# 2021-2027

# COHESION POLICY SUPPORT FOR ENERGY EFFICIENCY AND BUILDING RENOVATION

**This Study was undertaken by E3G**, an independent climate change think tank with a global outlook. E3G is on the frontier of the climate landscape, tackling the barriers and advancing the solutions to a safe climate. The organisation's goal is to translate climate politics, economics and policies into action. **The Study was commissioned by the Renovate Europe Campaign**, an EU-wide political communications campaign with the ambition to reduce the energy demand of the building stock in the EU by 80% by 2050 through legislation and ambitious renovation programmes. There are currently 47 partner companies and associations engaged in the work of the Campaign, of which 18 National Partners active in the Member States.

This study uses data from the European Commission's Cohesion Open Data Platform. These databases are regularly updated as managing authorities amend programmes. The data used in the report was extracted on 3 April 2023.

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# EXECUTIVE SUMMARY

This study investigates how EU member states are planning to use cohesion policy funding to support renovation and draws attention to key action points to maximise impact. These actions include (1) leveraging private finance while targeting grants to vulnerable consumers, (2) carefully coordinating cohesion financing with other (EU) public funds, and (3) monitoring programme implementation and addressing delivery bottlenecks. We also stress the importance of creating an ambitious regulatory framework that sends long-term investment signals to both the construction and financial sectors.

For the period 2021-2027, member states have programmed an estimated €20bn of cohesion policy funding for energy renovation and energy efficiency[1], representing 7% of the overall cohesion funding available for investing in renovation in the long-term EU budget or multi-annual financial framework (MFF)[2]. With co-financing from member states, total spending for energy renovation and energy efficiency could reach €29bn[3]. Together with investments planned under the Recovery and Resilience Facility (RRF), unprecedented volumes of EU funding are available for renovation over the coming years.

This will make an important contribution to the financing of renovation in the EU. However, these funds alone cannot cover the investment needed to meet the 55% emissions reduction target for 2030, which according to the Renovation Wave strategy will require additional investment of €275bn per year. To reach 2030 goals and beyond, Member States will need to make leveraging private finance a political priority and ensure EU funding delivers tangible results.

## INVESTING IN RENOVATION AND ENERGY EFFICIENCY WITH COHESION POLICY FUNDING

A total of 175 programmes across the EU contain energy renovation or energy efficiency investments in public infrastructure, housing, or businesses[4]. Funding is typically allocated to a mix of interventions including building envelope improvements (e.g. loft, cavity and wall insulation), heating source replacement, connection to heat/cooling networks or renewable energy equipment as well as installation of energy efficient lighting. For enterprises, financing can also be used to improve the efficiency of commercial and industrial production processes (e.g. efficient cooling equipment).

## BREAK-DOWN OF COHESION POLICY FUNDING BY BUILDING SEGMENT

€10.6bn is allocated to renovation and energy efficiency projects in the public sector. A further €6.5bn of EU funds is earmarked for energy renovation of the housing stock. €2.9bn is allocated to enterprises subject to energy efficiency requirements. At this stage of programme development, it is not possible to disaggregate the exact volume of funding for building renovation from that allocated to other activities within relevant programmes. There are, however, clear delivery targets for renovation in the housing and public sectors. The funding is expected to lead to 723,000 renovated dwellings across the EU and 33 million $m^2$ of renovated floor area of public infrastructure. The Renovation Wave calls for renovation of 35 million units by 2030.

## BREAK-DOWN OF COHESION POLICY FUNDING BY ENERGY SAVINGS

Of the €20bn EU funds, three quarters (€15.3bn) will go to projects subject to minimum energy savings criteria. Such projects would need to achieve at least medium depth renovation (primary energy savings of over 30%; or for public sector, realise greenhouse gas emission savings of over 30%). Per segment, this includes 65% of funding for the housing stock; 78% of funding for public infrastructure. Only projects subject to such requirements in the enterprise sector were included in this study. While projects with minimum standards will contribute to boosting the energy renovation rate, the minimum standards are well below the 60% energy savings required for 'deep' renovation[5].

1 The way that programmes are written means that it is not possible to separate out the quantity of funding planned for renovation from other energy efficiency projects and produce a figure that only covers renovation.

2 Calculated as a share of all funding allocated under the European Regional Development Fund, the Cohesion Fund and the Just Transition Fund.

3 This study uses data from the European Commission's Cohesion Open Data Platform. These databases are regularly updated as managing authorities amend programmes. The data used in the report was extracted on 3 April 2023.

4 This study focuses on projects classified by member states as falling under intervention fields 44 and 45 for public sector infrastructure; field 40 for intervention in SMEs and enterprises; and fields 41 and 42 for interventions targeting the housing stock. Of those, projects under fields 40, 42 and 45 include requirements to realise at least 30% primary energy savings (or medium depth renovation); or 30% saving in greenhouse gas emissions. Other energy efficiency interventions in businesses have been excluded, alongside interventions targeting construction of new buildings (fields 38, 39, 43).

5 As defined in the Renovation Wave Communication.

## BREAK-DOWN OF COHESION POLICY FUNDING BY MEMBER STATE

The proportion of eligible cohesion policy funding that is programmed for renovation or energy efficiency projects varies from 0% (DK) to 26% (IE)[6]. In absolute terms, Poland (€4.4bn), Spain (€2.2bn), Italy (€1.5bn) and Portugal (€1.4bn) have planned the highest volume of funds for renovation or energy efficiency. These are some of the member states that receive the largest allocations of cohesion policy funding. Half of member states have prioritised investments in the public sector (14); residential investments account for the largest share of funding in 10 member states.

## COMPARISON WITH THE RECOVERY FUNDING (RRF)

Member states have provided overall more funding for energy renovation through the Recovery and Resilience Facility (RFF, approx. €46 bn across 18 MS23). Across those member states, planned RRF investments are concentrated in the residential sector, which receives over €23bn (58%) of funding.

## MAKING THE MOST OUT OF COHESION POLICY FUNDS FOR ENERGY RENOVATION

Cohesion policy funding can significantly help member states achieve higher ambition on energy renovation, provided investments in buildings are optimised. Here are **key recommendations** to maximise their potential **in the 2021-2027 funding period**:

- **Attract and leverage private finance while targeting grants where they are needed the most.**
  Cohesion policy funding can play an important role in leveraging private capital through enhanced use of financial instruments and coordination with financial institutions such as development banks. At the same time, cohesion funding remains heavily grant dominated, which means it can be well-steered to deliver deeper savings or target vulnerable consumers and worst-performing buildings.
- **Ensure careful coordination with other (EU) public funds.**
  There is an unprecedented volume of public investment in the EU as a response to the impacts of the Covid-19 pandemic and war in Ukraine. Emergency funds sit alongside long-term and long-standing tools such as cohesion policy. Ensuring different sources of funding are complementary will be vital.
- **Monitor programme implementation and address delivery bottlenecks**.
  Publicly funded projects offer a unique opportunity to drive high quality standards across the renovation sector. Member states and Commission must continuously monitor programme implementation to identify delivery bottlenecks like project support and skills development.

## THE IMPORTANCE OF A STRONGER REGULATORY FRAMEWORK FOR BUILDINGS

**Creating an ambitious regulatory framework** will remain critical to send long-term investment signals both for the construction and financial sectors. This involves both the Energy Performance of Buildings Directive and the EU taxonomy. Now is the time for member states and EU policymakers to demonstrate vision and ambition for delivery.

6 Calculated as a proportion of programmed funding under ERDF, CF and JTF.

*Cohesion policy funding planned for renovation and energy efficiency, by member state and building segment in €*[7]


7 Chart created using Flourish. At the time of writing, Denmark had not allocated any funds to renovation or energy efficiency projects. Figures are for EU funds only, not total co-financing amounts and are rounded up to the next 1000.

# 1. INTRODUCTION

This study investigates how EU member states are planning to use cohesion policy funding to support energy efficiency and renovation. It aims to provide clarity on the contribution that cohesion policy can make to achieving 2030 targets, its interaction with the Recovery and Resilience Fund, and how to maximise its impact. Data from the European Commission's Cohesion Open Data Platform is used to provide disaggregated information about the level of investment in different building segments, concrete output targets and forms of financing.

# 2. OVERVIEW OF 2021-2027 MFF FUNDING

The Multi-annual Financial Framework (MFF) is the EU's seven-year budget amounting to just over one trillion euros. The primary source of this income is member state contributions. Approximately a third of the MFF budget is dedicated to Cohesion Policy including the European Regional Development Fund (ERDF), the Cohesion Fund (CF), the Just Transition Fund (JTF) and the European Social Fund Plus (ESF+). The primary objective of the funds is **regional development, investment in people and the reduction of economic, social, and territorial disparities between EU regions**.

Funding is available to all regions in the EU but targeted at less developed regions and those in transition[8]. Funding is allocated through programmes by managing authorities who set up their own structure for programme implementation, selecting, contracting and implementing projects at local or regional level. Member states organise their programmes by region or theme (e.g. Hungary's Environment and Energy Efficiency Plus is available to multiple regions).

## COHESION POLICY FUNDS FOR ENERGY EFFICIENT RENOVATION

This study investigates how EU member states are planning to use cohesion policy funding to support renovation. It aims to provide clarity on the contribution that cohesion policy can make to achieving 2030 targets, its interaction with the Recovery and Resilience Fund (RRF), and how to maximise its impact. Data from the European Commission's ***Cohesion Open Data Platform*** is used to provide disaggregated information about the level of investment in different building segments, concrete output targets and forms of financing.

As of April 2023, there are 297 programmes across the 27 member states funded by the ERDF, CF and JTF. 175 of these programmes include investments in renovation and energy efficiency[9].

- ERDF and CF investments are guided by five policy objectives including Policy Objective Two - "***A greener, low-carbon transitioning towards a net zero carbon economy and resilient Europe***" – which includes targeted support for projects promoting energy efficiency and reducing greenhouse gas emissions. Climate mainstreaming rules for this funding period dictate that a minimum of 30% of funding under ERDF and 37% under CF must support climate change objectives.
- The JTF is primarily aimed at supporting "***regions most affected by the green transition***". Through the fund, €19.2bn is available for diversification of economic activity by upskilling workers, supporting SMEs and innovation, and boosting clean energy.
- ESF+ is the EU's main instrument to invest in employment, social, education and skills policy, including structural reform. The fund's budget is €99.3bn. Given the difficulty in disaggregating information on how it is being used for renovation, the fund was not reviewed as part of this study, but it can provide support to address important barriers such as skills development, technical assistance, or capacity building at local and regional level.

8 Regions are classified based on GDP/head in three categories: developing, regions in transition and developed. Eligibility map available here.

9 Using intervention fields 40, 41, 42, 44 or 45.

### TIMETABLE FOR FUND APPROVAL AND DISPERSAL

Investment under cohesion policy was initially planned for 2021-2027 but programme approval has been delayed. The delay is largely attributed to the late adoption of necessary regulation[10] and prioritisation of crisis response through alternative funds, chief among them the RRF. The European Commission has now approved all programmes from all member states, opening the path to their implementation. Most of these programmes were adopted in the second half of 2022, at least 18 months after the beginning of the programming period. The delay creates additional time pressure on absorption of funds. Funding can be requested until 2027, with projects completed at the latest by December 2029.

Member states will conduct a mid-term review for each programme in late 2024, followed by a Commission review by mid-2025. This review would provide a critical opportunity for member states to identify and address barriers for implementation across programmes. There is more flexibility to transfer funds within and between programmes than previous programming periods, allowing member states to invest to offset bottlenecks, for example supply chains if needed. If necessary, the mid-term review can also be used by member states to align programmes with their updated priorities under National Energy and Climate Plans, expected to be finalised by mid-2024[11].

## 3. ENERGY RENOVATION IN 2021-2027 COHESION POLICY

To date member states have planned to spend a total of €269bn using the ERDF, CF and JTF[12]. €20bn of this funding (7%) is allocated for building renovation and energy efficiency projects across the public sector, residential sector, and businesses[13]. Funding within individual programmes typically covers a range of activities, including renovation of the building envelope, heating source replacement, connection to heating/cooling networks, and energy efficient lighting. Funding allocated for energy efficiency in enterprises can also be used to improve production processes[14].

### WHAT DEPTH OF RENOVATION?

Of the €20bn EU funds, **three quarters (€15.3bn) will go to projects subject to minimum energy savings criteria**. Such projects would need to achieve at least medium depth renovation (primary energy savings of over 30%; or for public sector, realise greenhouse gas emission savings of over 30%). Per segment, this includes 65% of programmes targeting the housing stock; 78% targeting public infrastructure. Only projects subject to such requirements in the business sector were included in this study.

### WHICH BUILDING SEGMENTS?

Member states have prioritised public sector investment in their planning for cohesion policy funding.

- **Public sector** infrastructure attracts the highest share of funding at €10.6bn (53% of funding for energy efficient renovation).
- Renovation of the **housing stock** attracts €6.4bn (32%).
- Support for **businesses** subject to energy efficiency requirements attracts €2.9bn (14%). Close to €1.4bn is allocated to SMEs and large enterprises outside of the scope of this study[15].

10 The Common Provisions Regulation, which sets out how funds should be used and is needed before managing authorities can plan investments, was not adopted until June 2021, six months after the programming period began.

11 Regulation (EU) 2021/1060 Common Provisions Regulation, Article 18

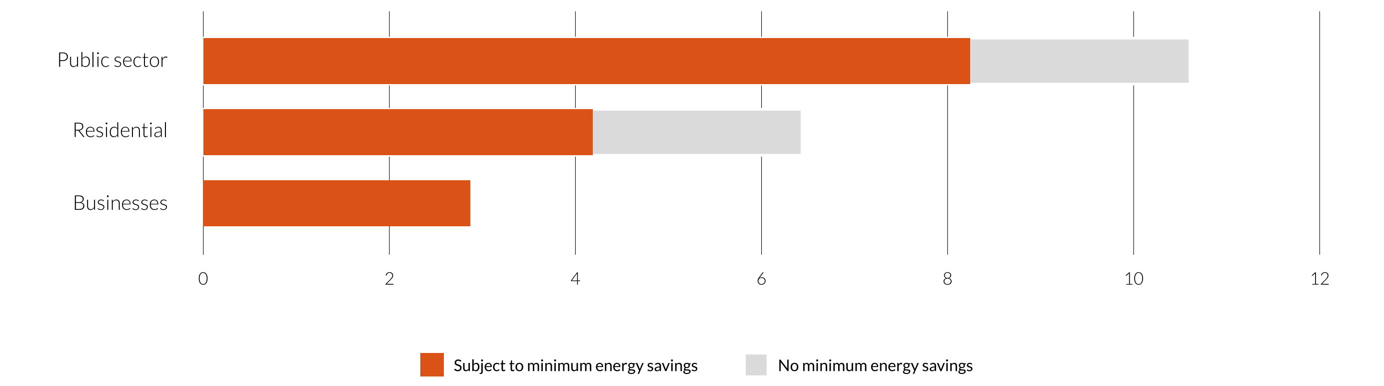
12 This study uses data from the European Commission's Cohesion Open Data Platform. These databases are regularly updated as managing authorities amend programmes. The data used in the report was extracted on 3 April 2023.

13 Intervention fields 040 for enterprises; 041 and 042 for housing; and 044 and 045 for public infrastructure.

14 Due to the formatting of the programme documents, it is not possible to disaggregate exactly how much funding is programmed uniquely for renovation activities.

15 Funding under intervention fields 038, 039. Excluded based on sample of programmes, which suggest that this funding is likely to be allocated to modernisation and process innovation, rather than building interventions.

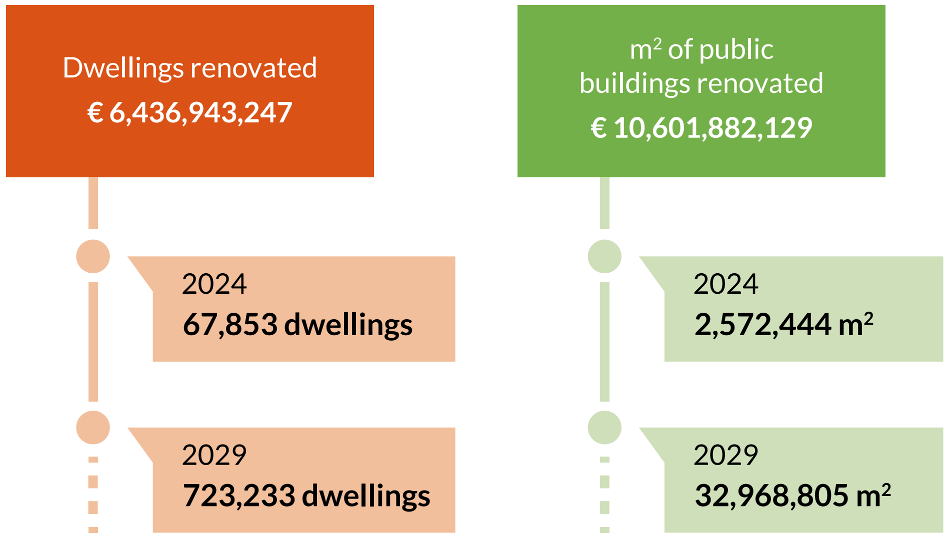
*Funding for renovation and energy efficiency by building segment and minimum energy savings requirements (€ bn)*




## Renovation targets

Investments made using Cohesion Policy funding are expected to lead to tangible results monitored throughout programme delivery. The common indicator monitored for the residential sector is the number of dwellings with improved energy performance, while investments in the public sector are tracked through floor area with improved energy performance. **Based on planning so far, funding is expected to lead to 723,000 renovated dwellings across the EU and 33 million m² of renovated floor area of public infrastructure**.

As noted above, around 75% of money invested is expected to achieve at least 30% energy savings. However, it is not clear from the programmes what share of the targets will achieve this level of energy savings.




Investments in businesses are commonly measured in terms of number of businesses assisted, but as highlighted above, it is challenging to determine how much of that funding is associated with building renovation and how much with wider efficiency improvements.

## HOW MUCH INVESTMENT IS PLANNED IN EACH COUNTRY?

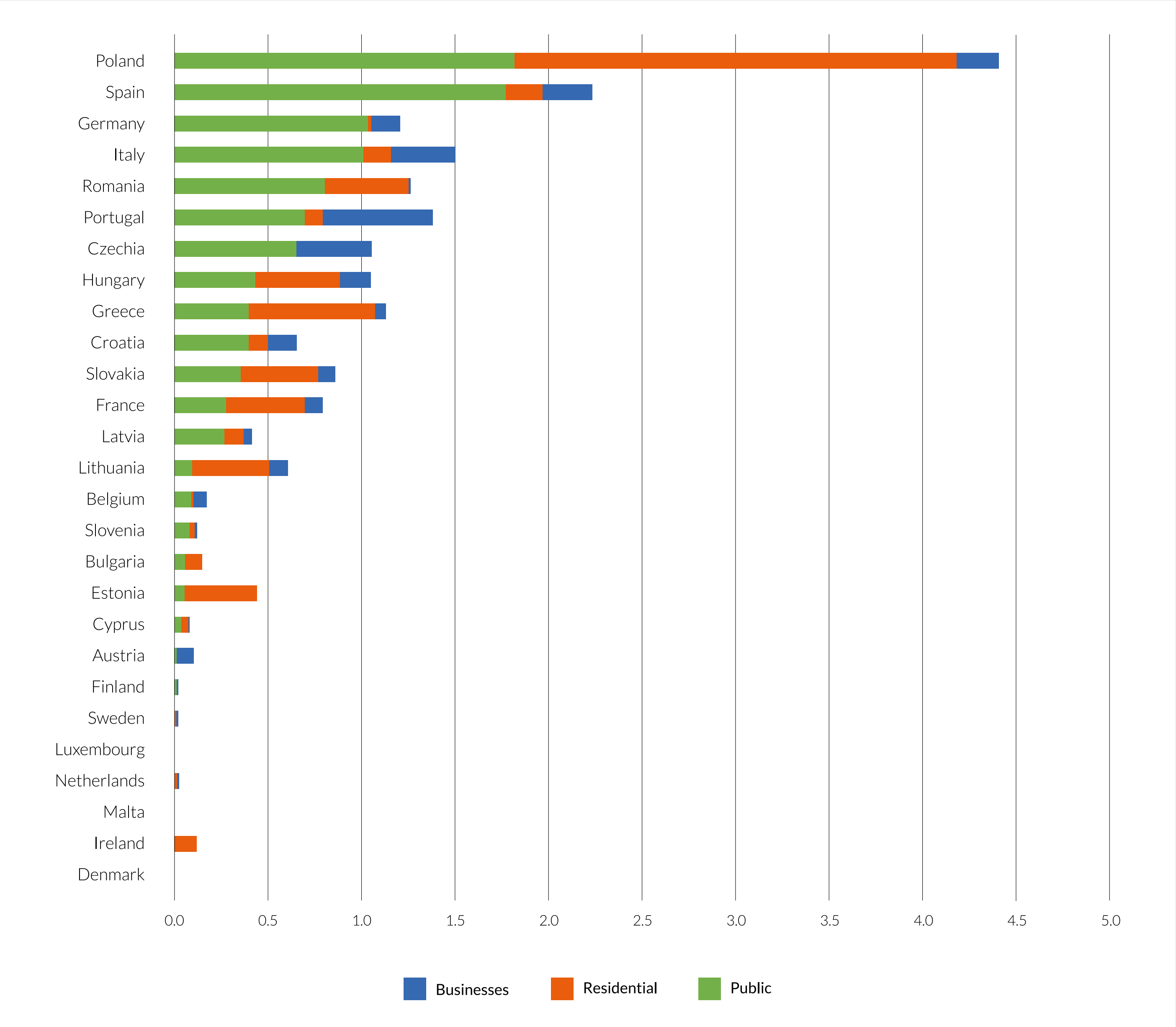
All member states - other than Denmark - have programmed Cohesion Policy funding for renovation and energy efficiency. Funding varies significantly between member states.

### Funding in absolute terms

Poland (€4.4bn), Spain (€2.2bn), Italy (€1.5bn) and Portugal (€1.4bn) have programmed the highest volume of funds for renovation or energy efficiency. They are also among the largest recipients of Cohesion Policy funding.

Half of countries have prioritised funding for the public sector, in line with the overall division of funding between segments. Ireland, Estonia, Lithuania, Bulgaria, Greece and France all strongly prioritised the residential segment.

*Renovation and EE funding, by member state and building segment, in € bn, listed by quantity of funding for public sector*

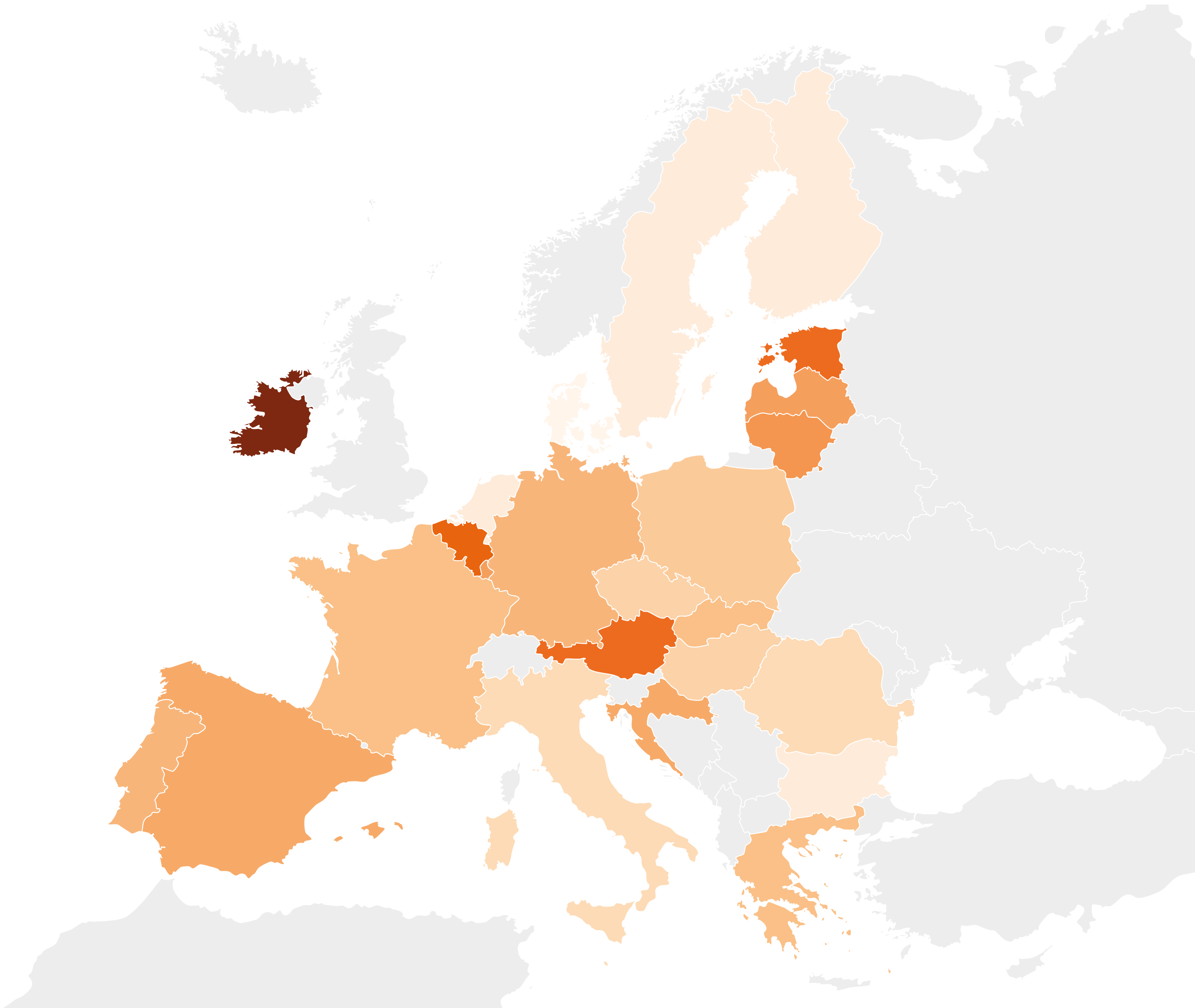


### Funding in relative terms

The share of member states' cohesion funds allocated to renovation or energy efficiency varies from 0% to 26%. Ireland has put the greatest emphasis on renovation and energy efficiency investment in relative terms, with 26% of all its ERDF, CF and JTF funding, all in the residential sector.

Less than 3% of ERDF, CF and JTF allocation has been programmed for renovation or energy efficiency projects in Bulgaria, Finland, Malta, the Netherlands and Sweden.

*Renovation and energy efficiency funding as a share of all funding programmed under ERDF, CF and JTF (darker colour indicates higher share)*[16]



*Source: Cohesion Open Data Platform, own calculation*

16 For figures, see annex table: 'Funding for renovation and energy efficiency, as a proportion of eligible funding programmed by member states'. Chart created using Flourish.

### Total funding with co-financing

Including the money pledged by member states from their own budgets, cohesion policy investment in renovation reaches **€29bn**. The share of investments covered by EU funds varies from 40% for the most developed regions to 85% for the least developed. EU funds tend to play a more significant role than national financing in the countries of Central and Eastern and Southern Europe due to the higher concentration of less developed regions. National finance covers more than half of total cohesion investment in eight member states: Austria, Sweden, Belgium, Netherlands, Luxembourg, Estonia, Ireland and Germany. See annex for further details.

## ERDF THE DRIVING FORCE FOR INVESTMENT

The vast majority of funding for renovation and energy efficiency is planned under the ERDF (82%). The remainder is programmed under the Cohesion Fund (14%), which is only available to 15 member states[17], and the JTF (3%). The JTF was available to at least one sub-national region in all member states[18]. Twelve countries have used it to allocate a total of €678m for building renovation and energy efficiency across residential, public and enterprise sectors[19]. See annex for further details.

## USE OF GRANTS AND FINANCIAL INSTRUMENTS

The positive role of cohesion funds can be vastly amplified if they successfully leverage private finance or are coupled with investment from development banks and other institutional investors. Cohesion policy remains a heavily grant-dominated environment (see table in Annex on grants vs loans), although positive developments show innovative projects and increased use of financial instruments in the energy efficiency sector.

Around 7% of investments programmed under the ERDF and CF to date are allocated to financial instruments[20], similar to the 8% in the previous programming period[21]. By comparison, **the share of energy efficiency investments**[22] **via financial instruments is higher at 13%. An additional 7% are provided as grants within a financial instrument.**

Innovative projects in previous programming periods have already demonstrated successful use of Cohesion Policy funding to leverage private capital for renovation. Examples include:

- Loan-grant combinations to incentivise recipients to undertake more ambitious deep renovation projects;
- Guarantees to financial institutions to enable loans to market segments perceived as carrying greater risk such as low-income households or homeowner associations;
- Capital grants and capital rebates linked to performance, to incentivise higher energy savings.

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17 The Cohesion Fund offers support to member states who's GNI is below 90% of the EU-27 average. Recipients are: Bulgaria, Czechia, Estonia, Greece, Croatia, Cyprus, Latvia, Lithuania, Hungary, Malta, Poland, Portugal, Romania, Slovakia and Slovenia.

18 A map with the regions eligible for the JTF is available on the Just Transition Platform.

19 Belgium, Estonia, France, Germany, Greece, Hungary, Latvia, Luxembourg, Netherlands, Poland, Slovakia and Spain. 30% of funding went to each of residential and public infrastructure and the remaining 40% for energy efficiency in businesses, with focus on production process improvements.

20 Financial instruments here refer to market-based tools aimed at supporting EU policy and designed to provide a cost-effective way to implement energy efficiency investments. A Model for a financial instrument with a grant component to support energy efficiency was set up under REPowerEU as practical guidance for Member States. Here is a concrete example where grants and financial instruments were combined to renovate multi-family apartments in Lithuania.

21 European Commission, 2022, Financial instruments under the European Structural and Investment Funds: Situation as at 31 December 2021, p13.

22 All investments made under Specific Objective 2.1. Therefore, as well as the categories used throughout this report for businesses, residential and public buildings, it also includes investments in SME energy efficiency (intervention field 38), large enterprise energy efficiency (39), new energy efficient buildings (43), and services linked to the low carbon economy (46).

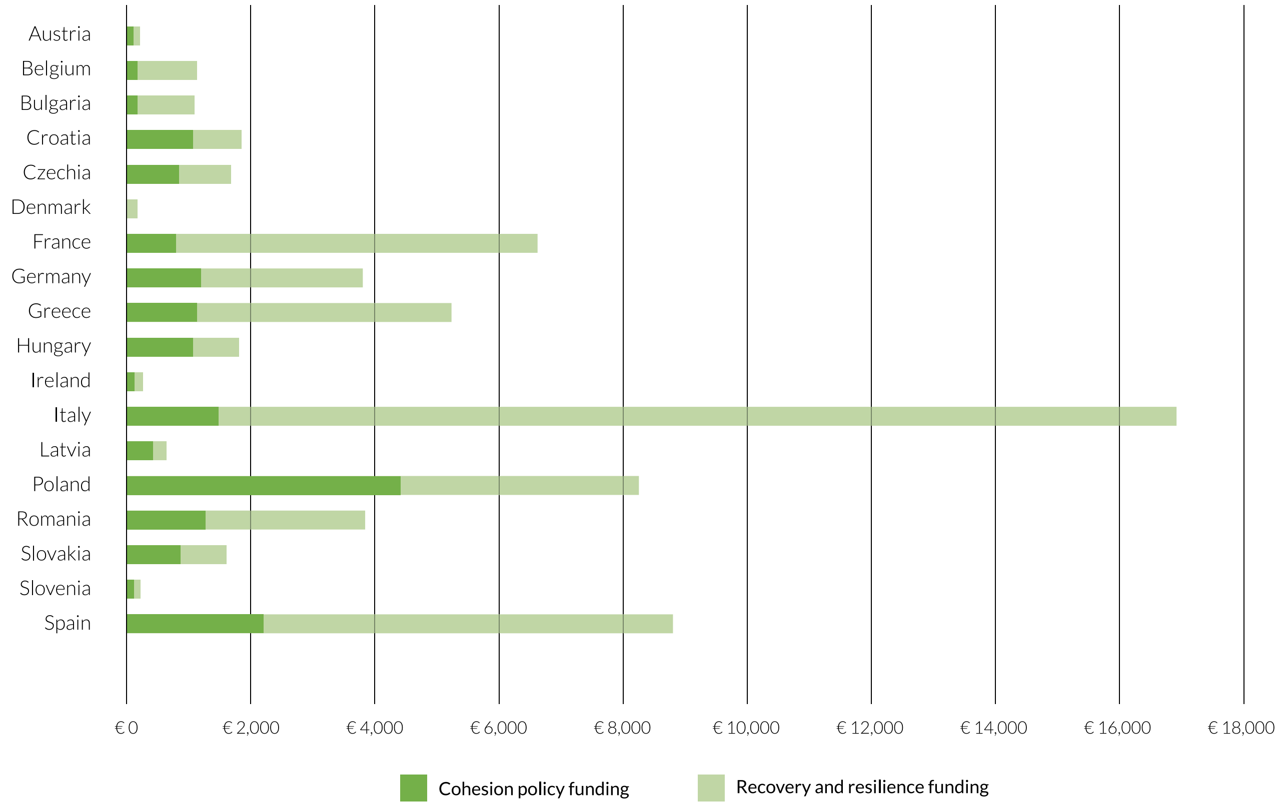
# 4. COMPARISON WITH THE RECOVERY FUNDING (RRF)

The 2021-2027 cohesion funding will be disbursed alongside the Recovery and Resilience Facility (RRF) and good coordination between both is important to support the delivery of renovation investments across the EU.

Member states have provided overall more funding for energy renovation through the **Recovery and Resilience Facility** (RFF, approx. €46 bn across 18 MS[23]). Across those member states, planned RRF investments are concentrated in the **residential sector**, which receives over €23bn (58%) of funding. Public sector buildings are the second largest target for investment with close to €13bn (34%), followed by industry/commercial sector at €2.9bn (7%).

The table below shows the estimated combined quantity of funding available for renovation or energy efficiency projects through cohesion policy and the RRF by member state. It builds on research carried out in the study ***Renovate2Recover***, which focused on 18 member states. Therefore, the figure only includes recovery and resilience funding for the 18 member states and excludes those that were not included in the previous study.

*Planned funding for renovation and energy efficiency through cohesion policy and the Recovery and Resilience Facility by member state, in €m*[24]




Cohesion Policy funds and the RFF differ significantly in terms of overall framework, programming, monitoring, and governance structures[25]. Unlike Cohesion Policy funds, the RRF does not require co-financing; programming is centralised in a single Recovery and Resilience Plan rather than multiple regional plans and finance dispersal is based on meeting pre-defined milestones and targets rather than realised costs. Certain enabling conditions must also be fulfilled in order to receive funds under cohesion funds. For energy efficiency payments, member states must have fulfilled requirements linked to their Long-Term Renovation Strategies.

23 Renovate2Recover study with value for Italy increased from €8.6bn to €15.4bn. This study was limited to 18 member states so total RRF funding for renovation is likely higher.

24 Data on RRF from Renovate2Recover study, which only looked at the 18 member states included in the chart.

25 European Court of Auditors. 2023. EU financing through cohesion policy and the Recovery and Resilience Facility: A comparative analysis.

# 5. KEY RECOMMENDATIONS TO MAKE THE MOST OUT OF COHESION POLICY FUNDS FOR ENERGY RENOVATION

In the run up to 2030, the new cohesion funds will be used alongside the Recovery and Resilience Facility (RRF) to support the delivery of renovation investments across the EU. RRF and cohesion funding combined will provide **over €66bn** for energy renovation across the EU until 2029[26].

To achieve maximum impact of this unprecedented quantity of EU money, effort must be made to use the funds as efficiently as possible. To do so members states should focus on attracting and leveraging private finance, ensuring coordination between the funds, and monitoring project implementation and outputs.

## A. ATTRACT AND LEVERAGE PRIVATE FINANCE WHILE TARGETING GRANTS WHERE THEY ARE MOST NEEDED

The quantity of cohesion policy funding allocated to renovation is substantial and it is encouraging to see that the amount has increased on the previous funding period[27]. But public funding alone will not be sufficient to deliver the Renovation Wave strategy, which is estimated to require €275bn per year until 2030[28].

The positive role of cohesion funds can be vastly amplified if they successfully leverage private finance or are coupled with investment from development banks and other institutional investors. Member States should:

- **Use blended finance where relevant**: Cohesion policy remains a heavily grant-dominated environment (see table in Annex on grants vs loans), although positive developments show innovative projects and increased use of financial instruments in the energy efficiency sector. Despite current economic uncertainty, the use of blended finance and financial products such as loans and guarantees will remain extremely important, especially if member state budgets begin to tighten following years of crisis response.
- **Target grants towards vulnerable households** and some of the worst-performing building stock, where accessing private finance is much more difficult. For example, grant intensity can be steered to incentivise more complex and ambitious projects involving greater energy savings for vulnerable households, or worst-performing buildings.
- **Use opportunities for technical assistance on financial instruments**: Poor knowledge of state-aid rules, perceived administrative complexity and difficulty integrating financial instruments into a grant-dominated environment have been cited as potential obstacles to successfully roll-out financial instruments[29]. To encourage uptake, managing authorities need a support framework based on tools such as one-stop-shops and guidelines on which financial instruments work well with different building segments and beneficiaries. The Fi-Compass partnership between the EIB and the Commission has analysed barriers to investment in energy efficiency across sectors and drawn attention to existing practices across member states, which can easily be shared between countries[30].

26 Renovate2Recover study estimates approx. €46 bn is allocated to energy renovation across 18 Member States. See Annex for details.

27 It is estimated in the Renovation Wave Communication that approximately €17 billion was allocated to energy renovation during the 2014-2020 funding period.

28 European Commission, 2020, Renovation Wave Communication

29 European Commission, 2020, Stocktaking study on financial instruments by sector, Fi-Compass

30 European Commission, 2020, The potential for investment in energy efficiency through financial instruments in the European Union, FIcompass

## B. ENSURE CAREFUL COORDINATION WITH OTHER (EU) PUBLIC FUNDS

There are existing requirements for member states to avoid double funding and ensure different sources of public funding are **complementary**.

- **It is crucial that member states establish clear formal mechanisms to avoid overlaps with the RRF.** There is higher concentration of RRF funding in the residential sector, and cohesion funding for public infrastructure. Given the short time for implementation, coordination must happen from the get-go between ministries and regional managing authorities.

- **Programme design will become even more important** to overcome historic challenges with slow absorption of funds. For context, by October 2022 - a year before the final deadline to request funding - the Commission had made payments for only 72% of the budget for the 2014-2020 period[31].

- **Unlock synergies with related energy programmes**: Ensure better coherence/integration of programs for energy renovation with those on renewable energy in buildings is important, given their complementarity to achieve the deep renovation of the building stock. Lowering energy demand is essential to enshrine the Energy Efficiency First principle in practice and maximise benefit to consumers and the energy system.

## C. MONITOR PROGRAMME IMPLEMENTATION AND ADDRESS DELIVERY BOTTLENECKS

Member states and local authorities will need to carefully balance the need for speedy implementation against the need to deliver significant energy savings, and proactive programme monitoring will play a critical role in the process.

- **Exemplary implementation of publicly funded projects can drive high quality standards across industry**. For example, strong requirements to monitor post-implementation savings and requirements to provide Building Renovation Passports can become a driving force for the wide-spread adoption of industry best practices. Setting ambitious requirements can also help policy makers identify barriers such as lack of certification or specific skills relevant for deep renovation, which can be addressed through targeted sectoral policy, additional funding, or public-private sector partnerships.

- **Use available technical assistance for programme design and implementation.** Analysis by EIB has highlighted that access to finance is only one barrier to investment. Having the ability to **identify a pipeline of projects** is equally important and requires dedicated administrative capability[32]. This is especially relevant for building renovation projects, which are distributed in nature and rely on a supply chain dominated by SMEs. Technical assistance is available to member states under all cohesion policy funds and can be used to support programme design and implementation[33]. Member states can also access technical assistance for energy renovation projects through partnerships with development banks, including the EIB's ELENA programme or in Bulgaria's case a partnership on residential renovation with the World Bank.

- **Use annual and mid-term reviews to align programmes to new policy objectives**, including updated National Energy and Climate Plans. Funding available through ESF+ can also be targeted to support the creation of green jobs and training provision, including within the renovation industry.

31 European Court of Auditors, 2023, EU financing through cohesion policy and the Recovery and Resilience Facility: A comparative analysis

32 European Investment Bank, 2022, EIB Investment report 2021/2022

33 The amount of funds that can be allocated to technical assistance is limited to 2.5% of spending for the CF, between 3.5 and 6% for ERDF depending on the Priority, and 4% for JTF.

## 6. THE IMPORTANCE OF A STRONGER REGULATORY FRAMEWORK FOR BUILDINGS

Building a strong regulatory framework will remain essential to attract future investment, and to deliver the Renovation Wave.

For the building sector, the **Energy Performance of Buildings Directive** is the main instrument that is currently under discussion and can help create **a long-term framework conducive to investment**. Critical choices are still to be negotiated about the use of policy tools like Minimum Energy Performance Standards, Building Renovation Passports and Mortgage Portfolio Standards. It is the time for member states and EU policymakers to demonstrate vision and ambition for delivery.

There are also elements within the cohesion policy framework which can help Member States achieve higher ambition on energy renovation. The cohesion policy annual review and mid-term review (in 2024) processes offer an opportunity to **align programmes to new policy objectives**, including updated National Energy and Climate Plans and Minimum Energy Performance Standards (MEPS) in the Buildings Directive.

In the finance sector, the **EU taxonomy** for sustainable investments is already beginning to send signals for the financial and industrial sectors to shift investment towards climate neutrality. It covers multiple activities, including building renovation, where a taxonomy-aligned activity is required to deliver at least medium-depth renovation (30% primary energy savings). The taxonomy can provide impetus behind more standardised monitoring of energy and emissions savings, and help drive the roll-out of Energy Performance Certificates. A strong definition of deep renovation in the ongoing EPBD revision would improve clarity for private investment.

## 7. CONCLUSION

As of October 2022, the cohesion policy funds from the previous funding period (2014-2020) are expected to deliver improved energy performance for 754 000 households and reduce energy consumption of public buildings by 7.8 terawatt-hours annually, of which 2.6 terawatt-hours are already being saved[34]. For the current 2021-2027 funding period, member states have planned more money for renovation and energy efficiency than in previous periods, and attached most of it to minimum energy savings criteria. Unprecedented quantities of public funding are available.

The availability of public funding is welcome and will be vital in helping the EU achieve its renovation objectives, but it will be insufficient to achieve them alone. Member states must make it a political priority to **carefully coordinate the public funding**, **crowd in private finance** to the sector through programme design and **support an ambitious regulatory framework** both for the renovation and financial sectors.

The Recovery and Resilience Facility prioritised renovation because of the multiple benefits it offers, on job creation but also on energy security, as the EU seeks to reduce its dependence on imported fossil fuels. Cohesion funding must keep up the momentum on energy renovation, looking beyond 2026 when the Recovery funding comes to an end.

34 European Commission, 2023, Review of the implementation of the European Structural and Investment Funds 2022

# DATA ANNEX

*Funding programmed for renovation and energy efficiency (Cohesion Fund, Regional Development Fund, Fust Transition Fund)*

| Intervention field | Planned investment |
|---|---|
| 040 **Energy efficiency and demonstration projects** in SMEs or large enterprises and supporting **measures compliant with energy efficiency criteria**[35] | € 2,874,540,528 |
| 041 Energy efficiency **renovation of existing housing stock**, demonstration projects and supporting measures | € 2,269,196,467 |
| 042 Energy efficiency **renovation** of existing housing stock, demonstration projects and **supporting measures compliant with energy efficiency criteria**[36] | € 4,182,550,967 |
| 044 Energy efficiency **renovation** or energy efficiency measures regarding public infrastructure, demonstration projects and supporting measures | € 2,363,242,747 |
| 045 Energy efficiency **renovation** or energy efficiency measures regarding public infrastructure, demonstration projects and **supporting measures compliant with energy efficiency criteria**[37] | € 8,256,248,359 |
| **Total** | **€ 19,945,779,068** |
| **Total compliant with energy efficiency criteria** | **€ 15,313,339,854** |

35 If the objective of the measure is (a) to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation (EU) 2019/786 [primary energy savings between 30% and 60%] or (b) to achieve, on average, at least a 30 % reduction of direct and indirect greenhouse gas emissions compared to the *ex-ante* emissions.

36 If the objective of the measure is to achieve, on average, at least a medium-depth level renovation as defined in Commission Recommendation (EU) 2019/786 [primary energy savings between 30% and 60%].

37 As defined for intervention field 040. Related to various types of public infrastructure (e.g. education centres, housing for refugees and migrants).

*Funding for renovation and energy efficiency, as a proportion of eligible funding programmed by member states. Includes intervention fields 40,41,42,44,45*

| Member state | Renovation and EE | Total programmed for ERDF, JTF, CF | Renovation and EE as % of total |
|---|---|---|---|
| Austria | € 99,159,000 | € 622,430,000 | 16% |
| Belgium | € 201,977,000 | € 1,134,840,000 | 18% |
| Bulgaria | € 149,878,000 | € 6,882,589,000 | 2% |
| Croatia | € 651,503,000 | € 6,554,242,000 | 10% |
| Cyprus | € 81,000,000 | € 746,361,000 | 11% |
| Czechia | € 1,056,971,000 | € 18,623,216,000 | 6% |
| Denmark | € 0 | € 336,130,000 | 0% |
| Estonia | € 442,000,000 | € 2,745,010,000 | 16% |
| Finland | € 21,442,000 | € 1,288,465,000 | 2% |
| France | € 793,711,000 | € 9,725,397,000 | 8% |
| Germany | € 1,207,224,000 | € 12,836,889,000 | 9% |
| Greece | € 1,128,018,000 | € 14,979,837,000 | 8% |
| Hungary | € 1,042,679,000 | € 16,431,439,000 | 6% |
| Ireland | € 118,715,000 | € 454,535,000 | 26% |
| Italy | € 1,501,338,000 | € 27,370,913,000 | 5% |
| Latvia | € 412,517,000 | € 3,595,896,000 | 11% |
| Lithuania | € 608,309,000 | € 4,992,490,000 | 12% |
| Luxembourg | € 2,496,000 | € 23,385,000 | 11% |
| Malta | € 6,000,000 | € 648,329,000 | 1% |
| Netherlands | € 18,240,000 | € 1,088,267,000 | 2% |
| Poland | € 4,406,310,000 | € 62,547,146,000 | 7% |
| Portugal | € 1,385,887,000 | € 14,825,908,000 | 9% |
| Romania | € 1,258,359,000 | € 23,653,502,000 | 5% |
| Slovakia | € 849,669,000 | € 10,237,437,000 | 8% |
| Slovenia | € 123,364,000 | € 2,495,136,000 | 5% |
| Spain | € 2,235,120,000 | € 23,431,413,000 | 10% |
| Sweden | € 20,620,000 | € 983,110,000 | 2% |
| **EU** | **€ 19,822,506,000** | **€ 269,254,309,000** | **7.4%** |

*Funding for renovation and energy efficiency, by fund (Cohesion Fund, European Regional Development Fund, Just Transition Fund). Includes intervention fields 40,41,42,44,45*

| Member state | Cohesion Fund | European Regional Development Fund | Just Transition Fund |
|---|---|---|---|
| Austria | | € 99,159,000 | |
| Belgium | | € 134,355,000 | € 67,621,000 |
| Bulgaria | | € 149,878,000 | |
| Croatia | | € 651,503,000 | |
| Cyprus | | € 81,000,000 | |
| Czechia | | € 1,056,971,000 | |
| Denmark | | | |
| Estonia | € 30,000,000 | € 407,000,000 | € 5,000,000 |
| Finland | | € 21,442,000 | |
| France | | € 730,135,000 | € 63,576,000 |
| Germany | | € 1,197,724,000 | € 9,500,000 |
| Greece | € 70,000,000 | € 1,008,609,000 | € 49,409,000 |
| Hungary | € 33,861,000 | € 939,391,000 | € 69,426,000 |
| Ireland | | € 118,715,000 | |
| Italy | | € 1,501,338,000 | |
| Latvia | | € 399,309,000 | € 12,355,000 |
| Lithuania | € 185,300,000 | € 423,009,000 | |
| Luxembourg | | € 1,494,000 | € 1,002,000 |
| Malta | | € 6,000,000 | |
| Netherlands | | € 13,240,000 | € 5,000,000 |
| Poland | € 2,256,000,000 | € 1,868,164,000 | € 282,145,000 |
| Portugal | | € 1,385,887,000 | |
| Romania | | € 1,258,359,000 | |
| Slovakia | € 109,589,000 | € 698,752,000 | € 41,328,000 |
| Slovenia | € 59,470,000 | € 63,894,000 | |
| Spain | | € 2,163,591,000 | € 71,528,000 |
| Sweden | | € 20,620,000 | |
| **Grand Total** | **€ 2,744,220,351** | **€ 16,399,540,771** | **€ 677,890,654** |

*EU funding, national co-financing and total funding programmed for renovation and energy efficiency (Cohesion Fund, European Regional Development Fund, Just Transition Fund), by member state*

| Member State | EU fund | Co-financing | Total | EU as share of Total |
|---|---|---|---|---|
| Austria | € 99,159,000 | € 206,048,000 | € 305,207,000 | 32% |
| Belgium | € 201,977,000 | € 296,922,000 | € 498,899,000 | 40% |
| Bulgaria | € 149,878,000 | € 31,849,000 | € 181,727,000 | 82% |
| Croatia | € 651,503,000 | € 114,971,000 | € 766,474,000 | 85% |
| Cyprus | € 81,000,000 | € 54,000,000 | € 135,000,000 | 60% |
| Czechia | € 1,056,971,000 | € 304,635,000 | € 1,361,606,000 | 78% |
| Denmark | | | | |
| Estonia | € 442,000,000 | € 559,155,000 | € 1,001,155,000 | 44% |
| Finland | € 21,442,000 | € 15,359,000 | € 36,801,000 | 58% |
| France | € 793,711,000 | € 733,902,000 | € 1,527,613,000 | 52% |
| Germany | € 1,207,224,000 | € 1,275,299,000 | € 2,482,523,000 | 49% |
| Greece | € 1,128,018,000 | € 305,851,000 | € 1,433,869,000 | 79% |
| Hungary | € 1,042,679,000 | € 185,515,000 | € 1,228,194,000 | 85% |
| Ireland | € 118,715,000 | € 145,512,000 | € 264,227,000 | 45% |
| Italy | € 1,501,338,000 | € 1,255,069,000 | € 2,756,407,000 | 54% |
| Latvia | € 411,664,000 | € 72,646,000 | € 484,310,000 | 85% |
| Lithuania | € 608,309,000 | € 110,058,000 | € 718,367,000 | 85% |
| Luxembourg | € 2,496,000 | € 3,244,000 | € 5,740,000 | 43% |
| Malta | € 6,000,000 | € 4,000,000 | € 10,000,000 | 60% |
| Netherlands | € 18,240,000 | € 24,861,000 | € 43,101,000 | 42% |
| Poland | € 4,406,310,000 | € 914,849,000 | € 5,321,159,000 | 83% |
| Portugal | € 1,385,887,000 | € 690,172,000 | € 2,076,059,000 | 67% |
| Romania | € 1,258,359,000 | € 350,603,000 | € 1,608,962,000 | 78% |
| Slovakia | € 849,669,000 | € 472,777,000 | € 1,322,446,000 | 64% |
| Slovenia | € 123,364,000 | € 35,901,000 | € 159,265,000 | 77% |
| Spain | € 2,235,120,000 | € 987,691,000 | € 3,222,811,000 | 69% |
| Sweden | € 20,620,000 | € 30,931,000 | € 51,551,000 | 40% |
| **Total** | **€ 19,945,779,000** | **€ 9,224,410,000** | **€ 29,170,189,000** | **68%** |

*Funding programmed for energy efficiency and renovation across all of objective 2.1, by form of financial support*

| Member state | Grant | Loan | Guarantee | Grants within a FI operation | Equity or quasi-equity |
|---|---|---|---|---|---|
| Austria | 100% | 0% | 0% | 0% | 0% |
| Belgium | 100% | 0% | 0% | 0% | 0% |
| Bulgaria | 4% | 31% | 31% | 35% | 0% |
| Croatia | 44% | 56% | 0% | 0% | 0% |
| Cyprus | 93% | 7% | 0% | 0% | 0% |
| Czechia | 92% | 2% | 3% | 3% | 0% |
| Denmark | | | | | |
| Estonia | 92% | 8% | 0% | 0% | 0% |
| Finland | 100% | 0% | 0% | 0% | 0% |
| France | 95% | 2% | 2% | 1% | 1% |
| Germany | 97% | 3% | 0% | 0% | 0% |
| Greece | 100% | 0% | 0% | 0% | 0% |
| Hungary | 56% | 27% | 0% | 17% | 0% |
| Ireland | 100% | 0% | 0% | 0% | 0% |
| Italy | 77% | 14% | 3% | 5% | 0% |
| Latvia | 63% | 4% | 1% | 32% | 0% |
| Lithuania | 39% | 58% | 0% | 3% | 0% |
| Luxembourg | 100% | 0% | 0% | 0% | 0% |
| Malta | 0% | 0% | 100% | 0% | 0% |
| Netherlands | 91% | 6% | 0% | 0% | 3% |
| Poland | 80% | 10% | 2% | 9% | 0% |
| Portugal | 89% | 0% | 4% | 8% | 0% |
| Romania | 76% | 14% | 0% | 10% | 0% |
| Slovakia | 41% | 30% | 3% | 27% | 0% |
| Slovenia | 85% | 10% | 0% | 5% | 0% |
| Spain | 98% | 1% | 0% | 1% | 0% |
| Sweden | 100% | 0% | 0% | 0% | 0% |
| **Grand Total** | **80%** | **11%** | **1%** | **7%** | **0%** |