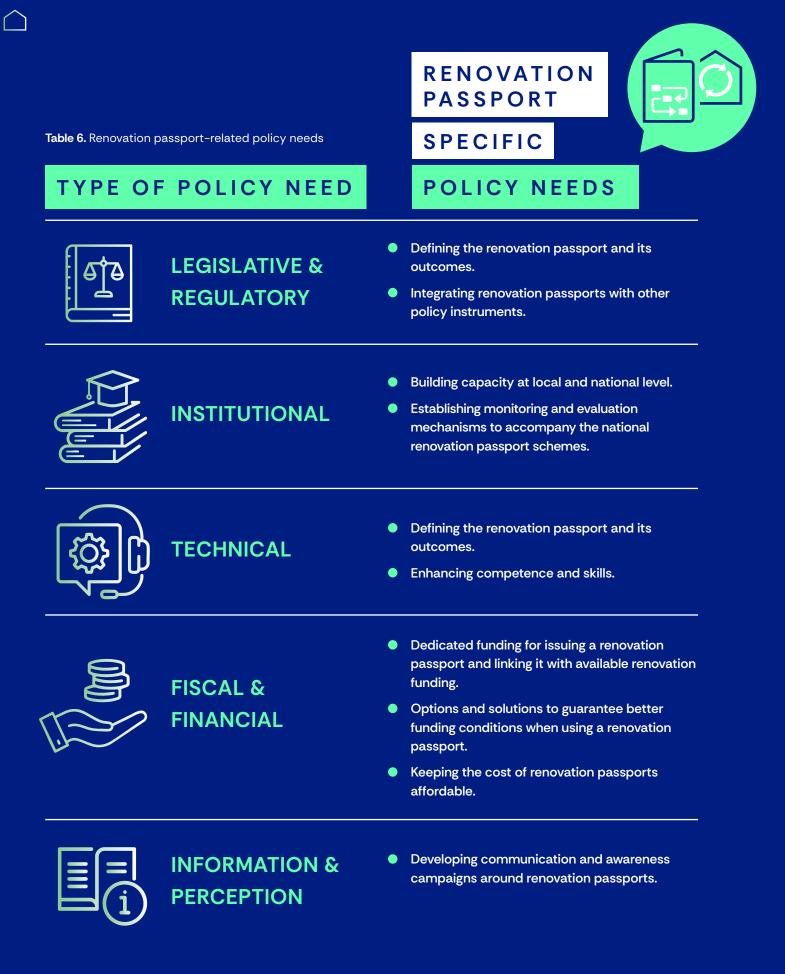
National and regional energy agencies, as well as third-party associations of EPC assessors or energy auditors and training institutions, need guidance on capacity-building activities to educate assessors and auditors on renovation passports, their development and issuance.

THERE IS ALSO A NEED FOR CAPACITY-BUILDING ACTIVITIES FOR CONSTRUCTION PROFESSIONALS TO HELP THEM TRANSLATE, UNDERSTAND AND IMPLEMENT THE RECOMMENDATIONS IN RENOVATION PASSPORTS.

Additionally, national and regional energy agencies, or third-party agencies and training institutions, will need support on how to increase capacity-building for public authorities (national, regional or local) to develop effective energy management policies and to use renovation passports to renovate their own buildings to achieve the targets outlined in the Energy Efficiency Directive (EED).

THERE IS A NEED FOR GUIDANCE IN ESTABLISHING MONITORING AND EVALUATION MECHANISMS.

National policymakers will benefit from guidance on how to establish key performance indicators to monitor the role and performance of renovation passports in accelerating staged deep renovation. Additionally, national and regional authorities need support in understanding what mechanisms to put in place to monitor the progress in rolling out renovation passports and the rate and depth of renovation.



3.5 ENERGY PERFORMANCE CERTIFICATES

WHAT DOES THE EPBD REQUIRE?

The 2024 EPBD introduces new improvements for the energy performance certificate (EPC). Member States are required to recalibrate EPC classes using a scale from 'A' to 'G', where 'A' corresponds to ZEB standard and 'G' represents the very worst-performing buildings at national level.

The 2024 EPBD introduces a common template for EPCs that needs to be filled in with numeric indicators of both primary and final energy use and reference values (MEPS, nZEB, ZEB) for comparison purposes. Besides the existing trigger points (construction, sale or rental), the 2024 EPBD increases the number of instances when an EPC has to be issued to include major renovation, renewal of rental contracts, and all existing buildings owned or occupied by public bodies. Finally, the 2024 EPBD widens the scope of EPC recommendations, providing more details on the energy savings and operational greenhouse gas emissions reduction potential, the improvement of indoor environmental quality, financial incentives and benefits, possible alternatives for the replacement of heating and cooling system, and others.

In relation to implementing EPCs, the following policy needs have been identified:

THERE IS A NEED FOR GUIDANCE IN THE DEVELOPMENT OF DATABASES ON THE ENERGY PERFORMANCE OF BUILDINGS.

This is not only to support the independent control system for EPC assessments, but also as a tool to map and monitor the national building stock. A well-functioning EPC system accompanied by an EPC database provides a ready-to-use source of information on the building stock that would be useful and necessary for the implementation of other instruments such as MEPS and national trajectories.

Difficulties in the creation and development of EPC databases among most Member States highlight the need for further simplification to make EPC data consistent and benchmarkable across the EU. An EPC database provides a wealth of information that can be used for very different purposes, such as increasing knowledge of the existing building stock and supporting national renovation strategies. It can also provide valuable insights for the financial sector or real estate agencies. The success of an EPC database comes from its use, which is enhanced if it supports interoperability with other databases and systems. According to the 2024 EPBD, the EPC should be available in a machine-readable format and Member States should ensure EPCs are issued in a digital format (or reissued in a digital format for existing public buildings).

THERE IS A NEED TO INCREASE EPCS' PERCEIVED USEFULNESS AND TRUST.

Increasing trust and establishing a good reputation for the EPC scheme among building owners, potential tenants and other market actors is a challenge that many Member States have to address. Improving the perception and understanding among buyers and tenants of the benefits of having a better energy rating, in particular its impact on energy bills or on the value of the property, will influence the perceived usefulness of EPCs.

Often, consumers show little interest in the EPC, as they do not see it as a priority or do not understand its benefits in terms of energy savings. An EPC is the first tool for providing guidance to building owners or managers, offering a unique opportunity to raise awareness, improve perception and encourage action. The fact that EPCs are not sufficiently gaining the attention of building owners means their role as a communications tool needs to be improved so that they are noticed and used. Apart from its presentation, it is important to focus on the public perception and what motivates requests for an EPC. Making EPCs clearer and simpler could encourage more people to acquire one for their buildings and more likely to implement its recommendations.

THERE IS A NEED TO STRENGTHEN THE ROLE OF EPCS IN THE CONTEXT OF NATIONAL LEGISLATION, ESPECIALLY FOR RENOVATION POLICIES AND PROGRAMMES (I.E., INTEGRATION WITH OTHER INSTRUMENTS).

The role of EPCs has been increasing and it now encompasses various functionalities. EPCs not only serve as valuable sources of information but can also be an important tool to evaluate and monitor renovation rates within the building stock. The EPC can also be a compliance tool for implementing MEPS and its recommendations section on how to increase the energy performance of a building has been enhanced. Practical and reliable EPC schemes are a prerequisite for any meaningful buildings policy. For instance, there is strong link between the development of NBRPs and the accuracy of EPCs as the first step in the elaboration of the NBRP is having a good understanding of the national building stock.

▶ THERE IS A NEED TO CONSTANTLY DEVELOP COMPETENCES AND SKILLS.

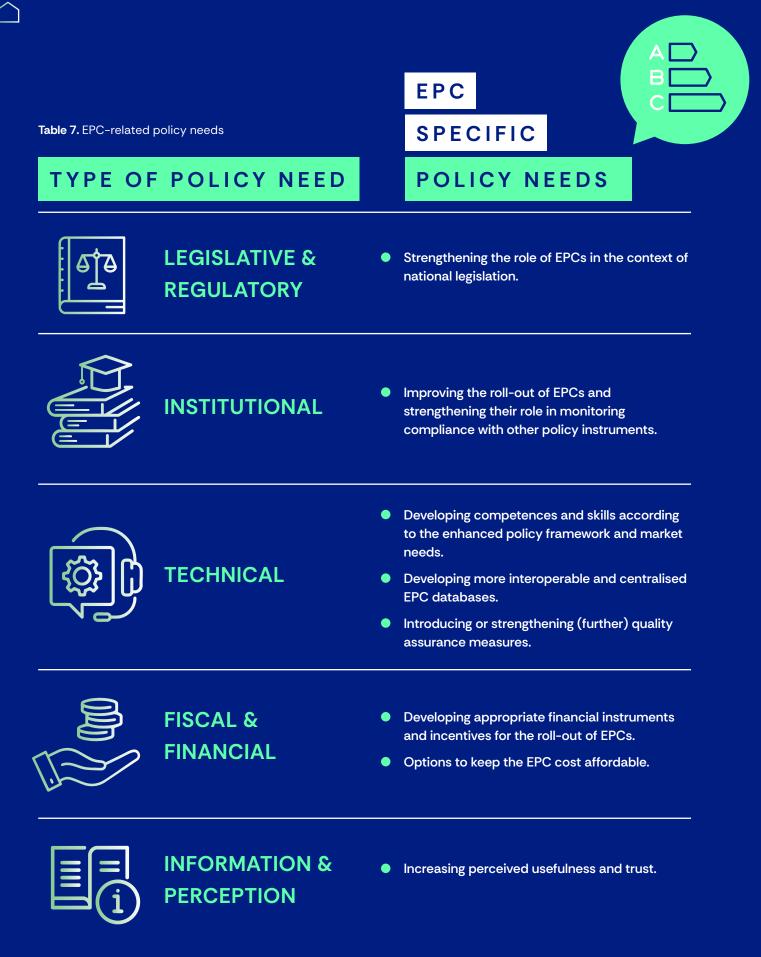
Training is an ongoing policy need. This should include developing minimum training standards and mandatory certification programmes for EPC assessors and ensuring training programmes keep up to date with best practices, compliance procedures and evolving regulations. In order to roll out EPCs, national authorities need to have sufficient measures and resources in place to continuously train the energy experts responsible for carrying out EPCs, including public authorities, energy assessors and auditors and construction professionals.

THERE IS A NEED TO INTRODUCE FURTHER QUALITY ASSURANCE MEASURES

The quality of EPCs has been problematic in various EU Member States. An independent control system is needed to provide assurance on the competence and work of certifiers. National authorities need support to continuously develop programmes for certifiers and guidance on digital tools to optimise the process of issuing, validating and verifying the EPC.

THERE IS A NEED TO STRENGTHEN MONITORING OF COMPLIANCE AND ENFORCE EPC REGULATIONS.

For effective implementation of the EPC scheme, Member States say they need adequate administrative, institutional, financial and human resources. The responsibilities should be shared appropriately between public administration and other bodies for processes such as training and accreditation schemes for certifiers, independent quality control of the EPCs, enforcement penalties for non-compliance etc. In addition, there is a need to strengthen the monitoring of EPC scheme compliance, especially in regard to independent control systems and enforcement of penalties for non-compliance.





CONCLUSIONS AND FURTHER DIRECTIONS TO BE CONSIDERED IN THE POLICY GUIDELINES

The EPBD implementation process provides the opportunity to create a coherent policy framework for building decarbonisation, develop a holistic approach towards renovations and advance a long-term vision to achieve a zero-emission building stock by 2050. Additionally, the 2024 EPBD offers Member States a great amount of flexibility to adjust the new legislation to their own national realities.

This is why Member States will benefit from receiving specific guidance on developing a welldesigned package of policies that builds on the synergies between different policy elements and allows various instruments to interact and reinforce each other. Every policy or measure has its own function in the package, its advantages, target groups and specific operational mechanisms; each is tailored to overcome one or several market barriers, address multiple policy needs and strengthen specific incentives. This means the impact of well-combined policies is often larger than the sum of their individual parts. A comprehensive and coherent policy package will need to provide a sound balance between clear mandatory measures, incentives, information and capacity-building.

There is a strong interlinkage between the EPBD's policy instruments as well as among the policy needs identified. The solutions advanced therefore need to cover the complex interaction between the instruments as they require integrated policy responses.

IN CONCLUSION, THE KEY CROSS-CUTTING POLICY NEEDS IDENTIFIED ACROSS EU MEMBER STATES ARE:

- DESIGNING A COHERENT POLICY FRAMEWORK for building decarbonisation, using NBRPs to align targets, national measures and financial tools in an integrated manner.
- PLANNING THE IMPLEMENTATION TIMELINE for each policy instrument to ensure that EPBD provisions are transposed in a coherent, timely manner and enough time is allocated for public consultations and debate, especially when drafting the NBRPs.
- PROMOTING AN INCLUSIVE AND COLLABORATIVE IMPLEMENTATION that encourages public participation and stakeholder engagement throughout the whole process of preparing new and updating existing buildings related legislation.
- ENHANCING DATA COLLECTION AND MANAGEMENT T o develop a robust overview of the national building stock and design more effective data-based policies.
- DEVELOPING TRAINING AND UPSKILLING PROGRAMMES for various professional profiles to build a workforce equipped to meet the provisions and objectives of the 2024 EPBD.
- **DESIGNING AN ENABLING FRAMEWORK** that includes supporting policy instruments and financial incentives tailored to the needs of different target groups.
- INTEGRATING FEEDBACK MECHANISMS to monitor and evaluate progress on EPBD implementation, as well as to assess its social impact, especially on vulnerable households.

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